PROMOTING CONSCIOUS AND ACTIVE LEARNING AND AGING

HOW TO FACE CURRENT AND FUTURE CHALLENGES?

ALBERTINA LIMA OLIVEIRA
(COORD.)

The European Union has committed itself to the goal of extending the healthy lifespan of its citizens by two years under the 2020 strategy. This book brings together a diverse range of overviews, reflections and empirical research in the area which arise from the contribution of professionals and researchers from different fields of knowledge. Together they undertake to suggest possible pathways and to inspire action in all those who see themselves as participants in the processes and endeavour of building a society which espouses active, dignified, healthy and mindful aging.

The background perspective which informs this project – that which is commonly referred to as *Lifelong Education* – calls for an integrated approach from diverse areas of knowledge in the service of building a more enlightened society: less susceptible to the influence of prejudices, enriched with human beings driven by ideals of health, justice, solidarity and nobility of spirit.

Life must be understood as a totality that takes meaning from all its phases and which stimulates the vast potential that human beings, including older people and society at large, with its various systems, have for the common good.

Let us face the challenge of building a new humanism, placing human beings and the sustainability of all forms of life at the centre of the dynamic process of change!

I N V E S T I G A Ç Ã O

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This ebook is dedicated with gratitude to *Professor António Simões* that is an outstanding innovator and pioneer in the studies of Adult Education and Adult Psychology at the Faculty of Psychology and Educational Sciences of the University of Coimbra. His humanity, integrity, rectitude and coherence will always be an example for us to follow in our academic and personal lives.

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INTRODUCTION: A NEW HUMANISM IS NEEDED... THE EXPANSION OF CONSCIOUSNESS AND BROTHERHOOD ARE VITAL

Albertina L. Oliveira[1]

This book is grounded on the basic idea that to promote people's quality of life and increase well-being, we need to face life in all its extension and to involve all individuals, in the most diverse contexts, in learning processes and active aging, increasingly intentional and conscious. It implies that we are able to reflect on the consequences of our acts, in ourselves, in the communities we relate to (family, school, workplace, recreation, culture, leisure time, etc.), in the society to which we belong and in the global world we share.

The challenges and the complexity of the problems at a national and international level are huge, but so are the forces of renewal and reinvention. We need a strong commitment to the construction of fairer societies, more fraternal, more genuine, more open to processes and dynamics of cooperation, not competition; more inclusive and able to stimulate the vast potential that all human beings have for good, more committed to life and the respect for life – the great master who embraces us and who presents, more directly or subtly, growth challenges in order to become better people – able to promote our development and that of the communities in which we participate. Is it possible to develop this

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attitude and get involved in conscious and intentional actions without increasingly and reflexively adopting a broad perspective? We do not believe that! Opening up to a comprehensive and in-depth consideration of life is both galvanizing and liberating. In conceptual and scientific terms, the joint and irreversible movement of, on the one hand, breaking/dissolving prejudices and on the other of affirming the great potential of the human being, has intensified in the second half of the 20th century. Not as a mere abstract idea, but as something observably tangible. From Psychology and Education came wafts of fresh air that have helped to renew the conceptions about the human being abilities and to reconsider the essential and deep sense of education.

In the field of Psychology, a mark is the research work started by Schaie (1996), in 1956, about adults' intellectual development, which gave consistent evidence that adulthood and old age, although with undeniable losses, are also a time of development where gains take place and where the learning ability remains preserved in most people (Baltes & Mayer, 1999). Such work is part of the new concept of development across the lifespan. However, as writes Simões (2002), "it seems that we haven't woken yet to the new reality of the elderly and we insist on perceiving and judging them based on myths and stereotypes" (p. 560). And because educational institutions also need to situate themselves in an evolutionary perspective and to contribute to clarifying and forming, the Faculty of Psychology and Educational Sciences of the University of Coimbra included in its first master course (in Educational Sciences), for the first time (1992), the discipline of Adult Psychology, directed by Professor António Simões, a pioneer in the scientific study of adult and the elderly subjects (Lima, 2011). This field of study and others that followed, such as the beginning of the lecturing of Adult Education in the academic year 1993/1994 (in the context of the degree in Educational Sciences), along with many other later developments, represent the contribution and commitment of a university institution in the service of building a more enlightened society, less susceptible to the influence of prejudices, enriched with human beings driven by ideals of justice, health, solidarity and nobility of spirit.

These are precisely the key aspects of any truly educational project. In this context, and in accordance with the educational approach, each 'step' of life "must be understood as a successive construction, as a result of the process of integration of experiences and none can be considered as a final phase of change and development" (De Natale, 2003, p.13). In this regard, we share the position of the author that it is more appropriate to speak of "life course" than "lifelong", and we cannot agree more with Romano (1957, cit. by De Natale, 2003, p. 30) when he says that "life cannot be a mass of periods, but a totality that takes sense from all its phases and their intimate interaction".

In a kind of conjugate movement, if we go back almost to the beginning of the second half of the 20th century, we find the dawn of social affirmation of the importance of Permanent Education (through the UNESCO International Conference on Adult Education initiated in 1949), which converges with the data from psychological research on enhancement of adult capacities, particularly learning ability, assuming openly that the human being is characterized by incompleteness (neoteny). There is no stage in life where human beings reaches "full development of their full potential" (Simões, 1979a, p. 58), and that's why the construction of human beings in the framework of the Permanent Education "would not be a time of life, but a dimension of life" (Simões, 1979b, p. 46). It is not only "continuity in time" as "an unfolding of educational activities throughout the lifespan" but also "continuity in space" (living spaces of the individual: external and internal).

Although it is possible to find in the remotest parts of history the idea of Permanent Education, considering only the Western world, is in the late 18th century that usually the emergence of the concept is situated with the Condorcet Report, dated 1792, on the General Organization of Public Instruction in France (Oliveira, 2005). This remarkable document, at the same time as launching modern education systems, assigning to the State the responsibility for being the guarantor of "education for all", explicitly deals with the need for education "beyond school" (Osorio, 2005, p. 16). However, only in the early years of the seventies of the last

century were the discourse and practice of Permanent Education[2] launched, driven by the work of Legrand (1969), "The meaning of lifelong education", jointly with several documents of the Council of Europe (1970), the work of Schwartz (1973) and of OECD (1973). In this regard the Report of the International Commission for the Development of Education stands out, coordinated by Edgar Faure (1972), "Apprendre à être" [Learning to be], and the work of Dave (1976/1979), "Foundations of lifelong education". The same kind of conceptual elaboration is founded in Portugal in "Permanent education and teacher training" (Simões, 1979b).

Thus, Permanent Education not only enshrines the right of all people to learn throughout their life, nor only the idea that it is the key to educational society, and means even less an educational sector, but it must be necessarily thought as the principle underlying the organization of a global educational system (Faure et al., 1972). With universalist thinking and looking for bridges beyond Western culture, Dave (1976/1979) helps us to realize that the Permanent Education' project has solid roots in universal history, which we need to rehabilitate in an increasingly intentional, determined and conscious manner. In this remarkable work we can find what is of great actuality:

> the fundamental purpose of lifelong education must coincide with a new humanism, of a global character, which will be based on a synthesis of knowledge and common sense, of humanity and science, of rationality and mystery, placing man in the centre of the dynamic process of change and enabling him to retain his value and dignity as creator of knowledge or as sole arbiter of its implementation. To the creative capacity, we must add the quality of discrimination and the virtue of 'prudence' that the Buddha recommended to his disciples. Only in this way can we situate man's spirit at the centre of the planetary civilization of tomorrow and win the present crisis to which we already have alluded. Humanism

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[2] The English version for this expression is *lifelong education*. However, we intentionally chose to use the direct translation of the French or Portuguese language – Educação Permanente –, because it better captures the horizontal and vertical dimensions of the concept as it was conceptualized in the seventies of 20th century by several authors.

requires a unifying core values. To what extent does history afford this central core? In other words, to what extent can history help to ground the foundations of a Lifelong Education? (p. 126).

Surely you will agree that depends on all of us!

It is true that education doesn't make everything, and it cannot be assumed as the panacea for all the problems that affect mankind (Lima, 2010a), but without it we are doomed to remain in a limbo of obscurity and ignorance that feed injustice, inequality, hatred and violence – obstacles to development in man nobility of spirit. As Riemen (2011) states, referring us to the thought of philosopher Whitman, the nobility of spirit "is the realization of true freedom" and adds that "a system, political institutions, and the right to vote are not in themselves sufficient for true democracy ... the aim of democracy is that the most profound freedom becomes law, and then will follow the good and virtue" (p. 29). Nobility of spirit urges that we can "model [our] life in accordance with strict and noble life principles" (p. 37), as did, for example, Baruch Spinoza. It behooves us all to develop a deep humanism, through education, and to act by integrating and transforming people, institutions, political systems, nations, by establishing wisdom, brotherhood and a critical attitude, able to question the reigning ethos of economic imperialism and competitiveness (Zarifis & Gravani, 2014). There do not seem to exist viable pathways far from this way! This work arises from a serious commitment to these values, which at a certain point merged in the PALADIN project and in the organisation of an International Conference that led to the chapters of this book.

From the origin of a project (PALADIN) to the edition of an e-book

Like many other creative ideas the PALADIN project (*Promoting Active Learning and Aging of Disadvantaged Seniors*) was born in a classroom of the Faculty of Psychology and Educational Sciences (University of Coimbra), Education for autonomy and self-directed learning, within the

Master course of Adult Education and Community Intervention. The challenge was launched to the doctoral candidate, later general coordinator of the PALADIN, Teresa Pinto – of planning a work project inspired by the programmatic contents of the area of study mentioned. Her vast experience in European projects and her talent for capturing fundamental ideas of an academic curriculum and transforming them into a creative, complex and ambitious project, requiring multiple articulations of institutions of several European countries, led to the funding of the project, and two years later, to the evaluation of excellent obtained from the European Commission[3].

PALADIN's central ideas do not stray from the main principles – on the contrary strengthen and consolidate them – that have always guided the field of adult education (Oliveira et al., 2011), seen as subsystem of Permanent Education, even though it integrates plural streams of conceptualization, not infrequently coming from contradictory epistemological roots, raising and maintaining attractions worthy of enchantment and simultaneously of inflamed debates and controversies.

The latitudes and longitudes of this domain of theorization, research and practice are of a huge vastness, contemplating in itself 'regions' and phenomena of a significant diversity, of different natures, of expression in contexts, levels and modalities strongly heterogeneous.

With the thesis of adultism deposed (Simões, 1979a) in terms of longitude, it is increasingly difficult to define the contours of adulthood from the viewpoint of ontogenesis. Although in traditional society there were no major doubts when distinguishing childhood, adulthood and old age, currently, considering scientific advances, the complexity of life in the so-called postmodern societies and the ever-increasing life expectancy, the contours are ever more tenuous and a conceptual differentiation of new stages has been emerging. For illustrative purposes let us consider the period of emerging adulthood (Arnett & Tanner,

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[3] Many resources have been produced for the elderly (see: http://projectpaladin.eu/) and it is worth noting the S*elf-Efficacy for Self-Directed Learning Scales* (in five areas: health, activity, citizenship, education and finances) and the *Self-efficacy and worthy old age memorandum*, translated into 22 European languages.

2008; Ferreira & Jorge, 2008) proposed in the 90s of the last century, as a result of the more incisive exploration of identity that young people tend to make (between 18 and 25 years old), entailing in particular areas such as love, work and education. In general, these young people do not consider themselves teenagers but neither do they see themselves as adults, nor does society expect them to perform social roles such as those required of the latter (Dias, 2012). At the other age pole we find elderly people. However, we cannot assign any intrinsic meaning to that special age category, except for a chronological criterion "serving [only] to socially organize our lifecycle and the events that take place across it" (Lima, 2010b, p. 39), as for instance the retirement age, which varies from society to society and is nothing more than an abstract and normative construction. As Simões states (1990), "in reality, the elderly simply does not exist" (p. 109), and it is possible to be " physically old, psychologically in middle-age and socially young or a different combination of these three situations" (p. 110). This brings us to the notion that human development is done on a continuous basis and that, strictly speaking, there is no aging in the first person, but only in the plural ('agings') (Lima, 2010b).

However, it is still common for several ages of life to be distinguished, old age being a stage of adulthood upon which each Portuguese citizen enters at 65 years old, and which raises a number of specific challenges requiring expertise from multiple areas of knowledge, that is, a multi--disciplinary approach to the elderly (Paúl & Ribeiro, 2012). If we bear in mind that growing older is associated with an increasing heterogeneity, which still translates into more complexity (taking into account differences in terms of the biological, functional, psychological and social criteria) and that increased longevity is a consistent and world spanning pheno-menon, the differentiation of age subgroups within advanced adulthood is understandable. In fact, as early as 1976, Neugarten pointed out this need, and three groups came to be distinguished: the young-old (people aged 65-74), the middle-old (75-84) and the old-old (85 and over) (Simões, 2006). Currently, going even further, studies with centenarians are already numerous (Poon et al., 2007).

Precisely because more advanced ages of life have been attracting increasing interest, and because there is an increasing need to prepare people, society and the various professionals to deal with the aging process, in the context of Gerontology and in the framework of the Permanent Education, Educational Gerontology is assumed as an area of growing importance (Simões, 1999). This isn't the appropriate place for a conceptual reflection on the object of study of this discipline, but we totally agree with Sherron and Lumsden (1978) when they state that "in seeking the unique contribution that education can make to the field of gerontology, we immediately reach the heart of the matter – that the last of life is populated by more than problems and decline. The final stages of life are an opportunity for integration or summing up, for seeking the meanings that have been avoided or postponed. Education can be a means of facilitating this reflection and insight" (p. 2). It is also worth noting, as Vieira and Perista (2012) assert, that "it remains open a long avenue for future research if the objective is the promotion of an effective active aging for both women and men" (p. 11).

It is our wish that the various chapters that make up this book may contribute to enriching the field of Gerontology, provide valuable knowledge for all those interested in the problem of aging and give rise to thoughts that inspire conscious, solidary and truly educational actions.

Presenting the chapters

The first chapter of this book *Possibilities and limitations of age* presents a very well documented overview of the vast potentials and limitations associated with the aging process. Professor Fernández- Ballesteros, reviewing many of the most important empirical data that researchers around the world have produced, including her own substantial investigations, helps us understand that the aging process is very complex, challenge and heterogeneous and that we need to take into consideration many influential factors such as biology, the individual agency and the interactions of the person with the sociocultural context, to name just a

few. The chapter also strongly highlights that all of us at the individual, societal or global level must fight the still deeply ingrained stereotypes about the aging process and old age.

In a broad and bright reflection on the concept of meaning of life, Daniel Serrão raises the issues that echo from the ends of time. Starting from biological phenomena and from various levels of attribution of meaning (aesthetic, ethical and rational meaning) the author stresses that the deeper sense attributed to human life is of symbolic immortality or of hope. He draws also attention to the need to educate for the terminal body life time (the first topic for pedagogy on dying), so that this stage of life is seen as "a significant time to the person". And, reaffirming the need for a deeply humanist perspective and education for death, the Professor concludes: "Caring for another, who is going to die, is work of the highest dignity that demands the possession of the greatest human virtues, without which the carer will not attain the primordial end – which is that of generating inner peace within those who are going to die".

Going beyond demographic statistical data, the chapter *Who is a disadvantaged senior in Europe? Main identifiers for assessing efficacy for self-directed learning of those being aged and at risk* proposes considering issues of access, active citizenship, gender equality, career development and career change, but also enjoyment of participation in learning as crucial factors in locating identifiers for disadvantaged seniors in Europe. The main message is that older people cannot be excluded from education and learning. All the studies, including PALADIN ones (Oliveira et al., 2012), show that people with higher levels of education reveal a greater agency and a greater healthy aging: they are more active, participative, productive and healthy.

In *Reflections from a study about wisdom with students from a Senior University,* the importance of being an intentional learner even beyond retirement age is underlined. The reports of the participants let us describe a retirement actively lived, with daily and weekly routines, similar to the rhythms of life before retirement. These seniors fought to have a healthy life and considered themselves useful for their family and friends and others, particularly through voluntary activities.

In *Relationships and intergenerational solidarities – social, educational and health challenges,* the author focuses her reflection on the development of new relationships and forms of intergenerational solidarity within the family and within society at large, where different generations may contribute towards a culture of solidarity, inclusiveness and citizenship.

In another reflection about *Intergenerational Solidarity: bringing together social and economic development,* a proposal is presented pointing to the need for a more integrated approach to generations in order to build policies and programs that promote social and economic development, conceived not as an end in itself but as a means of achieving greater well-being.

Still approaching the same issue, *Intergeneration education as a strategy for promoting active aging: analyzing the needs of a local community as a way to develop relevant and sustainable projects of intervention* is a chapter that focuses on the importance of intergeneration education programs. The authors emphasize that they ought to be built through a realistic identification of the needs and potentialities of the local communities.

The IPL 60+ Program: a singular case of senior education in an intergenerational context presents a Senior Education Program designed for adults over 50 years old. Its mission is to help change the aging paradigm through the stimulation and promotion of formative, educational and socio-cultural activities that involve individuals in their own learning path and lifelong development, always in a context of intergenerational sociability.

Life histories and intergenerational knowledge transference: a case study at the Banco do Nordeste corporate university presents the main results of learning experiences and life stories within a program in succession at the Bank of the Northeast Corporate University in Brazil. The important role of the instructors, peers and the institution is emphasized.

Elderly & ICT: A need and urgency for an effective info-inclusion highlights the need for citizens to be digitally literate in order to deal with and use those technologies as a routine of their everyday life. The aim of this chapter is to discuss the main initiatives carried out and to

present the main obstacles, advantages, and some clues for the use of ICT by elderly people.

Moving to a pragmatic perspective, *Senior students in the knowledge society: a curricular program of digital literacy* presents a proposal to offer ICT training to a senior audience, based on a 3-academic-year informatics course. The authors stress that besides the specific profile of aged students, which requires specific methodological choices, there is the need to frame the course contents taking into consideration the needs and interests of each student.

Centred on the experiences of professionals that care for older people, the chapter *Formal caregivers' health characterization and self-perception: implications for long-term care practices,* analyses the health perceptions of those professionals, highlighting that formal caregivers mainly perceive themselves as being physically overloaded. The need for interventions to prevent and alleviate physical and emotional overloads and promote strategies for self-care is stressed.

Home-villages as a residence and revitalization system of the territory presents the rationale that it is necessary to establish a land structure and intergenerational architecture able to minimize the isolation of the elderly population. Departing from the case study of Home-Village of São José de Alcalar, the authors appeal to the timeliness of the theme and the necessity to create workable answers that, despite concerns over accessibility and mobility needs for the aging population, are intended to be intergenerational.

Architecture for active learning and aging: towards open innovation in universities. This chapter underlines the critical role that architecture has to play in the evolution of universities towards excellence (building the "Educational Campus" paradigm) in order to achieve its true mission: "the integral formation of a human being". The author argues that through sound planning, universities can improve the nature of their spaces and invite citizens of all ages to keep on participating throughout their lives in the fascinating task of education.

The chapter *Healthy aging: retirement and early retirement - orga-nizations and human resource management* intends to emphasize the

demystification that the elderly person is a mere consumer of resources and that the concept of 'age management' must be part of the human resource management model in organizations. The importance of balance between the individual, work, environment and community and the need to look on the worker as a partner is also underlined.

The chapter *Facilitators and barriers to active and healthy aging* aims to address the advantages, opportunities and challenges, as well as limitations of International Classification of Functioning, Disability and Health within the context of its use by active aging researchers and agents, as a contribution to developing potential solutions to promote active aging.

Suicide after 65 years old: current data in Portugal points to a serious public health problem. The authors present the trends in rates of suicide in Portugal by gender and method used in aged people comparing to those less than 65 years old and argue that it is essential to develop prevention programs adapted to the needs of different risk groups.

Health education factsheet on mental health in the elderly reports on a study aimed at discussing some determinants of mental health in the elderly, relating them to mental health promotion programs and assessing their effectiveness. The findings led to the development of a document labelled as "Health education page" which contains information about the promotion of mental health in the elderly, which is intended to be a useful instrument for elderly people, caregivers, and professionals.

Aging, health and disease: the effect of religiosity on the optimism of elderly people points to the need to distinguish elderly people concerning an understanding of the factors that influence optimism. The study presents evidence, among other data, that the healthy elderly anchor their optimism in internality beliefs, while the ill elderly base their optimism on external factors.

Dispositional forgiveness and gratitude among older people refers to an empirical work that examines whether lasting resentment, sensitivity to circumstances, and unconditional forgiveness are present in older people and the relationships that they have with socio-demographic factors and with believing or not in god as well as attending church on a regular basis or not.

The last chapter of this book is entitled P*romoting active aging inside Portuguese residential institutions for the elderly: is there something missing?* It contains a discussion about the importance of promoting active aging inside the residential institutions for the elderly based on the presentation of a research study carried out in eight institutions from the municipality of Coimbra, Portugal. Data showed that there is still a long way to go in order to effectively offer to institutionalized elders opportunities for participation, whether it involves experiences of learning and of personal development, or ordinary decisions related to their daily life as individuals and full citizens.

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POSSIBILITIES AND LIMITATIONS OF AGE

Rocío Fernández-Ballesteros[4]

Abstract

This chapter deals with both sides of the aging process which carries losses and gains, growth and decline. First, the biology of aging is examined as a determinant of individual and psychosocial decline and impairment. Second, relationships and transactions between the individual and his/her socio-cultural context are going to be described in several psychological characteristics such as cognitive plasticity, positive and negative emotions and coping styles. Thirdly, the importance of the individual as an agent of his/her aging process is emphasized, and ends by positing a broad multidimensional-multilevel aging model. Finally, limitations of the aging process coming from images and beliefs about the aging process are described before introducing some conclusions and remarks.

Keywords: Active aging; Growth and decline; Aging threat; Aging stereotypes.

Introduction

Age is the explanatory variable; the *leitmotiv* of this chapter is about older adults and the aging process. The age of an object, person, context or circumstance, implies the passage of physical time and is objectively

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This text is a revised English version of a chapter already published in: IMSERSO (2011). *Libro blanco sobre el envejecimiento activo*. Madrid: IMSERSO. Published under permission of the IMSERSO.

measured (365 days, of 24 hours, and 60 seconds, etc.); thus, older adults are an age group and aging is a process in which we get older or, in other words, it implies the passage of time.

Nevertheless, to name this process, there is no word in the Spanish language derived from "la edad" (like in the Portuguese and English languages), something like *«edadmiento»* (aging). Although age is the concurrent variable in the explanation of aging and old age, as a process of aging, neither concept has a root in the word age in the Spanish language. In accordance with the Real Academia Española de la Lengua (RAE) [Royal Spanish Academy of Language], which presents old age with a negative connotation "the last period of physiological decadence in the life of the organisms".

Notice that RAE seems to reduce old age to a biological condition that implies «decadency». For some authors like Pankow and Solotorov (2007) biological aging represents a loss in the efficiency of our different biological systems. Nevertheless, both the aging process and old age, as a state or period, should be considered not only in a biological perspective but also in a *bio-psycho-social perspective*. All considerations about aging, old age or the elderly should also consider the bio-psycho-social aspects of the aging process and not only biological conditions. The negativity of the semantic component «old age» extends to the physiological (or biological) component of age to the other conditions of the human aging process. This mechanism not only impregnates all the semantic derivations of old age but also maximizes and positively values its antonym «youth», «youthfulness». Ultimately, «young» and «old» are two periods, stages or ages of life that are at the same time compared to two poles of a same evaluative dimension, respectively «good» and «bad». These evaluative categories impregnate so profoundly the terminology related to age that a person of 70 can say «I feel young» to express that he is simply «feeling well».

This evaluative component attributed to old age explains why the expression has fallen into disuse to refer to a particular age group while some expressions appeared with a less evaluative component. In the 70s and 80s the expression «third age» was used to refer to persons over sixty-five years old and after the 90s a comparative denomination began to be

used «personas mayores» (older/bigger people), which in other countries and languages turned into «older adults» or «aged persons».

In any case, the period or state of older age, as we will see in this chapter, has a very long duration and an enormous variability and even if we consider 65 years old (more common age of retirement in Spain) the beginning of old age (but not of the aging process that begins much earlier) and «older person» the people that have passed that age frontier, there are several classifications that cluster and sometimes agglutinate distinct ways of aging (for example, «young-old», «oldest-old», «pathological aging», «normal aging», «successful aging», etc.) and which may or may not be coincident with distinct ages.

In short, if we consider that life expectancy is around 80 years old and that the longevity of our species is around 115, from 65 onwards we could still count on living more or less 50 years of the potential period of old age. So we have to admit that the larger age period would be the old age in comparison with infancy, adolescence or adulthood. Although *life expectancy* at birth is increasing, unfortunately the social markers of «bigger», «aged», «old», retirement age remain constant although we have doubled life expectancy at birth (Fernández-Ballesteros & Díez-Nicolás, 2008).

Taking all this into consideration and that inter-individual variability increment throughout life, there is nothing unusual that the large period that we are considering contains a maximum diversity at the end of life. We can observe this, as we will see later – concerning the different ways of aging and distinct subgroups of age categories.

In conclusion, the process of aging (the life cycle) necessarily implies change. Once the highest level of bio-psycho-social development is reached – and considering that this process reaches its maximum bio-psycho-social development (in its distinct subsystems) at distinct moments of life, and therefore, at different ages – it would be natural to ask: what is the balance between change and stability in the life cycle? To what extent do we find negative changes? Is it possible to observe positive changes at the entrance to old age? What are the limitative or negative conditions that happen with age and what also are the possibilities of growth and positive change with age?

As we will emphasize later we can say that the limitations related to the aging process (and, in the same manner, its potentialities and resources) are due to the fact that it is a living organism which, after reaching its maximum biological development (around twenty years of chronological age), starts to be gradually less effective in its somatic and sensorial subsystems, creating a progressive decline in its physical characteristics like cutaneous elasticity, muscular strength, visual and auditory acuity, etc. All of them, as signalized by Fries (1989), are non-changeable characteristics specific to the aging process, all of them being a product of age and part of what authors have considered primary aging.

Nevertheless, aging is a multidimensional *bio-psycho-social* phenomenon, and therefore it is pertinent to ask if the biological decline occurs, in parallel and isomorphically with the decline in the psycho-social functioning of the individual. *In part*, biophysical aging is the basis of psycho-social aging, and therefore they run parallel with each other; so the fluid cognitive functioning that we measure through tests of visual-motor coordination or work memory runs in a thin parallelism with the neurobiological functioning, while the functioning of personality, affectivity or of interpersonal relationships doesn't have the same profile, and inclusively can show tendencies of positive change associated with age. In figure 1 we can observe from a cross-sectional study of Europeans between 30 and 85 years old, patterns of decline and stability; while physical measures as strength, speed, pulmonary capacity, working memory, psychomotor coordination are associated with age patterns of decline, variables of personality, affectivity, social and family networks present a notable pattern of stability (Fernández-Ballesteros, Zamarrón, Rudinger et al., 2004).

Nevertheless, we still have to understand if age has a positive influence on some of the characteristics of the individual and their functioning. The study realized by Heckhausen and Schultz (1995, see also, Heckhausen et al., 2005) is already considered a classic that explored the human characteristics that show development, stability or decline since the age of 20 (theoretical age of maxim development) until 90 years old. These authors defend that we find profits, losses and stability along the whole

lifecycle with profiles of more development in the early years of adult life, stability during this period and more decline in the last decades of life. In short, as Baltes, Freund and Li (2005) signalize the study of aging and old age has evolved from a conception of aging in terms of decline and deterioration to the consideration of aging as a dynamic between development (earnings), stability and decline (losses).

But what is the weight of genetics and environment in the process of aging? In the opinion of Kirkwood (2005), longevity seems to be explained by 25% genetic factors as opposed to 75% socio-behavioural conditions. In this way although the limitations of aging and old age proceed from our biology, there is also a wide margin for change and environmental intervention and they explain an important part of the forms of aging from active and positive aging to a pathological aging with dependency and suffering.

There are three sources of knowledge concerning the importance of the socio-environmental and behavioural factors in aging and old age. A) First, we know that throughout the aging process – both historically and at the intraindividual level – millions of interactions are produced between the organism (in the biological sense) and the *environment,* in such a way that the organism is *penetrated* by it and gradually assumes a growing importance in the individuals' life (Baltes et al., 2005). B) This doesn't only happen on an individual level but also to the species as we have proof of this in human history and even, as Schaie (2005 a, b) points out, we have empirical evidence of this across the 20th century, where we have observed that younger generations have always obtained higher results than the older ones. C) Finally, as Bandura (1986) emphasizes, the individual is not a passive entity governed by a limitative biology and a tyrannical socio-cultural context, but he is an *agent of his own evolutionary and aging process.*

Till now we have emphasized the balance between limitations – which are due to our condition of biological beings – and the possibilities that seem to emerge from the thousands of interactions between organisms and socio-cultural contexts that – both at a phylogenetic and at an ontogenetic level – seem to have generated extraordinary levels of

development of the species (doubling life expectancy in a century) and in the individual (making it possible for many individuals to attain old age in good physical, social and psychological conditions). What is the explicative mechanism of the change described? The authors seem to be in accordance that it is plasticity (and the capacity of adaptation that it implies), the essential property of the human organism in that essential progress of adaptation.

There is no doubt that *plasticity* is an essential biological property of the human being which, in simple terms, postulates the capacity of our biological systems to regenerate. Nevertheless the biological plasticity counts on a correlated behaviour, in particular, the cognitive plasticity that resides, isomorphically, in our central nervous system, already established by Cajal (for a revision see: Fernández-Ballesteros, Zamarrón, Tárraga & Calero, 2007). In simple terms, cognitive plasticity can be defined as the individual's capacity to change, in other terms, his capacity of learning, of taking advantage of experience. From a methodological point of view research about plasticity and cognitive reserve is based on experimental designs that adopt a test-training-post-test format.

Later in this chapter we will present several studies concerning this subject; in summary, many research teams have worked under this paradigm, obtaining very consistent data among them (Baltes et al., 1988, 1989; Fernández-Ballesteros & Calero, 1995; for a revision see Fernández-Ballesteros, Zamarrón, Tárraga & Calero, 2007). As an example of these outcomes in figure 2 we present the learning curves of healthy people in different age categories: 55-64, 65-74, 75-89 and aged 90 years and older, obtained in several research projects concerning cognitive plasticity.

We can say that the *possibilities* of learning happen in the entire life although these possibilities *decline* as a limitation associated with age. This factor explains a minor part of the variance of the pathology in trying to explain the existing differences between healthy people and those suffering from Alzheimer´s disease.

It makes sense to question if there are also gains or positive changes or learning in the emotional and motivational domains of human functioning? In other terms, is there throughout the life span, proof of an

emotional/motivational plasticity beyond cognitive and physical plasticity? The answer is without doubt affirmative, as behavioural plasticity is not exhausted by cognitive plasticity and includes other emotional, motivational and personality dimensions.

Although the majority of gerontology manuals have given more attention to cognitive functioning in old age, in the last decades we have seen a growing concern with the positive changes in the emotional-motivational domain with age (Carstensen, Mikeles & Mather, 2006), or in other skills, such as coping with adversity, including some aspects of personality in the interplay of emotional and cognitive conditions.

The outcomes of this research program, which will be presented later, emphasize that in the lifespan we find more regulation and emotional control. Some authors define the *positive effect* (Carstensen et al., 2006) as an evolutionary pattern where the preference for a negative material in the information processed by the youth changes during the adult life span to a preference (excessive and/or unfounded?) for the positive in old age. This has been tested through multiple experimental tasks. How can we explain these positive resources that appear in old age? As we will detail later – and as many different theories have defended – across the lifecycle the emotional system changes facilitating *answers for a better adaptation* (including emotional regulation), in the direction of the individual's survival and adaptation to his environment and to his own changes (Fredrickson, 2001; Magai et al., 2006), which we can infer as coping mechanisms, in part, adaptive (Laboubie-Vief et al., 2005).

In summary, the limitations of the human organism along the aging process come from his biological structure that becomes less efficient with age. At the same time, due to the incompleteness of these structures and their plasticity, socio-cultural and environmental conditions, in the case of being optimizers or compensators of the individual resources', are precisely the conditions for positive change as plasticity is the key of bio-behavioural mechanism and variability in the psychological functioning in the older age as well as its own expression.

It has been said (and it is a postulate of this book) that aging is a process that happens during the entire lifespan. It has been also said

that there is an extraordinary variability of forms of aging; this means that human beings age in different ways depending on their interactions with the socio-cultural context where they live. Nevertheless, as it will be emphasized later, these forms of aging do not occur randomly and are not the exclusive responsibility of the organism in the biological sense, nor of the environment and its physical and social stimulation, but of the transactions that happen in all these factors as the individual is an active agent of his own aging process. In figure 7 we present an aging model that clusters distinct and relevant dimensions along the aging process and, therefore, explains distinct ways of aging (Fernández-Ballesteros, 2002, 2009). From this temporal scheme it is necessary to organize the hypothetical aging determinants along the life span that integrate possible determinant factors, transaction operators, which have as outcome, in a concrete moment, the specific way of aging of a particular individual. Later we will offer several examples with the aim of illustrating this complex model in all its constitutive elements.

Ultimately, it is a way to condense in a figure all the interactive elements that happen through the life span between the organism, the social-environment changing conditions, and the person itself with his behavioural repertoires. Further on we will signalize two derivations that emerge from this position that we can consider as mainly transactional between environment conditions and the individual as agent of his own aging process.

There is no doubt (as defended by OMS, 2002) that the physical, health, social, cultural and socio-economic conditions determine, with the bio-psycho-social aspects of individuals, the processes of aging. However, there is a frail analysis of a cluster of socio-cultural factors that bring limitations to active aging: the images about aging and old age.

The II International Action Plan about Aging (United Nations, 2002), in its Priority Direction 3, in topic 4 points out that a positive vision about aging is an essential part of the Plan and speaks in favour of the need to fight against stereotypes and negative images about old age. In the same direction, the World Health Organization (OMS, 1989, 2002) has defended the importance of stimulating non-ageist images, among

health professionals and formal and informal caregivers of older adults, assuming that these images have a causal pathogenic value that can be converted into self-fulfilling prophecies, going in a subtle way against the quality of life of the elderly that are congregated in services and centres (Fernández-Ballesteros, 2011).

In the corresponding section of this chapter we will revise distinct studies about stereotypes, attitudes and values about old age. The data gathered allows us to conclude that these images are mainly negative because they imply an overgeneralization of the negative conditions as elders are classified as «dependent», «sick», «sad» or «idle». In a lesser proportion positive classifications appear like «experienced» and «wisdom».

In summary, when we use different types of reactive stimuli (positive and negative) with different methodologies, the data about stereotypes and attitudes related to aged people can be explained from two different perspectives; conceptually, as in other countries, the image of older people produces mixed feelings, in other words, two sides (Cuddy, Nortony & Fiske, 2005). Against the image of dependency, disease and incompetency appears another of wisdom, good advice and experience. This dualist view can explain socially ambivalent behaviours: the positive view will enhance care programmes and protection; the other view can lead to social exclusion and discrimination. This polarized view can be dependent in part on the method applied: if the evaluation uses bipolar adjectives, a more negative view appears (in consonance with what people feel?) than if we use positive evaluative sentences of high social desirability.

In any case, the negative stereotypes express the cognitive value of elder people that would be also manifested in a prejudiced (emotional) condition of the aged and that – worse – could be manifested in social discriminatory behaviours. Later in this chapter, in the corresponding point, we will *emphasize* that the stereotypes and negative images suppose a *threat* to the individual as they are manifested in *ageist behaviours in* the elders themselves, in the people to whom they relate, caregivers, professionals, as well as in *the society* as a whole. Inevitably, the conclusion of this chapter is that much more research is needed to permit an untangling not only of the image that the Spanish society has about the

senior population but, especially, their emotional, behavioural and other (legislatives, sanitary, social, etc.) effects.

Analysis about the possibilities and limitations of age

Old age is considered an age of life while aging is understood as the process of getting older which happens very early (after childhood and adolescence) and takes place throughout the life cycle, as will be highlighted later.

The connotative aspects of the term «old age» and their derivations explain why trying to classify with a verbal label the different ages of life – in addition to childhood, adolescence and adult age – distinct terms have been used. The terms «old age» and «aging» are the verbal labels to refer to older people. The value given to distinct terms as «old», «elder», «third age», « aged person » can be different. According to studies developed in Spain, «old» is a pejorative term; «elder» is the name given to a very old and frail person; «third age» refers to people in a situation of needing care or in a state of inactivity, and finally «aged persons» seems to be more neutral and belongs to the politically correct vocabulary following the recommendations of the United Nations on the occasion of the International Year 'World for All Ages'.

In any way the opinion about whether age is or is not an important marker to nominate «older people» has changed over time: in a survey carried out by CIS (2009), after being questioned about when can we say that a person is old, 17.3% of the sample (representative of the Spanish population aged over 18 years) said it didn't depend on age; 13% said it refers to people older than 60; 25.3% older than 65; 28.7% older than 70; 9.3% older than 75; and 4.8% older than 80. Thus, the majority of the sample regarded age as the marker to consider a person as aged or in the higher segment of age. But there are other conditions of the person which may contribute to the designation «old», such as physical appearance (for example, wrinkles, lack of flexibility), the psychological state (for example, slowness, introversion) and also the social state (for example,

being retired). If we consider the bio-psycho-social scientific data, there is no defining characteristic of the entrance into the category of «older» unless we adopt socio-labour criteria such as the age of retirement.

In any case, even if we take a specific year as a marker to signalize the entrance into old age, there exists a huge variability in the different age groups of older people. Having in consideration the range of years covered by elder people between 60/65 years (cut off point for the entrance in the elder age group) and the mean age of longevity (for men and women), 78-83 years, more than two decades elapse, and if we consider the maximum life expectancy of the human species (100-115), we can say that the older group is composed by many subgroups that would comprise (at least theoretically) more than fifty years.

Researchers have grouped distinct subgroups of older people; Neugarten (1975) establishes two categories, young-old (from, more or less, 55 years to 75) and the old-old, over 75 years. Riley (1988) widens these age ranges with a third category, «very old» where we could find the people of more than 85 years old (it is interesting to notice that historically the authors use a bigger number of categories to comprise the complex phenomena of old age). Although these subclassifications are based on chronological age and have a cultural support, they do not express scientific criteria, except in relation to disease and dependency.

Beyond chronological age, gerontologists have proposed a functional age to work through the aging process through longevity *biomarkers* (Evans & Rosenberg, 1991). In the same direction, they have tried to find markers of psychological aging like learning capability, reaction time and motor speed as indicators of positive aging. There has also been an attempt to understand the risk of death through the abrupt change in the intellectual functioning («drop-out» phenomena; see Berg et al. 2007). Nevertheless, as McClearn (1996) refers, till the moment, no marker of aging has managed to meet the established requirements, for the simple reason, the author defends , that we have not yet defined what is actually old age and aging.

Parallel to the classifications around chronological age that we have mentioned, based on functional age, the distinction has been made be-

tween the third and the fourth age (Baltes & Smith, 2003). Third age refers to those older adults who maintain optimal functionality, meaning good health and functional autonomy, while the fourth age would refer to the group who have a functional age with high deterioration, bad health, low autonomy and high fragility. It is supposed that this functional cathegorization corresponds to a biological age overlap, because the probability of having good health and good physical functioning is greater between 65 and 75 years old than in the fourth age, after the 80s. An attempt has been made to overcome this overlap or matching between age and functionality by separating age and disease conceptually and nominating the decline or deficit produced by age as *primary aging* and the outcomes and wounds of disease as *secondary aging* (Hayflick, 1994).

Despite all these classifications, the variability in the ways of aging is incredible, and in this sense all dichotomous classification would excessively polarize this diversity of ways of aging. Thus, finally, functional age is serving to establish a bio-psycho-social classification which is very trendy nowadays as proposed by Fries and Carpo (1981), Fries (1989) Rowe and Khan (1987), OMS (2002), and Fernández-Ballesteros (1986). This classification distinguishes between *pathological* aging from *normal* and active or *positive* aging. The most important for our aims — and because there is a parallel text about pathological aging and dependency (Imserso, 2003) — is to signalize that this chapter focuses on normal (regular) and active longevity and does not comprise pathological aging.

In summary, in accordance with the wise advice of Voltaire when he recommended «define the terms you use», with this epigraph we had the aim of specifying the vocabulary that will be used here as well as to underline that there are different forms of aging (primary and secondary), different subgroups of elder people (based on chronological age and functional age) that expresses a wide diversity of interindividual variability, which always makes the possibilities of generalization difficult. Anyway, throughout this chapter we will focus mainly on normal and active aging and on the older adults group with well-preserved functionality.

A. Biology as a basis for individual decline and psychosocial deterioration

From a biological perspective, aging is a process that occurs throughout the lifecycle (and not only in the last stage of adult age). Hayflick (1994) defines actuarial aging as «the sum of the biological changes or functional losses that increase the probability of death» (p. 63). It is clear that from birth we approach — day by day, minute by minute — our own death; so, as some authors stress, aging should be computed retrospectively existing previous changes before death that we will highlight later. It should be noted that death, like birth and aging, is a natural phenomenon and that adaptation to life also involves the acceptance of death through adaptive coping mechanisms.

The most important thing here is necessarily to note that aging (like life) is linked to survival and death, and therefore to sickness. In this sense, as noted above, the distinction, as defended by Hayflick (1994), should be specified between primary aging (normal aging) and secondary aging linked to disease. We wish to emphasize primary aging and that secondary aging is linked to disease, the "public enemy number one" of primary aging but often confused with the first. In other words, age carries with it an increased vulnerability to illness and therefore any negative feature throughout the aging process can be understood as a consequence of age when, in fact, it could be the consequence of the occurrence of disease and as such the result of secondary aging (Pankow & Solotorov, 2007).

From a biological population perspective, Gompertz (1825) established nearly two centuries ago by following multiple statistical calculations, that the mortality rate increases geometrically through the lifecycle, managing to demonstrate that the mortality rate of the has doubles every 8 years from 30 years on. Some interesting limits have been established to the proposals and statements of Gompertz; for example, Wickens (1998) shows that these calculations do not apply to people over 90 years old, perhaps because of the selection processes that necessarily occur in the very old. However, as is well known, there are actuarial tables with probabilistic intervals enabling us to specify the percentage

of survival through a time period linked to demographic indicators. As noted above, it can be argued that one of the *limitations* of aging is a greater vulnerability to disease. Our biological systems become less efficient with age. In fact, illness seems to be a defining element of the Spanish elder population, as is highlighted in the Imserso Report of elder people (2008), where about 40% of people over 65 consider that the entry into old age is determined by health deterioration. Therefore, any policy fostering health and preventing disease across the lifecycle would be a positive policy in favour of optimal and active aging and preventive of dependency and, ultimately, good for elder people of the generation targeted by these policies.

It should be noted that, once the maximum biological development is reached (around twenty years of chronological age) as our biological systems become less efficient, there is a decline in our physical characteristics, certainly at different rates – depending on each function, exercise and the different time period of the aging process – but not necessarily due to disease. Thus, for example, reduced skin elasticity, decreased muscle strength, longer reaction times, reduced visual and hearing acuity are characteristics of the aging process, all of them being age products and as such part of the primary aging process.

But we noted that aging is a multi-dimensional *bio-psycho-social* phenomenon and, therefore, there is the need to question whether biological aging, which we have been referring to as a slow process of decline in a number of physical characteristics, occurs in parallel and isomorphically to a decline in psychosocial functioning of the individual. In part, biophysical aging is the basis of psychosocial aging and therefore it runs parallel to it. For example, fluid cognitive functioning assessed by tests of visual-motor coordination or working memory, runs in close parallel to neurobiological functioning. However, the functioning of personality, affectivity, and interpersonal relationships do not present the same profile and even may show positive change trends associated with age.
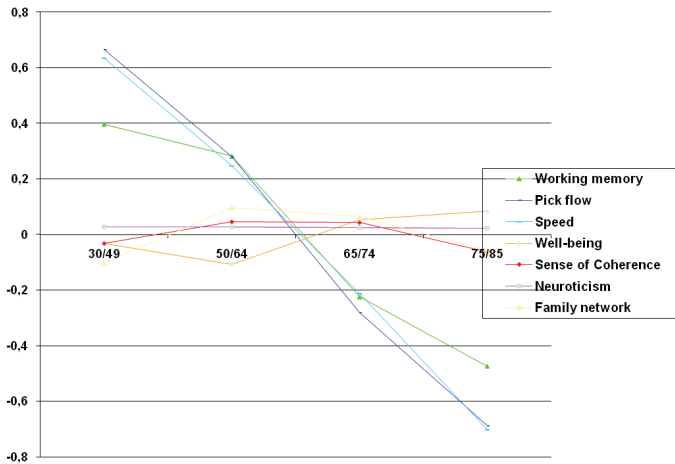
Figure 1: Stability and decline in physical, psychological and social characteristics through age (Z-scores) (Fernández-Ballesteros et al., 2004).

The results we present are an example among hundreds of the different variables: physical (strength, speed and lung capacity), cognitive (work memory and psychomotor coordination), affective (welfare), personality (extraversion and coherence) and social (family relationships), from the Excelsa cross-sectional study (figure 1), carried out in seven European countries with samples selected by age, sex, education, and rural-urban context, which involved 672 people (96 per country) between 30 and 85 years old. As we can appreciate, while measures (presented in «z» scores and, therefore, comparable among themselves) of fluid intelligence (as working memory evaluated with digits and psychomotor coordination evaluated through symbol digit) show a pattern of decline similar to the physical measures of strength, speed, and lung capacity (assessed by peak flow), personality, affective and family variables show a pattern of remarkable stability.

The same also applies to other wider social characteristics, as long as they are governed by rules that depend on values and social structures that can be modified under the power of reason, knowledge and political will. However, the influence of biological aging on the social conception of old age is so strong that, as we shall see later, it determines the images on aging, and even on social structures such as retirement.

In summary, the patterns of biological decline suppose a handicap for all those human manifestations that are biologically supported, but this doesn't necessarily occur in other psychosocial characteristics that show a high stability throughout the life cycle (once maturity is arrived at, where, probably, the maximum development has been consolidated) or that can be optimized continuously (as with experience) or be compensated in case of decline.

B. Interactions of the individual with the sociocultural context: changes and stability across the lifespan

During the last years we have seen important advancements in the understanding of the basis of aging and of its expression in the behaviour of the individuals. As Kirkwood (2005) stresses, we know to what extent genetic factors influence longevity, what cellular mechanisms underlie the aging process and what environmental, social and behavioral factors modulate (even determine) the distinct trajectories of the human individual from birth to advanced ages of life. Additionally, as this author points out, despite the fact that 25% of variance in longevity is explained by genetic factors, there is a large proportion for individual and social determination upon different ways of aging, estimated at 75%. We also noticed that throughout the aging process, considering the interaction between the organism (in the biologic sense) and the environment, this last factor gains an increasing importance. And, lastly, we know that the individual is not a passive entity being ruled by a limitative biology and by a tyrannical sociocultural context, but that he is an agent of his own evolutionary process and aging.

Advances in methodological research designs, time projections and the use of multimethod approaches have also been demonstrating that there are relevant changes in the majority of physical (height, speed, march, running) and psychological patterns (intelligence coefficient, reasoning, psychomotor coordination) of the individuals throughout history based on reliable data, at least since the last century. We have also perceived that younger generations get better results than older ones and that hu-

man and social development is producing generational changes which, in turn, have an impact on inter-individual changes (Schaie, 2005 a,b).

We know, definitively, that the socio-environmental and personal conditions modulate biological processes and that human and social developments have led to a renewal of the younger cohorts, so that stereotypes resulting from ageism discrimination should be updated in the light of the constant scientific evolution of knowledge.

All these developments justify the assertion that the science of aging and of aged people should be approached from a bio-psycho-socio-cultural and historical perspective, and that any single-disciplinary or transversal focus reduces the understanding and the analysis of the phenomenon under study: aging and the older population. Therefore, we have to keep in mind that if we consider as the age group those individuals over 65 years living at the end of the first decade of the 21st century in Spain, we have to draw or delimit its social history: precisely, all of them have lived through a civil war and a long period of isolation and deprivation. Many of them have suffered periods of hunger and food scarcity (dearth) and they have been educated in a sociocultural context in which food, education, social and political expression were scarce, at the same time that values of effort, tenacity and collective effectiveness were generated (e.g., Díez Nicolás, 1999; Montero, Fernández-Ballesteros, Zamarrón & Rodriguez, 2011). Thus, what has been said here only applies to older people currently residing in Spain (proceeding from a specific socio--historic context) and any generalization to other cohorts would be risky.

As Baltes, Freund and Li (2005) underline, the vision of aging and old age has evolved from a conception of aging as decline and deterioration to aging seen as a dynamic between gains and losses. In this sense it is important to stress that the known incomplete architecture of human ontogenesis increases with age, leading to a greater weight of culture, in the evolution of the individual, culture being defined as "psychological, social, material and symbolic resources (knowledge-based) that human beings have developed over the centuries, transmitted from generation to generation making possible its development" (p. 50). But, throughout the process of human development there is a locus of those resources

with distinct functions: while throughout adult life those resources are invested in maintenance and optimization, during old age the main challenge is the need to regulate and compensate the potential limitations and negative changes that occur in physical, cognitive and social conditions.

When we compare the current subjective evaluation, between the perception of the limitations and the perceived possibilities, to the past expectations about old age and other older people today, we find that more than 75% of older people feel "quite or very happy": on a 10-point scale the results obtained are 7.3 and even when the present level of satisfaction is evaluated compared to life in general, the obtained score of older people is near 7 (see, Fernández-Ballesteros, 1992; Fernández-Ballesteros et al., 2009). These data point to the emotional self-regulation mechanisms used by the individual, leading to a positive balance in old age; these mechanisms are not only found in Spain but in almost all of the countries where these factors have been examined.

Summarizing, the great majority of the authors accept that aging (across the lifespan) is an adaptive process through which the individual manages his personal and psychosocial resources depending on the interaction between biological, psychological and sociocultural conditions. From a functionalist point of view, any sociocultural mechanisms that promote the maximization of individual possibilities may be considered as part of a laudable policy. Definitely, the potentiation of these physical, cognitive, affective and social resources throughout the aging process (i.e. lifelong) will be adaptive to the individual and the species.

The study realized by Heckhausen and collaborators, is already considered a classic (2005, Heckhausen and Schultz, 1995), in which people of different ages were asked to indicate what characteristics showed declines or growth from the age of 20 (theoretical maximum age development) to 90 years old. This study stressed that throughout life positive changes or gains may occur, but associated with age, an increase can also be expected in «losses» with a reduction in «gains». Thus, as we can see in figure 1, fluid intellectual functioning (even in the absence of dementia disease) declines with age; however, at the same time, stability is observed in the majority of personality functioning: internal coherence or social relationships.

Heckhausen and his collaborators have inquired about which are the mechanisms for positive change throughout life (including old age) as well as where to place its limits. The answer came from a powerful line of research: plasticity. As the experts of development underline and as has been highlighted previously, the extraordinary behavioural plasticity (not only cognitive) emerges from human incompleteness (as in other mammals). Comparative studies show that an extended period of maturation produces the possibility of redefining – throughout the lifecycle – physical, cognitive and socio-affective skills that allow survival (Geary & Bjorklund, 2000). Behavioural plasticity is not exhausted by cognitive plasticity but it also covers affective, motivational and personality dimensions. Actually, most treaties on gerontology have devoted a higher interest to cognitive plasticity during old age than to other aspects of the individual psychosocial functioning. It is in the recent decade that a greater interest has begun to specify the changes that also occur in the emotional-motivational area (e.g., Carstensen, Mikeles & Mather, 2006) or in other coping skills through stress situations or even some aspects of personality – in the interplay between cognitive and emotional conditions – which seem to increase throughout life and particularly in old age. Thus, the investigation program with the greatest impact about what is a positive change throughout the aging process deals with cognitive plasticity and other forms of plasticity such as socio-affective functioning.

Cognitive plasticity (also called *learning potential* and *cognitive modifiability*) means the ability of the individual to benefit from a learning situation or, in other words, of modifying his cognitive functioning as a result of training. Cognitive plasticity is an expression of two psychological constructs: *neural plasticity* and *brain reserve*. Neuroplasticity is the basic principle of the capacity for brain reserve and for cognitive plasticity. Brain plasticity or neuroplasticity is considered to be a general property of the central nervous system (CNS) and is defined as the capacity of neurobiological change in response to experience or sensory stimulation throughout life. Social and physical stimulation, schooling, professional career, lifelong training and other environmental conditions are determinants of this reserve capacity (both as neural and cognitive

reserve). As we will see in the following epigraph, plasticity throughout life depends on meso- and macro-contextual factors. In addition, brain and cognitive reserve are both products of the individual transaction with socio-environmental conditions and at the same time *sources* of the positive effects of cognitive functioning produced by programs of intervention during old age. In other words, a high level of schooling and an intense and prolonged cultural stimulation will cause a broad brain reserve in individuals throughout life, and also their ability to benefit from programs of cognitive optimization or compensation at advanced ages of life.

From a methodological point of view, research on plasticity and cognitive reserve is based on experimental designs which adopt the format test-training-post-test.

As an example of this methodology, figure 2 presents the learning curves from various research projects (Study Elea, Imserso, I+D+I, 2006) of cognitive plasticity, in which healthy people with different age ranges have participated: 55-64, 65-74, 75-89 and over 90 years. In all of them a learning potential test (memory of words) has been used from the Battery Assessment of Learning Potential in Dementia (Bepad: *Batería de Evaluación de Potencial de Aprendizaje en Demencias;* Fernández-Ballesteros, Zamarron, Tarraga, Moya & Iñiguez, 2003).

As we can see, there is learning throughout old age or, in other words, there is a large capacity for cognitive modification through training.
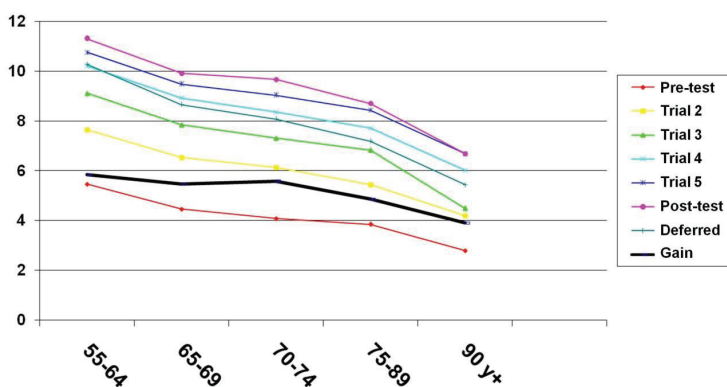
Figure 2: Cognitive plasticity across aging. Learning curves through 6 trials in an auditory memory learning task (Fernández-Ballesteros et al., 2012).

Older adults are able to learn, during 4 training sessions, with an average score of approximately 6 (the group aged 55 to 64 years) to 4 words (the group aged 90 years and over). A remarkable finding is that gain (pretest-post-test) doesn't decline in the first three groups (from 55 to 74) while after 75 years old this score decreases significantly, which points out the limitations due to age even in healthy people.

It should also be highlighted that there are significant individual differences in all pretests of plasticity (ranging from an average of 5.46 in the youngest group to a 2.79 in the older group) which confirm that older age is associated with less capacity for verbal learning or, in other words, persons of younger age (55-64 years) depart from a greater memory than persons aged over 75. However, despite the results from the Baseline study (with people over 70 years old), several authors (Lindenberger & Baltes, 1997; Lindenberger & Reischies, 1999; Yang, Krampe & Baltes, 2006) establish important declines in plasticity in the oldest old.

According to our data, even those older than 90 are able to learn to a high percentage after training. Finally, it must be emphasized that there are wide differences in cognitive plasticity among healthy older adults aged from 55 to 100 and in those with Alzheimer's disease or diagnosed with Minor Cognitive Impairment (MCI). These differences also exist among healthy persons over 90 years and those with dementia pathologies.

In conclusion, we can say that learning possibilities exist throughout the entire lifespan although they decline as a limitation associated with age. However, we should insist that a high percentage of very old people are still able to learn. This is important because strategies of decline compensation should be administered throughout life and especially in older adults.

However, there is a conclusion with a broad consensus that the ability to learn doesn't carry with it a new capacity emerging in older age, as is assumed to occur, for instance, with wisdom. We can say this because sometimes it is considered that older people are necessarily wise, which is not validated by empirical data. In fact, it is usual to find the reasoning that if one of the components of wisdom is experience (which is true) and experience is associated with age, the person with more experience/

age, will, necessarily, be wiser. This claim is uncertain due to the fact that, in addition to experience, an intermediate resource is required: learning from it and being motivated to transmit that knowledge.

Wisdom has begun to be a scientific construct in the last two decades of the 20th century, which means that we still have an incomplete knowledge, but what we do know for sure is that age does not explain wisdom (this already has been said by Epicurus when he dared to point out «that both the young and the old may be wise...») as has also been highlighted by Baltes and Associates (Baltes & Schaie,1976; Baltes & Kuzmann, 2003; Staudinger, 1999; for a review see Kunzman, 2007).

The ability to learn from experience and under instruction is a condition that lasts during the entire life. This is important because the plasticity of the human being is the basis of behavior modifiability and, therefore, it is the heart of any form of intervention and it is even present, although in a limited way, in dementia disease; these assumptions should be used to eradicate nihilistic visions about older persons that show cognitive impairment (Baltes et al., 1992, 1995, 1996; Fernández-Ballesteros et al., 2003; Lindenberger & Reischies, 1999).

But, is there behavioural plasticity beyond cognitive plasticity? We know that life is a long learning process in which, in addition to cognitive-linguistic repertoires (our capacity for abstraction and synthesis, the ability of calculation) and physical and sensory-motor ones (our motor skills, from bicycling to making bobbin lace or playing the piano), we learn emotional-motivational repertoires (our affections, valuations, our preferences, etc.).

These learning processes are not disrupted when reaching a point of optimal development, but will continue insofar as there is motivation and incentive in the environment. Thus, affect and motivation are essential aspects of human functioning throughout life. Moreover, today it is considered that teaching/learning is *a process that lasts a long time* and formal university studies have been re-designated as «*long-life learning*» as well as the Madrid Plan (II International Plan of Action on Aging of United Nations, 2002) sees it and promotes it that way as in its Priority Direction I.

There is other question worth asking: Are there gains or positive changes or learning in emotional and motivational areas of human functioning? Or, in other words, throughout life, apart from the physical and cognitive plasticity, is there any evidence of an emotional-motivational plasticity?

The answer is undoubtedly affirmative because: how do we explain the results obtained in the study ‹90 +› (Study Enreve. Imserso, I+D+I, 2006) of a high subjective appreciation concerning physical adjustment and satisfaction, despite the decline of all the objective conditions (strength, lung capacity or speed)? There seem to be adaptive mechanisms that are debugging, integrating throughout life, particularly in old age, in what refers to the emotional performance and the skills to deal with difficult life situations and stress situations. But, further, we know that the basic behavioral repertoires do not act independently but they interact strongly, and therefore affection is strongly linked to cognitive functioning.

Despite the interest throughout the history of Gerontology in the development of affectivity and emotion in the field of Psychology (e.g., Izard, 1991; Ackerman, Abe, Izard, 1998), a predominant attention to negative emotions has dominated, such as feelings of sadness, loneliness and depression. As multiple authors underline (for a review see Yanguas, 2008), we had to wait for the last decades to find extensive literature on emotional and motivational functioning throughout life and particularly during old age, as well as to know what relationships exist between the affective and cognitive functioning (for example, Labouvie-Vief, 1996): How is it developed? What changes occur in emotion and in personality (e.g., Magai, 1996, 2001)? What are their relationships with primary and secondary control (e.g., Schulz & Heckhausen, 1998)? Or, as Carstensen et al. (2005) highlighted, what happens at the intersection of cognition, affect, motivation and manifest behaviour and health?

Although meta-analysis, conducted by Pinquart, (2001) on this subject shows inconsistent results, most authors agree that in normal aging no changes concerning positive affect occur and, moreover, that negative affect decreases during adulthood and emotional self-regulation increases. Thus, for example, in what refers to emotional functioning, after extensive reviews on the subject, Carstensen et al. (2000) concluded that older

adults report positive emotions with the same frequency as youngsters, while they express lower frequency and intensity of negative emotions than the young. Those same results were confirmed in research in 2009: the seniors group expresses more often negative feelings than the youth group, while it does not differ in positive affect (figure 3) (Fernández-Ballesteros, Fernandez, Cobo, Caprara & Botella, 2009). In addition, older groups are more stable than younger groups in positive emotions, while they are less stable in negative emotions, and it was also found that older adults have a higher emotional complexity and a greater differentiation than the youngsters. In summary, emotional functioning improves throughout life, at least in normal and optimal aging.
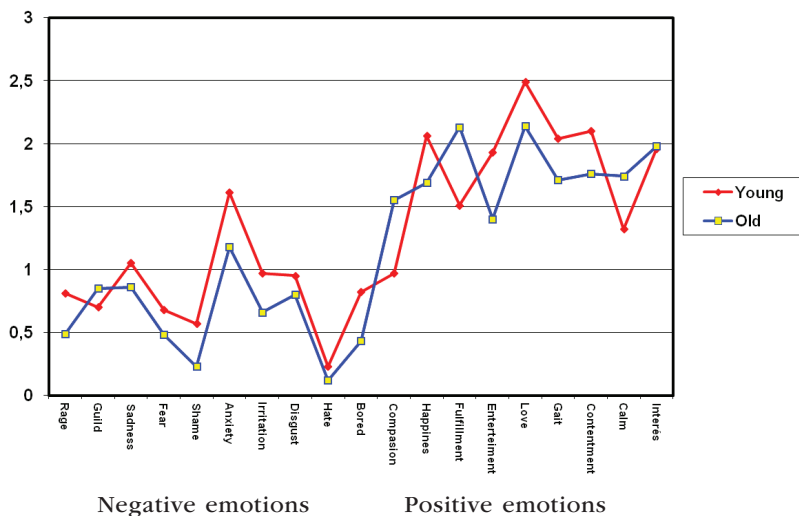
Figure 3: Frequency of positive and negative emotions in both young and older students (Fernández-Ballesteros et al., 2009).

Results that imply a greater emotional regulation associated with age have been examined in the light of research on the effects of preference of positive conditions in the functioning of older people. Thus, Carstensen et al. (2005) define the *positivity effect* as an evolutionary pattern whereby the preference for a negative material on the information processed by young people changes throughout adult life into a preference (excessive or unfounded?) for the positive in old age, this effect being assessed through

the balance between positive and negative material. This positivity effect has been contrasted in remembrance and recognition of images, in tasks of work memory (using positive and negative materials), in discrimination of positive and negative visual materials or in performance in memory tasks that emphasize positive or negative aspects.

There are several theories that try to explain these relationships between affect and cognition. On one hand, it could be understood that age affects the use of a higher proportion of cognitive resources in all relevant emotional information. On the other hand, emotional and affective self-regulation would result in the selection of positive elements in order to improve the emotional state. In any case, it seems much more likely that these changes associated with age are ruled by adaptive mechanisms of emotional self-regulation which leads to processes of positive assessments in daily life (concerning the self and other persons), as well as with positive comparisons established by the individual with his/her past and with other people becoming older.

Of course, this positivity doesn't apply to those people who experience suffering and dependence associated with disease and disability.

The question is much more complex than it is presented here and requires much more empirical research and theoretical elaboration. What we have tried to present here is some positive aspects of human aging such as *resources* and *possibilities* that still require a deeper consideration.

Strategies to cope with difficult situations constitute a set of behavioral repertoires (motor, emotional-motivational, and/or cognitive-linguistic) that come into play and that are understood as adaptive mechanisms of self-regulation which aim to overcome complex and threatening biological, environmental, and social situations that would exceed the resources of the individual. As Moos (1986) stated, coping with problems can be located in the interrelation between environmental conditions and personal resources and in its impact on the way people face life transitions and crises. The skills to cope with negative situations constitute a new line of investigation under the assumption that they are learnt throughout life.

Different authors have stressed that there are mechanisms to cope with the stress which change during old age. The most comprehensive

study on aging has been done by Baltes and his collaborators in Berlin (BASE) with seniors between 70 and 102 years old. Based on this study, Staudinger et al. (1999) describe 13 ways of coping: «comparison to the past», «desire of information», «comparing yourself with others», «to keep going», «to be able to adapt to the situation», «have ups and downs», «faith», «humour», «distraction», «social support», «someone takes care of us /another will pay», «life as loss» and «resignation».

The results presented in figure 4 show that 6 ways of coping (such as, for example, «humour», «desire information», «keep going») are positive in relation to resilience evaluated through the score of satisfaction with one's own aging, while 7 ways of coping (as, for example, «life as loss» or «other persons take care») are negative. There are also positive ways of coping that remain stable (like for example «comparison with others», «humour», «comparison with the past», «social support» and, even, others that increase from 70 to 100 years, as, for example, «faith», «adaptation to the situation», «distraction» or «keep going». At the same time, there are negative styles of coping that decrease such as, for example, «renunciation». Definitely, these results seem to support the existence of *adaptation possibilities* and of a positive change or a better fit in the face of adversity during old age.

Similarly, with regard to the strategies used in *emotional self-regulation* and in coping skills, Lavouvie-Vief (2005) distinguishes between the affective experience and the affective-cognitive complexity: the first would have to do with the emotional experience and the second with the understanding of this experience. Both aspects would be separable, and this distinction would make it possible to discriminate what is happening throughout the aging process. Thus, this author and her collaborators postulate two forms of emotional self-regulation: optimization and differentiation of affect. The high optimizers minimize negative feelings and do not involve them in its exploration, ignoring unpleasant situations. The high differentiators would tend to analyze their emotions, being capable of high tolerance to ambiguity and not prone to emotional repression (low repressors).
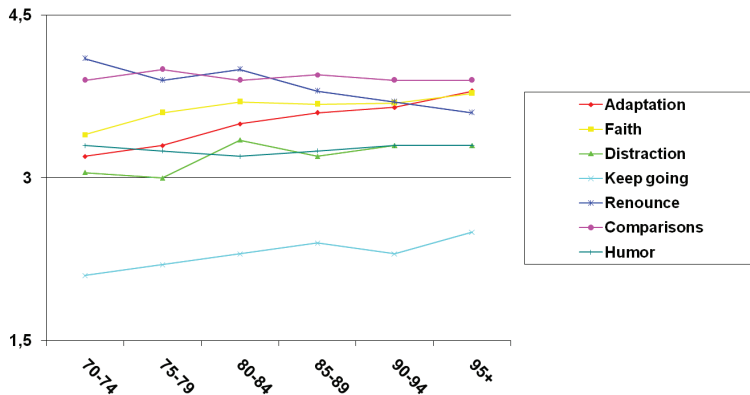
Figure 4: Coping styles in older adults (Staudinger et al., 1999).

In the interplay of both mechanisms, these authors propose four types of emotional styles: 1) those high optimizers and differentiators called integrated, since they show the more positive emotional development, scoring high in positive affect and low in negative affect, and also high on welfare, empathy, and in health self-report; (2) those low in both variables considered dysregulated that would score high in negative affect; (3) the self-protectors that would be low in differentiation, high in optimization and also low in negative affect, and that would be high in positive affect, but would not be so interested in personal growth as in environment control and, finally, 4) the complexes that would be high in differentiation and low in optimization and would show cross coherent patterns.

As can be seen in figure 5, the comparison of different types of styles between four age groups stresses that with increasing age the dysregulated emotional style of coping decreases, while the integrated and self-protecting styles increase. Two paths would exist: one highly positive (integrated) and one relatively negative (self-protective) coming from those people who tend towards irrational optimism and whose adaptive mechanisms do not allow them to examine stressful situations or unpleasant events (internal and external).

Definitely, there is a wide range of differential profiles that express the diversity of adaptive mechanisms in the face of adversity. In this

context, Forstmeier and Maercker (2008) have developed the concept of "motivation reserve" which implies a set of emotional skills that act against neuropathological damage while preserving cognitive functioning and psychological well-being.

	Joung adults	Adults	Elders	Very old
Integrate	30	39	40	41
Complex	31	18	24	21
Self-protective	17	23	22	42
Dysregulated	22	20	15	6
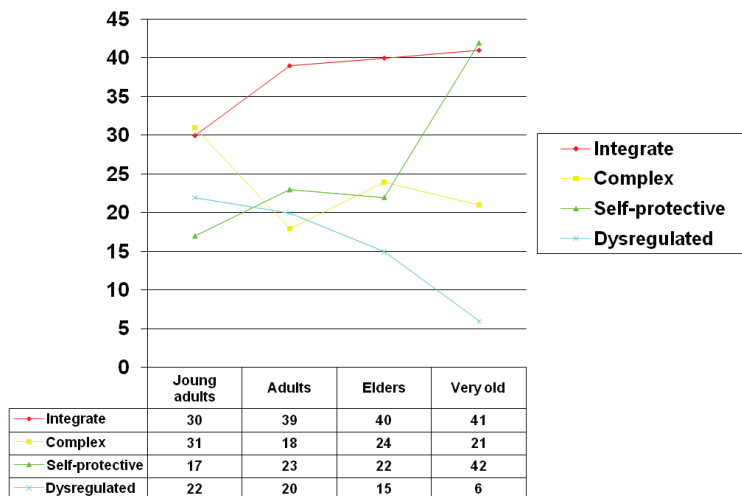
Figure 5: Emotional regulation styles and age (Labouvie-Vief, 2005).

How to explain those positive resources that appear in old age? As already mentioned, different theories assume as key points on aging that the emotional system contains a set of resources that prompt *responses for a better adaptation* (including emotional regulation), improving the survival and adjustment of the individual to the environment (for example: Fredrickson, 2001; Magai et al., 2006), which determine a series of positive judgments and mechanisms of coping, in part, adaptive (Laboubie-Vief et al., 1987, 2005).

In summary, the limitations of human beings come from their biological structure that loses effectiveness throughout the life cycle process, but at the same time, given the incompleteness of these structures and their plasticity, sociocultural and environmental conditions are, precisely, powerful tools for positive changes, optimization and individual development (unless the environmental conditions pervert that possibility and turn in new limitations to a person's maximum development). Later we

will see how stereotypes and social prejudices about aging can be limitative conditions for an optimal human evolution. Ultimately, without any doubt there are gains and losses across the entire aging process, plasticity being the bio-behavioral key mechanism and variability in psychological functioning in old age its reflection.

C. The individual as the agent of his own development

According to what has been discussed previously (and it is the premise of this book), aging is a process concomitant with the life cycle. Also, there is an enormous variability in the ways of getting older; in fact, human beings experience the process of getting older in distinct forms according to the interactions between their personal features and the socio-cultural contexts in which they live. So, taking this conclusion into consideration, we have to emphasize that these different ways of getting older do not occur by chance, nor are they the exclusive responsibility of the organism, in its biological sense, nor of the environment with all its physical and social stimuli. They are a product of the transactions that occur between all these factors, because the individual is an active agent of his own development process.

Along the lifespan, taking into account social learning theories (Bandura, 1986; Staats, 1975), there are millions of transactions between the context, the individual in his biological and psychological dimensions, and his own behavior. In other words, across the lifespan, individuals develop adaptive repertories (cognitive-linguistic; emotional-motivational; sensory-motor), which influence and establish the selection and creation of environments and situations. The intellectual, emotional and social functioning of an individual, his health and also his longevity along the process of aging are largely dependent on the individual's habits and behaviors.

According to Kalache and Kickbush (1997), and being after recognized by the World Health Organization (2002) in its document about active aging (figure 6), the ways of getting older and the extraordinary interindividual variability are dependent on the process of aging in its

broad sense: optimization of individual resources during infancy and childhood; maximization of these resources across the lifespan; finally, preservation of an optimal level of functioning in old age and, we would say, compensating possible declines in capacities. If we are able to reach the maximum level of our resources across the lifespan, potential declines observed in old age will not reach the disability threshold.
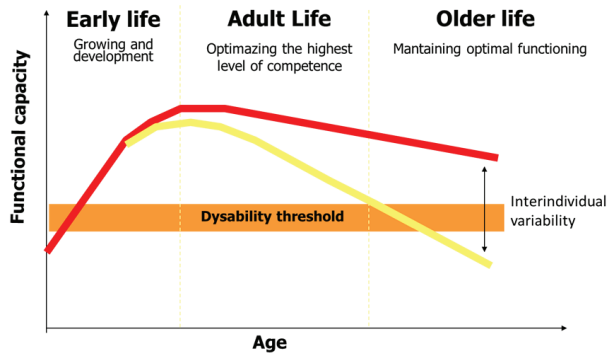
Figure 6: Active aging in the perspective of the lifespan according to the World Health Organization (WHO, 2002; Kalache & Kickbusch, 1977).

According to this perspective, Baltes and Baltes (1990) offered a conceptualization of positive aging conceiving a meta-model which involves three mechanisms that regulate the process of adaptive aging: Selection, Optimization and Compensation (SOC). These three mechanisms are seen as universal conditions of development regulation, which can vary in its expressions depending on the personal and socio-historical circumstances of the individual, the context and the domains examined. *Selection* is a mechanism presented across the lifespan, which is required by the great amount of context stimuli and the limitation of personal resources to deal with them. This mechanism can be considered as a requirement for the specialization of the individual and its manifestations. So, when individual resources decrease, the process of selection has special importance as an adaptive mechanism. The major efforts that occur during individual growth and development, as well as across later stages of adult life, consist of the *Optimization* of knowledge resources, abilities, competencies and all the other positive human characteristics.

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The optimization of our potentialities in old age is one of the reasons for investing time and energy in learning programs that could be developed across the lifespan, being a request for the person to get older successfully in an active way. Finally, *Compensation* is a mechanism to counter losses and impairments, and despite their inevitability, to help the individual maintain a good level of functioning. Both compensation and optimization require individual efforts and imply a careful selective process before the decision about what should be optimized and what should be compensated. This complex process requires individual decision-making and involves problem-solving strategies, and can also be considered as a basic strategy for successful get older. The model of Selection, Optimization and Compensation (SOC) has been considered as a system for motivation within the life course perspective, which helps the individual to reach the highest level of functioning. Selection, Optimizations and Compensation can also be seen as mechanisms of facing problems, or strategies of life management, with protective functions and because of that as determinants of active aging and well-being. These three mechanisms can be considered sources of individual differences in the process of getting older in different moments of life. At the same time, intervention programs can be seen as tools for promoting the selection by each individual, the optimization of his personal resources and the compensation of his deficits.

But this is not the end of the story: these individual behaviors are also dependent on the contextual and social conditions, ta a micro-level (family, school, friends), meso-level (the community around), and macro-level (socioeconomic, socio-educational and sociocultural conditions of the region or the country). In another words, there are sociocultural conditions which promote the election of individual resources, their optimization and when needed the compensation of abilities that are suffering deficits.

In figure 7 is shown a model of aging that integrates relevant distinct dimensions and levels of the aging process, which may explain the different ways of getting older (Fernández-Ballesteros, 2002, 2008).
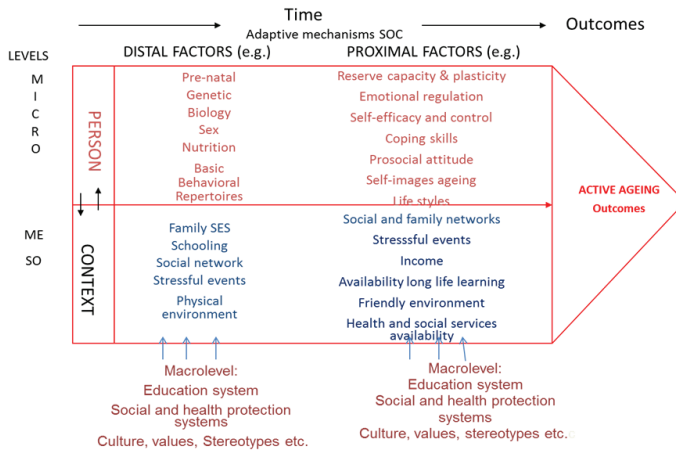
Figure 7: Multidimensional and multilevel model for active aging (adapted from Fernández-Ballesteros, 2002, 2008).

Considering the organization of hypothetical determinants of aging across the lifespan, which includes potential deciding factors and operators of transactions, the outcome at a specific moment of life is a particular form of aging by an individual. It is important to point out that all the relevant theoretical factors proposed in the model have been empirically tested. Some examples of these factors are described below.

At a micro level it is possible to find those dimensions that persons have generated across their histories of learning which are dependent in some way on their biological and genetic conditions and their sex, and which are composed by all the basic cognitive-linguistic and emotional-motivational repertories, are expressed by healthy and unhealthy behavioral habits. These individual factors have been historically generated as the product of millions of interactions of the individual (in the biological sense) with the factors that proceed from the meso-context level, such as, for example, family and group socialization norms, from the school context, the sanitary attention received, the socio-familiar position, social support, stress factors, the physical, familiar and communitarian environment, etc. All these historical factors are supported by other macroscopic contextual factors like, for example, the educative system, the sanitarian and social organization of the country, religious and cultural factors, etc.

On the other hand, in the real situation of the person, we can find his internal conditions (for example, cognitive and mnesic abilities, self--control and self-efficacy beliefs, emotional balance, copying strategies, prosocial behavior, etc.) which interact with immediate contextual conditions (for example: familiar and social support, the stressing or potentially stressing events, economic conditions, self-disposition for learning, a favorable environment, the available sanitarian and social services, etc. At the macroscopic level there are also important environmental, social, economic and cultural factors (like the available systems of protection, sanitarian, social and educative structures and their investment from GDP, the policies and programs about the aging process, a system of continuous training, cultural and religious values, etc.) which constitute the support to promote or to constrain personal conditions that shape each person's way of getting older.

The SOC adaptive mechanisms defined by Baltes and Baltes tend to act across the life cycle of each person and at specific moments, and logically take meso and macro contextual conditions into consideration. In other words, an environment that offers multiple opportunities promotes selection by an individual, who could adopt conduits that optimize his capabilities across the lifespan. In line with this, policies that encourage the older person to enter college programs are promoting basic cognitive--linguistic, emotional-motivational and sensory-motor repertories and, at the same time, social interaction and participation. Programs designed to prevent cognitive impairments will offer opportunities for compensating the possible deterioration of mnesic, cognitive or sensory-motor abilities. Also parks with resources for recreational and physical activities contribute to the optimization of sensory-motor repertories and to the compensation of some deficits. The results obtained in population data are unequivocal. For example, countries with a high earning per capita, with a high investment of GDP in organizations of social protection and in sanitarian and educational systems have a higher life expectancy and lower rates of dependency. We can see that across the life cycle, through the interaction between the individual and the context, there are millions of possibilities of promoting mechanisms that help the adaptation of the

individual to aging processes. As a result of all of this, after numerous transactions between the person, his conduct and the multilevel environmental factors historical (distal) or recent (proximal), it possible to come to a state in old age that we can describe through four multidimensional scopes: good health and physical condition, optimal cognitive and emotional-motivational functioning, a high level of functioning and social participation (Fernández-Ballesteros, 2008; OMS, 2002).

Although the justification of the assumption that the individual is an essential agent of his own aging process, this is something easily forgotten. In fact, there are few people that consider old age as a phase of opportunities and development and because of that they do not see themselves as agents of their own aging process. There is no doubt about the idea that the exercise of control is an essential aspect for a good aging process, and is also a predictor of health and longevity (Rodin, 1980; Rodin & Langer, 1977). In the same line, some very specific researches corroborate that the experience of control is an explaining factor of cognitive and physical competencies of old age.

When old people are asked about the behaviors of society towards them, two thirds agree that other people are fair or bad (IMERSO, 2008). When they are asked about who should have the responsibility for taking care of older people, having the possibility to choose between alternative answers ("the State", "the family", "individuals"), a great number of them say "the State", more often than they choose "the family" or "the individual" (Díez Nicolás, 1997). Two conclusions came from this position that we would consider as passive: 1) there is a need for a better consciousness of the individual, across the lifespan, about the importance of his acts for the future, which entails the election of specific channels of action that open the way to active aging; and 2) a higher belligerence against social perceptions of old age – a passive person in the arms of an extremely protective and paternalistic State – which are associated with discrimination that inhibits individuals from being an active agent (according to his optimized capacities) and responsible for much across the lifespan.

D. Limitations of aging and old age

1. *Negative stereotypes and self-stereotypes about the aging process*

The study of stereotypes or images about old age and the process of aging, as well as the preconceptions and discriminations based on chronological age has received little attention in Spain, in comparison with other countries and scientific contexts (this is true in comparison with other types of negative images and preconceptions as those related to race or gender). According to data from Lilly Foundation[5], when we do a search using words like "stereotypes, old age", it is possible to find 39 references, 3 of them being related to the process of getting older, which is not the case when the same search is done on the basis of international data: at the same time as the previous search for references, we found 26.000 references in Google Scholar, 2.499 in Psychlit, and 1.386 in PubMed.

The minor importance that aging seems to have for researchers in Spain becomes more evident if we consider that the Second Plan for Action on Aging (United Nations, 2002) establishes in its Priority Directive no. 3 the combat against stereotypes and negative images about getting older and aging as an objective to promote healthy environments as people get older. Also, the World Health Organization (WHO, 1989, 2002) highlights the importance of promoting non-ageist images among health professionals and formal and informal careers of old persons, in order to avoid these images helping to maintain the idea of pathology associated with old age. In fact, these preconceptions can become self-fulfilling prophecies, which may affect even in subtle ways the quality of life of the old persons who are being supervised by or living in institutions for seniors.

Stereotypes are simplified images about a specific social group, being strongly stabilized and serving as the basis for *preconceptions* and *discriminations* towards that group. In recent works, it has been found that the content of stereotypes related to some social groups is linked

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[5] (www.fundacionlilly.com/nitro/foundation/templates/medes-earch.isp?page=30100).

with prejudiced emotions and trends towards action, most of them with discriminatory meanings. For this reason, it is necessary to know the stereotypes about the group of older people, because these misconceptions can serve to promote prejudice and discrimination based on age, or "ageism".

Although these social images and perceptions can have positive information about the group they are refer to, the study of stereotypes – generally linked to prejudice and attitudes towards stigmatized groups – tends to emphasize their negative aspects. In other words, when we talk about stereotypes we have a tendency to refer to them as *negative images* which are based on wrong beliefs about the social group under consideration and these negative ideas seems to be common across countries and cultures (Cuddy, Norton & Kiske, 2005). Nevertheless, more recent research has been shown several times that stereotypes have an ambivalent character, because they include positive and negative dimensions and are also based on ambivalent preconceptions. The latter continue to be pernicious and can be even more insidious because they can mask pejorative and disrespect attitudes under paternalist and benevolent appearances, forming the basis for more or less subtle discriminative and exclusion behaviors.

On the other hand, prejudice is seen either in the cognitive dimension of stereotypes or in the affective side of the attitude (also being largely shared by individuals in a given culture) and is expressed through the discrimination against a target social group; in our case, all of this would imply "ageism" because age is the basis for the stereotyping, prejudice and discrimination processes. Ageism basically involves the behaviors which denote a non-egalitarian treatment of elements of a specific age group because they belong to that particular group, and is also understood as a process of stereotyping and discrimination against older person because of their age. In other words, while a stereotype has a cognitive (distorted) and an affective (negative) component, ageism has objective indicators that exist in society and its citizens. Discrimination can be exercised at distinct levels: at the interpersonal level it can be expressed via the above mentioned non-egalitarian behaviors towards the members of the group in interaction with them; the institutional level

is expressed through norms that relegate the individual and the group to a disadvantaged position in a specific society; finally, at the extreme point, at the social level, it is possible to find signs of social exclusion, abuse and exploitation, which has been the subject of analysis in other parts of this white paper.

2. Stereotypes about older people in Spain

In different research studies developed in Spain and in other countries the undeniable presence of stereotypes and negative images related to old age has been detected (for a revision, please see Nelson, 2004; Palmore, 1999; Fernández-Ballesteros, 1992). These images seems to be present not only in the general population and/or in the young generation, but also in older people and, particularly, in those persons who take care of them (caregivers). The study conducted about social images and valuation of old age (IMERSO/UAM, 1992) showed that more than 60% of the Spanish population considered that "after 65 years of age a strong decline in health conditions occurs", that "the majority of old people of 65 years old have incapacities that force them to depend on others", that "old people have a deterioration of their memory", that "they are rigid and inflexible", that "they are less active", that "they are similar to children, that "their deficiencies got worse with age" and that "they are irritable"; for more than 50% of the population old persons of 65 years old "are senile", "worse at work" and "solve their problems in a less effective way than younger people".

When results are analyzed trying to find interindividual differences associated with socio-demographic variables as age, sex and education, there are no significant differences in data. Nevertheless, more educated people tend to have less stereotyped images than persons with lower levels of education.

As is possible to observe in figure 8, such negative images have been decreasing in recent years, and despite the fact that they are still a reality, the policies that have been produced tend to foster a more positive vision

of old people in society, and these political decisions should continue to be implemented.
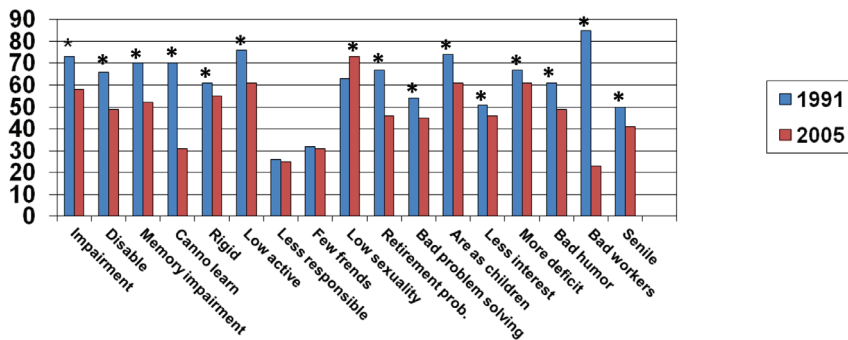
*Significant differences, p<.05

Figure 8: Stereotypes about older adults in Spain and related percentages (Fernández-Ballesteros, 1991, 2005).

In this context the most important thing may be the fact that old people are not exempt from this negative vision and this group of older individuals are also carriers of negative images about the aging process in general, and about their own age group.

From a qualitative perspective, research concerning the perceptions about older people (IMERSO/CIMOP, 2002) stressed the relevance of the common dimension of active/passive when it comes to describe older persons, showing also that in this space a "rejuvenation" of old people has been produced. Considering the use of terms such as aging and old age, it is possible to find a contrasted image, the former being associated with a process full of expectations and vitality, and the latter based on an irreversible and highly negative state. The utilization of the concept aging instead of old age is a step forward in the creation of more dynamic social and cultural images of older people.

It is important to emphasize that each image about aging and old age of a group of old people should present enough differentiation between cultural stereotypes (those which old people perceive in the population), group stereotypes (the image that an old person has about the old persons group) and the self-image that the individual has about himself as an old

person. Considering these aspects it seems that old people perceive this cultural negative stereotype and have a negative image of their own age group instead of valuing their own image positively (Fernández-Ballesteros, Huici, Bustillos et al., 2007). It is important because the identification with one's own group seems to be a necessary condition to fight against discrimination (in any social group), and it should be taken into account when it comes to conceiving active anti-ageism policies.

Sociological approaches tend to use opposite adjectives which imply a overgeneralization of negative conditions related to old age, such as "dependent", "illness" and "sad", adding the condition of "idle", because the group of older people is defined precisely by their condition of being in retirement. These objectives usually applied to better describe older people tend to create an idea of generalization about the conditions that occur in old age (figure 9), but they do not appear among the majority of elders. As we know, about 33% of old people of 65 years old are in a situation of some kind of dependency, only 12.3% perceive their health condition as bad or really bad, and only 12.3% agree that they feel sad (Imerso, 2008, 2010). And because leisure programs have been largely publicized among older people and in the wider social context, the resulting image is that they are "idle", without taking into account the unpaid work that they do. In this line, several studies, like that one of Elea (Imerso, 2006), have highlighted that 100% of aged women and 99.8% of aged men do productive but unpaid work with an average of 6.9 hours a day (7.68 hours for women and 4.7 hours for men). If we compare these data to the total of the general population and give a monetary value to these hours, we will find that older people's contributions to the GDP will be about 106 million euros.

Because research methodology is essential for all scientific studies, it assumes a particular role when the object of study is related to images (imagery).
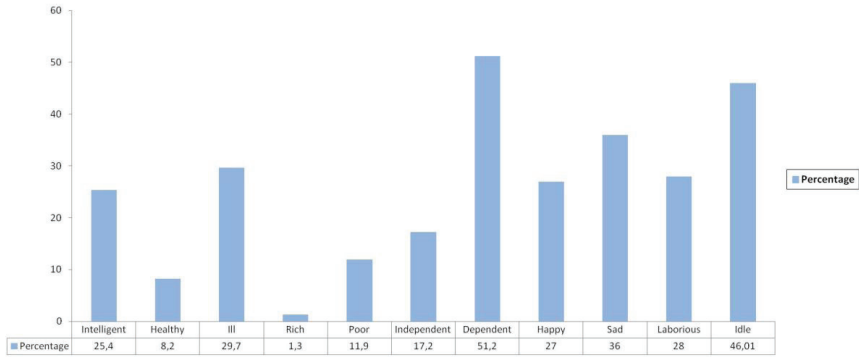
Figure 9: Verbal labels attributed to older adults in Spain (1st, 2nd and 3rd elections).

The results about stereotypes and attitudes related to older persons can be explained from different perspectives; the representation of old people produces mixed feelings, i.e., presents two faces (see: Cuddy, Norton and Fiske, 2005). In this sense, in contrast with an image of dependence, illness and incompetence, there is another related to wisdom, good advice, and experience. This dual vision can be useful to explain socially ambivalent behaviors: although a positive and merciful vision can lead to the development of programs of attention and protection, the other position leads to social exclusion and to discrimination. Also, this polarized vision can be partially dependent on the method used. The employment of bipolar adjectives on an evaluative scale may generate a more negative vision (more consentaneous with popular beliefs) than the use of evaluative statements with high social desirability.

Anyway, more research is needed to better understand not also the image that Spanish society has about aged people but mainly which are their behavioral effects and other actions (legislative, sanitarian, social, etc.).

3. The effects of stereotypes

The *effects* of stereotypes are several in type and have large repercussions on the individual that is getting older, over all the social groups

implicated and over society globally considered. A synthesis of the potential effects can be made as follows:

a) On the individual

a) A first effect is related to the fact that the individual tends to adjust himself to the stereotyped expectations, as if the image was converted into a "*sell-fulfilling prophecy*". This theoretical assumption that has scientific corroboration shows that an internalization of the image that reigns in a specific social context is produced in the individual, and it turns into a *stereotype threat* because in particular situations, the elements of the group tend to exhibit behaviors and performances in accordance with what is expected. In the Enreve study (Imerso, 2006) it was observed that if distinct information was given to different groups of aged people, either positive or negative, related to the prototypical performance in a specific domain, these persons tended to act according to the information that they received; in fact, if they were given positive information concerning performance, they executed the task significantly better than if they received negative information (Fernández-Ballesteros, Huici, Bustillos, et al., 2008).

b) Social stereotypes seem to act in the long term at the individual level. The images that people receive across the lifecycle tend to be converted into self-stereotypes (individual perception about own aging process). This kind of internalization of stereotypes seems to constitute the basis of the negative images that individuals have about their own aging process, as was stressed by Levy and colleagues (2002) in their longitudinal study. "*Self-stereotypes*" can predict mortality and bad health conditions (in the case of negative stereotypes) or can be a good predictor of survival and good health conditions (in the case of positive stereotypes). People with positive images of their aging process live seven more years than people with negative images about own aging process. Despite the extraordinary importance of these results, it is important to take into account that individuals do not only act according

to the social images that they receive across the lifespan, but they are also sensitive to their own situation. In fact, when people talk about their own aging process, they tend to base their judgments not only on social images around them, but also on what they observe in other people and in their self-evaluations.

c) Social negative images about aged persons tend to exert an important role in the *depreciation of their own group* and in the overvaluation of other groups. As is easily observed, aged people themselves tend to overvalue the "youth" and pretend to adopt their own characteristics as if they were a positive compendium of what is desired; in short, elders tend to use the category "youth" to define themselves according to characteristics that are not exclusive of that classification. So, for example, when they say "I feel young", they are mentioning not only age but also positive characteristics as being "healthy", "active", "happy", etc.

d) Negative images about age also lead aged people to *a reduction in their identification with their own group*, and for them "older persons" or the "elderly" are the "others" (members of the group). This is important because in other social groups that also suffer from discrimination (for example: women *versus* men, black people *versus* white people), the identification with one's own group under discrimination is a necessary condition for the group to assume collective actions against discrimination and unequal treatment.

In the previously mentioned Project Enreve, the conclusions were the following:

1) *The independence of social aspects of the stereotype of aged people from their personal vision about aging process*. Although older people are aware of the negativity with which society tends to evaluate them (because a great number of negative features are mentioned), it does not seem to influence their evaluation and their performance when this stereotype is activated. In return, a stronger identification with the group

is related to an increase in positive stereotypes about that group and to a more positive perception of the aging process.

2) *The vocabulary* which is used to describe the group of "aged" people ("old", "elder", etc.) seems to have a crucial role both in older persons and in their caregivers. Concerning the automatic activation of stereotype, it produces effects at the behavioral level and the interactions with persons of this age group are conditioned. So, in the evaluation of a person belonging to this age group, after exposure to the word "old", individuals with more prejudices describe that person as more "blundering", "slow", and less "wise" or "experienced". The aged person that receives the label "old" performs the task more slowly and tends to perceive all the people that belong to the same category as slower and more blundering. On the contrary, the activation of the more neutral label "aged" acts neither on motor nor evaluation terms. So, we contrast both the importance of denomination vocabulary and the neutrality of the attribute currently used for the designation of this social group.

3) *The effect of the threat of the stereotype* appears clearly: when explicit negative information is given to aged people during the execution of a memory task, they tend to have a worse performance in that task. This effect of activation of a previous scheme is congruent with the stereotyped vision of aged people in Spain. An important result is the protective effect for the older group of the perception of their own aging process and their identification with the group of aged people, which tends to moderate the threat of stereotype and prevent its influence in their memory performance.

b) In the group of caregivers

Research is consistent in the finding that attitudes and stereotypes of groups of professionals (physicians, occupational therapists, social workers, psychologists, etc.) that work with aged persons are more negative than those of the general population. Authors refer to two mechanisms as generators of stereotypes and negative attitudes in professionals: 1) A

cognitive mechanism through which a generalization is produced from the individuals that are in contact with the professional to the rest of the members of the group, because there is very little training about basic processes of aging. 2) The second mechanism is related to the stress caused by the overburdening work that is done by professionals and on professionals in contact with aged persons with high levels of physical and cognitive deterioration; this mechanism has its basis in the principle of classic conditioning, because age can be considered a conditioned stimuli – associated with other unconditioned stimuli such as suffering, pain and death.

The Project ENREVE mentioned above brought some contributions to increase the evaluations and interactions between health professionals and aged persons, leaving suggestions as to how both parties can be involved. In the first place, although the group of professionals did not show great levels of prejudice towards old people as a collective, it was observed that, as there was an accumulation of negative beliefs about the age group, the automatic behavior and their evaluation of the group were greatly affected. On the other hand, in relation to the use of labels, it was found that when the category "aged" was activated it was not related to a worse evaluation, nor with a modification of automatic behavior. As a consequence, the use of "neutral" labels would be desirable, eliminating as much as possible the utilization of words related to the more negative aspect of stereotype ("old", "elder", "grandfather").

c) In the vast social context

Until now we have been examining how social images can be considered as a *social limitation* to a satisfactory aging process and we have discussed how these images could act as potential threats to active aging. Also, we stressed that this can culminate in prejudicial behaviors which lead to discrimination according to age, and it is possible to find signs of these processes in multiple spheres of social life, in the professional domain, in sanitarian systems of protection and also in specific medical treatments (concerning the regulated utilization of extraordinary treatments, or in the use of sanitarian protocols, or also in the development

of clinical trials with medical drugs for aged people). A detailed study of legislation and its practical application is needed at distinct administrative levels and in distinct spheres of daily life. We can conclude by saying that, at a descriptive level, the vision of the Spanish population about aged persons is mainly negative – although it has undergone an improvement in the last fifteen years – and mainly it is not adjusted to the reality of this age group. Because of that aged people perceive a negative vision from society and they also do not identify strongly with that group, which could be preventing a greater awareness of this social discrimination that we have been talking about. Also, the negative stereotypes act in the same direction over the group of aged persons (worse performance, greater slowness) and the group of caregivers who, generally speaking, exert a negative influence precisely over those dependent groups who are more vulnerable to this limitation.

On the opposite side of the negative images related to aging process, old age and aged persons, ageism and discrimination according to age, we find the prominence that international organizations have been giving to their elimination. In the Second International Plan of Action on Aging (United Nations, 2002) and in the document "Active Aging" (World Health Organization, 2002) an emphasis is made not only on the fight against stereotypes but also on the need for empowerment of old persons, because of their contributions to society. This could be considered a pending social policy that should be developed.

All of these should be studied more comprehensively through a rigorous analysis of social discrimination based on age (legislation, legal documents from different services and contexts of intervention, etc.), and also by creating a Permanent Observatory which should scrutinize potential discriminatory conditions and their adequate resolution.

Conclusions and recommendations

1) The promotion of individual and social development across the lifecycle through actions such as:

a) Offering and encouraging the development of adaptive behaviors and healthy lifestyles in order to optimize individual and social capacities.

b) Promoting measures and programs to encourage personal development of the individual, including his cooperative, group and communitarian capacities, as well as the bio-psycho-social development of personality, through the familial, communitarian, education and training systems.

c) Recognizing and to capitalizing on the experience and knowledge of aged people in order to enhance their wellbeing and quality of life, highlighting and disseminating the productivity of older persons in their multiple "unpaid" services and contributions (in the family, the community, the society).

2) Establishing procedures of follow-up and control of ageist images and of actions of discrimination against aged people, mainly in the spheres that affect them most, like health facilities and social services, as well as in the media and publicity because of their social transcendence.

a) Promoting actions to encourage healthy aging based on the assumption that **the individual with his vital trajectory and his personal attitudes is the main agent in his own process of aging, which is a process that occurs across the lifecycle and begins in infancy**.

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THE MEANING OF LIFE AND CONSCIOUS AGING: EDUCATING THROUGH THE PERSPECTIVE OF THE END

Daniel Serrão[6]

Abstract

In this chapter a broad analysis of the concept of meaning is done, where it can be assigned to the plant and animal life; the particular case of meaning given to human life is also analysed and discussed.

From the conception of J. LeDoux, who asserts that human brain activity is synaptic, the question is raised of the human brain as that which discovers the various senses attributable to sensory perceptions, namely aesthetic, ethic and rational sense.

It is proposed that the deepest sense assigned by the brain to human life is symbolic immortality, especially religious, according to Lifton, as hope in the life of the world to come.

Finally, it is assumed that it is possible to educate for the end of the body's life time, so that it is accepted as a significant time for the person.

Keywords: Meaning; Brain-mind-self; Gerogogy; Death

Where the concept of the meaning of life is discussed.

The extreme question: 'Does life have meaning? Does it have any meaning?' has troubled philosophers since the dawn of Greek thought

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and for some, may have even been the origin of philosophy itself, as an abstract reflection exercised over the mental content we call ideas.

This question unfolds into two, which have different ranges.

The first refers to life in general as it is perceived in plants and animals, made up of living cells.

The second focuses on a specific model of life which is the life of human beings.

I am therefore stating that human life is not just life in general. It is more, it is different.

Life in general, which expresses itself in plants and animals, is studied by Biology.

Biologists do not worry at all about meaning, nor do they spend a minute of their research time asking themselves or other researchers whether life has any meaning or not.

Life is here, it happens in the universe, in physical and chemical structures. It can be studied with the method of these scientific subjects and others, like Mathematics, and out of these studies no conclusion arises that has to do with meaning.

When scientists ask a question in the scope of Biology, what they wish to find is a causal relationship between a biological fact and another biological fact. For example, asking if the pH of the cellular micro--environment limits the cellular membrane permeability in relation to calcium ions, places us in the field of chemistry-physics, in specific facts, and the answer is yes or no; and neither answer will assign any meaning to the permeability of the cell membrane.

I conclude that biological life that expresses itself in plants and animals has no meaning; nor does it need any.

Of course a more attentive and shrewd listener (and reader) will already be thinking: it is easy to exclude meaning from biological life if you do not explain the 'meaning' you assign to the word 'meaning'.

And they are right. But the question of the meaning assigned to the word 'meaning' is only meaningful when it is thought by human intelligence.

In other words, assigning meaning is a specific activity of the reflective intelligence of modern man. Exercised freely.

Because only intelligent human beings have the capacity to assign a meaning to sensitive and sensory perceptions; because only they have the neuronal structures through which the assignment of meaning to perceptions can be biologically processed.

Assigning meaning is an activity of the human brain; it is a mental capacity.

We know that such activity developed slowly in time, keeping up with the evolution of individuals of the *Homo* species. One may state that when *Homo* developed this mental capacity fully, he then earned the designation *sapiens*.

Sapiens assigns a meaning to perceptions and this meaning conditions strategic decisions, forever oriented towards the survival of each individual and, indirectly, the species.

It seems, to neurobiologists of the likes of Joseph LeDoux (2002), that the assignment of the meaning of fear of certain perceptions creates the neuronal networks that will coordinate behaviour adapted to individual survival, particularly immediate flight or fight.

In modern man, which is what concerns us here, there are three levels of assignment of meaning to perceptions, each of which is anchored in cellular areas, neuronal networks and specific chemical neuromediators – the neuropeptides.

The first level is the assignment of an aesthetic meaning, pleasant or unpleasant. It is what human beings exhibit upon birth and during the first years of life. This aesthetic meaning determines their choices and their actions.

The second meaning assigned by human beings to perception is ethical meaning: the meaning of good and bad for the subject, of positive or negative, of acceptable or unacceptable by the individual subject.

These two capacities of the subject as a cognitive agent are exercised by what we call, in general, the limbic and amygdaline system, suprathalamic.

Damásio and other neurobiologists consider that the assignment of an aesthetic and ethical meaning to perceptions – visual, auditory, tactile,

taste and olfactory – points to the cerebral capacity that Goleman (2000) designates emotional intelligence.

Nevertheless, let me state that these two meanings do not have to be congruent. Let me give you an example.

When I encounter a bee, I acknowledge that aesthetically it is a beautiful living object but ethically it represents bad to me and I either kill it or run from it.

It has been stated – and with a good basis so it seems – that more than half (some mention 80%) of our decisions are motivated by the aesthetic and ethical meanings assigned by our emotional intelligence to the world around us, which enters us through our sensory organs – the organs that lead to the assignment of meanings – and record them, as senses, in our working memory.

The third level is the rational.

By entering this third level we are reaching the highest level, which includes rational pondering of perceptions and the use of the logical capacity of thought.

Rationalizing perceptions to decide behaviours is a function that depends on the brain in its entirety, but it is commanded by the so-called executive brain which is the supraorbital prefrontal cortex. This cerebral area, which in *Homo* represents the largest number of neurons in the beings of the Primate class, receives inputs from all cerebral areas and is connected in a network to the most important territories for the motor and other responses.

Everything happens as if Man knew that he knows he can use the perceptions and memories of the aesthetic and ethical meanings to assign them a rational meaning and integrate them into what Damásio (2000) designates as the autobiographical Self.

When he reaches this threshold, *Homo* is now *sapiens*; *sapiens* is he who knows he knows.

And it is this *sapiens*, the *sapiens* who will invent the question of meaning in his own life as a human being conscious of himself, in other words, self-conscious.

Self-consciousness as an inner and autonomous virtual space within each of us, does not have, up to this moment, any neurobiological expla-

nation. Joseph LeDoux (2002) called his book *Synaptic Self* but concludes that "the self is so fragile an entity it is disconcerting".

It is in fact disconcerting to understand how the electrical-chemical activities of the various areas of the brain, active or at rest, make each one of us what we in fact are in our self-consciousness.

But it is this self-conscious Self that asks about the meaning of living of humans, these living beings that are in the world, like all others, who know a world and live in it, but who also know themselves and are and live in the world, with a memory of the past already lived and the capacity to imagine the future to be lived.

The meaning that intelligence seeks is not only for the present, it is also for the past, and in an extreme way, for the future.

Who am I, where do I come from and where am I going: these are the questions for which Man's intelligence has forever sought answers that will, as a whole, comprise the meaning of human life.

What meaning(s) does human life have?

Throughout historical times, many meanings have been proposed for human life. All of them have a common bearing – the meaning, as to its origin, is sought in nature, and as to its end, in the supernatural.

It is so in the most significant myth of human history, which is the Hebrew narrative described in Genesis; this description appears with the invention of writing but was, surely, an oral narrative passed on from generation to generation for many thousands of years. In the current human tribes that have not yet ascended to writing, researchers find mythical narratives on the origin of the world and the origin of Man from nature, be it nature represented by Mother Earth, be it living nature – animal, as a rule. Now, regarding the meaning of the end of human life, the oral and later written myths of peoples with whom the 'civilized' ones presently contact, like the Indians from Northeast Canada, all draw on a supernatural life (Abram, 1996).

The assignment of meaning to human life is not, of course, an individual decision. It is a collective proposal that is embedded in dialogue that feeds the socialization of peoples and which ends up being the main motivation for social cohesion, from the most primitive of societies.

The content of the myths that assign meaning to the living of humans is, in its specific expression, very varied; but as I mentioned, it always binds human beings to nature.

Therefore, the main meaning of the living of humans is that they are part of nature, being bound to it in order to survive.

As natural beings, we must comply with the natural programme: we are born, we grow, we reproduce (or not) and we die.

The death of each one is part of the meaning of our life, as living objects in the natural world.

It is not a personal tragedy.

It is not an unpredictable surprise.

It is not a vengeance of the gods.

Dying is as natural as living is natural.

The life cycle of men is like that of plants and other animals – they are all born, they all live, they all die.

That being so, the first topic for pedagogy on dying is this – dying is as natural as living.

Living is not avoided, as dying is not avoided.

Just like living is socialized, so too has dying always been socialized.

Even though in modern and developed societies the dying of people is already considered by the other members of society, and even the very family members, an individual and natural event, rituals still persist that accompany the process of dying to the end; and after the end, in various forms, from inhumation to cremation.

As I usually say, death does not exist; you and I exist, who will die.

The issue before us now, since we have already accepted dying as a natural event, is to know whether there is a meaning for the dying of humans.

I will answer, first, on a biological level.

Yes, there is a biological meaning for the death of humans. If they do not die as individual beings, the fate of the human species would be of

mass extinction by food shortage (as has probably already happened with many other species); even with great progress in agricultural production, planet Earth has the capacity to hold a finite number of individuals of the human species; without natural death, the number would be infinite and the species would extinguish itself when not even violent massacres would allow the temporary survival of the species.

And at the specifically human and personal level, can individual dying have any meaning?

At a conference in the Academy of Sciences in 1993, among other thoughts, I wrote the statements I will comment on next. I quote from the text:

"With the death of each man, a specific cultural universe comes to an end, more or less rich but always original and unrepeatable. What a man leaves behind upon death – his writings, the cultural objects he created, the memory of his word, of his gestures or of his smile for the ones who lived with him, the children he generated – everything expresses a reality that is beyond the physical body, a certain physical body, that that man used to live his limited personal time to be a man" (Serrão, 2010, p. 283).

What I mean to say in this excerpt of a longer text is that the meaning of human life is immortality.

As beings that create culture, which is expressed in the modifications that human intelligence produces in nature, be it a chiselled flint or a Manhattan skyscraper, humans invent meanings for natural objects by transforming them into significant cultural objects. These cultural objects remain tied to their inventor and creator, ensuring him temporal immortality, if they are not perishable.

This immortality is, of course, a symbolic immortality – one of literary and artistic creation in general.

Our world is full of objects of symbolic immortality. Leonardo da Vinci is symbolically alive in the beautiful *Gioconda*, Camões lives in *Os Lusíadas*, Rodin in *The Thinker*, Shakespeare in *King Lear*, and thousands and thousands of creators are alive in other cultures, well outside this western culture where the four I mentioned, from among thousands and thousands, lived and became immortal.

Lifton, one of the creators of this concept of symbolic immortality, acknowledges other forms besides this one. For example, the biological, represented by the generation of children, and transcendental meditation, in which one attempts to live outside the strict bond to the specific world, how life is imagined after the corporal death; and he particularly highlighted the religious form which, for example, in the Hebrew tradition and later in the Christian religion, is an agreement or alliance made with Yahweh and renewed with Jesus of Nazareth.

This contract, if regarded and thought of as a form of symbolic immortality, places in everyone's joyful life, in the world, the assurance of immortality. Moses said, 'do these ten good things and Yahweh shall be with you for all eternity'. And Jesus of Nazareth was very clear, 'love one another and you shall have eternal life'.

If we accept, as I do, that the meaning of life is personal immortality, we can state that the whole process of living is one of hope for that immortality, which will have to be built, day after day, and must be present even on the last day. Many millions of people throughout the World repeat that 'they await the life of the world to come' (last sentence of the catholic Creed). It is not a position of faith; it is a declaration of hope.

Educating for hope in symbolic immortality in any of its forms is educating through the perspective of the end, which will be an end for the body but permanence for the spirit and its works created within the span of life.

A Chilean psychiatrist, Fernando Lolas Stepke (1993, cit. by Stepke & Drumond, 2007) proposes the neologism *gerogogy* to characterize "a process of education towards old-age, which anticipates the predictable changes and allows the maintenance of the capacity to respond to them. Gerogogy is also a negative learning since, in a way, contrary to pedagogy, it comprises unwinding what has been wound and preparing to not be. Death, as an *exitus* could thus be arranged in a continuum, and we would need to perfect gerogogy towards a *tanatogerogogy*: educating for death in old-age" (p. 88).

The need for this pedagogy for death is the result not only of the growth of a post-modern culture, in which nothing has value and noth-

ing has meaning, but of the undeniable fact that the process of dying is no longer an event experienced and accompanied within the family environment, having become banal in hospital routines.

In a doctoral thesis made by the Chaplain of the São João Hospital, in Porto, Father José Nuno Ferreira da Silva (2012), this predominance of the process of dying in hospital is widely demonstrated. And his proposal is this, fully supported by anthropological and philosophical arguments: because the hospital, where people die, is not prepared to be a good place to die, this flaw must be corrected, by creating in it the structural, physical and human conditions, so that hospitals are good at treating patients and equally good at making the dying process dignified; in other words, so that living is dignified and good up to the moment of death.

The process of dying is a time that can be grandiose and happy for people, especially the elderly if they have absorbed a good tanatogero-gogy. In other words, if they are sure they have not lived in vain and that much of what they did was good and will remain for a very long time in the memory of others.

Nowadays, it is possible for people who know they are in the process of dying – a few short months, some weeks – to be helped by well-pre-pared professionals, to build their symbolic immortality in an active and committed way. This type of tanatogerogogy, learning of a good life up to the end, is being practised in some palliative care units. For example, I witnessed all the enthusiasm and work in the preparation of a religious wedding that the lady in the process of dying wanted to have with her companion, the father of her children. I had no doubt that it was a form of symbolic immortality built one week before her body stopped living.

1. While having no intention of writing a didactic text, I tried to pre-sent elements that, through the diversity of the situations and cultures, will permit the construction of a process of education towards a good and peaceful experience of the dying process.

There is no meaning in speaking of the dignity of death.

But there is a lot of meaning in speaking of the dignity of life, of the whole human life, from conception until death.

Each one lives their process of living until dying as one more component of their past biography. And life lived in the process of dying is, for many, the recapitulation of the most striking aspects of their biography: I remember an old man, living the final stage of a neoplasia, who told me everything he had done in Angola for over forty years, with such perfect memory I was amazed, given the state of cancerous cachexia he was in. But it was a way of creating a form of symbolic immortality and dying, a few days later, in peace.

Educating through the perspective of the end will have to be done by those who have the experience of accompanying people in the process of dying and who fully know the grandeur and spiritual force that manifest themselves very often during this time.

Not doctors, nor nurses, nor social workers, nor volunteers, nor family members.

They might have such professions.

But in this intervention, with those who are in the process of dying, they will only be carers.

Caring for another, who is going to die, is work of the highest dignity that demands the possession of the greatest human virtues, without which the carer will not attain the primordial end – which is that of generating inner peace within those who are going to die.

I will leave you with the main ones to close this presentation and as a challenge to the applicants for carers of old-age and terminally-ill patients: compassion, prudence, courage, moderation, integrity and altruism; also competence and humility.

With these personal virtues, the carer can carry out an education through the perspective of the end, as from any age, to any person.

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WHO IS A DISADVANTAGED SENIOR IN EUROPE? MAIN IDENTIFIERS FOR ASSESSING EFFICACY FOR SELF-DIRECTED LEARNING OF THE AGED AND AT-RISK

George K. Zarifis[7]

Abstract

This chapter studies the conditions that define seniors in Europe as disadvantaged. Although the term "disadvantaged" is case-specific (referring to those in a disadvantaged, needy or deprived state or position) it is necessary to approach it within a specific context (such as social, economic, cultural, educational or medical). In general terms it refers to a particular group of people with inadequate learning resources due to limited or restricted access to learning provision, people who are unemployed, education dropouts or non-participants in learning such as migrants, unskilled or low skilled seniors, people with disabilities (mental or physical), those who have taken early retirement and third-age learners (50+). The main argument of the chapter with regard to disadvantaged seniors in Europe is that their drawback is highly related to the inability to access education and learning because they are either not informed or unaware of educational opportunities, or because existing educational opportunities are not appropriate to this particular group of people. Furthermore, seniors may be unable to participate in learning because they do not consider it as important or because they think it is irrelevant to their development. Reflecting on existing theory and relevant research evidence, the chapter concludes that it is of critical importance in addressing these conditions to assess how disadvantaged seniors may be enabled or empowered towards self-directed learning in order to make their way in and actively take part in a productive way of life.

Keywords: Disadvantage senior; Identifiers; Self-efficacy; Self-directed learning

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Introduction: changing demography and aging in Europe

Europe is an aging society. The aged population (50+) in Europe is increasing rapidly. Why this is happening is definitely an issue of demographic change; yet the numbers according to Eurostat (see Boateng, 2009) are indicative of a steadily growing condition. For example the proportion of the population aged 50-64 years in all 27 EU member states, grew from 16.8% in 1998 to 18.6% in 2008. Similarly the population aged 65-79 years grew from 11.9% in 1998 to 12.7% in 2008, and the proportion of the population aged over 80 years grew from 3.4% in 1998 to 4.3% in 2008. In 2006, there were around 83 million elderly people aged 65 and over in the EU-27, compared with 38 million in 1960. Today there is one elderly person for every four people of working age (15-64). By 2060, the ratio is expected to be one elderly for every two people of working age. The proportion of very old people (aged 80 and more) is expected to triple in the EU-27, from 4% in 2007 to over 12% in 2060. Low fertility levels, extended longevity and baby-boomers' aging mean that the EU-27 population is aging. As Doblehammer and Ziegler (2006) point out, these tremendous changes in the population structure will have far-reaching consequences for society as a whole. It has repeatedly been pointed out that the increasing share of an elderly population may result in a raised demand for care, particularly if the health status of the elderly remains unchanged or even worsens as has already happened in many EU members states today due to the socio-economic crisis. On the other hand, the supply of private care may diminish in the coming decades due to changes in the family structure, brought about by the second demographic transition.

Based on this observation what we need is to strengthen education and participation in learning which may prove crucial especially for those older adults who have no or little participation in it. For Withnall (2000, p. 94, cited in Glendenning, 2001, p. 69), we need to understand the basis on which older people make choices about undertaking learning in both formal and informal contexts in a changing world, to identify what constitutes a successful learning experience and to assess what learning

means in the context of their own lives. The very heterogeneity of the post-work population further suggests that it is necessary to use their experiences as learners to understand the influence of different events and beliefs over the life course. This becomes more of an imperative if we consider that among the older adult population there is a proportion (yet unidentified) that is highly marginalized or even deprived of learning and education. Glendenning (2001) suggests that the development and testing of a conceptual model of the reasons for participation, pathways through and outcomes from undertaking different types of learning activity in the post-work period of life (50+), might enlighten our knowledge of how learning and participation in learning and education operates for this age group, but also it will give us the opportunity to move towards a refinement of theory in lifelong learning which is inclusive of learning in later life. As he puts it: *This is a long way further ahead than the simplistic mantra of 20 years ago that 'lifelong learning means what it says'* (Glendenning, 2001, p. 69).

In this chapter, I examine the varied conditions or identifiers that define a large number of senior citizens in Europe as disadvantaged. These conditions do not directly relate only to the crumbling economy or the dysfunctions of the social security system. It is important at the outset to note that the term "disadvantaged" is case-specific (referring to those in a disadvantaged, needy or deprived state or position) and it therefore needs to be approached within a specific context (social, economic as well as cultural, educational or even medical). In general terms "disadvantaged" refers, in the European social policy context (European Commission, 2007), to a particular group of people with inadequate learning resources due to limited or restricted access to learning provision (ibid. p. 87). In the senior citizen context it also refers to elderly people who are unemployed, education dropouts or non-participants in learning such as aged migrants, unskilled or low-skilled seniors, elderly people with disabilities (mental or physical), seniors who have taken early retirement and third age learners. The main argument of the chapter is that despite the dire economic conditions in many parts of Europe – albeit in many cases because of these conditions – there is an inability to access

education because senior citizens are either not informed or they are unaware of educational opportunities, or because existing educational opportunities are not appropriate to their particular age group. Based on existing theory and research evidence that illustrates how a large number of seniors may be unable to participate in learning because they do not consider it as important, or because they think it is irrelevant to their development (see Bettio et al., 2012), the chapter concludes that it is of critical importance in addressing these conditions to assess how disadvantaged senior citizens in Europe may be enabled or empowered towards self-directed learning in order to make their way in and actively take part in a productive way to life.

Identifying underprivileged older adults: a brief theoretical background to aging and its effects in participation in education and learning

The majority of the literature on older adult learning tends to focus on the chronological definition of aging. Elliott (2000, p. 209, cited in Bunyan & Jordan, 2005, p. 279) suggests that this limited theory of aging can cause us to generalise and make assumptions about older people. Most of the time we tend to categorise older people in those social groups that are considered to be marginal or disadvantaged, without considering that many older adults tend to explore learning opportunities more than younger people do. The reasons may be different than the younger population, but nonetheless they are active in this part of their lives. This however cannot be representative for all older adults. The research showed that older people are involved in learning for a variety of reasons and their motivations for engaging in learning are diverse. For instance, some are learning for pleasure or as a hobby or interest in retirement, some are learning to enhance or change their careers, and some want to fulfil life-long ambitions and seize the opportunities that they were denied earlier in life. However, the research also observes the diversity in the types of learning activities they engage in and their motivation for engaging

in those programmes. Jamieson et al. (1998, p. 226, cited in Bunyan & Jordan, 2005, p. 279) recommend that research into the significance and meanings of educational activities at different stages of life is a more appropriate means of approaching education for older adults. Withnall (2000) illustrates that the emphasis on lifelong learning at national and international level suggests that the time is ripe to launch a new debate about purpose in the provision of educational opportunities for older people. What older people, one may ask? Are they all in a disadvantaged position as to have little or no access to organized learning activities? Does "educational opportunities" refer to such forms of organized learning activities that serve a purpose other than that served by organized learning activities addressed to other social or age groups?

In the literature there is evidence that older people, particularly older women, often engage in learning for pleasure or self-esteem rather than for economic reasons as one would expect from younger adults (Scala, 1996, p. 765, cited in Bunyan & Jordan, 2005, p. 268). This may lead educational providers and policy-makers to question why they should fund educational initiatives for older adults if they do not yield economic returns through the workforce. But besides the immediate literary evidence, there are also a number of moral arguments to support the development of education for older adults. According to Bunyan and Jordan (2005), education, like health, is a public good and educational distribution must be to everyone's advantage and accessible to all. Education can improve quality of life for older people, many of whom have been disadvantaged through no fault of their own. Education is concerned with combating social exclusion and providing the means to actively participate in the cultural life of the community (Elmore, 1999, p. 13, cited in Bunyan & Jordan, 2005, p. 268).

Some authors acknowledge however that as people age, they become increasingly marginalised by society in economic, social, political and cultural terms. Mackay et al. (2001, pp. 106-107, cited in Bunyan & Jordan, 2005, p. 268) illustrate how education facilitates participation in democratic societies. This calls for major changes in our societies and not only in terms of participation in educational provision, but also in

terms of providing opportunities that will enhance participation at all levels in society. For example, *active citizenship* is linked to the ability to *access information*. This in its turn means that there are seniors who are not educated in *accessing modern mediums of communication* such as the internet. These seniors are excluded from society. Following this principle, older adults should have *equal rights* and access to education, with positive measures put in place to ensure equality of provision. Furthermore, education purely for the sake of *enjoyment* should also be encouraged in later life (see Jones, 2000, p. 340, cited in Bunyan & Jordan, 2005, p. 268). Older people – older women especially – who wish to *remain in the workforce* also need access to learning in order to be able to participate in the labour market or change their career (mainly for those below pension age).

Based on these initial principles found in the literature, but also based on the statistics and demographics in Europe it is easy to identify who is privileged and who is disadvantaged in terms of accessing education and participating in organized learning activities. Issues of gender equality, access, active citizenship, career development and career change, communication but also enjoyment of participation in learning, appear to be crucial in locating those identifiers for disadvantaged seniors that go beyond demographic statistical data. This is also stipulated by the Commission's communication "The demographic future of Europe – from challenge to opportunity" (COM [2006] 571). The Commission underlines both the positive dimension of aging, and the need to seize opportunities the European Union, and Member States have to respond to demographic change in five key areas: creating the right conditions for Europe's demographic renewal by giving more support to families and potential parents and by promoting greater *gender equality*; making full use of Europe's human resources potential, notably through *active aging*; boosting productivity and facilitating the *adaptation of the economy* to the changing needs of an aging society; receiving and *integrating migrants* into the labour market and society; and finally, safeguarding sound public finances and hence the long-term sustainability of *social protection* systems.

Disadvantaged seniors in Europe: who are they?

There are evidently two important and intertwining factors that relate to identifying seniors as being disadvantaged: *access* and *participation*. It is of relevant importance in delivering those two conditions (access as providing the opportunity and participation as strengthening or increasing the motive) that will enable or empower that part of the European population that has passed the threshold of 50 years of age, to make their way in and actively take part in a productive way to life and economy through participation in education and learning activities of all kinds.

The real picture nonetheless is completely different. According to Eurostat's "Adult Education Survey" (2007), participation rates in education and training (formal and non-formal) in all EU member states in 2007 for adults aged 55-64, is the lowest (21.6%)[8] with country differences of course. The lowest participation rates for this age-group appear in Hungary (2.5%), Greece (5.1%) and Poland (6.8%).

Needless to say, a high proportion of people at that age group and especially over 64 are largely invisible, but not statistically irrelevant, as many senior citizens in Europe either participate in informal learning activities or they simply do not participate in any education or learning activity at all, due to lack of access or other factors that are as yet unidentified. This definition is crucial as it is essentially related to the main barriers that are preventing seniors' access to education and learning in its various forms. Considering the previous work on issues of access and participation undertaken by Cross (1981), Darkenwald and Merriam (1982) and Valentine and Darkenwald (1990), this can be an important starting point to explore the obstacles that older people are facing with accessing and participating in educational and learning activities.

Cross (1981) for example has identified *situational* barriers (those linked to the person's life circumstances in a given time, for example, lack of economic resources, facing a life crisis event), *institutional* barriers

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[8] Source: Boateng, S. K. (2009). *Population and social conditions*, in Eurostat: Statistics in focus, 44/2009, p. 2.

(related to policies and the organisation of educational establishments, often discouraging participation, because of their inaccessibility, etc.) and *dispositional* barriers (associated with lack of confidence and the beliefs, attitudes, values and perspectives that create a negative vision of education and of older people as learners). Added to this set of factors, Darkenwald and Merriam (1982) mentioned informative nature barriers related to the lack of information about educational offerings. Valentine and Darkenwald (1990) added other obstacles, such as lack of interest, in general, in organised education and the lack of attractiveness of courses and offerings available.

All these barriers, and eventually others, can be strong impediments – hence depriving people of accessing learning activities – and they need to be identified in terms of the group of people under investigation, namely disadvantaged older adults, or adults 50+ who do not have access and/or do not participate in any type of activity that promotes learning. Especially for the last group, an emphasis on lifelong learning at national and international level suggests that the time is ripe to launch a new debate about purpose in the provision of educational opportunities for older people. Does the aging of populations, especially the emergence of the so-called 'Third Age', pose a challenge to popular notions of lifelong learning? The answer could be 'yes'; however, not all elderly, seniors, aged or 50+ adults may be categorized as disadvantaged (learners). Glendenning (2001) citing Tyler (1978, 1979), points out that there are two major assumptions in the policy and much of the literature relating to older adults (that are considered as disadvantaged) that must be challenged: Firstly, that all people over a given arbitrary age (60 or 65 for instance) can be lumped together and dealt with as though they were a homogeneous group; secondly, the assumption that the elderly, as a group, are in some specific way disadvantaged educationally because of the one factor of their age. If these two assumptions are challenged then the question as to whether provision for elderly people should or should not be separated from the provision for the general population becomes easier to resolve. This is because the elderly can be separated into different target groups, in exactly the same way as with the adult

population at large. It is in this respect that we need to make a clear distinction among those seniors who make that conscious decision to access and participate in learning activities and those who do not, in order to identify the ones benefiting from learning and the ones who don't and therefore may be considered disadvantaged.

Relevant areas in which the identifiers are positioned

Based on relevant areas of action in which different characteristics emerge for the specific group of people, we have identified sets of traits that directly link the particular group to a disadvantaged position that essentially needs to change through empowerment. It is essential in this respect that identifiers must relate to those conditions that impede, to some extent, seniors from accessing and participating in organized learning activities, hence leading them to a disadvantaged position. In order to locate these identifiers we need to take into account the following parameters:

1. Identifiers must be *case-sensitive* and *group relevant* and therefore cannot apply to all disadvantaged social groups.

2. Identifiers must relate to *specific traits or characteristics* (social, financial, health, educational, etc.) that refer to the specific social group under study.

3. Identifiers must refer to those seniors who *do not have access to educational or learning resources* and therefore are disadvantaged. They must not refer to those seniors who do have access to the resources, but do not consciously make the decision to participate. The main trait here is accessibility (or non-accessibility) and not participation as such.

Based on preliminary literature evidence, table 1 below presents a draft picture of where the identifiers can be located. These generic identifiers and/or their combination refer only to traits that describe those conditions (health, educational, social, living, work and economy con-

ditions) which may impede or even prohibit access and/or participation of senior adults in organized learning activities. These traits have many in common with taxonomies or classifications of "barriers" or factors that inhibit participation such as the one Cross (1981) identified (i.e., situational barriers, institutional barriers dispositional barriers) that constitute seniors as 'disadvantaged', but they also relate more directly to a specific human condition (health, social, educational financial or other) that explains why they are disadvantaged. The question now is which and how many of these "draft identifiers" can serve as a basis for developing a scale for measuring the readiness of disadvantaged seniors for self-direction. In order to support the argument of choosing certain identifiers that relate to specific conditions that constitute seniors as disadvantaged, a short analysis follows for each relevant area in the following paragraphs.

Table 1: *Relevant areas in which main identifiers of disadvantaged seniors may be located.*

RELEVANT AREA	IDENTIFIERS' EXAMPLES (for disadvantaged seniors[9])
Health related identifiers of disadvantaged seniors[10]	Seniors with **no access to health facilities**
	Seniors with **ischemic and cardiac** diseases
	Seniors with **obesity** problems
	Seniors with **dementia** (e.g. Alzheimer) and other brain diseases
	Seniors with **respiratory** problems
	Seniors with drinking problems (**alcoholism**)
	Seniors (especially women) with **osteopathy**
	Seniors with **physical disabilities**

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[9] The term "senior" refers to people (men and women) over 50 years of age.

[10] Based on the five most common diseases affecting seniors (50+) in Europe. Health is an important priority for Europeans, who expect to be protected against illness and disease at home, in the workplace and when travelling across the EU. Health issues cut across a range of topics – including consumer protection (food safety issues), workplace safety, environmental or social policies – and thus have a considerable impact on the EU's revised Lisbon strategy.

RELEVANT AREA	IDENTIFIERS' EXAMPLES (for disadvantaged seniors[9])
Learning and educational attainment related identifiers of disadvantaged seniors[11]	**Dropouts** (seniors that have never been to school or have not completed basic compulsory education)
	Unskilled seniors (who have never been trained in a profession) and **low qualified**
	Seniors with **no access to educational structures**
	Seniors who have **no access to libraries, museums or learning relevant structures**.
	Seniors with **no knowledge of the language** of the country in which they live or reside (e.g. migrants)
	Illiterate seniors (who cannot read and write)
Social and living condition-related identifiers of disadvantaged seniors	Seniors who have **no legal status** within the EU
	Seniors who **don't participate in social or political debates** (silent tax-payers)
	Seniors with **no access to administration structures** (e.g. due to their area of living, remoteness, etc.)
	Migrant or **immigrant seniors**
	Seniors with **no permanent housing facilities** (e.g. ROM)
	Seniors with **no family or relatives**
	Seniors with **no means of transport**
	Seniors in **rural or remote areas** (e.g. small islands, remote mountain areas, etc.)
	Seniors with **no access to gyms or physical activity relevant structures**
	Seniors with **no access to electricity and watering facilities**
	Seniors with **no access to radio and TV facilities**
	Seniors in **highly urbanised areas**
Employment and economy related identifiers of disadvantaged seniors	Seniors at poverty risk (mainly **unemployed**)
	Seniors with **low pension or low employment income**
	Seniors with **no steady employment**
	Seniors with **low work-performance**

1. Health-related identifiers of disadvantaged seniors[11]

Although it is more than evident that poor health can be a major barrier to participation in further education at any age, and this condition is increasingly likely among seniors (see Graney, 1980), health issues may not always be an obstacle in seniors' readiness for participation in self-

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[11] Education, vocational training and lifelong learning play a vital role in both an economic and social context. The opportunities which the EU offers its citizens for living, studying and working in other countries make a major contribution to cross-cultural understanding, personal development and the realisation of the EU's full economic potential. Each year, well over a million EU citizens of all ages benefit from EU-funded educational, vocational and citizenship-building programmes.

-directed learning activities. It is probably true that some health conditions in particular, that are more severe than others, may result in isolation and total dependence of the individual, and therefore affect their quality of life including their readiness to learning. But as researchers like Maier and Klumb (2005) claim, this does not necessarily mean that seniors with health conditions are not ready to act in a self-directed mode towards learning, if other conditions (especially social conditions) are favourable.
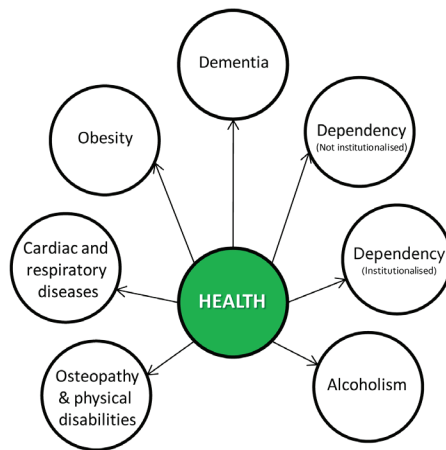
Figure 10: Identifiers that refer to health conditions of disadvantaged seniors.

In this respect one would expect that normally dependent seniors (institutionalised or not) due to their health condition, may be in a less disadvantaged position in terms of readiness for accessing learning through their social relation with others. But as Fassino et al. (2002) observe in their research, dependency may seriously impair the positive self-evaluation of older adults which in its turn may affect readiness. This is because these seniors are low in inner resources, afraid of loneliness, not able to express their own creativity (activity or interests). Also, dependence for many seniors is related to negative thoughts, probably for different reasons. Dependent elderly persons can in fact feel useless, but certainly 'utility' is not only a matter of functional efficiency.

Regardless of the fact that a health condition can easily put a senior in a totally disadvantaged position, it is important to consider whether a

specific health condition in relation to another reflects directly on readiness for self-directed learning or creates a motive for participation in learning or whether it is the other way around. Physical health conditions may impede participation, but not necessarily diminish motivation to learn. Whereas some mental or psychological conditions (that may as well derive from physical health conditions such as obesity) might create such an insecurity in an individual, which diminishes their willingness to learn.

It is in this respect therefore – and this could be considered as a research hypothesis – that seniors with such health conditions (mostly physical) that allow them to respond to a learning challenge or even participate in a learning situation (whether on their own or with others engaged in it) may show a higher level of readiness in relation to others whose condition (mostly mental and/or psychological) builds a "thicker" barrier between them and learning.

2. Learning and educational attainment-related identifiers of disadvantaged seniors

It is probably education – or even more so educational attainment – at a younger age that affects participation at an older age. Participation in organized learning activities for older adults is greatly affected by such factors as high educational attainment in the past. For many reasons that will be presented here, many seniors may be disadvantaged simply because in the past they had an unfulfilling or even worse a traumatic experience in education. This calls for a special (such as student-centred) approach to seniors' needs. For Hiemstra (1980, p. 346) the older adult as learner has special needs. Planners of educational programs must take into account such needs. Some of them can be classified as *instrumental* (basic, delayed gratification types) and others as *expressive* (self-enjoy-ment, immediate gratification types) needs. These of course are two broad categories within which learning activities can be planned. Some research has shown that older adults appear to demonstrate a preference for instrumental activities, but most current learning opportunities are

expressive in nature[12]. In addition, older adults prefer to engage in self-directed planning if given the opportunity. It is suggested that a better scheme for assessing needs and for reaching the self-fulfilment desires of older persons is required of program administrators in institutions of higher education and other agencies.

Graney (1980) further suggested that some serious issues are involved in transforming older people's general interests in education into enrolments, A number of different factors affect older people's interest and participation in further education activity, including the older person's age, sex, race, past educational attainment, rural/urban place of residence, health, financial status, self-concept, and other factors. In research we can find direct correlations between level of prior educational attainment and either interest in education or actual enrolment among older people. Disinterest in education per se could sometimes he attributed to a negative self-concept which is expressed by the idea that someone is "too old to learn"[13]. This fear of failure in educational endeavours is an expression of disengagement: the inverse of the higher morale, positive life satisfaction, and zest for life that characterizes many older people. A quite different variety of disinterest from the general disengagement from life mentioned above is also *apathy* (as indifference) regarding the specific courses of study that are available and offered to older people[14].

The prevailing theme that people in the mainstream (often white and middle class) who have done well out of the existing system gain more

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[12] As Caro et al. (2009, pp. 193-194) suggest, older people take classes for instrumental, expressive, and social reasons (Lowy & O'Connor, 1986). Even instrumental educational activities can be classified according to whether they are simply for personal benefit, such as a class on understanding personal finance matters, or whether they provide skills that strengthen their capacity to provide services that are valuable to others.

[13] Several writers (e.g., Cross, 1981; Darkenwald & Merriam, 1982) have located barriers either in the psychological domain (e.g., "I'm too old to learn" or "You can't teach an old dog new tricks") or at institutional and situational levels.

[14] If we look at the participation patterns of older adults in formal education as Findsen (2006, p. 70) claims, there is little difference from younger cohorts. Studies from all over the globe have demonstrated differential opportunity for groups of adults according to socioeconomic status, class, gender, ethnicity, and geographical location.

advantage over time pertains to older adults too. Large-scale participation studies triggered numerous subsequent enquiries that confirmed this trend of the inequality of access (and therefore outcomes); internationally older adults' involvement in mainstream adult education has not been commensurate with their proportion of the population[15].
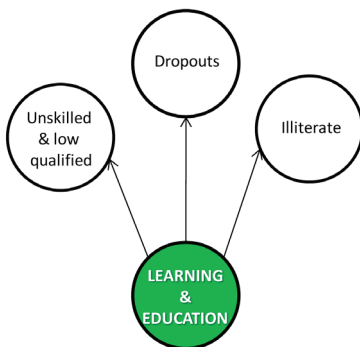
Figure 11: Identifiers that refer to educational and/or learning conditions of disadvantaged seniors.

Motivation therefore is not a single or a simple concept and so it is necessary to consider the range of factors which constitute de-motivation for learning for older adults, and the kind of motivation that is needed for learning how to learn and for lifelong learning even more so for seniors who because of their educational attainment in the past cannot benefit from the current educational reality. Statistics show that this is more evident in countries like Hungary, Greece, Poland and Italy, where participation rates of older adults (55-64) are well below the EU average. Although the explanation of why this happens cannot be attributed only to a single factor, a variety of reasons may come into play, such as low educational attainment that has already been mentioned, dropping out of school which may result to a low record of qualification, or even illiteracy (see figure 11).

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[15] In the United Kingdom for example some research points to the under-involvement of older adults in education. Overwhelmingly, prior education is identified as the primary indicator of subsequent success in formal education. The ageing process for individuals and the ageing demographics for societies make little difference to this truism.

Motivation for learning therefore, is a complex overarching concept, which is influenced by a range of psychosocial factors both internal to the learner and present in the learner's social and natural environment. These older adults with low educational attainment, dissatisfaction from previous educational experiences, low qualifications, a history of dropout or even illiteracy, are the de-motivated who are also the disadvantaged.

3. Social and living condition-related identifiers of disadvantaged seniors

The social and living conditions of seniors may well affect their motivation in participating in learning activities as well. According to Maier and Klumb (2005, p. 37) it appears that social participation is also related to survival. As they discovered in their study, elders with higher levels of social activity and with more time spent in the presence of others had a lower mortality risk. The pattern of results from their study is surprising because it lends support to the idea that the beneficial effects of social participation do not depend on social activities in the narrow sense, but can be achieved through the mere presence of other people.

However, this is a general appreciation of how social participation – as in being with others or engaged in team or group ventures – may contribute to survival. The question is of whether social participation combined with a set of unfavourable living conditions – such as being a migrant with no legal status or homeless, or in bad health condition or with low self-esteem – can and should be considered as an identifier for being a disadvantaged senior.

Although there is no research evidence in Europe of how social and living conditions or their combination may affect readiness for self-directed learning, a variety of conditions such as those mentioned above but also others as they appear in figure 12 must be considered as identifiers of disadvantaged seniors.

According to the Council of Europe (2007) many elderly persons currently do not have access to care, given that their income is often insufficient to meet their needs at a decent level and that they lack ade-

quate social cover to meet healthcare costs. This is all the more worrying since it is occurring at a time when both traditional family structures and moral standards are changing. The reduction in the availability of social housing is also causing serious conflict between the generations, as more and more elderly persons are living alone while young families with children are unable to find social housing and have to live in difficult conditions. The situation is also made worse by the fact that, in spite of repeated warnings, all too many governments have ignored the need for reforms in this area.

Figure 12: Identifiers that refer to social and living (daily life) conditions of disadvantaged seniors.

Being a migrant or an immigrant seeking employment in another country or another place in your own country may inhibit participation in organised learning activities, although it may also lead to a high degree of social participation and interaction with others. Furthermore, living in rural or remote areas may contribute easily to downgrading one's motivation for participation in learning, although it may as well contribute to boosting one's self-direction depending on their aptitude and psychological condition. Equally, living in a highly urbanized environment can inhibit older persons' willingness to participate in learning, as does the lack of means of transportation in some cases. Glendenning (2001) points out (citing Tyler 1979, p. 11) that because of the context

of existing provision in large cities, older people are more likely to enrol for classes held in the daytime, near to their homes, on a convenient bus route, and in better months of the year.

Last but not least we must not forget the factor of apathy or indifference that was mentioned earlier. It is a total disengagement from life as we perceive it (being active, productive and busy). Many seniors due to their lifestyle (many prefer to be idle or watch television instead, identified in figure 12 as silent tax-payers) or their social condition (with no family or friends, living alone or being homeless even) as was mentioned earlier, may consider participation in a learning activity far more irrelevant to their lives than others. Do they qualify as disadvantaged? This may also depend on how much of their social place they wish to retain and feel useful to others.

Social and living conditions in general may inhibit considerably seniors' motivation to participate in learning. However, as in all other likely conditions (as in health or education and learning conditions) there is not one single factor that could contribute to elders being identified as disadvantaged. It is the combination of factors that may lead to this identification.

4. Employment and economy-related identifiers of disadvantaged seniors

In the 2007 Council of Europe's report on "The situation of elderly persons in Europe", it is stated that elderly persons believe that their experience should be able to help future generations to develop more fully and to discover and help young talent. In recent decades, many European countries have adopted measures allowing or, indeed, imposing early retirement schemes. This resulted in a substantial reduction in the working population, and failed in their primary objective of helping young people to enter the labour market. Governments therefore concluded that it was necessary to offset these measures and attempt to promote an *active aging policy* by keeping capable elderly workers in employment for longer and scaling back early retirement schemes, while taking account of individuals' different abilities and needs.

It was already mentioned in the previous paragraph that as a rule, elderly persons increasingly want to keep their place in society and continue to be useful, to give advice and to pass on their professional expertise. Elderly persons have a great deal to offer, although they remain vulnerable. However, the current economic and labour state in Europe seems to put an obstacle to many seniors taking up learning opportunities as they wish, since it prescribes a new employment agenda for seniors (especially those near pension age). As was already stated, many seniors choose to participate in learning activities due to expressive rather than instrumental motives. Extension of working age as well as minimum access to health care facilities for some older adults, low income, competitive climate at work and social pressure, are good enough reasons to create disadvantaged seniors.
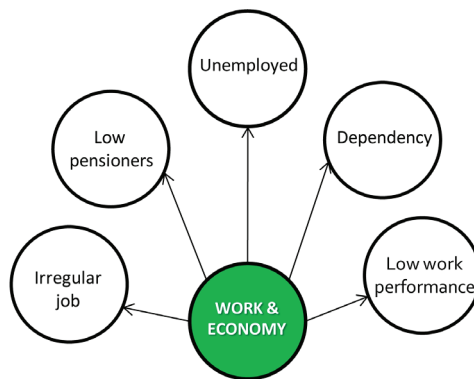
Figure 13: Identifiers that refer to employment and financial conditions of disadvantaged seniors.

This is more obvious for women than men. Especially elderly women are totally dependent on the minimum benefits paid by the social security system and also encounter severe age discrimination. According to the Council of Europe (2007) most elderly women are faced with a whole range of hardships: low incomes, substandard housing, lack of access to information and communication technologies, contributing to their social exclusion, an exclusion which is exacerbated by their less well remunerated jobs, interruptions in their careers or failure to pay into a pension system.

On top of these conditions, the fear of unemployment (which until now was the fear of the younger generation), job irregularity or career shifts or change of duties within a job, low work performance due to inability to follow new technologies, are only some of the factors that can be considered as identifiers of disadvantaged seniors (see figure 13).

Reflecting on determinants for assessing efficacy for self-directed learning of the aged and at-risk

According to Caro et al. (2009, p. 193), much of the literature on successful and productive aging focuses on personal characteristics of individuals as determinants of the types and amounts of activities in which they engage. For example, it is well established that participation is positively related to possessing at least fair health and having relatively few functional deficits. Higher socio-economic status (measured commonly by education and income level) is also predictive of greater participation. Increasing age and having few social network contacts seem to limit the level of engagement in activities. The underlying social and psychological forces, however, that may be expected to differentiate among older persons' activity behaviours are less understood.

One preliminary conclusion that can be drawn from the literature is that there is not a single ruling or conditioning element to identify seniors as disadvantaged. It is a multiplicity of interacting factors as well as their combination that may lead to this observation. Furthermore, if we try to negotiate these factors as the identifying agents for disadvantaged seniors we will observe that these determinants are not conditioned by external agents alone. They are deeply influenced by the way the term "disadvantaged" is portrayed, and being disadvantaged cannot be determined only by what external observers consider as disadvantaged, but also by the seniors themselves. For Roberson and Merriam (2005), medical advances and lifestyle changes have resulted in older adults living longer and healthier lives. This decreases considerably the measure according to which a senior is identified as disadvantaged, but at the same time it

gives as much information on who the disadvantaged seniors in Europe might be: 55+, low qualified (occasionally illiterate, depending on age, gender or country of residence), mostly women rather than men, with a health condition (occasionally severe physical) that may impair their participation in social activities or access to activities that demand physical presence or activity, with a self-esteem that impedes their participation in organized learning, with little or no knowledge of ICT, with minimum or no active participation in public life, low-paid or with a minimum pension (which also varies from one country to another), occasionally institutionalized (or not), with a risk of retaining their employment and/ or social position due to their inefficiency or lack of resources or low self-esteem.
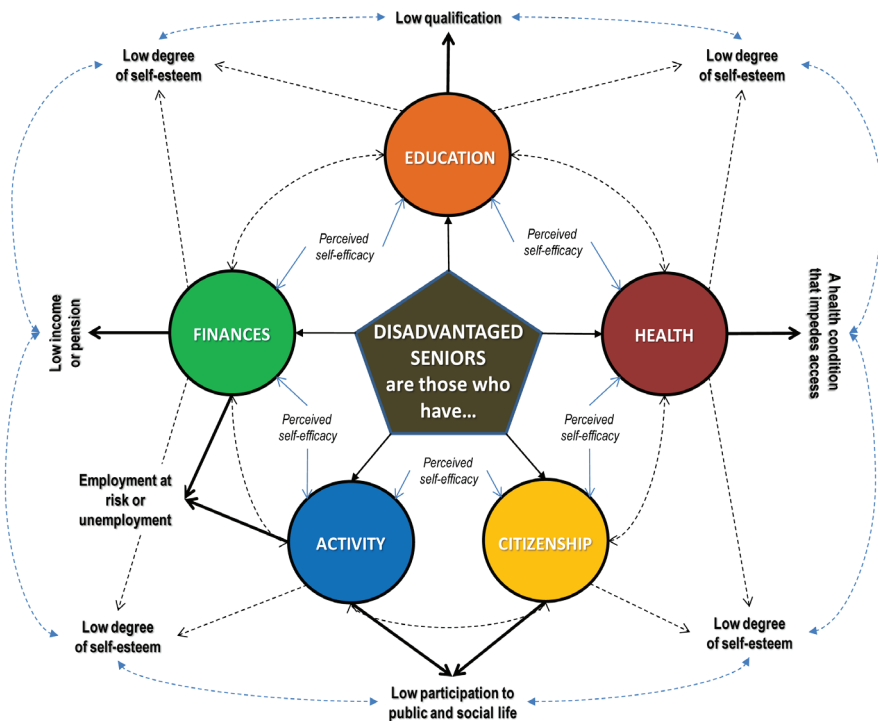
Figure 14: Major identifiers (determinants) of disadvantaged senior citizens in Europe.

All the above determinants show that older adults, like people in other life stages or transitional phases, require change in work, family,

and health. Self-directed learning (SDL) is one way of negotiating these transitions. The population even when we refer to older adults or senior citizens varies considerably in traits as it reflects diversity in age, gender, race, education, and employment. Furthermore, self-directed learning begins with an incentive to learn plus an interest, leading to accessing resources; with systematic attention to their learning, some projects may be completed whereas others could remain ongoing. Occasionally, there might be what Roberson and Merriam (2005) call a *catalyst*, usually another person, interspersed in this process.

In addition to that there is another agent that must be taken into consideration with regard to SDL. That is that seniors differ in the areas in which they cultivate their *efficacy* for self-directed learning and in the levels to which they develop it. Perceived self-efficacy[16] is concerned with people's beliefs in their capabilities to produce given attainments (see Bandura, 2000, 2006). One cannot be all things, which would require mastery of every realm of human life. Seniors differ in the areas in which they cultivate their efficacy and in the levels to which they develop it even within their given pursuits[17]. Thus, the efficacy belief system is not a global trait, but *a differentiated set of self-beliefs linked to distinct realms of functioning*. Multi-domain measures reveal the patterning and degree of generality of people's sense of personal efficacy. There is no all-purpose measure of perceived self-efficacy[18].

Considering the literature and relevant research one may conclude that the *possible agents and factors* involved in the areas such as health, educational attainment and learning, social and living conditions, and employment and economic conditions as they were analysed before,

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[16] According to Bandura (2006), perceived self-efficacy must be distinguished from other constructs such as *self-esteem*, *locus of control*, and *outcome expectancies*. Perceived efficacy is a judgment of capability; self-esteem is a judgment of self-worth. They are entirely different phenomena (see Bandura, 2006, p. 309).

[17] For example, a business executive may have a high sense of organizational efficacy but low parenting efficacy.

[18] Bandura (2006, p. 307) believes that the *"one measure fits all"* approach usually has limited explanatory and predictive value because most of the items in an all-purpose test may have little or no relevance to the domain of functioning.

the importance of a possible *catalyst*, and of course the significance of *self-efficacy*, set the major identifiers (determinants) of disadvantaged senior citizens in Europe (figure 14). These identifiers can be summed up in the following:

1. Low or no qualification (that is linked to low educational attainment or illiteracy in some cases).

2. A health condition that may impede or obstruct seniors' access to learning facilities (e.g., museums, libraries, ICT).

3. Low degree of self-esteem (control over eating which is an overarching identifier although it must not be confused to perceived self-efficacy).

4. Low participation in public and social life (occasionally due to lack of a catalyst or "important others" that may operate positively towards motivating seniors to participate).

5. Low income or pension.

6. Employment at risk or on the verge of unemployment.

7. Little or no knowledge of ICT.

Last but not least, the requirements for building on further analysis and examination of these identifiers and the conditions that affect the life of senior citizens in Europe and elsewhere with regard to efficacy for self-directed learning must include a good conceptual investigation of the relevant domain of functioning. For example, concerning self-management of weight, we know that it is determined by what people eat, their level of exercise and genetic factors. In this respect a comprehensive self-efficacy assessment would be linked to the behaviour factors over which people can exercise some control; for example perceived capability to regulate the foods that are purchased, exercise habits, adopt an increased level of physical activity. The self-efficacy must be tailored to activity domains and assess the multifaceted ways in which efficacy beliefs operate within the selected activity domain; they must be linked to factors that, in fact, determine quality of functioning in the domain of interest. In order to examine and assess self-regulatory efficacy requires preliminary work to identify the forms the challenges and impediments take. For example,

in open-ended interviews, focus groups or other similar strategies, ask people to describe the things that make it hard for them to perform the required activities regularly. The identified challenges and impediments are built into the efficacy items. Finally, sufficient gradations of difficulties should be built into the efficacy items to avoid ceiling effects.

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REFLECTIONS FROM A STUDY ABOUT WISDOM WITH STUDENTS FROM A SENIOR UNIVERSITY

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Abstract

This chapter shows the results of an empirical study about the relationship between wisdom and education carried out with adults from a senior university in Portugal. The study aimed to investigate the answers about wisdom of the retired users attending a Senior University, within the context of the Berlin Paradigm, looking for the relation between these answers and the participants' life paths.

For the data collection, we applied a semi-structured interview and a dilemma of life review to a sample of six subjects with equal distribution concerning gender. All participants showed average-high levels of wisdom (between 4+ and 5+ on a scale of 7 points). From the analysis of the interviews, using the technique of content analysis, it was found that the participants generally indicated several aspects as enhancers of wisdom, namely: a wealth and wide range of experience, mentor practice and generativity. Although the results are consistent with the empirical verification of the rarity of wisdom since the highest level was not obtained they confirm the potential of old age as a positive phase of development and also reinforce the importance of education and learning across the life cycle, so that retirement could be a good and developmental time. Additionally, these advanced-age adults showed that there is plenty of life beyond the retirement frontier and that education in the advanced stages of life considerably improves opportunities for an active and wise aging process.

Keywords: Education; Wisdom; Wisdom Berlin paradigm; Advanced adulthood; Senior universities.

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Introduction

Senior universities have been increasingly capturing people's interest, being sought by a never more numerous public. In Portugal, this movement began especially during the nineties of the last century, and became firmly rooted in the first decade of the 21st century, with senior Universities spread all over the country. In 2012 the number of these institutions was over 190, reflecting on the one hand the increasing senior demand for the many education/training offers and on the other hand the ever growing aging population (Jacob, 2012). Although this world phenomenon represents a great achievement of civilization, since never before has humanity has lived so long, at the same time it has raised new challenges for social organization and demands a new perspective in regard to advanced adulthood (Simões, 2006; Gonçalves & Oliveira, 2011; Depp, Vahia & Jeste, 2012), which can no longer be seen as a minor step of life in terms of importance, meaning and contribution to social welfare.

However, the idea of advanced adulthood as an important stage of development is recent and goes against the most common stereotypes about aging. Illness, inactivity, depression, boredom and incapacities are the most distorted representations associated with old age. This vision brings with it a strong discrimination against older people and affects them from economic, social and psychological points of view, "excluding and denigrating them" (Lima, 2010, p. 25) and, in spite of the fact that people want to live for many years, leads them into not wanting to grow old! However, as a result of scientific research, there is increasing evidence contradicting the negative conception of aging (Fry & Kreyes, 2011; Depp, Vahia & Jeste, 2012).

In this context, a lifelong development perspective advocates that aging is accompanied by losses, but also by gains, with wisdom being at the top in this process of evolution. This idea is very much aligned with the emphasis on positive aspects of human development in recent decades in Psychology, with wisdom standing out among them, in addition to the study of the 'negative variables', like depression or dementia (Oliveira, 2005).

So, as our work was developed from the perspective of education, we considered it of interest to establish explicit links between wisdom, education and learning in old age, via the investigation "Wisdom and education: A study with adults from a Senior University" (Gonçalves, 2010). The aim was to get a better understanding of the wisdom showed by participants in the activities of Senior Universities in the light of the theoretical framework of Baltes et al. (Baltes & Staudinger, 1993, 2000; Baltes & Smith, 2008), namely regarding the identification of enhancer factors of wisdom.

A better understanding of these factors and their supposed influence assumes a great importance in the framework of the European 2020 strategy (European Union, 2012), not only because we know that attenders of Senior Universities are involved in active aging processes, but also because wisdom reflects a life with more meaning and a more open mind towards human and social issues (Simões et al., 2009, 2010). The research took place in the Senior University of Figueira da Foz where answers to the following questions were sought: Do students of this University (who have engaged themselves in active aging strategies) show knowledge related to wisdom? Will we find in these students and in their life paths that which is postulated by theoretical models on the development of wisdom? What dominant characteristics do they have? How have they lived through the transition to retirement and how are they handling this advanced stage of their lives? How do they characterize aging? What role do they see in learning and lifelong education in particular?

Education and learning in advanced adulthood

The concept of education concerns specifically human phenomena, as advocated by Maslow for whom education is a process that is connected to the development of the person and their character, that is, "learning is to learn to grow, to learn in what sense to grow, to learn what is good and what is bad, to learn what is desirable and undesirable, to learn what to choose and what not to choose" (1985, p. 172, cit. by Simões,

2007, p. 33). In this sense, Simões (2007) argues that "education is to act morally" (p. 15) and, therefore, "to educate yourself is to become human, or rather, is to become more human" (p. 34). In a consistent manner, Beloved (2009) sees "education as a path of improvement" (p. 51). So, it seems that there is plenty of convergence concerning viewing education as a moral and ethical dimension, which should always be present in the educational undertaking to be carried out by the educators/trainers (Amado, 2013).

It appears, therefore, that this interpretation of the concept of education is centred in being a better person and acting better, and not as much in knowing more. Thus, it fits well with the condition of human incompleteness and with the need for education and development to be permanent and present across the entire life span. This idea is essential, since only the awareness that we can progress and improve allows the human being to open to educational processes. As Freire (2008) wrote, "being aware of incompleteness, could make me go beyond it" (p. 53). Nevertheless, if it is essential that each one of us remembers this in one's life, it is even more important for educators and trainers to embrace it.

Although in Western societies, particularly in Portugal, the need for lifelong education has been increasingly proclaimed, the tendency to face one's lifetime as being strictly compartmentalised persists. That is, the existence of a specific time to study, work and rest continues to structure life in society. Consequently, many adults who reach retirement age no longer expect to study or to work as happened in the previous life stages. This means that social expectations for each phase of the life cycle are different, reflecting a change in social roles performed by elders, as well as in status and power, which are differentiated according to age.

Regarding learning, very elderly adults often express a negative image of themselves. Due to an internalization of stereotypes, age is perceived as a barrier to learning, although research shows that adult life, as a whole, has a huge potential in terms of learning just as in the previous phases (Simões, 1990, 2006; Vandenplas-Holper, 2000; Fry & Kreyes, 2011).

The prevailing negative image of the performance of older people, as well as the low social expectations concerning results of learning tasks,

generate in the elderly the idea that, in fact, they are at a disadvantage compared to younger people. It is a self-fulfilling prophecy, in the sense that older people expect to becoming less competent, which actually comes to occur. In test situations, for example, they tend to suffer an increase in anxiety and at the same time a decrease in confidence, leading to less positive results, thus bringing about the expected failure! In this way, a stereotype is reproduced, reinforcing the idea of an inevitable decline in advanced adulthood (Lerner & Hultsh, 1983; Cerqueira, 2010).

Considering the transformative potential of adult education (Mezirow, 1990, 2000; UNESCO, 2010), adult educators have an important role in the deconstruction of stereotypes (whatever they are) and in fighting against the negative image of advanced adulthood.

Wisdom

The interest in wisdom is very old and ideas about the subject can be found in the Greek and Roman classics as well as in writings of Mesopotamia and ancient Egypt. Thus, the traditions (cultural, philosophical or religious) that honoured and brought it to a status of universality are many (Baltes, 2004; Alves, 2007). However, despite this universal character, wisdom only entered the scientific field at the end of the eighties (of the 20th century) when it captured the attention of Psychology within the framework of the lifespan perspective.

The conceptualization of Baltes and his team from the Max Planck Institute for Human Development and Education of Berlin is situated in that perspective in which development is seen as occurring throughout the entire lifespan, as well as being multidirectional, multidimensional and contextual (Baltes & Smith 2008; Vandenplas-Holper, 2000).

Baltes et al.'s theory is one that assigns a greater weight to the cognitive dimension of wisdom, though not reducing only to it. These researchers have devoted great efforts to the evaluation of wisdom, having developed a theoretical framework and empirical methodology that quantifies performance related to wisdom.

Given the high systematization and attractiveness of their model, as well as clear guidelines regarding its operationalization, this model has captured the attention of experts and researchers from all over the world, and the empirical investigations that have replicated it are already quite significant, which has enabled comparison of the results at the international level. Based on these reasons, our study was developed according to Baltes et al.'s theoretical perspective, which we will briefly present in the following lines.

Wisdom is conceptualized as "a perfect synergy between mind and character, a perfect orchestration of knowledge and virtues, [that] reflects the view that wisdom is more than "cognitive" knowledge. For wisdom to emerge, cognitive, social, and motivational attributes need to converge and form a whole of extraordinary excellence" (Baltes, 2004, p. 20). Thus, wisdom is a complex and dynamic system of expert knowledge, whose evaluation results from the balance of five criteria, namely: 1) factual knowledge about the fundamental pragmatics of life; 2) strategic knowledge about the fundamental pragmatics of life; 3) knowledge about the contexts of life and how these change over time; 4) knowledge which considers the relativism of values and life goals; 5) knowledge about the fundamental uncertainties of life and ways to manage them (Baltes & Smith, 2008). Considering its rarity, it is seen as an ideal.

The investigations carried out by Baltes and colleagues are based on discourse analysis of the subject about several life themes, constituting an opportunity for the demonstration of knowledge in the fields of pragmatics of life, life planning, life management and life review. To assess wisdom-related knowledge, the authors use the thinking aloud method in complex, ill-structured dilemmas, with the answers being recorded, transcribed and classified according to the five criteria mentioned above.

The authors argue that, using the planning tasks, management and life review, access to knowledge levels related to wisdom is possible and they also assume that people answer the dilemmas, at least in part, based upon their experiences (Staudinger, Smith & Baltes, 1994).

Regarding age, research shows that each stage of the life course generates its own knowledge from normative development tasks and from

non-normative events. In this sense, the responses of wisdom are higher when the dilemmas presented are relevant and significant to the person (Baltes & Smith, 2008). Under certain circumstances, age is understood as a facilitating condition of wisdom. However, other factors seem to have more importance for its development, namely: 1) the experience of diverse experiences; 2) the practice of a mentor role; and 3) certain motivational dispositions like interest in others and their understanding.

Research has also shown that profession is an important predictive factor of wisdom, with more weight than intelligence and personality (Baltes & Smith, 2008). On the other hand, in a study carried out in Portugal, it should be emphasized that "older people who find themselves in a situation of retirement and not engaged in any activity, in the form of volunteer work or part-time, give fewer responses of wisdom than seniors who are still inserted into working life" (Marchand, 2005, p. 94).

Objectives and methodology of the study

As mentioned above, this study was intended to analyse the responses of wisdom of retired people (who were attending a Senior University), through life review dilemmas. More specifically we intended: 1) To assess the levels of knowledge related to wisdom of retired senior citizens attending the senior university; 2) To analyse the extent to which factors considered particularly relevant for the development of wisdom in the literature were or not present throughout the lives of these advanced--aged adults; 3) To compare potential wisdom-triggering factors with their answers of wisdom, to be able to identify the underlying factors for an active, educational and wise retirement; 4) To identify relevant factors in the subjects' life stories, capable of helping us understand their engagement in learning activities (mostly informal) during their advanced adulthood.

Data collection took place in the Senior University of Figueira da Foz (centre of Portugal). Six participants equally distributed by sex and with ages ranging from 56 to 70 years were interviewed. Concerning school level, only two of them didn't have a higher education degree.

As for the data collection instruments, a semi-structured interview of an autobiographical nature was used as well as a dilemma of life review.

The interview was intended to provide an exploration of the participants' life course (description of past experiences), as well as to allow reflection on present themes. The interview guide, consisting of six thematic blocks, served as a guideline. The first two blocks were intended to create a welcoming environment and to explain the objectives of the study, as well as to get some demographic characterization data, information about life course and life routines, as well as lifestyle and social support networks. The third block was targeted to understand the learning process in the Senior University, in particular the reasons for enrolment, the expectations that the senior brought with him/her and the evaluation of the University by the seniors up to the moment of the interview.

The fourth block had the objective of identifying the most remarkable events in the life history of the elders, allowing us to check if the factors usually considered as wisdom promoters had or had not been present in the adult life of the old-aged. The fifth block sought to assess the performance of the role of mentor or tutor, also considered as an enhancer factor of wisdom. Finally the sixth block allowed for a completion of the interview, clarifying doubts and thanking them for their participation.

Regarding the dilemma, we opted for life review, in which the participant was invited to express his/her point of view about a life situation of a fictional character who, faced with a striking event, will assess his/her life path. In this regard, vignettes were used with a life review dilemma, developed purposely for this study and previously tested, based on the guidelines proposed by Baltes' team. Below, the dilemma presented to male participants (the dilemma concerning female participants only differs in the sex of the character) is shown as well as the questions raised.

António is 63 years old. He retired at the age of 59, when the factory where he worked reduced the number of workers. Since then, Antonio has not performed any professional activity. One day he met a former co-worker. This colleague, the same age as António, left the factory at the same time and in the same circumstances. However, he decided to

look for new employment and he is now established on his own and intends to work for some time yet. This meeting made António rethink the life that he had taken so far.

The following questions were also raised:
    – What aspects of his life can Antonio remember (decisions, problems, solutions, people, feelings, events, obstacles)?
    – How can António explain the development of his life and of his actions?
    – Looking back on what he had lived through, how can António assess his life? Did he manage to get what he was looking for?

The procedures for applying and rating the dilemma, as well as the instructions and training activities were followed according to the *Manual for the assessment of wisdom-related knowledge,* from Staudinger et al. (1994).

Results

Autobiographical interview

The interviews were subjected to content analysis. The initial reading was developed on the basis of the thematic blocks of the script (vertical reading), allowing the reconstruction of the life story of the participants. In a second step, they were the subject to a horizontal reading, allowing the comparison of reports in order to detect similarities and contact points, as well as differences and oppositions.

The interviews permitted important reflections on various themes, but aspects should be particularly stressed related to retirement, aging and participation in lessons in the Senior University, as well as the importance of being an intentional learner even beyond retirement age.

Retirement was, indeed, a central theme of the interview and, additionally, it functioned as an enhancer of reflection about age and aging,

since it establishes not only the loss of certain social roles, but also represents and symbolizes, socially, entry into old age.

Seeking to realize the extent to which retirement was planned or not, the answers found were varied, some of them revealing that planning had been done at an early age, with a strong investment in active and healthy aging, and others in which planning had not existed. Still, the reports of the participants let us describe a retirement actively lived, with daily and weekly routines, similar to the rhythms of life before retirement. These seniors struggled to have a healthy life and considered themselves useful for their family and friends and to the others, namely through voluntary activities. They were shown to be active and committed to learning processes. Happy, they described retirement as a time for themselves and as an opportunity to occupy their time as they liked most.

> *(…) I like being busy during week days; this way I can relate to the people who still work (…)"* (B).
> *"Yes, I'm retired, but no, that doesn't mean that I don't do anything"* (C)
> *"I've been retired for 3 years now and I feel good, because I do whatever I want. I'm happy, because I feel I'm truly independent but also quite responsible."*(B)

In the speeches of the interviewees there are also reflections on aging. The changes that happen as age advances are regarded as development and maturity. Human finitude is seen as natural and reflection about the meaning of life seems to gain importance.

> *"I don't feel I'm getting old, I'm rather maturing every day (…) To me, my current age (halfway near death) is a reality that I obviously accept. Physiologically, it can't be denied! Being born, growing up and dying."*(C).
> *"Growing old is growing mature. To me, age doesn't matter: as people often say, youth is eternal."*(C)

The evaluations, perspectives and feelings about the Senior University assume a great importance in the context of this research. It was

found that all participants made a very positive assessment of this institution, openly recognizing its contribution towards healthy and active aging. The teaching activities were valued to the extent that they helped seniors remain intellectually active. Classes and extracurricular activities, such as study tours, exhibitions and books were valued and understood as having a dual purpose: learning and conviviality. Although nowadays senior universities are seen especially as a leisure occupation strategy, the speeches of these adults were clear concerning their great appreciation of learning and strong self-awareness about themselves as learners.

> *"They are not really lessons, but rather lectures, where we're all together discussing different things that just come with the flow: books, theatre, cinema, politics, this and that, about everything. This hour and a half of lecturing and dialogue is really nice."* (B)
>
> *"The university helps us understand life and problems. (…) We continue to be autonomous and this is essential, if we want life to continue."* (C)
>
> *"Digital photography. I'm enjoying it very much. (…) I also like Spanish, English and History (…)"* (B)

Life review dilemma

Regarding life review dilemma, after its transcription, the rating process took place via a seven-point scale, according to the five criteria mentioned above. The ratings were done by the main author, and by two researchers familiar with the lifespan perspective. The answers to the dilemmas were assessed and reviewed twice by the judges, with the aim of reducing the margin of subjectivity in the transformation of qualitative material into quantitative evaluation. Accordingly, ratings for each criterion resulted from the computed average of the three judges. Global ratings were also obtained by calculating the average of the 5 criteria, shown in table 2.

Table 2: Results of the life review dilemma

Wisdom criteria	Participants					
	B	C	D	E	F	G
Factual knowledge about the fundamental pragmatics of life	6	5	5	5	6	5
Strategic knowledge about the fundamental pragmatics of life	5	4	4	4	5	4+
Knowledge about the contexts of life and how these change over time	5	4+	4	5	6	4
Knowledge which considers the relativism of values and life goals	5	5+	5	4	5	5
Knowledge about the fundamental uncertainties of life and ways to manage	5	5	5	-	6	4
Results	5	5	4+	4+	5+	4+

Considering the results of the six participants, three obtained a rating of 4+, two obtained 5 and one 5+, which means that they all showed at least a medium level of wisdom knowledge.

Discussion

This research intended to verify the levels of wisdom shown by students of a Senior University and its relationship with the aging process, as well as with educational and learning activities. Given the rarity of wisdom responses observed in previous investigations, we consider the results particularly interesting, since all participants showed at least average levels of wisdom. We think that this was only possible due to the special particularities found in the participants, not only because they tended to characterize their life as rich and full of challenges, but also by seeing learning as necessary and essential, even in the more advanced stages of life.

A global analysis of the interviews allows us to highlight three aspects which appear to be common to all respondents. Firstly, everyone seemed to have a financial income sufficient and adequate to their needs and expectations, allowing them access to goods and services, such as health care, recreation, vacations and even to the Senior University itself, which requires the payment of tuition fees. Secondly, we stress the overall good

state of health of the elders. In speeches a concern with the maintenance of an overall well-being through health care, healthy eating habits and sport practice was consistently found. Finally, we stress the importance of social support networks as reported by the participants.

Contact with other people seemed to increase the well-being of respondents, namely family and friends. These respondents were, in general, involved in various activities, including volunteering, which was evaluated very positively and which pointed to a factor that has been regarded as a wisdom-enhancer – interactions with significant others. This is particularly important because leaving the labour market usually tends to decrease the level of people's interactions, but it was not the case in the lives of the participants studied.

With regard to the educational phenomenon, we could see that respondents not only were intentionally involved in learning processes, even after leaving the labour market, but they also were well aware of their learning capabilities. And more! For these seniors, learning was approached as a necessity and not as a mere hobby! Because of their active involvement in learning processes, they contribute to a fulfilled advanced adulthood. The cognitively stimulating University environment, together with meaningful and useful learning, helped them to continue to live in a healthy and rewarding way.

We have argued that the person's development towards more humanity is intrinsic to the concept of education, with a strongly moral and ethical dimension inherent in this phenomenon. This issue is inseparable from human incompleteness itself and came to light in the interviewees. However, the idea of education as a lifelong process is not yet a full reality, nor are its benefits well known by all people of advanced age. That's why adult educators have an important role to play so that the last stages of life could be lived in fullness and in a wiser manner. For this purpose, beyond community service and health care activities, investment in education and learning needs to be present, although love of being a continuous learner should be cultivated across the entire lifespan.

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RELATIONSHIPS AND INTERGENERATIONAL SOLIDARITIES – SOCIAL, EDUCATIONAL AND HEALTH CHALLENGES

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Abstract

The issue of intergenerational relationships has been gaining greater and greater relevance within the present national and international contexts. The same is happening at academic/scientific and social levels, bringing up huge challenges to communication and solidarity between the different generations and to the social, educational and health policies for the 21st Century. In the discussions on intergenerationality its relevance stands out, namely in terms of: the conveyance of individual, family and collective memories, and conveyance of values, and in the construction of new individual and group identities and trajectories; the education, communication and well-being of the younger and older generations, for instance of grandparents and grandsons, and in the development of new relationships and forms of intergenerational solidarity within the family and within society at large; the promoting of active aging, health and quality of life for individuals, families and communities; intergenerational social and educational projects aimed at the inclusion and empowerment of older generations, lesser stereotypes and prejudice based on age, the promotion of dialogue and socialization between generations, as well as the construction of a society for all ages, where different generations may contribute towards a culture of solidarity, inclusiveness and citizenship.

Keywords: Intergenerational relations; Intergenerational family solidarity; Family; Grandparents and grandchildren.

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Introduction

The problem of relationships and intergenerational solidarities has been gaining an increasing relevance in the current national and international context, as well as in the academic/scientific and social environments, posing vast challenges to society, the family, communication between different generations and the policies of 21st Century, mainly, social, educational and health policies.

This significance has been present at Portuguese and European levels, in particular, carried out by the organization of numerous activities and some special events, including: the year 2012 as the *European Year for Active Aging and Intergenerational Solidarity*, the annual commemoration on 29 April as *The European Day of Solidarity and Cooperation between Generations,* and the celebration on 26 July of *International Grandparents' Day*.

The historic moment in which we live in is becoming increasingly marked by the technological improvements concerning health care this evidence has been reflected in increased longevity, and consequently brings out more emphasis to the requests and consequences of marital and family interactions between individuals of different generations.

It is a challenge to promote a healthy relationship between people of various ages. This type of interaction is only possible in a context in which the recognition of differences, skills and the importance of such interaction exists. The relationship between the older and younger generations, between grandparents and grandchildren gains special emphasis in this context.

In the current international and national reality, increased longevity, the decline in mortality and birth rates, the aging population, increased migration, the improvement of quality of life and social care health, as well as, new family configurations and the various changes in social, cultural and labour dimensions posed challenges.

For instance, changes in family and behaviours values, gender roles, the intense insertion of women into the labour market, the expansion of education and, the difficulties of young people in the labour market have led to major social and family changes.

These changes have been contributing to: the verticalization of the families; generational enlargement in which the coexistence of four generations in the same family is frequent, the higher complexity in family and intergenerational relationships; frequent readaptation at individual and family levels, new roles, identities and solidarities within families, the increasing number of elders and the plurality of aging (Singley, 1993; Segalen, 1996; Attias-Donfut, 1995, 1998; Ramos, 2005, 2008, 2012).

Nowadays, especially in the European Union the 21st Century is constituted as the elders and grandparents' century, in which there will be a predomination of the older generations in relation to other age groups.

Data revealed by the World Health Organization estimates that in the year of 2025 there will be one billion two hundred million people over 60 years. Among these, approximately 75% will live at developing countries, and the age group of people aged 80 or over will be the fastest growing group.

The Aging Index of the United Nations estimates that in 2050, there will be 200 people over 60 years old for each 100 children and young people.

The OCDE (2007) estimates that in 2030, people aged over 65 will increase; observing that one in five people will be 65 or more.

In the European Union it is estimated that in 2020 there will be a hundred million senior citizens, among these, seventeen and twenty-two million will be aged 80 or over. It is also expected that older people, that is, aged 80 or more, will reach 12% in 2060, compared to 4% in 2005.

Portugal is one of the most aged countries in Europe. In the next 50 years, Portugal will maintain this trend towards population aging: it is estimated that in 2060 about 3 elderly per each youth will reside in the country (National Statistics Institute, NSI, 2009). The forecasts registered by the NIS point that by 2050 about 80% of its population will be aged and dependent.

The proportion of young people (under 15 years) will be reduced (from 15.3% in 2008 to 11.9% in 2060), as a percentage of the working age population (67.2% in 2008 to 55.7% in 2060). The population aged 65 years and older will almost double (from 17.4% in 2008 to 32.3% in 2060).

Data showed by the *European Social Survey* (ESS, 2004) points to some indicators of family dynamics in the European context:

– Germany and United Kingdom are the countries in Europe with the highest percentage of people who live alone (20%).

– In Spain, there is a percentage of 6.1% people living by themselves, whereas in Portugal 6.8% of the population lives alone.

– In Portugal, a percentage of 44.6% of people living alone are between 60 and 74 years old and 25% of them are 75 years or older.

As world life expectancy increases, new problems become evident and may be strengthened by the existence of economic, cultural, social and gender inequalities. There is a greater need for availability for the families and the use of health services, a greater number of long-term problems, which frequently require interventions involving high costs and complex technology for adequate care, as well as the increasing number of elderly who need or choose to live in institutions that require formal or informal care.

Active Aging

Scientific advances have been contributing to human longevity and quality of life of older populations, as well as to new theoretical and interventional approaches on the elderly and aging, highlighting the dimensions of active aging, and this as an open stage to other opportunities, activities and roles.

The World Health Organization defines active aging as a process of optimizing opportunities for health, participation and security, in order to enhance quality of life and well-being throughout aging. It refers to the continuing participation in various activities, particularly, in economic, social, cultural, civic affairs, family members, spiritual, leisure, the maintenance of the roles of informal and formal social support networks (WHO, 2002).

Advances and perspectives in terms of aging and human longevity have favoured the image and attitudes toward older people, their social

and familiar integration, and their self- esteem and also promote inter-generational relationships.

In the current century, the new elderly (Simões, 2005, 2006) live longer. They have higher education levels, are more active and more productive than those elderly from earlier times and they also differ from the stereotypes about adulthood into old age, which are still numerous.

Indeed, the maintenance of the myths, negative stereotypes, prejudices and mistaken beliefs concerning elderly people (*ageism*) (Butler, 1980, 1989), both in the family and especially in the social sphere has resulted in discrimination against elderly people affecting their social welfare, as well as, their psychological and economic development. The behaviours, representations and policies concerning the elderly people are also affected. The phenomenon *ageism* is according to this author, a profound psychosocial disorder, characterized by individual and institutional prejudices against older people, by means of myths, stereotypes, aversion and avoidance, thus contributing to lowering their well-being, reducing their social opportunities, weakening their personal dignity and increasing their social isolation and marginalization.

However, opposing the perspectives and models which emphasize mainly the negative dimension of losses and limitations associated with aging models, many authors suggest the need to take into account the active and healthy aging aimed at recognizing and recovering the numerous capabilities and resources provided by older people and significantly contribute to improving their productive activity, well-being, social and intergenerational relationships.

Thus, some authors speak about *successful aging* (Rowe & Kahn, 1999; Crowther, 2002; Parker, 2002; Simões, 2005, 2006; Blazer, 2006), *positive aging* (Vaillante Mukamal, 2001), *productive aging* (Butler, 1985, 1989), *healthy aging* (Willcox et al., 2007) or *active aging* (WHO, 2002).

Beyond the emphasis on health promotion, adaptation to change, disease and disability prevention, these aging approaches insist on other important variables for optimizing the aging process:

– The importance for older people of active engagement in life, specifically, the importance of their social involvement and maintenance of

their social ties to different generations, and also the maintenance of productive activity, whether paid or unpaid, intended to produce goods and services carried out in the family or non-familial contexts, with reference to the younger, for instance:

– the importance of maintaining a high functional level concerning the cognitive and physical planes, programs for cognitive stimulation and multidimensional development;

– the importance of experiencing the retirement according to an opening perspective of gain, rather than vulnerability and risk or loss / untying;

– the importance of spirituality, religiosity, personal sense, commitment and optimism;

– the importance of adequate living conditions (in terms of reform, living conditions, safety, etc...) and overall well-being.

Relationships and Intergenerational Solidarity in Family

The family is constituted by a social network in which there are features and requirements, included and influenced by a wider system of social interactions extended to the community, society and the formal and informal social networks. It is important to stimulate opportunities for dialogue and communication in the family and also in society in order to promote respect for otherness and also for differences in individual, social, cultural and generational dimensions.

Nowadays, despite the changes not only in family structures but also in social and labour environments, the valorization of individualistic values has been emphasizing independence and autonomy, increasing intolerance for material and physical limitations. These facts may hinder the roles and intergenerational relationships and contribute, for instance, to increased conflict, tension and family violence against the elderly and elderly people who live alone or in nursing homes. These evidences did not eliminate the intergenerational family solidarity, particularly, in care for children or the elderly, support in times of illness or crisis or change (divorce, unemployment, migration, maternity / paternity during adolescence).

These factors did not eliminate *participatory altruism* (Moscovici, 2001). Participatory Altruism is an intense participation in common life, a dedication and connection to a community, a group which people are identified with. It's an otherness without Other, in which the Self and the Other are not truly distinct. The Other constitutes the We and links the family members, an *altruistic* and *solidary WE family.*

As a consequence, multiple forms and practices of intergenerational solidarity are produced in the family environment, *invisible* and *silent*: that is a solidarity, dedication and assistance considered *natural*, *a gift /love* (Boltanski, 1990), a *duty* that is not questioned.

Despite presenting a gradual transfer of functions which are considered the exclusive responsibility of the family to other social agents in the European Union and in the U.S., the majority of care provided to individuals has been given by family members, and the family has continued to represent the privileged place of development, socialization, care, protection and solidarity. For instance, in Portuguese culture it is still considered natural and usual for families to remain responsible for the care of their elderly relatives.

Freire (2003) in his educational and communicational approach highlights some necessary conditions in order to have relationships and dialogue in the act of informal and formal caring:

– *Love/compassion*: implying a commitment and respect for the other, his/her autonomy and freedom;

– *Faith*: in the potential of each human being and his/her capacity for growth and changes in different life cycles, through policy dialogue and communication;

– *Humility:* which implies a willingness to listen and respect the others 'opinions even different views posed by different generations;

– *Hope*: the possibility of transformation and change in individuals and life situations;

– *Critical thinking*: recognition of the phenomena complexity and human relationships, rejecting the simplifications and dichotomies and accepting the dynamic and cyclical everyday familiar and generational world.

Studies have shown (Mestheneso et al., 2005), that the relationship between people based on love and affection, the kind of family relationship and affective commitment which is built over time, is a determining variable for the provision of care and family support to different generations, especially the elderly people, overlapping the "*obligation and gift*." As this study confirms (*Eurofamcare Project*) carried out with households who take care of dependent elderly people in six European countries (Germany, Greece, Italy, England, Poland and Sweden), the main reasons for providing care for the elderly are the following: affective ties (57%); duty (15%), obligation (13%), the lack of other choice (3%).

However, concerning care for the elderly as with children and young people, American and European studies emphasize that despite of presenting a large female predominance, men (fathers, husbands or sons) have been increasingly participating in their care (Boltanski, 1990; Saillant, 1992; Lesemann et al. 1993; Kellerhals et al., 1994; Jani-Le Bris, 1994; Salvage, 1996; Attias-Donfut, 1995, 1998; Barber, 1999; Moreira, 2001; Lavoie, 2000; O'Shea, 2002; Ramos, 1993, 2004, 2008, 2012).

The relationships between the different generations in the family, between grandparents, parents and grandchildren have been solid, currently registering, new alliances and networks of support between generations (Attias-Donfut & Segalen, 1998; Saillant, 2001; Bengtson et al., 2003; Litwak et al., 2003; Smith, 2004).

The family has not lost its function as a social network and it also discovered other ways of partnership with other formal networks, in which two of their main functions are the socialization of children and support to adults shared in formal networks.

In these new alliances and in the practices related to intergenerational solidarity family which remain active, even though invisible and silenced sometimes, and contrary to widespread belief of its loss, has emerged the *role of grandparents* in the custody and care of children and *care by the elderly* in the family.

Grandparents providing children's care and education

The role and legality of today's grandparents are reinforced in law and in the family. The grandparent - grandchild relationship has been continuing to take a central place in the imagination and discourse of different generational groups (Ramos, 1995, 2005, 2008, 2012).

Grandparents are the basis for the necessary stability between the imaginary concerning family and the ties of family membership. They have participated on conscious and unconscious levels in the psychic construction of grandchildren and also they have been transmitting cultural and generational psychic, emotional, educational and important stability for grandchildren and their parents.

The practice of the grandparents' role, especially the guardian grandmother is marked by a complex relationship frequently surrounded by pleasure, and physical and relational difficulties. These difficulties may result in anxiety and depression.

It is frequent for grandparents to question their competence to deal with social changes and new demands made by children and grandchildren.

The competence for dealing with both: the real and ideal the dimensions becomes an important means for maintaining physical, mental and relational health of grandparents.

Multiple factors may influence the diversity of grandparent-grandchild relationships, and in their higher or lower involvement, specifically: the psychic structure of the grandparents, family history, forms of the relationships with the children, age, gender, health, social and cultural environment in which they live.

At the present time, it is frequent for grandparents to share their young adult grandchildren's lives producing new modalities, particularly emotional, educational and mutual solidarity, where very often the grandchildren become grandparents and also caregivers and /or carry out mediating functions when generational conflicts occur.

At the present time the relationships between grandparents and grandchildren are more individualized, open and more extended in time.

At the present time, the majority of children and young people get the chance to be born and live longer in the company of the four living grandparents. They are healthier, better educated, live longer and generally they concentrate more economic power (they enjoy their comfortable retirements, and also get state support, and a part of these assets have been used as material aid to their children and grandchildren), the benefit of having a more individualized support offered by grandparents, since fewer children were being born, the grandparents have fewer grandchildren to take care of or offer support (Attias-Donfut & Segalen, 1998).

In Portuguese culture grandmothers and grandfathers are mothers and fathers twice.

Being a grandparent gives new identities, new roles and interactions, gives meaning to life and brings out a continuing desire. Being close to their grandchildren, grandparents have a direct influence as parents and also parents of the grandchildren, a fact which has an important influence on educational attitudes and behaviours for their children´s parents and educators nowadays.

A study carried out by Wolff (1998) in Germany, emphasized that custody of grandchildren by grandparents, originates multiple forms of reciprocity between the three generations:

– Grandchildren will maintain a privileged relationship with the lifelong grandfather who took care of them;

– Parents whose children were cared for by grandparents maintain closer relations with these when they become older, visiting them an average of ten additional annual visits.

The investigation carried out by Attias-Donfut and Segalen (1998) reveals this solidarity and reciprocity between generations, emphasizing that an investment in the role of grandparents does not decrease the investment in older people. Rather, the investment in the elderly is higher in grandparents who regularly deal with their grandchildren.

These investigations emphasized some evidences: among these, 47% of grandparents who take care of the children on a weekly basis are also regularly elderly parents, while among those who never take care of their grandchildren, only 27% are dedicated to taking care of their elders.

Numerous investigations carried out in different social and cultural contexts of either nationals and migrants, particularly in Portugal, confirm the importance of seniors and grandparents concerning the intergenerational diffusion of the culture, language and habits, as well as, the values and educational practices, revealing that this transmission is also involuntary and unconscious.

Other studies also confirm the kind of education and care that parents had in childhood influence the nature and way how they care for and raise their own children (Kivnick, 1982; Brazelton, 1988; Ramos, 2004, 2005, 2012; Kornhaber, 1996; Castellan, 1998).

There are multiple affective and educational functions developed by grandparents, such as: ensuring continuity and affiliation ties; imparting knowledge; providing care and affection to the child, promoting the child´s development; saving the memory and facilitating the transmission of the traditions and the family educational and cultural values.

Investigations carried out in Europe and the U.S; reveal that gender has an influence on the roles of being a grandmother and grandfather. This role is important for both, but especially for women who tend to be more active and participative in order to engage preferentially with emotional aspects of mothering activities, socialization and educational practices and daily care of the grandchildren. Men participate, especially in recreational and leisure activities, concerning studies, work and the grandchildren's future (Ramos, 1993, 1995, 2004, 2008, 2012).

Grandmothers and grandfathers leave dissimilar memories and reminders in children and adults. Grandfathers are remembered by grandchildren and associated with the social history, being described in their work, activities and implications concerning outdoor / public domain.

Meanwhile, the grandmothers are associated to the family history, home, kitchen, clothes, that is, in the private/family domain, a clear division of gender roles (Attias-Donfut & Segalen, 1998).

Regarding grandparents' expectations, studies carried out in the U.S., in which the future grandparents were the subjects especially emphasize that grandmothers, have high expectations regarding their roles.

Grandmothers have hope that the new role will bring them great satisfaction, they strongly wish to be useful to their grandchildren, and also be known as tolerant and wise.

On the part of the grandparents, they imagine playing a role of counsellors among parents and health care for the grandchildren (Somary & Stricker, 1998).

The older generations have been keeping on playing an important role in socialization, education and knowledge transfer to new generations. These functions favour the dialogue and the rapprochement between the generations, contribute to the reduction of prejudice and isolation concerning the elderly, as well as helping promote their self-esteem and well-being, and encouraging affection and solidarity ties between the generations involved.

Intergenerational relationships, mainly those among the older and younger generations, between grandparents and grandchildren in an autochthonous context, especially migratory haves contributed to learning the language and culture of the origin country, strengthening the cultural identity, essentially, the younger generation, acting on integration and academic success, as well as on the social cohesion of the group.

The activities between generations provide a space in which different generations, have respected differences and knowledge and also create a common space of mutual sharing of resources, knowledge and affection, exchange, solidarity and dialogue between older and younger based on the knowledge and experiences of each social actor.

Concerning the *transmission of knowledge* Dumazedier (2002) highlights three modes, which are important for the development of relationships and intergenerational solidarity:

- *knowledge etransmission* from older to younger generations has continued to play a role in *the transmission of knowledge*, particularly in the family;

- *knowledge transmission* from new generations to older women through practices done not only as self-training but also supported by educational institutions or independent of them, done via new technologies;

- peaceful or conflicted coexistence between the knowledge of yesterday and the knowledge of today, towards *coeducation of generations*,

aiming at transmitting knowledge and negotiating the boundaries between the knowledge and skills of yesterday and those from today and fighting against *generational ghettos*.

Oliveira (1993, 1999) highlights the importance of *coeducation of generations* and the transmission of knowledge from older to younger, namely, *knowledge,* which Vitale (2000) names *legacy*.

According to these authors, the legacy that older generations struggle to transmit to young people can be classified as:

- Legacies of order, which refer to the responsibility, organization, habits and education;

- Legacies of solidarity, which relate to the feelings and values such as love, friendship, sense of justice, collaboration and respect;

- Legacy of faith, which is related to faith, spirituality and religiosity.

The elders and grandparents are links of solid support and solidarity between generations, serving as anchors of culture, tradition, education and affections.

Caring for the Elderly in the Family

Regarding family solidarity concerning *the caring for the elderly*, in the older generation the responsibility for this care is generally given to the families, mainly to women. Indeed, despite the increased support for formal care, the majority of care for the elderly continues to be provided by family caregivers, or by informal family support, predominantly in Portugal, where families are the major carers for the elderly (Jani Le Bris, 1994).

This family support is expressed into the provision of multiple emotional, psychological, instrumental, domestic and financial modes of care.

Beyond the cultural values and feelings of love, affection and dedication frequently associated with care, other contextual reasons may influence the provision of family care for the elderly, including: longstanding cohabitation relationship between the caregiver and the person who demands a careful degree of dependence of the elderly, the modality of care, the

availability / unavailability of caregivers, geographical proximity, public policies, lack of support structures and high financial costs of institutionalization, that is, the households for instance. On the other hand, factors such as geographical distance, limited space, female labour, the economic and employment situation and new family configurations can hinder the provision of home care (Attias-Donfut, 1995; Moreira, 2001).

Consequently such informal family support is multifaceted, unpredictable and not imposed in which multiple factors are involved (Finch & Mason, 1993).

Contrary to a widespread idea of an early institutionalization of the elderly, abandonment and familiar negligence concerning the preceding generations, some studies reveal evidence of the opposites. Indeed, increased longevity implies a higher dependence. The children and grandchildren need to give increased care for their families, over longer periods when compared to the previous generations, often at great personal and professional costs resulting in consequences for physical and psychic health of the carers (Maheu, 1992; Ryff et al., 1995; Salvage, 1996; Haley et al., 1996; Mac Rae, 1998; Saillant, 2001; O'Shea, 2002).

Studies carried out in Portugal, Italy, Greece, Spain, Denmark and Ireland and Brazil, conclude that informal caregivers, such as family members, express a set of symptoms: excessive fatigue, general fatigue, physical and mental exhaustion, anxiety, stress and depressive symptoms. These caregivers, occasionally, present difficulty in reconciling the demands of care with the available resources, including physical and financial resources, frequently being obliged to reduce leisure, social and professional activities.

Work overload originates high physical and mental stress for caregivers and those who receive care, and there may be circumstances of violence, as well as, physical and psychological problems for the carers (Sousa et al., 2004; Figueiredo, 2007; Sequeira, 2007).

Barber and Pasley (1995) examined a group of investigations carried out in U.S. in the last three decades and concluded the following findings: informal care carried out via families represents about 80% of the care with elderly with chronic disability, and approximately 30% of

women who mainly provide care are daughters who leave their jobs or reduce their professional activity to take care of elderly parents, with 25% of requests for the nursing home being justified by the death of the informal caregiver.

Studies carried through in EU and U.S. in which elderly stayed with the families, conclude that mainly women, the daughter, the daughter--in-law or elderly's wife who take care, represent the vast majority of all family caregivers of dependent elderly, resulting in a double workload given to women (Jani Le Bris, 1995; Salvage, 1996; O'Shea, 2002).

However, concerning the care for the elderly and the children and young people, American and European studies emphasize that despite the predominance of women, the men, children or parents, are increasingly participating in this care (Ramos, 1993, 2004).

Jani Le Bris (1994) reveals in his studies carried out in the European context, including Portugal, that the primary care for the elderly is provided mainly by daughters and secondary care by the children. This study also shows that the female care corresponds to 75% and 25% is male. Caregivers are predominantly female wives, in about 20% of informal caregivers, as well as, daughters and daughters-in-law who represent approximately 64.3% of the caregivers. The caregivers are mainly retired men and the women are housewives and working women, with daughters are predominant in this circumstance.

Investigations also evidenced direct or indirect reciprocity, immediate or deferred in time of donation, and the bonds of solidarity across generations this movement of giving and receiving was the foundation of familiar social ties in the precursor approach (Mauss, 1960).

Thus, elderly people who in the past spent time taking care of the preceding generations receive care from their children more frequent than others, as the example of the parents serves as a model for future behaviours of children toward themselves (Attias-Donfut, 1995, 1997, 1998). In this sense, this evidence reveals the presence of indirect reciprocity, in which, what is given to some (parents) is received from others (children), recalling the Portuguese saying: *you're a son, you'll be a father, and as you'll do so you'll get.*

The support of family solidarity is composed of affections and exchanges of gifts and reciprocity, negotiation and strategies among family members, rules and relationships which long been established. The obligation and duty towards the ancestors in higher or lower scale are present in speech and practice.

These solidarities are also consciously and unconsciously originated, by a sense of obligation and duty, influenced by the values, norms and customs of the culture and social group in which individuals and families have been living (Singley, 1993; Lesemann et al., 1994; Kellerhals, 1994; Attias-Donfut, 1995, 1997; Salvage, 1996). Studies reveal that families of a lower social level consider that taking care of their families is based on duty, while families of higher levels consider the same fact as a choice (Pitrou, 1995; Attias-Doufut, 1995).

In Portugal moral values were identified in the care of children with their parents and in the care with the elderly. Consequently, when parents were dependent the children assumed the obligation to take them in. When formal support is insufficient or nonexistent, the family develops strategies for sharing the tasks of caring, whether at home for the elderly, or through the process of their movement to the children's home (Hespanha, 1993; Jani Le Bris, 1994).

Final Considerations

Intergenerationality is important as a social and educational project at the individual, family and society levels with a view to eliminating the exclusion of older generations and the formation of stereotypes and prejudices. Its base is age that is, to promote dialogue, learning and socializing among the various generations and also building a society for all ages, in which different generations may contribute to a culture of solidarity and citizenship, as well as people's well-being.

In order to better deal with an aging population, it is necessary for countries, particularly the decision makers countries and civil society unite efforts to develop the implementation of public policies and programs

that promote and enhance the education, health, social participation, and intergenerational solidarity protection of citizens at all stages of life.

The development of the positive image of aging and the social rights of older generations, promote the participation of older people in society.

There is a need for social and health policies in the area of aging and intergenerationality tailored according to the needs of families and different generations, taking into account the determinants of health throughout the life cycle, gender issues and social inequalities.

There is a strong need for families and carers to be supported and cared for by a society and a more responsible and caring State, a better balance and coordination between informal and formal care and the development of appropriate public policies in this area.

Educating for aging, as well as, education for respect and solidarity with the generations, particularly with the older, is everyone's responsibility at all social levels.

However, the family is the first example of intergenerational relationship, the first socializing and educational institution and the most responsible for the transmission of culture and values between generations. In this sense, especially in the family, these values have to be truly taught, cultivated and deepened. It is in different contexts and sectors but mainly in the family that active aging and aging with hope can be promoted and nurtured.

At the time I thought, though my grandmother was also a very wise woman, she couldn't rise to the heights my grandfather could, a man who, lying under a fig tree, having his grandson, José at his side, could set the universe in motion just with a couple of words. It was only many years after, when my grandfather had departed from this world and I was a grown man,that I finally came to realize that my grandmother, after all, also believed in dreams. There could have been no other reason why, one evening she was sitting at the door of her poor home where she lived by herself, staring at the biggest and smallest stars overhead, she said these words: "The world is so beautiful and it is such a pity that I have to die (Saramago, 1998).

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INTERGENERATIONAL SOLIDARITY: BRINGING TOGETHER SOCIAL AND ECONOMIC DEVELOPMENT

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Abstract

Intergenerational solidarity comprises the connection and exchange between generations. In a time when demographics show an increase in the older population in comparison with its younger counterpart, it seems important that social and economic development should no longer be focused on the dated paradigm of investing only in the education of the youngest generation. Our proposal points to the need for a more integrated approach to generations in order to build policies and programs that promote social and economic development, through a inter/multigenerational perspective. Therefore our proposal is to combine inter- and intra-generationality with social entrepreneurship; in this way, economic development would be not an end but a means to the great goal of achieving more well-being.

Keywords: Intergenerational solidarity; Social development; Economic development.

Introduction

The topic of intergenerational solidarity emerges associated with (and is inseparable from) population aging (Newman et al., 1997). Population aging starts by being viewed as a "social problem", as it undermines the

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sustainability of social protection systems (Harper, 2005). The acknowledgement that it is also an achievement meant that it started to be referred to as "social challenge": it is desirable to live more years, but it requires the restructuring of social systems in order to cope with the increase in the proportion of non-working (aged) population (Harper, 2005). In this paper we propose to discuss population aging as an "opportunity for social and economic development," arguing that solidarity between generations can be the operational tool of that opportunity.

Intergenerational solidarity is defined by the connection and exchange between generations (Tobio, 2010). It is consolidated at a micro level (several generations of a family) and at a macro level (beneficiaries, inactive generations, *versus* taxpayers, the active generations) (Walker & Fong, 2010). Therefore, intergenerational solidarity is developed in the private sphere of family and community relationships and in the public sphere of social policies. And it has been mostly described by its scarcity (Figueiredo, 2007; Hareven, 1996; Sousa, Figueiredo & Cerqueira, 2004): at a micro level by the abandonment of the older persons, and at a macro level by the inability of the active population (taxpayers) to ensure the social protection of the non-active (beneficiaries).

Our proposal is that social and economic development is no longer seen through the old paradigm of investing just in the education of young people (Walker & Fong, 2010). This should be a paradigm of the past, which made sense when the proportion of older people was lower. The time has come to adopt a more integrated approach of ages/generations to build policies and programmes of social and economic development by adopting an intergenerational perspective[4]. Our proposal is to combine inter and intra-generationality with social entrepreneurship, based on the need to set the welfare of all citizens and communities as the aim of society, i.e., economic development not as an end in itself but a contribution to the greater goal of well-being.

Solidarity between generations: meaning

Intergenerational solidarity has been described and defined in different ways, but the concept can be summed up in two ideas (Tobio, 2010; Bengtson, 2001): connection and exchange between generations. The connection is what keeps generations together, highlighting interaction and mutual support; exchange refers to what generations give to and receive from each other. However, it goes beyond reciprocity (the equivalence between what we give and receive), also involving altruism[9]. Intergenerational solidarity occurs at the micro level (family) and macro level (society).

At a micro level it refers to several generations of a family (great-grandparents, grandparents, parents, children), who provide support over the role changes that characterize individual and family development. Usually (Tobio, 2010): each generation receives twice in life (from parents as children; from adult children when older), and each generation gives twice (first to the children and then to the old parents). At a macro level it refers to the distribution among the adult and active generation who pay taxes, buy services and share their time with other inactive generations (beneficiaries) (Tobio, 2010).

Thus, interpersonal relationships in the family (micro level) are inter-related with social policies (macro level). And the macro level of policy and values organises the context of interpersonal relationships, indicating "normal" and acceptable individual and family behaviours and creating rules for family relationships.

Solidarity between generations has been addressed mainly from the perspective of its scarcity, absence or difficulty in contemporaneity (Walker & Fong, 2010; Figueiredo, 2007): i) emphasizing its absence or reduction at the micro level (family and community); ii) focusing on the difficulty of social policies in maintaining solidarity in terms of the Welfare State due to population aging. It is necessary to question these preconceived ideas so that solidarity between generations can be an opportunity for social and economic development.

Micro level: the myth of decreased solidarity among generations

Political, social and media discourse has focused on the absence or reduction of intergenerational solidarity, reported by cases that show: abandonment of older parents by adult children; older people who die at home alone without being noticed; isolation of older people; abuse, neglect and maltreatment. It is a fact that these cases exist and require a response that will restore dignity to these citizens' lives. Nevertheless, there is consistent evidence, in Portugal and internationally, that families continue to have a central role in the lives of members of all generations, including the elderly (Harper, 2005; Figueiredo, 2007). It would be naive to assume that all families provide the best care for their older members. However, research shows that (Harper, 2005; Figueiredo, 2007): 80% of the elderly are cared for by their families.

It is then necessary to understand why this myth of absence of intergenerational solidarity within families and communities arises today. This myth emerged in the 1970s, when some sociologists began to debate the alleged breakdown of social ties and the "death" of social solidarity (Attias-Donfut & Rozenkier, 1996; Vicente, 2010). This perspective is anchored in the understanding of the family under the double perspective of kinship and co-residence (Segalen, 1999; Vicente, 2010). That is, intergenerational solidarity exists when a group of "nuclear families, genealogically linked together, share a home" (Bernardi, 1992, p. 290). This myth argues that intergenerational solidarity existed in families of the past (numerous and cohabiting), assuming that there is a conversion in contemporary families to the nuclear form, as a result of the functional needs of the industrial economy, which promotes the lack of solidarity between genarations (Fuster, & Ochoa, 2000; Vicente, 2010).

However, research does not back up this myth, because historical analysis provides evidence that domestic groups of the extended family have never been the norm, neither in the Portuguese context, nor in the rest of Europe (Wall, 2005; Vicente, 2010). Several authors (Ariès, 1988; Vicente, 2010) consider that this only happened in times of uncertainty, when families were forced to replace public authorities due to legal or

economic situations. Ariès (1988) traced the origins of contemporary (nuclear) family to the Middle Ages through an iconographic analysis and realised that images showing families with more than two generations were rare. Probably the historical perspectives of the past with the extended family living together were influenced by the experiences, concerns and prejudices of the present. That is, as noted by Freud (Freud, 2007; Vicente, 2010), it is inevitable that the story is an expression of the beliefs and desires of the present, rather than an actual picture of the past, as many things are passed on by memory and even distorted. These data limit the dichotomy between family of the past and family of the present, which is not to ignore the significant changes that have occurred.

Solidarity between generations has also been discussed in terms of connection versus separation from the family of other social systems (such as neighbours). Sussman (1988) in *"The isolated nuclear family: Fact or fiction?"* concludes that the appropriate response is "fiction". Sussman (1988) questions the vision of the nuclear family disconnected from the extended network. He argues that family ties forged between generations have a decisive influence on family processes and that the nuclear family, far from being isolated, is integrated into a network of mutual assistance and activity. Therefore, research shows that there is solidarity between generations at the micro level, though little recognized, because visibility is greater in cases where it does not exist (consistent with the trend of the media to broadcast only bad news).

Macro level (social policies): alternatives to the welfare state and individualism

Social policies, especially retirement, social care and health policies, have been based on the renewal of generations, i.e. the active adult population pays taxes, allowing the non-working population or socially disadvantaged to receive social support; later when that generation is no longer active (retired), it will benefit from the taxes paid by the new active generations (Harper, 2005; Walker & Fong, 2010). However, espe-

cially in the last three decades, the impact of population aging inhibits this model and it requires reformulation.

In this context, the Western welfare states (where population aging is more pronounced and policies are based on the assumptions above) have been restructured to meet the projected increased costs of a growing elderly population (non-active). For example (Harper, 2005; Walker & Fong, 2010): several EU countries have altered pension systems to limit public spending and increase individual responsibility; Australia reformulated the traditional state pensions by limiting eligibility. Three arguments underlie these changes (the welfare state to market orientation and individualism) (Walker & Fong, 2010): a pessimistic view of population aging; an emphasis on family responsibility; challenges of globalization.

Policies in Western industrialized countries tend to take a pessimistic view of population aging (social problem or challenge), focused on increasing public spending. Hence the concern with this group described as economically dependent and unproductive. Politicians argue the need to efficiently manage public expenditure and emphasize that using "generous" social security can impede economic growth. They adopt the economic-demographic imperative to legitimize policies to reform the welfare state that promote the focus on individual resources and relatives (Walker & Fong, 2010).

The emphasis on family responsibility has been a common slogan, because, from a political perspective, care and support amongst generations are assumed to be "natural" obligations of the family. As a rule, adult children have a legal obligation to care for their parents (Walker & Fong, 2010) (e.g., France and Portugal), although some countries (such as the UK and Scandinavian countries) have already eliminated this legal responsibility (for example, it is difficult to argue that the children have a legal obligation to take care of a father who was abusive during their childhood). This assumption of the family as the natural and legal place to care for the elderly implies that policy measures provide little financial support and services to the caregiver families.

Thus, there is a responsibility and social burden on families, but they are not given adequate support to take the best care of their older

members; for example, in Portugal a couple with a child, where both members of the couple work and receive a combined salary of about 2000 euros (which is common), they can take care of an older parent (with a pension of about 400 euros), but neither one of the couple may stop working, so the old parent may be alone during the working day time.

These trends or political options are associated with the challenges of globalisation, leading politicians to see economic competitiveness, in ideological and practical terms, as a priority in relation to social support. That is, the alarm about fiscal pressures resulting from the "burden" of economic dependence on future generations as regards pensions, health care and social costs is amplified, and seen as a threat to the sustainability of the welfare state. There is also an emphasis on concerns with high levels of taxes which will lead social states to lose global market competitiveness (Walker & Fong, 2010).

Therefore, the macro level reinforces the images of the micro-level: the older are hampering aid to the young and economic development; and, at the same time, the younger are expected that take care of the older. Moreover, this policy path sets economic development as the goal, when the goal should be the well-being of citizens and communities; while economic development should be an instrument for that well-being.

Social and economic development: From a focus on youth to the integration of generations

The end of the twentieth century and early twenty-first century show a world that is increasingly diverse and complex as a result of various changes (such as decreased birth rate, increased life expectancy, greater involvement of women in professional careers, greater mobility of families) (Bostrum, Hatton-Yeo, Ohsako & Sawano, 2000). This context requires changes of various paradigms.

It is noteworthy that the solution is never at the level of the problem, i.e. the problem or social challenge of an aging population and consequent failure of social protection systems will not find a solution in doing

"more of the same" (i.e., raising taxes and reducing support for families). This is the level of the problem; the solution has to be on another level, and our proposal is to *look* at the aging population as an opportunity for social and economic development and at intergenerational solidarity as the instrument.

When thinking about social and economic development one still tends to be tied to the old paradigm of investing just in education/training youngsters (Walker & Fong, 2010). This should be a paradigm of the past, which emerged and made sense in a time when life expectancy and the proportion of older people was lower. We currently have a multigenerational social scenario, and it is essential to find the potential of this new configuration. We think the time has come to adopt a more integrated approach of ages/generations to build policies and development programs, as shown in the Madrid Plan of Action (2010-2012): to adopt an intergenerational perspective in policies of social and economic development. The gains will be greater if: i) we spend less time thinking about the costs of an aging population, and ii) we invest our efforts in the development of social and economic opportunities arising from the prolongation of life and multigenerationality.

The policies and programs based on the intergenerational approach should promote essential interdependence between generations and recognize that all members of society have contributions and needs. In 2007, the European Commission encouraged member states to establish renewed solidarity between generations, to confront demographic changes in Europe. According to the Eurobarometer (2008), 85% of EU citizens consider it important to use financial support in promoting initiatives and projects that bring people of all ages together.

Generational solidarity: previous paths and emerging challenges

Science, research and even large political action plans highlight the need to incorporate intergenerational solidarity in response to economic and social challenges. It still needs to be made real by implementing pu-

blic social policies and practices of citizens and communities (including public, private and third sectors). In order for this movement to gain strength it is vital to recognise the path travelled so far.

Intergenerational programs emerged in the 1960s as vehicles for continued learning and exchange of resources between generations, with the purpose of achieving social and individual benefits (Newman et al., 1997; Bostrum et al., 2000). In the 1960s, these programs were focused on connecting the older persons to schoolchildren, so that children could improve their academic performance and their knowledge about aging. The years 1970/80 witnessed the development of policies and social networks that unite young and old. In the 1990s manuals, videos and institutes promoting intergenerational relationships emerged. The 2000s allowed greater dissemination of practices, programs and policies in international terms and attempts to define best practices (Newman et al., 1997; Jarrott, 2011). These programs are based on two factors (Jarrott, 2011): passing on traditional culture to the younger by the elderly (providing the younger with a new sense of place in time and ensuring the continuity of culture, fostering individual and community identity); the need to unite generations (bringing different contributions together).

Intergenerational programs focus on the link between various generations to respond to social problems, i.e. each generation and each person contributing with what makes them unique: children are the guarantee of continuity and social evolution, and need education and emotional support; teenagers represent those who defy ideas which are preconceived and taken for granted, and they may contribute to important social changes; adults have a role in ensuring the economic sustainability and continuation of the family. The role of older people remains to be defined, for in a society too focused on economic gains it is either difficult to value the contribution of those non-active older people, or there is a tendency to appreciate the elderly who remain productive, such as volunteers. This contribution is very real and relevant, but it continues to focus on an economically oriented input, which hardly characterizes the unique and special contribution of an elderly person. We consider that the most special contribution of the elderly derives from their life experience, which

translates into an ethical and developmental contribution: life lessons, boosting of social will, keepers of history and communal identity.

Intergenerational programs and policies require a fundamental change of perspective (Walker & Fong, 2010): from the roles divided between generations (active versus non-active) to the cooperation between generations (contribution from each according to their capacities, skills and motivation). At this point, it seems important to associate the movement of intergenerational practices to social entrepreneurship and thus raise population aging to a way in which to achieve an opportunity for social and economic development.

Social entrepreneurship combines entrepreneurship (economics and business management) and the development of the third sector or social economy. It presents a social mission, since it aims to achieve the common good (similar to the values inherent to intergenerational solidarity); and it results from a social need to which one wants to respond. Social entrepreneurship has the potential to promote human capital because it focuses on promoting social and community development through structural changes that respond to social problems. The essential of social entrepreneurship lies in social value and it can generate economic value.

Intergenerational practices associated with social entrepreneurship can connect generations and contribute to social and economic development (Vanderven, 1999; Kuehne, 2003). These programs are developed in the local community, focusing on identity, i.e. on what is unique. They focus on overcoming social problems and concentrate on values of solidarity and development. Thus, they promote social and economic development. This proposal may seem overly theoretical, but the changes inherent to population aging require reflection and deep understanding of the opportunities and challenges we face.

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INTERGENERATION EDUCATION AS A STRATEGY FOR PROMOTING ACTIVE AGING: ANALYZING THE NEEDS OF A LOCAL COMMUNITY AS A WAY TO DEVELOP RELEVANT AND SUSTAINABLE PROJECTS OF INTERVENTION

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Abstract

Population aging is happening throughout all European countries, including Portugal. This general trend brings important challenges at several levels and therefore the importance of intergeneration education programs gains relevance. Nevertheless and in order to succeed, these projects ought to be built through a realistic identification of the needs and potentialities of the local communities (Caffarrella, 2002). This assessment is essential to the real achievement of the goal of active aging. Active aging is defined by the Second United Nations Assembly on Aging (Nações Unidas, 2002) as "the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age". Social intervention must be built according to the vital life cycle and is important during the entire life course. Intergeneration education concerns "activities or programmes that increase cooperation, interaction and exchange between people from any two generations. They share their knowledge and resources and provide mutual support in relations benefiting not only individuals but their community" (Sáez, 2002, p. 29). This kind of education promotes change and individual evolution as the result of learning with others. Several studies (MacCallum, 2006; Kaplan, 2004) show the benefits of these programs not only for the seniors but also for the younger people and for the community in general.

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We intend to demonstrate that relevant and sustainable programs of intergeneration education can actually be an important strategy for the promotion of active learning and a possible answer to the social problems brought up by the recent changes in population structure in developed countries.

Keywords: Intergenerationality; Intergenerational programs; Intergenerational education; Community intervention.

Introduction

The present article is a brief presentation of the doctoral project "Intergeneration education as a strategy for promoting active aging: analyzing the needs of a local community as a way to develop relevant and sustainable projects of intervention"[23], to be undertaken, starting this year, at the Faculty of Psychology and Educational Sciences at the University of Coimbra. This project aims to:

– Highlight the importance of intergenerational education as a way of promoting active aging and the development and well-being of individuals, groups and communities.

– Point out the importance of planning intergenerational programs starting from the individuals and communities involved, paying special attention to the specificities of its conception and development, from the active aging point of view.

– Create instruments that can help to identify the needs and potential of the communities, concerning human, social and material resources

– Conceive a plan of intergenerational education programs to be developed within the studied community, settled on sustainable bases regarding its development and implementation, with the purpose of fomenting active aging.

Due to the demographic aging observed in developed countries and to the economic, social and medical progress of the end of the last century

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[23] Co-funded by Foundation for Science and Technology (FCT).

currently there is a growing investment in active aging. According to the European Communities (2006), European demographic aging is the result of the following demographic tendencies: (i) the reduction in the number of sons/daughters per woman is 1.5 sons/daughters in EU25, which is far lower than the substitution rate of 2.1 needed to stabilize the population's size; (ii) the decline in the fecundity during the last decades followed the post-war baby-boom which explains the growth of population in the 45 to 65 years age group; (iii) life expectancy at birth has grown eight years since 1960 and will continue to grow five years or more until 2050.

In Portugal the scenario isn't much different and life expectancy at birth is 76.3 years for the men and 82.4 years for women, values that are above the European average (Carrilho & Patrício, 2010). The projections for the period of 2000-2050 according to three scenarios, conclude that Portugal will witness a reduction of the young population (0 to 14 years of age) so the elderly population (65 or more years of age) will increase between 63.2% and 76.5% (INE 2004). The same study indicates that the number of elderly per active worker can triple in the next 50 years (Abreu & Peixoto, 2009). This situation will lead to a rise in the number of people with more than 80 and 90 years of age which means more people reaching an age of dependency and potentially spending several decades in retirement.

Thus scientists and leaders are thinking about the future and new measures of action and, therefore, we begin the 21st century with an increasing political attention to the problematic of aging and with a rise in political measures and of new intervention axis, such as: healthcare, economics, social security systems, education and change in the attitudes and practices that concern older people and their role in society (Kupiszewski, 2005).

Assuming that demographic decline is inevitable, it becomes evident that if we don't introduce changes in our societies in the future the lack of the young population's capacity to support the elderly population can increase the intergenerational conflicts and have a negative impact on social cohesion. To avoid this outcome it is urgent to change mentalities, attitudes and practices.

Intergenerationality is one of the possible strategies to achieve solidarity, social cohesion, participation, inclusion and equity. For some

time, international policies have been trying to convey the urgency in developing solidarity between generations:

- The United Nations, in Article 14 of the Political Declaration from the Second World Assembly on Ageing state the following: "We recognize the need to strengthen solidarity between generations and intergenerational partnerships, keeping in mind the particular needs of both older and younger ones and to encourage mutually responsive relationships between generations" (United Nations, 2002a, p. 10).

- In the European Council's green book "a new solidarity between generations" is referred to as a means to tackle the demographic challenge, "demographic changes are creating a new society, and these changes are set to speed up from 2010 onwards: ever fewer young people and young adults, ever more older workers, pensioners and very elderly people. Our societies will have to invent new ways of liberating the potential of young people and older citizens. Dealing with these changes will require the contribution of all those involved: news forms of solidarity must be developed between the generations, based on mutual support and the transfer of skills and experience" (CCE, 2005, p. 6).

- The Madrid International Plan of Action on Ageing (United Nations, 2002b), refers to education and intergenerationality as means to appropriate the full potential and knowledge of the senior.

Consequently we consider that demographic aging shouldn't be seen as a "social problem", but rather as an increment of social and human capital (experiences, education, etc.) which, through intergeneration education programs, can improve society's development in general and active aging in particular. Next we present some of the key issues that will be further developed in the doctoral project.

Active aging is intergenerational

The concept of intergenerationality hasn't yet been completely uniformed and established (Kuehne, 1999; Montero, 2002), meaning that we are still witnessing its development. However, from the analysis of

various definitions of intergenerationality we can state that this concept leads to the interaction between generations.

It is a polysemous concept that we can define according to different criteria, for example: family lines, group belonging, stage of life course (childhood, adolescence, adulthood and old age), etc.

We agree with the sociologist Magalhães when he states that "the generations are more than demographic cohorts. They involve social segments that contain family relations, relations between friends and co-workers, among neighbours, between sports groups, arts, culture and scientific associations. They imply lifestyles, ways of being, knowing and doing (savoir faire), values, ideas, patterns of behaviour, degrees of scientific and technological absorption. They contain memory, science, legends, taboos, myths, totems, religious and civil references" (2000, p. 37). Intergenerational relations are part of the several levels of social relation referred to by Magalhães that by promoting dialogue and exchange among the generations allow people to change. Authors such as Saéz (2002) and Pinazo and Sanchez (2007) mention that the most important thing about intergenerationality is interaction, in other words, exchange among generations which can change and remake generations.

Active aging is defined by the World Health Organization (2002) as a multidimensional concept that affects several political areas and people's wellbeing, anchored on the idea of a lifecycle and articulated with health optimization, of the participation and safety of people as they get older (Sánchez, 2009, p. 297). Understanding intergenerationality as a sum of a set of life stages improving and changing continuously, we can conclude that intergenerationality is active aging.

Thinking about active aging should be based on the recognition of human rights: the right to participation, to independence, to dignity, to assistance and to the fulfilment of one's own desires. This way of conceptualizing active aging means that people have the right to decide if they want to remain in the labour market and whether they want to contribute to society or not. Garcia says that "retired seniors have already met their primary needs, and can afford to spend time living in solidarity and cooperation or, otherwise, lose themselves in isolation" (2002, p. 17).

Meaning that if, on one hand, we should respect the will of older people in not wanting to participate in social life, on the other, we should create the necessary conditions for those who do wish to participate. This way, we can encourage inclusion of seniors, and education – intergenerational education in particular – can play a relevant part through intergenerational solidarity that refers as much to equity among generations as to the opportunity to develop activities that bring together different generations.

Intergenerational education and intergenerational projects

According to Saéz intergenerational education is a set of "processes and procedures that are supported and legitimated emphasizing cooperation and interaction among two or more generations, seeking to share experiences, knowledge, skills, attitudes and values, in pursuit of self-esteem and personal self-achievement. The goal is to change and be changed while learning with others" (cit. by Sáez, 2002, p. 29).

We can say that intergenerational education has a double purpose: on one hand it is a way of contributing to integral education of the young, promoting their personal and social development; on the other hand it is an instrument for reducing isolation and emptiness of seniors' daily lives by raising their self-esteem and physical and psychological well-being.

In addition to international policies pointing to intergenerational education as a strategy that promotes active aging, international intergenerational project evaluation studies demonstrate that the list of benefits these programs can produce regarding participation and quality of life is extensive. We now present some of the benefits to older people, the young and the community relying on the analysis by MacCallum et al. (2006) concerning 120 programs developed in Australia (cit. by Pinazo & Kaplan, 2007):

a) Benefits for older people:

Better mood and a greater vitality; increased capacity in dealing with psychological and mental diseases; increased awareness of their personal

worth; increased opportunities to learn; escape from isolation; appreciation of their past experiences; reintegration in family and community life; creating bonds of friendship with younger people; increased self-esteem and motivation; sharing experiences with people that appreciate their achievements; respect and acknowledgment of their contribution on behalf of the community; learning from the young, developing competences, especially social and use of new technologies; opportunity to transmit traditions, culture and language; exposure to diversity and increased ability to deal with diversity.

b) Benefits to children and young people:

Increased feeling of self-confidence; increased sense of personal worth, self-esteem and self-confidence; less loneliness and isolation, access to adult support when dealing with difficulties; increased social responsibility; better impression of older people; greater knowledge regarding the heterogeneity of the older; more practical skills; better school results; increased reading habits; less involvement in episodes of violence and use of drugs; better health habits; more optimism; strength in times of adversity; increased citizenship and social responsibility; learning about history and their origins; gaining respect for the achievements of adults; getting support from professionals; reduction in leisure time linked to problems of antisocial behaviour.

c) Benefits for the community:

Development of a sense of belonging; building a more inclusive community; deconstruction of prejudices and stereotypes; increased social cohesion; appreciation of culture; change in stereotypes; revitalization of the community and public structures; production of public art; development of voluntary work; creation of a common story.

Other studies add further benefits, such as: improvements of community services for both groups (Kaplan, 2004); preservation of local history (Generations United, 1994); promoting recycling and the development of environmental conservation activities (Kaplan, 1994). Granville, in his

study of 60 intergenerational projects in England, concluded that inter-generational programs have been effective in achieving (i) improving the lives of participants, (2) reducing the tensions and misunderstandings between generations; (iii) the increase of intercultural understanding and multiracial tension of isolated adults; (vii) improving social capital by promoting social networks and community support systems (cit. by Sánchez & Diaz, 2005, p. 13).

The studies mentioned above confirm that intergenerational projects optimize health, participation and safety of the people involved therefore we can conclude that they promote active aging.

Nevertheless, to attain the aforementioned benefits takes more than putting seniors, children and youngsters together in the same space. Fox and Giles (1993) studied the relationship between intergenerational contact and the change of attitudes and concluded that the mere fact of putting different age groups in contact is not a guarantee of success even if the objectives are achieved (Sánchez & Díaz, 2005).

So, it's important to know in depth what intergenerational projects are and how are they drawn up and executed in order to successfully attain the proposed goals and the above mentioned benefits.

Intergenerational programs began to be developed in the 60s and 70s of the last century and initially were focused on mitigating the conflict between generations and promoting activities of assistance to seniors with limited resources and achieving greater proximity between the generations situated at the life cycle's extremes. In the following decades there was a change: these programs became interested in the community's development: education, family support, child and senior care, intercultural relations, social capital putting emphasis not only on relations between different generations but also on the benefits to society (Henkin & Butts, 2002).

The International Consortium for Intergenerational Programs (1999) defines intergenerational programs as "vehicles for the determined and continued exchange of resources and learning among the older and younger generations, in order to attain individual and social benefits" (quoted by Sanchez & Diaz, 2005, p. 2). According to Sanchez and Diaz an

intergenerational education program is "an intergenerational co-learning program aimed at exchanging information, knowledge, experiences and actions between seniors and other distinct generations, contributing to their continuous development – open to change – to the increase of knowledge, to shared and mutual learning, and therefore, to enrichment of their lives" (2005, p. 3).

In essence, an intergenerational program is an ordered and planned set of activities involving people that belong to different generations, intending to achieve benefits for both participants and the community hosting the program.

The main feature of an intergenerational program is to be aimed at the interests of those involved in it. Whereby, practice and intergenerational relationships become more important, notwithstanding the need for a clearly defined plan.

The design of an intergenerational program is a working tool, a resource that provides a basic orienting scheme. The first step will be to make a diagnosis to acknowledge reality concerning the needs, capabilities and interests of the population involved. The plan must be, on one hand, solid and congruent, and on the other, it must have a certain degree of flexibility because as the different strategies, activities and practices take place, the project can change its path according to the shifting interests and complex realities. It is important to note that in an intergenerational program, changes that are unpredictable and uncontrollable often occur, as they are a result of the interrelationship between the people involved (of the diversity of each human being). In this case, the program must be constantly adapted to new circumstances in order to achieve its objectives.

Montero and Gallego (2002) present guidelines for achieving the possible exchange of knowledge and skills between different generations, which we now present considering that these guidelines are fundamental for elaborating an intergenerational project and at the same time demonstrate the complexity of the task.

Principles

The general principles of any socio-educational activity are the same principles that should apply to the development of an intergenerational program:

– *Participation:* all people involved must have and maintain an active role.

– *Originality:* be a vehicle of creativity and emotions, in order to motivate participants to bring into play intellectual processes in search of alternative solutions to concrete circumstances.

– *Transference:* facilitate the practice of different experiments through the diversity of materials, situations, relations.

– *Flexibility:* allow participants to choose the means and manner of developing any given Action or task, after having explored a range of possibilities.

– *Continuity:* coherence between the activities and the program's development.

– *Implementation and adaptation:* be adapted to the needs and motivations of people within the group.

– *Inter-relation:* plan situations that favour personal and social relations.

Objectives: what is intended to be achieved?

– Encourage intergenerational relations as a means of overcoming stereotypes and a greater integration and social participation.

– Raise attention of the population in general and in intervening groups about the benefits of contact between different generations.

– Facilitate the exchange of experiences among the different sectors.

– Give priority to contact and social interaction, sharing spaces, times and resources, in achieving the same goal.

– Awaken new interests.

– Practice psychophysical and social dexterities needed for the exchange of knowledge, dexterities and skills.

– Promote moments of meeting, of interaction and mutual personal enrichment.

Contents

– Addressed to achieve the proposed goals.
– With formative aspects.
– Recreational/leisure activities and preservation and disclosure of cultural traditions.
– Specific tasks, aimed at stimulating and developing intergenerational relations.

Recipients

– A function of the context where we want to intervene, as well as the circumstances, motivations and the requests of intervening people.
– In principle, youth and seniors.

Methodology

– Based on the group's participation and interactivity.
– Time and scheduling should follow the objectives in order to achieve them.

Resources

– Involving the human resources that exist in the group and/or the community from the beginning.
– Collaboration of some organisms to obtain financing to provide the necessary material and technical resources.

Evaluation

– Always assess the activities and take into account not only what was accomplished, but also that which was not possible to achieve.

– The group should be involved in the evaluation, taking into account their suggestions and orientations.

– Can be systematic, continuous and participative (at the end of each session).

– Can be continuous and final (study the results obtained).

Preparing and executing an intergenerational program isn't an easy task; it requires knowledge, skills and competencies and an enormous forecasting effort. Thus, it is essential to train technicians to work in this area, since good intentions are not enough.

Final note

The current year of 2012 is the European Year of Active Ageing, therefore it will be a year in which policies, practices and knowledge will be developed in this context as well as in the context of intergenerationality.

Keynote authors on this subject alert to the importance of investigation in this field (Kuehne, 1999; Newman & Smith, 1997; VanderVen, 1999). In this article, we have briefly presented intergenerational education and intergenerational programs as a strategy to promote participation, health and safety of all people and of all ages, that is, active aging. This is a theme to be further developed in the doctoral project "Intergeneration education as a strategy for promoting active aging: analyzing the needs of a local community as a way to develop relevant and sustainable projects of intervention", which aims not only to produce knowledge in the field but also to contribute to the development of intergenerational education programs in Portugal.

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THE IPL 60+ PROGRAM: A SINGULAR CASE OF SENIOR EDUCATION IN AN INTERGENERATIONAL CONTEXT

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Abstract

Aiming for the promotion of active aging, the IPL60+ Senior Education Program is designed for adults over 50 years old and is part of the Polytechnic Institute of Leiria Strategic Plan since 2008, allowing its enrolled members to attend Curricular Units from any of the IPL's graduation courses.

Therefore, the Program is conceived as an intergenerational senior education initiative. Its mission is to help change the aging paradigm through the stimulation and promotion of formative, educational and socio-cultural activities that involve the individuals in their own learning path and lifelong development, always in an intergenerational sociability context able to strengthen mutual learning processes. By enrolling in regular classes, senior students share school premises with the younger students, being able to benefit from all the IPL Campus' services and spaces including classrooms, as well as canteens, cafeterias and libraries.

In parallel, the IPL60+ Program has been striving to complement the academic component, diversifying the offer of intellectual and physically stimulating activities that are appropriate to this specific audience. Simultaneously, there is a constant appeal to personal intervention and initiative, valuing the students' cooperation in the organization of a series of their own initiatives, some with a clearly educational tone, others more recreational.

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Demand has been increasing substantially, expanding from 17 students enrolled in 2008 to 111 in the 2nd semester of 2010/11.

Introduction

The IPL60+ is a Senior Education Program, developed by the IPL, which started in the second semester of 2007/2008. It aims to promote active aging, facilitating the integration of people over 50 years old in new social contexts and the construction of new relational networks. The Program promotes the sharing of knowledge and the acquisition of new knowledge and skills in an intergenerational context.

The Program has been well received by people who have retired recently, who maintain high levels of autonomy, willingness to participate socially and to complete their education. It is, in general, a population with medium or high levels of education, with qualified professional functions, demanding and with high expectations regarding the Program. They expect creative and exciting proposals and quality services.

The senior students have access to a diverse socio-cultural and educational offer. They also have access to all the services that IPL provides to the remaining students (canteens, libraries, multimedia resources, academic services, etc.).

Thus, in order to comply with the pillars supporting this Project – the promotion of intergenerational relationships and active aging – senior students can attend courses from graduate schools of IPL, joining in the normal context of class. Moreover, they can benefit from additional training, according to their interests and needs, in areas such as foreign languages and information and communication technology (ICT). They can also integrate and develop projects in several areas: physical activity, music, health education, and reading, among others.

This paper presents the goals and the foundations of the Program, characterizes the students and describes some of the initiatives that have

been developed. The data presented are from the period between the second semester of 2007/2008 and the second semester of 2010/2011, focusing particularly in this latter period.

Program context and relevance

The awareness that the world population is aging rapidly (by underlying social and economic implications) and that many elderly people face serious situations of exclusion and discrimination has been the basis of the increasing concern with their rights of citizenship. The progressive and marked increase of the number of elderly (and very elderly) can become problematic if some attitudes and behaviours are not reconsidered and if derogatory judgments are made of their real skills, which lead us to ignore the valuable contribution that they can bring to the development of societies remain. Their social, political and labour involvement is a way to overcome the adverse effects of aging and lead to successful aging.

There are several concepts that reflect a new concern about aging quality and the need to build new conceptions about aging and the elderly: active aging, productive aging, and successful aging. All of them, despite their conceptual specificity, bring us to the importance of involving older people in meaningful activities, promoting their personal development and having a positive impact on their lives and of those around them.

Following the Second World Assembly on Ageing, held in 2002 in Madrid, governments and institutional representatives committed to ensure full protection and promotion of human rights and fundamental freedoms, recognizing that, as people get older, they should have opportunities for personal fulfilment, to lead a healthy and safe existence and to participate actively in social, economic, cultural and political life (WHO, 2002).

The European Union, also represented in that Assembly, has developed a diverse set of measures seeking to develop community cooperation in the area of aging (European Commission, 2002). A major objective of these measures is to implement policies and practices in favour of active aging. The main practices include lifelong learning, extending the active

life period, postponing the retirement age, introducing a more gradual retirement system, maintaining an active life after retirement and developing activities that allow them to optimize individual skills and maintain every person in a good condition of health.

The IPL60+ Program follows this path of promoting aging quality, facilitating social participation and lifelong learning in order to enhance the elders' social role.

> Lifelong learning is essential to the constant improvement of skills required in a rapidly changing world, in which changes in technology and demographics put their own challenges and opportunities in the labour market. Nevertheless, lifelong learning and learning in advanced age involve more than just preparing people for the labour market. They are also concerned with preparing people of all ages for full citizenship within their families and communities, enabling them to contribute to the development and take responsibility for it. (Leeson, 2009, p. 268).

Developed in an intergenerational context, the Program enhances the skills of the elderly in the Leiria region, promotes their integration into new social contexts and the use of their knowledge to enrich the education of IPL's younger students. As indicated in the Guide of Ideas for Planning and Implementing Intergenerational Projects

> … teaching practices and intergenerational learning can contribute to a balance of disparities and to overcome social segregation, promoting greater capacity for understanding and respect between generations, allowing the development of inclusive societies. (Pinto, 2009, p. 6).

It is an initiative that brings together interests and desires of several generations, being a privileged space of interaction and acquaintanceship, which facilitates the development of actions that depend on the mobilization of human and social skills of the various subjects involved, and may assume a more educational or recreational aspect, depending on the intra-and intergenerational dynamics created.

Institutional framework

The IPL60+ Program started in the second semester of 2007/2008 and consists of a proactive and innovative project, based on a training model with regional impact, supported by sharing and accumulating knowledge and experience, designed for students with 50 or more years of age. Its mission is to help change the paradigm of aging, in order to promote greater autonomy and social contribution of seniors, by invigorating and promoting formative, educational and socio-cultural activities that engage them in their journey of learning and lifelong development. In fact, as referred by Ribeiro and Paúl (2011, p. 11) "successful", "satisfactory" or "active" aging doesn't depend exclusively on factors such as luck or genetic heritage. It depends on each of us, on individual responsibilities and actions".

In this sense, the Program establishes the following goals:

– To expand the domains of knowledge to seniors, allowing them access to higher education in a perspective of long-term development and education throughout life.

– To develop cultural activities which promote the relationship between generations in a perspective of social and communitarian involvement and inclusion.

– To get adults (with 50 years or over) to commit to a proactive promotion of their general well-being, through active and healthy living, in a perspective of citizenship and social well-being.

– To contribute to the changing of attitudes and ideals relating the aging process, the retirement and the role of "seniors" in contemporary society, aiming for the quality of life for all.

– To contribute to gerontological research, development and innovation.

Organizational structure

The IPL60+ Program has been part of "IPL's Strategic Plan" since 2008, depends directly on its Presidency and its management is assured by a

coordinator. For the performance of her duties, the Coordinator has the collaboration of a Scientific-Pedagogical Committee, composed by herself as chair, two teachers appointed by the Chairman of the IPL, five teachers appointed by each of the directors of the IPL schools, and three student representatives, elected annually by their peers.

Access and frequency conditions

According to the statutes of the Program, senior students can subscribe to up to 5 projects or classes per semester and are obliged to enrol in at least one Curricular Unit of the IPL's graduate courses. However, there can only be up to five senior students per Curricular Unit. Since attendance of the Program does not grant an academic degree, previous academic qualifications of senior applicants do not constitute access criteria.

The Program registration implies the payment of a subscription fee every six months and a fee for each Curricular Unit or project chosen.

Evaluation is optional. If a student decides to be graded, he will have to abide by the Unit's evaluation rules applied to all students. In case of approval, certification will be issued and the unit can be credited if its holder has or comes to acquire a higher education degree.

Formative and socio-cultural offer

One of the advantages of the IPL60+ lies in the diversity of training areas available to students since they can develop or acquire knowledge in areas such as Social Sciences, Educational Sciences, Health Sciences, Arts and Design, Engineering or Tourism. Specifically, the universe of choice extends to five schools located in Leiria, Caldas da Rainha and Peniche. An offer that allows the achievement of one of the underlying principles of the intervention: the respect for individuality and uniqueness of interests.

Senior students may attend all Curricular Units of IPL graduation courses, safeguarding the cases in which, because of their specificity, the teachers responsible deliberate that they should not be open to this public. In addition, as can be seen by the following list, senior students have the possibility of attending Curricular Units specifically created for them and of participating in cultural activities. These may be paid or free, depending on the regularity of the activities and the expenses they carry to the IPL.

The activities subject to a fee are:

- Curricular Units of graduate courses
- Trad'Inovation Project (tradition with ICT innovation)
- ICT (beginner and intermediate)
- English (beginner and intermediate)
- Physical Activity

In turn, the free activities are:

- Dance
- Collaboration on radio IPLAY
- Collaboration on newspaper AKADÉMICOS
- English conversation sessions
- Encounter with the books
- Health for all Seminars and Nursing Advisory Cabinet
- Thematic seminars
- Cultural and recreational activities (cultural visits, gatherings, dinners, etc.)

The IPL60+ Program has a strong academic component, the recreational offer is additional and of the initiative of the Program students or graduate students who are undertaking internships or some other type of work in the field of active aging and lifelong learning. In both cases, the activities are always a result of the suggestions and willingness of the senior students, who almost always assume responsibility for the entire process of planning and implementation.

Relating the graduation Curricular Units, seniors show a particular preference for the scientific area of Social Sciences and Humanities,

History, Psychology and Sociology in particular, as well as foreign languages. However, the interests are very diverse and are related to the respective personal and professional paths.

Students of the Program also show a high interest in the learning of the English language, as well as Information and Communication Technologies. The difficulty in keeping pace with the younger generations' learning rates in these areas led to the creation of specific classes constituted only by seniors. We believe that the difficulty meeting the pace of graduate classes is due, in particular, to the fact that the content and teaching methodologies are structured for an audience who have previous knowledge in the areas concerned. Unlike younger people, most senior students are at a beginner level and need highly customized support and attention to the specificities of their learning process.

In the ICT field, the Trad'Inovation Project stands out. It is a project which aims to promote an approach to traditions and to traditional and popular culture through ICT, accomplished by the development of activities involving senior students (facilitated by a trainer in the area of ICT) and children of the 1stcycle of basic education from some schools in the region. It has as its main objectives: to perpetuate the traditional and popular culture by making popular Portuguese traditions known, living them and recreating them through ICT and innovative situations; to create an intergenerational dynamic of the traditional and popular culture approach by putting several generations in interaction (children, adults and seniors); to share knowledge and experiences of traditional and popular culture from different countries in a perspective of understanding and acceptance of difference and valorisation of local and regional identities and the promotion of values such as fraternity and universality.

As the IPL60+ is made for and by the people, it seeks to encourage and welcome students' proposals (social, cultural or recreational) and has, therefore, conducted several regular or sporadic initiatives that result from their interests and the mobilization of their skills. An example of this is the project "Health for All", promoted by a retired nurse who attends the Program. This project includes seminars that take place every two weeks and are open to the whole IPL community, and also a Nursing Advisory

Cabinet, devoted exclusively to screening, counselling and redirecting in the field of health education.

In the same vein of personal initiative encouragement, the "Encounter with the Books" project is maintained by another senior student who shares his knowledge and promotes the involvement of his peers in intellectual and socially stimulating activities.

Dance and physical activity project

The development of physical activity is another strong component of the Program, along with the academic and socio-cultural components. In a partnership between Gerontomotricity teachers, interns from the Intervention for an Active Aging Masters degree, Sports and Well-being graduate students, and the Research Centre for studies in Human Motricity (CIMH), the Pilot Project Dance and Physical Activity for Older Adults was implemented in the academic year of 2010/2011. The aim was to maintain and improve physical condition as well as quality of movement to perform daily life activities, encourage socialization and develop healthy lifestyles in order to promote an active aging. In the 1st semester, there were 43 people enrolled in Dance and 29 in Physical Activity. In the 2ndsemester, 38 people enrolled in Dance and 42 in Physical Activity. This project is based on study / planning, implementation and evaluation of specific training programs for motor skills. Thus, students' functional fitness (body composition, strength, endurance, flexibility, balance and coordination), health (anamnesis, blood pressure), and self-esteem are assessed four times throughout the school year.

Alongside the dance sessions, strength and flexibility training and balance / coordination and stamina, there were occasional activities such as Hiking, Pedy-papers, Latin dance and Intergenerational Physical Activity Sessions.

The results were very positive, showing that training programs are effective and have corresponded to the defined objectives which were assessed using the Senior Fitness Test by Rikli and Jones (2008). There

have been improvements in strength and flexibility of upper and lower limbs, aerobic endurance, agility and balance (static and dynamic). In relation to body composition, there was a decrease in fat mass, an increase in muscle mass and an improvement in obesity indices. There was also an improvement in self-esteem levels and benefits verified on the health parameters.

The IPL60+ Program intends to continue developing Physical Activity Programs, reasoned and tested, disclosing the results to the students and encouraging the adoption of healthy lifestyles through physical activity.

Characterization of the target

To illustrate the evolution of the Program, it is important to start by presenting the evolution of student registrations over the semesters. The data used to profile the students refer to the 2nd semester of 2010/2011.
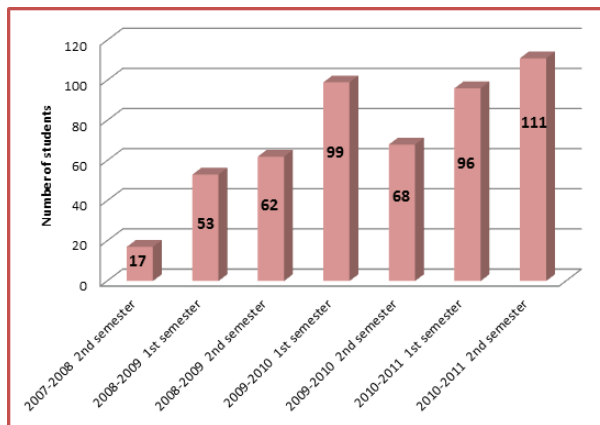
Figure 15: Student distribution by academic semesters

As we can see from the data in figure 15, the number of students enrolled in the Program has grown consistently, with the exception of a decrease seen in the 2nd semester of 2009/2010. In 2010/2011, the growth trend was resumed with a total of 96 students enrolled in the 1st semester and 111 in the 2nd.
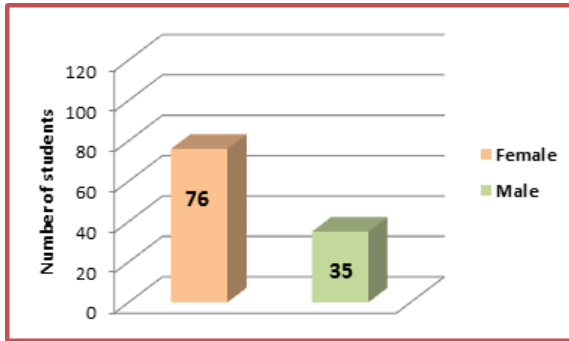
Figure 16: Student distribution by gender – 2nd semester of 2010/2011

As we can see from figure 16, the IPL60+ Program is predominantly sought by females (68.5%), although there was a slight increase in male students compared to the 1stsemester of the school year in question.
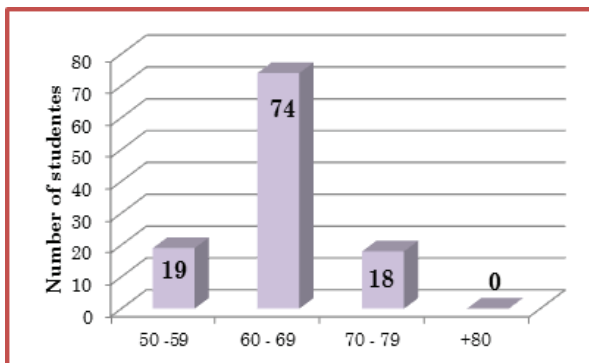
Figure 17: Student Distribution by age – 2nd semester of 2010/2011

Students who attended the Program in the 2ndsemester of 2010/11 were between 50 and 79 years of age, the majority being in the 60-69 age group (67.1%).
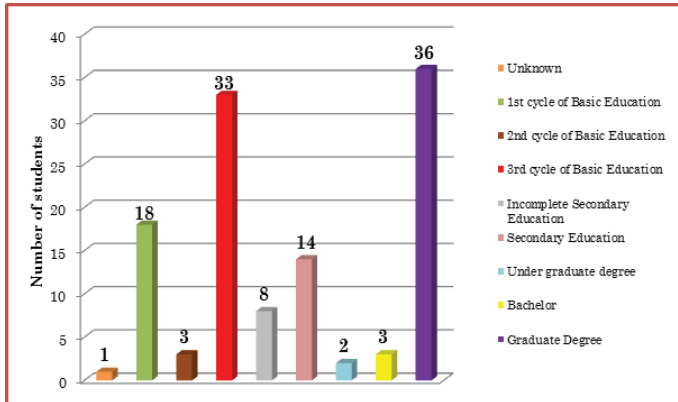
Figure 18: Student distribution by academic qualification
– 2nd semester of 2010/2011

The levels of education with greater representation among students enrolled in the 2ndsemester of 2010/2011 are the graduate degree (31.5%), the 3rd cycle of basic education (27.9%), the 1st cycle of basic education (14,4%) and secondary education (12.6%).

Thus, there is a great variety of educational backgrounds, ranging from 1st cycle of basic education to graduate. This diversity lies in the fact that academic qualifications do not constitute Program access require-ment, allowing the inclusion of people who didn't have the opportunity to pursue their education.
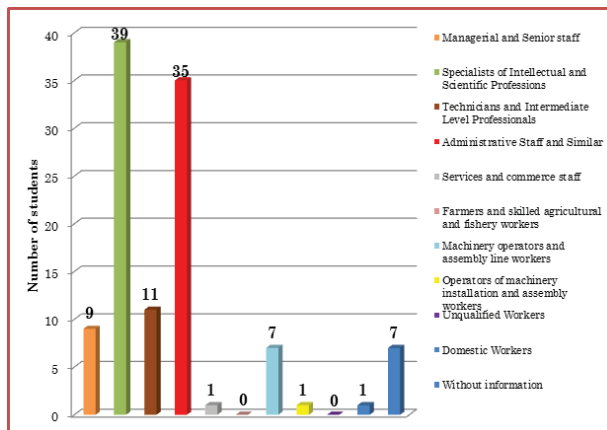
Figure 19: Student distribution by professional categories
- 2nd semester of 2010/2011

With regard to distribution by major occupational categories before retirement (according to the classification used by the Employment and Training Institute), in figure 19 Specialists of Intellectual and Scientific Professions (35.7 %) stand out, among which teachers are at the top of the represented professions (30 = 20.8%). Administrative Staff and Similar come second (31.3%), followed (with a much lower percentage) by Technicians and Intermediate Level Professionals (9.8%) and Managerial and Senior Staff (8%).

It is important to emphasize that the diversity of occupations is such that the categories Skilled Workers of Agriculture and Fisheries and Unqualified Workers are the only ones in which there is no representation.
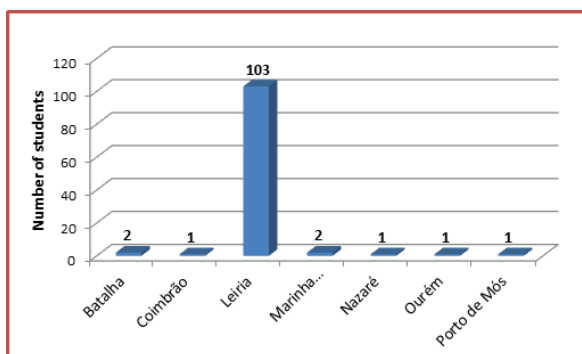
Figure 20: Student distribution by residence
- 2nd semester of 2010/2011

Most students enrolled in the 2ndsemester of 2010/2011 (92.8%) resided in the city of Leiria and the remaining in nearby localities. The place of residence seems to be related to preferences regarding schools attended. Thus, the Curricular Units and activities most frequented occur in schools located in Leiria: the Education and Social Sciences School, Health Sciences School and Technology and Management School.

Evaluation: An undervalued option

Although senior students may choose to be assessed in the Curricular Units they attend, undergoing a similar process to that of their younger

peers, only a minority has embarked on a formal evaluation, having, however, completed it successfully.

Since the beginning, the number of students formally evaluated has remained low. Noteworthy is the 1stsemester of 2010/11 in which, so far, the highest participation in curricular evaluation was registered. Even so, in this semester only 7 of the 96 students enrolled were evaluated in 9 Curricular Units. As an example, we present the detailed data of this period.

Table 3: Students Assessed in the 1st semester 2010/2011

Student ID	Curricular Unit	Rating obtained
Student A	Social Intervention in Risk Groups	15
Student B	History of Portugal	10 *
Student C	Discourse Analysis	13
Student C	Lusophone Cultures	18
Student C	Communication and Oral expression in Chinese I	13 *
Student C	Chinese I	14 *
Student C	Portuguese Language I	13
Student D	English	17
Student E	English	14
Student F	English	12
Student G	General Principles of Law	12

* Rating obtained by final examination, following a regular evaluation failure.

From analysis of this table, one student stands out as having been formally evaluated in five Curricular Units, with an average of 14 out of 20, despite having failed a regular evaluation in two of them. In a more detailed analysis of the 4 years of the IPL60 + Program, we find individual cases of students who invested heavily in the curricular dimension of the Program, the most emblematic one being the case of a student who within 2 years successfully completed 9 Curricular Units. In the 2ndsemester of 2009/10 alone, she achieved an average of 16 out of 20 in 4 Curricular Units, in this case without any failure.

Regarding the Curricular Units in which there is a higher concentration of senior students undergoing formal evaluation, it varies from one semester to the other. In 2010/11, English and Problems of Society and Contemporary Cultures (2nd semester) stand out while in 2009/10 the focus goes to Psychology of Education (1st Semester), Developmental

Psychology and Spanish (2nd Semester) all of them with 3 students successfully evaluated.

Final reflection

Investment in training and lifelong learning, developing intellectually, physically and socially stimulating activities, helps to address the aging process in a more positive way and to reduce the impact of potential losses. This will help to achieve the goals of Active Aging, which is presented as one of the pillars of this project.

The students who attend IPL60+ Program exhibit the most diverse motivations and interests, requiring constant attention to their specific needs. Allowing the expression of senior students' wills and the participation in the decisions that affect them is another pillar of our intervention, expressed in their increasing involvement in the planning and development of activities, as well as in the organization of the Program itself. The election of student representatives has been shown to be essential due to the mediating role they assume between their peers and the Program coordination.

The relationship between generations is the last pillar to highlight because it allows the enrichment of coexistence, interaction and mutual learning. This is achieved through the participation of senior students in younger students' daily activities, in classes and work groups, but also by the collaboration of graduate and masters students in activities of IPL60+ Program. There has been a growing interest in the Program, evidenced by research work conducted in the context of some Curricular Units and by the implementation of internships.

In conclusion, we want to enhance the important role played by the Program in the daily lives of senior students by promoting their personal enrichment, investing in their physical condition, recognizing their skills and making them aware of new contents and new strategies for understanding social reality and technological developments. From the point of view of younger students, these interactions contribute to their

global education through the appropriation of values that favour the recognition of a plural and inclusive society, and to the enrichment of their academic training by accessing new knowledge. These exchanges take place in classroom context but also in thematic seminars, meetings and cultural visits.

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LIFE HISTORIES AND INTERGENERATIONAL KNOWLEDGE TRANSFERENCE: A CASE STUDY AT THE BANK OF THE NORTHEAST CORPORATE UNIVERSITY

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Abstract

This communication aims to present, technically and methodologically, the main results of learning experiences as well as life stories within a program in succession at the Bank of the Northeast Corporate University (UC-BNB).It is structured into four parts:in the first, we make a brief approach to the theoretical framework and its relationship with the corporate education system of the organization analyzed; in the second, we outline the methodology used to write this paper, based on a case study, whose data collection techniques were predominantly based on direct observations, document reviews and interviews with the professionals involved in the development and implementation of the learning experiences; in the third, we describe the learning experiences gathered throughout this case study; and finally, in the fourth part, we analyze the results.The results indicate the contribution of skills, recognized by peers and the institution, and attested to by the accomplishment of 93.3% of program graduates in management positions. Another result refers to a greater contribution of the instructors in the process of training of employees of the Bank of the Northeast of Brazil (BNB), and greater recognition from peers and the institution.

Keywords: Learning Experiences; Life Stories; Corporate Education System; Adult Education; Succession Program.

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Introduction

The world of labor is constantly changing, with radical and fast transformations in the political, economic, technological and social fields as well as in personal values. This dynamism of the contemporary world poses new challenges for organizations with regard to the forms of work organization, and new learning needs to deal with the complexity of this world, thus reflecting the set up of new organizational formats and the implementation of new models of management.

In this environment, organizations began to be more attentive to the people who work for them. Their systems of training and development (professional formation) have evolved from a mechanistic approach and a technical-operational work into a holistic and systemic approach, with a strategic and transformative work in the conception, structuring, development, survival and success of the venture.

In the same vein, there is a growing concern among researchers and professionals in education about the adaptation of lifelong education, and here we refer to adults' professional training, to these new demands of society.

From this perspective, there is a need to go beyond the building of knowledge in a Cartesian and positivist view, of technical rationale, and consider the complexity and the inter-relationship between knowledge and skills, which, so far, and in many cases, have been discussed in a linear and fragmented manner.

To meet this new educational paradigm, new learning methods have been incorporated into the practice of adult training, which enable learners to build their own knowledge, face challenges and find solutions, incorporating the attitude of learning to learn in their everyday work (Meister, 1999; Eboli, 2004; Borges-Andrade, Abbad & Mourão, 2006).

It is within this new context that the new learning experiences and life stories are included.

This study addresses learning experiences and life stories as learning practices in the professional training of adults in the program of succession of the corporate university of a Brazilian government institution.

1. Terminological and conceptual considerations

This chapter discusses the theoretical framework, involving terminology and the development of concepts, verifying the systematic formulation of scientific objects and the proposition of rules for interpreting the facts, for specifying and defining the solutions provisionally given that support the corporate education system, the learning experiences and life stories.

1.1. Corporate Education Systems

There are various definitions for training, with different meanings varying according to the identification of authors and its historical evolution.

One can notice a tendency to associate training with a process of acquisition or improvement of knowledge and skills and changes in attitudes, particularly related to the performance of a task or a function. Development, in turn, would be mainly a process aimed at the growth of man, observable in the behavioral change and the expansion of their skills and knowledge in solving new and different situations or problems (Pereira, 2000).

For the purposes of this work, the terms training and development, empowerment, improvement, education, qualification and formation, when applied to the organizational environment, would be included in the terminology systems of corporate education.

The activities of training and development in the organizations have evolved from a mechanistic approach and a technical-operational work into a holistic and systemic approach, with a strategic and transformative work in the conception, structuring, development, survival and success of the venture.

The difference between the corporate university and a traditional training center may be expressed by the following characteristics:(1) proactive attitude; (2) establishment of a centralized philosophy of learning; (3) tailored actions of learning; (4) acting as a business unit; (5) rational use of investment in education; (6) continuing efforts of corporate education;

and (7) relevance given by the organization management to the work carried out (Nisembaum, 1998).

The corporate university is more than a training department; it represents the organization's effort to develop in its employees, customers and partners a set of skills necessary for its success (Gordon, 1995; Meister, 1999; Jarvis, 2001). Its activities are linked directly with the organization's mission and strategies and are structured to cultivate organizational learning and knowledge (Allen, 2002).

With the paradigm shift from training to learning, new learning environments are perceived, structured to be proactive, centralized, specific and strategic, with managers holding an important role in professional training, not only by teaching the concepts applied in their everyday working life, but also trying to adapt their concepts to the reality of the participants.

In this perspective, life stories emerge as an approach applied in the systems of corporate education based on life experiences, assisting in the professional orientation and training of adults, through tacit knowledge or experiences as well as the revelation of the learning built throughout life.

1.2. Learning Experiences and Life Stories

In the mid-1980s, Pierre Dominicé, Mathias Finger and Christine Josso envisioned "a new theoretical horizon in the field of adult education for an approach to training focused on the subject-learner, using the mediation of a research-training methodology linked with life stories" (Josso, 1999, p. 14).

The life story approach is a fertile and suitable strategy to broaden the understanding of the educational world and the everyday cultural practices of the subjects in the training process (Souza, 2006). "Life stories are part of the current movement that seeks to rethink the issues of training, emphasizing the idea that no one teaches anyone and that training is inevitably a process of reflection on the walks of life" (Nóvoa, 1988, p. 116).

Souza (2006, p. 27) states that the use of the terminology life story:

> corresponds to a generic designation under formation and investigation, since it turns out to be relevant to the self-understanding of who we are, of the learning we build throughout life, of our experiences and of a process of self-knowledge and the meanings we attach to the different phenomena that mobilize and weave our individual and collective life.

Reflective thought, the knowledge of experience, self-awareness and self-reflection are components in the personal accounts of life stories (Souza, 2006).

The alternative of life stories enables a revaluation of the notion of experience, since it is not used as a way to facilitate the transmission of knowledge, but as a means of emphasizing the way in which knowledge is forged in concrete situations, how it is built through action or how it develops in the existential events (Dominicé, 1990, p. 8).

When we talk about the understanding built on the story of life, either as an oral or a written report, collected by means of interviews or case studies, we consider it within the perspective of uncovering or reconstructing professional experiences lived by individuals in different contexts in the organization.

Corporate education and training practices have been, in the Brazilian case, key instruments in which life stories are present as well as the work with training narratives and case studies and the incorporation of individuals' experiences.

The relationship between life stories of experienced professionals and personal reflexivity has become more connected because it produces a new perspective on the continuing education of the professionals, especially those beginning their careers.

Thus, the concepts proposed by Schön (1983) – of reflection-in-action, about action and about the reflection in action – cease to be slogans and are now considered to be strategies that enable the linkage between theory and practice.

Schön (1983) suggests a professional training based on the enhancement of educational practice as a moment to build knowledge through reflection, analysis and questioning, and to recognize tacit knowledge, which is present in the solution found by the professionals during the action.

Based on the literature, some practices can be exemplified, composing a set of strategies that enhance reflection and can be integrated into professional training practices. Table 4, below, illustrates some of these practices at the individual and group level (Reis, Silva & Eboli, 2010).

Table 4: Practices and Strategies that Enhance Reflection.

AT THE INDIVIDUAL LEVEL	*AUTHORS*
Personal reflective practices, with greater or lesser degree of structuring - reflection in action and post action.	Schön (1983, 2000); Boud (1994).
Reflective practice in programs in the classroom.	Hedberg (2009)
Self-assessment exercises.	Bouldand Knights (1996).
Learning partners:colleagues from whom feedback may be obtained or with whom specific aspects of the practice may be discussed.	Bould and Knights (1996).
Feedback processes.	Brockbank and McGill (2006); Reis (2007)
Reflective dialogue with individual coaching.	Jackson (2004); Reis (2007).
AT THE ORGANIZATIONAL / GROUP LEVEL	*AUTHORS*
Reflective practice in programs in the classroom.	Hedberg (2009)
Use of structured experiences and the learning cycle.	Kolb (1994).
Reflection from the sharing of personal accounts and stories.	Tyler (2009).
Reflection from the analysis of critical incidents.	Moon (1999); Jolly andRaccliffe (2000a, 2000b); Verdonshot (2006).
Reflective coaching in group emphasizing questioning and critical reflection.	Reis (2007); Mulec and Roth (2005).
Practice communities.	Lave (2009); Woerkon; Nijhof andNieuwenhuis (2002); Hoyrup (2004); Verdonshot (2006).
Learning from mistakes.	Lave (2009); Woerkon; Nijhof andNieuwenhuis (2002); Hoyrup (2004); Verdonshot (2006).
Sharing of experiences.	Lave (2009); Woerkon; Nijhof andNieuwenhuis (2002); Hoyrup (2004); Verdonshot (2006).

Source: Adapted from Reis, Silva and Eboli (2010, pp. 413-414).

The importance of a practice-based reflection constitutes a way of gaining knowledge in action, building it from a context of interaction (Antonello & Godoy, 2009).

According to Galvão (2005, p. 331):

> [...] life stories reveal tacit knowledge, which is important to be understood; they take place in a meaningful context; they appeal to the tradition of storytelling, which gives structure to the expression; there is usually a moral lesson to be learned; they give voice to criticism in a socially acceptable way; they reflect the lack of separation between thought and action in the act of telling, in the dialogue between the narrator and the audience.

The educational environment should, as a place of continuing education, provide moments of exchanges of experiences, including the stories of "mature" professionals, distinguished by the knowledge gained in the course of their career.

In this perspective, our goal is to present, from the life story approach, the experience of the Program of Training and Succession at the Bank of the Northeast Corporate University.

2. Research methodology

The current scientific methodology in the organizational field indicates the case study as a technique that may allow for further analysis and visualization of theoretical concepts. Triviños (1987, p. 45) defines case study as "a research category whose object is a deeply analyzed unit".

The case study technique is indicated when the interest is in the process, context and findings (Merriam, 1988; Gil, 1991; Yin, 2001).

Case studies can be divided into categories based on the intent of the study. This study is described as descriptive, since the data were collected from diagnosis and reports from the organizational project and describes the results of learning experiences and life stories within the program of succession at the Bank of the Northeast Corporate University (Merriam, 1998).

The techniques of data collection applied to the case study were "in situ" observations, direct observation, document analysis, and interview

with the professionals involved in the development and implementation of the object of study.

2.1 History and Profile of the Company of the Case Study

The Bank of the Northeast of Brazil is a semi-public corporation whose mission is to promote the development of the Northeast region of Brazil, mainly through the contribution of financial resources for public and private investments needed to overcome several challenges, including the inadequate income distribution profile, the low level of education of the population, the limitations of global infrastructure, climate instability, the limited entrepreneurial skills and the disentanglement of regional policies (Banco do Nordeste do Brasil S.A., 2011).

Founded in July, 1952, the BNB currently has a network of 185 branches covering the Northeast Brazil, north of Minas Gerais and Espírito Santo, as well as the capitals of São Paulo, Rio de Janeiro, Minas Gerais and Brasília. Its area of operations involves 1,989 municipalities and it had 6,049 employees, on June 30, 2011 (Banco do Nordeste do Brasil S.A., 2011).

The BNB ranked 13th among the largest banks in Brazil in volume of investments, having invested R$ 23.8 billion in 2010 (Banco do Nordeste do Brasil S.A., 2011).

2.1.1 The Bank of the Northeast Corporate University

The project to create the Bank of the Northeast Corporate University started in 2008 and aimed to focus its education efforts on diversifying the portfolio of programs, the expansion of opportunities and a conception of learning aligned to business and core competences, guided by a well-defined mission, vision and guidelines.

The BNB Corporate University has adopted an educational model whose objective is to guide employees, facilitators, internal customers and partners about the principles governing the activities of the Bank of the Northeast concerning the view of learning, the development of

people and the teaching approach required to achieve the programs objectives.

This model is aimed at developing skills, from an andragogical perspective, in which the learners exercise autonomy and critical thinking.

The concept of andragogy is based on the etymology, anner, man, agogus, educate. Andragogy is a teaching for adults which seeks to promote learning through experience, stimulating and transforming the content, promoting assimilation. According to Jiménez Ortiz, the concept of Andragogy is a neologism proposed by UNESCO to replace the word pedagogy, to designate the science of the education of men, so there is no confusion with the education of children, and it is a continuing education (Knowles, Holton & Swanson, 2009; LABSSJ, 2009).

The configuration of the Bank of the Northeast Corporate University is represented in figure 21, below.
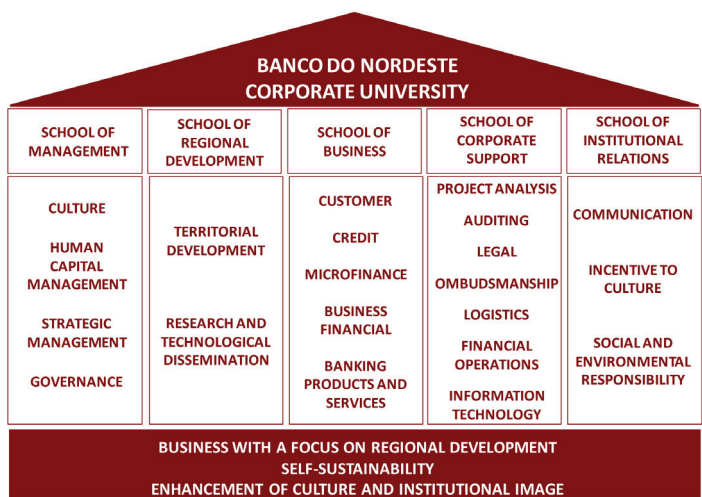
Figure 21: Configuration of the Bank of the Corporate University.
Source: Banco do Nordeste do Brasil S.A. (2010).

As one can see in figure 21 above, the configuration of the Bank of the Northeast Corporate University includes five schools, responsible for the homogeneity of the learning issues, distributed into training pillars. These schools are intended to provide learning solutions in the various areas of the organization.

The andragogical approach, defined by the BNB Corporate University, has a theoretical basis similar to Pedagogy with regard to the object of study (man) and purpose (education). The differences are in the methodological differences established according to the stages of life of the individual in learning situations.

The main differences between the pedagogical and the andragogical models are summarized in Table 5, as follows:

Table 5: *Differences between the Pedagogical and Andragogical Models.*

Principles	Pedagogical Model	Andragogical Model
The need to know	Students need to know just what the teacher teaches.There is no need to know how to apply the learning to their life.	Students need to know the learning objective and what they will gain in the process.
The learner's self-concept.	Teacher dependent personality.	Learners are adults, and as such, responsible for their decisions and life, presenting the need to be seen and treated by others as capable of self-managing.
The role of experience	Learner's experience is of little use. The teacher's experience prevails.	It differs from children and young people for the bulk of their experiences, which are the basis of their learning.The techniques that take advantage of this range of individual differences will be more effective.
Readiness to learn	The willingness to learn what the teacher teaches is related to progression at school.	The willingness to learn is greater when they understand its usefulness and the learning is related to real situations of their daily lives.
Learning Orientation	Learning centered on context, rather than on the issues and problems of the learners' daily life.	Learning contextualized for some application or use.
Motivation	Learning is motivated by external factors, such as the assessment of parents and teachers as well as school ratings.	Motivation for adult learning is more internal than external: self-esteem, satisfaction, life quality, among others.

Source: Adapted from Knowles (1986, pp. 52-61).

For Kolb (1984), the creator of the Experiential Learning Theory (ELT), learning is a process in which knowledge arises from the transformation of experience and is based on six assumptions: (1) learning is a process, not a result; (2) learning derives from experience; (3) learning requires individual to resolve opposing demands dialectically; (4) learning is holistic and integrative; (5) learning requires interaction between people and environment; and (6) learning results in knowledge creation.

In such a process, adults learn by recognizing and articulating the response to a set of personal and environmental demands, through the interaction between actions of acquisition and processing of knowledge.

The ELT integrates different theories of knowledge in a formal model of learning. In general, four approaches are generally dealt with when learning is discussed: (1) action, which emphasizes the behavioral changes that occur in adults when they are dedicated to solving problems. It is an essentially rational, linear, deterministic and quantitative approach: (2) cognition, which emphasizes the intra- and interpersonal transformations that occur in adults and between adults. It is an approach that aims to help them interpret their environment and work with group processes, such as memory, perception, mental models, schemas and representations; (3) reflection, which focuses on the process of self-discovery and questioning which leads adults to develop a broad view of practice. Reflection enables them to uncover phenomena of politics and power and often has goals of emancipation, to seek in development a means to develop better organizations, a better society, a better world, through the release of deeply ingrained social assumptions. It is the approach that most closely matches with the critical pedagogy; and (4) experience, which focuses on how adults acquire and transform new experiences and how these experiences lead to more satisfaction, motivation and development. It is an essentially personal approach which values the learner as an individual.

For the Bank of the Northeast Corporate University, this andragogical approach is based on the permanent association between theory (perspectives, models, methods and tools) and the organizational reality (Kolb, 1984; Knowles, 1986).

To do so, it involves five main focuses: (1) To know the reality of the BNB – to open programs with lectures on the Bank's practices by its executives; encourage socialization and exchange of experiences; and foster thought and debate; (2) sensitize and stimulate – to present new perspectives and models; create tensions between the different approaches in the programs in lectures and discussion forums; and encourage critical reflection; (3) provide training – explore the logic of the schools and of the training pillars of the UC-BNB; build knowledge based on the

experience of the participants; and present methods and tools appropria-
te to the reality of the Bank; (4) apply to reality – use the participants'
experiences; encourage dynamic thinking and practical application, with
emphasis on projects associated with the programs; and associate the
reflections and work of the UC-BNB to existing events at the Bank; and
(5) consolidate knowledge – reflect on the action; stimulate cycles of
improvement and change, from the assessment of the application of the
acquired knowledge to the reality of the BNB.

The andragogical approach proposed by the BNB Corporate University
makes use of what Knowles (1980, 1986, 1990, 1996) called the andra-
gogical cycle.

The andragogical cycle is a process in which the learning facilitator and
the subject who engage in it begin to build an environment of empathy,
acceptance, understanding and help, managing and developing together
throughout the course of the acquisitions, extending this partnership
to the judgment on the adequacy of the learning to individual needs
and to a possible amendment or new diagnosis of needs (Alcoforado,
2008, p. 96).

The andragogical model of the BNB Corporate University is based on
the following principles:(a) the need to know: adults need to know why
they need to learn something and what they will gain in the process; (b)
the learner's self-concept: adults are responsible for their decisions and
life, therefore they want to be seen and treated by others as capable of
self-managing: (c) the role of experiences: for the adult, their experien-
ces are the basis of their learning. The techniques that take advantage
of this range of individual differences will be more effective; (d) readi-
ness to learn: the adult is willing to learn when the occasion demands
some kind of learning related to real situations of their daily life; (e)
learning orientation: the adult learns better when the concepts presented
are contextualized to some kind of application and usefulness; and (f)
motivation: adults are more motivated to learn for intrinsic values: self-
-esteem, quality of life and development (Knowles, Holton & Swanson,
2009, p. 159).

3. The challenge of management training at the BNB - the program of training and succession

From a diagnosis made by the human resources area of the BNB in 2006, it was found that 31% of the staff were expected to retire by the year 2010, and that most of them occupied key positions at the BNB.

This fact was explained by the absence of entry of new employees between 1991 and 2003, creating a gap in the natural succession of the organization (53% of the employees had been working for the Bank for less than 5 years (Banco do Nordeste do Brasil S.A., 2007).

In this sense, in 2007, the Program of Training and Succession was initiated in order to prepare new leaders, by developing their skills regarding management, concepts and theories, and enabling them to perform their duties aligned with the challenges of the Institution.

In addition to the above general objective, the Program of Training and Succession had the following specific objectives: (1) assess the situation of the BNB in relation to the expectations of retirement and to the natural succession of existing skills; (2) encourage and guide employees to develop their career; (3) introduce training programs to develop the necessary skills for the BNB; (4) equip the BNB, in a qualified way, with a database of potential successors able to meet the future demands, prioritizing functions considered to be strategic and more complex; and (5) suggest and implement short, medium and long-term actions, in order to minimize the impacts that a process of succession may cause in the BNB.

To serve the specific target audience (technicians with an identified potential; substitutes for management positions; and new managers) and, considering the large number of employees to be trained, approximately 1,317 participants, as well as the operational capacity of the Bank of the Northeast Corporate University to implement the actions, the distribution of this amount over three years was defined: 30% in 2008; 30% in 2009; and 40% in 2010. Thus, new employees were nominated for training every year, reaching the entire contingent of potential successors.

The Program of Training and Succession of the Bank of the Northeast consisted of three stages: (1) Conception and Modeling; (2) Preparation

for Implementation; and (3) Implementation and Support (Banco do Nordeste do Brasil S.A., 2007). Stages 1 and 2 were undertaken in 2007, and stage 3 over the years 2008 to 2010. The work was facilitated internally by employees who were components of a strategic project and was completed in late 2010, being incorporated into the work processes of the Bank of the Northeast Corporate University.

3.1 The program curricular structure

The Program of Training and Succession of the Bank of the Northeast had several methodological approaches employed in various forms of training: classroom-based, at the BNB and at partners' premises (conventional, in-service, experiential and outdoors), distance (intranet, internet and videoconference), and blended (classroom-based and distance) (Figure 22).

It also included the conduction of psychological tests in order to assist the program participants to know their strengths and needs for improvement in relation to what was expected from them, regarding the new roles they would play, as well as to enable the organization to know the specific needs of each of the participants and groups of managers involved in the program; there is also the use of coaching (individual and group) by more experienced professionals, as well as providing communities of practice for the exchange of experiences and interaction between the participants of the program.

Figure 22: Methodological approaches.
Source: Banco do Nordeste do Brasil S.A. (2010).

Despite the range of approaches, one of the concerns of the Bank of the Northeast Corporate University staff and managers referred to the limited experience of learners, and as a way to address this shortcoming, they focused on tacit knowledge, taking advantage of the exchange of experiences between learners, of the interaction between them, but mainly of the contact with more experienced professionals.

Thus, they sought to identify the most experienced professionals who had recognized expertise on issues and areas to be taught, with the ability to mediate learning facilitation processes, establishing a partnership with them and a process of training/updating in andragogical practices so that they would become the instructors and facilitators of the new manager training process. These professionals, with the help of the technical staff of the Corporate University as well as professionals hired in the market, reshaped the content, adapting and suggesting new methodologies that would provide interaction, experiencing and exchanges of experiences, bringing their competences, recognized by peers and the institution, notably through case studies, as well as the narration of facts of everyday life (life stories) that could help learners to build knowledge in action, from a context of interaction.

4. Analysis and submission of the results

The participants of the Program of Training and Succession of the Bank of the Northeast were eligible to occupy various management positions at the BNB if they participated successfully in all the events planned in the program grid, as well as meeting the requirements of succession contained in Table 6 below:

Table 6: *Succession Requirements Program of Training and Succession*

FUNCTION/LEVEL	REQUIREMENTS
Unit Manager	• Minimum of three years of effective work for the Bank; • An undergraduate degree, authorized/recognized by the Ministry of Education, with a certificate; • Participation, with a passing result, in training events for managers of at least 160 hours. • Certification in management skills to the level.
Intermediate Manager	• Minimum of two years of effective work for the Bank; • Complete Secondary School, with a certificate; • Participation, with a passing result, in training events for managers of at least 120 hours. • Certification in management skills to the level.
First level of management (management support)	• Minimum of two years of effective work for the Bank; • Complete Secondary School, with a certificate; • Participation, with a passing result, in technical and management events in the area of activity ofat least 40 hours. • Certification in management skills to the level.

Source: Banco do Nordeste do Brasil S.A. (2007).

One indicator that attests to the good performance of the Program of Training and Succession is the percentage of participants who officially achieved management positions: among the 1,317 members of the staff who were trained, 1,229, that is, 93.3% of the total officially became managers.

Another way to illustrate the results may be the testimonies of participants and instructors, such as the following examples (Banco do Nordeste do Brasil S.A., 2009):

Participants' testimonies:

For a participant from the Santa Inês branch in Maranhão, the Program of Training and Succession works with a dynamic that allows a great exchange of ideas, enabling the development of the methodologies and techniques to be applied in their own branches, and the development of professional skills: teamwork, problem solving, systemic view and human capital management.

A phrase often repeated in the organizational environment is the one that says that the main asset of a company is its staff. With the Program of Training and Succession, the Bank of the Northeast shows that this phrase is not just a buzzword, but a commandment. In our view, this Program fielded the best and most experienced instructors, who master-

fully facilitated the processes of learning and exchanging of experiences, forming a cadre of leaders lined up to perform management functions at the BNB (Participant from Petrolina-PE).

For a participant from a branch from Tianguá-Ce, the program gives the opportunity for new employees to interact with new as well as with more experienced ones, and get to know the regional problems and local solutions that are presented in the various branches of the training participants, enabling the exchange of experiences and good working practices.

We know how important the operational area of our branches is and this program is to meet our daily needs. I am living a moment of great expectations, given the responsibility that is already felt with the participation in the various courses and the opportunity to learn with more experienced colleagues in the positions that we will occupy. I am fully convinced that the return is guaranteed (Participant from Barra do Corda-MA).

Instructors' testimony:

For an instructor from Montes Claros-MG, in the current approach of the Program of Training and Succession, the participants have the opportunity to experience the best practices of the work units' everyday life, through the transfer of successful experiences, either through case studies, or by life stories. It is noticed that the new employees are really willing to learn how to do it, and how to do it well. Thus, the program has contributed a lot because, after its completion, the employee shall have a complete picture of the processes in the work units.

These testimonies attest the importance of the Program as a tool for motivation, encouragement and guidance to new employees in developing their careers, creating also a culture of self-teaching in the participants.

Another result perceived concerns the instructors, who now have a greater contribution in the process of training of the BNB employees, and, as a consequence, are more recognized by peers and the institution, either through feedback from the assessments on the occasion of the events, or through formal recognitions running internally in the institution, as well as additional remuneration and promotions (since teaching was incorporated as a differentiating factor in the promotion process).

For the experience of the Program of Training and Succession of the Bank of the Northeast to be successful, some factors were of paramount importance:(1) the sponsorship of the board of directors of the Bank of the Northeast; (2) the availability of funds for the realization of the project; (3) the implementation of a communication plan throughout the project; (4) project management with monitoring and evaluation throughout the implementation schedule; (5) and the involvement of the several areas of the Bank of the Northeast.

5. Conclusion

This study presented, as a guideline, the desire to clarify the theories surrounding the use of life stories as an educational approach, used in adult professional training, and its implementation at a Brazilian government organization.

Corporate education, when constituted of a strategic basis, can give intentionality to the knowledge generated in the organization, indicating the institution to rescue this knowledge and learn how to explore it in order to generate more economic value for the organization itself and social value for the employees and partners, ensuring a trajectory of development for both the organization and participants (Dutra, 2002).

In the field of adult education, which is consolidating and expanding in Brazil, it is clear that learning experiences and life stories have established themselves, notably because of the diversity of uses as well as the unique ways they are used in the academic and professional circles.

However, as a practice of adult education, we stress the need for further studies in this field, aiming to consolidate it as an educational practice.

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ELDERLY & ICT: A NEED AND URGENCY FOR AN EFFECTIVE INFO-INCLUSION

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Abstract

It is a fact that the world is aging and the developed countries are the most affected by this reality. In consequence, the majority of the population comprehends elderly people. The present knowledge society is characterized by technologies, digital devices and by the so called ICT (Information and Communication Technologies) and most present-day activities uses those devices. Recently, several expressions and services have introduced the '*e*' and it is common to talk about *e*-commerce, *e*-learning, *e*-banking, *e*-government, *e*-Health… it means that citizens must be digitally literate to deal with and use those services as a routine of their everyday life. However there are a large number of people who have not the necessary digital skills and consequently they become info-excluded. The group of the info-excluded is represented by women, people with a low level of literacy, the unemployed, and the elderly. Being sure that the elderly will constitute in the future (and in the present) the greater percentage of the citizens it is urgent to promote initiatives in order to train those citizens in ICT. The European Union already felt that need and therefore several action plans were launched (e.g. The Riga Declaration; *i*2010 e-Inclusion Initiative). It is consensual that ICT will promote a better quality of life so the elderly will benefit from it in order to promote an adequate active aging. It is the aim of this article to discuss the main initiatives carried on and present the main obstacles, advantages, and some clues for the near future for the use of ICT by elderly people.

Keywords: Elderly; ICT; Info-inclusion; Info-exclusion.

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An aging society: Perspectives for the future

   The world is experiencing an important demographic transformation due to the unprecedented aging of the population of almost all developed and developing countries. The increasing presence of older people in society makes people of all ages more aware that they are living in a multi-generational society. Increasingly, aging populations may influence global patterns in almost all services, labour, capital markets, and traditional social support systems like health care and pensions mainly in European countries. In all the Member States of the European Union (EU) the current fertility rates are low and if birth rates continue to decrease as predicted, the proportion of young and old citizens will undergo a historic crossover. A moderate projection of aging in the EU for the period between 2004 and 2050 shows that the population aged 65+ will increase by 58 million or 77% and that, at the same time, the working-age population will drop by 48 million or 16%. In the EU, this might mean that the ratio of people of working age would be two for every older citizen, instead of four working people at the present time (European Commission, 2007).

   The next figure (23 and 24) show this tendency and put in evidence the aging of the society in all over the world. It may be observed that the European Union and the most developed countries present the highest percentage of elderly people as was stated above:
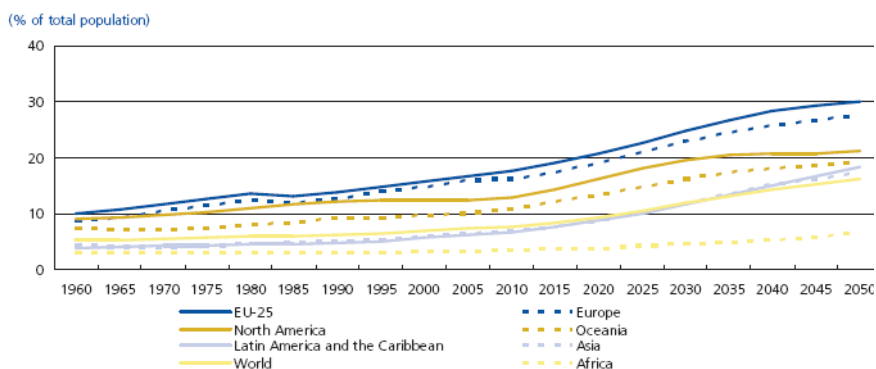
Figure 23: Proportion of the population aged 65 and over in selected world regions (Source: Eurostat 2007)

Figure 24 highlights the old-age dependency ratio in selected world regions:
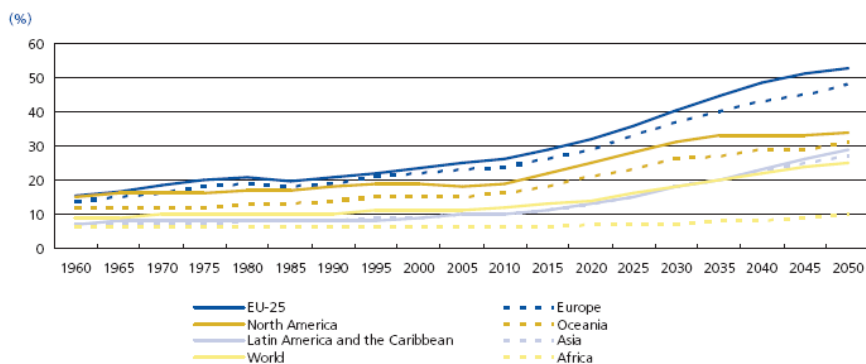
Figure 24: Old-age dependency ratio in selected world regions
(Source: Eurostat 2007)

Aging will be the dominant and most visible aspect of world population dynamics in the 21st century according to the trend that was explicit in Graphs 14 and 15. It is expected that, by the year 2050, the populations of numerous countries, mainly the developed countries, will consist of over 30% older persons. This situation presents both challenges and opportunities but the recommendations and policy advice must be interpreted for each national circumstance, to develop the most appropriate response to their own particular social and cultural situation. Chief among the recommendations are to promote the participation of older persons as citizens with full rights, and to assure that persons everywhere are able to age with security and dignity. Governments reaffirmed that the promotion and protection of all human rights and fundamental freedoms, including the right to development, are essential for creating an inclusive *society for all ages* (UN, 2008).

Based on the basic pillars of the WHO (2002) concept on Active Ageing, it is recommended that specific higher level needs of elderly people with regard to quality of life in highly developed countries be classified into five main groups:

a) Health: non-existence of illness, a good functional status and an appropriate system of social support for the individual; the decision as

to whether one is healthy or ill depends strongly on one's perception of one's own body; it is assumed that in coming years, it is expected that better informed patients will take on more responsibility for their own health; it is also expected that elderly people will be more proactive when asking for a medical diagnosis, medical treatment and medical therapy.

b) Safety: personal safety is very important both in everyday life and at home; the most common challenges are physical infirmity and the loss of mental abilities and cognitive performances of which the restrictions quite often lead elderly people to make the necessary adjustments and use safety products (e.g. assistive technologies); other cases with more serious restrictions may lead to admission to an institution which means a very serious loss of individual autonomy by the elderly.

c) Independence: elderly people like to live an independent and autonomous life as long as possible and a central point is living independently in their own homes; usually moving to an institution is regarded as something negative, however, for elderly people who have an increasing number of serious handicaps, it is much more difficult to continue independent living.

d) Mobility: there is a strong need among elderly for mobility; however, the aging process usually promotes a reduced mobility; in consequence, a serious reduction of mobility can lead to enormous reductions in quality of life of elderly people.

e) Participation: being part of everyday life is one of the central needs of elderly people; social contact and relations with other people have a positive influence on well being and health in older age; an increasing number of elderly people decide, for instance, to learn more about new topics and attend courses at universities and other educational institutions and this is part of their quality of life (Malanowski, Özcivelek & Cabrera, 2008).

If there is a need and an urgency to invert the present situation, ICT contributes to improving the quality of everyday life and social participation of Europeans, facilitating access to information, media, content

and services, to enhanced and more flexible job opportunities, and to fight against discrimination. Improving ICT access for people with disabilities and the elderly is particularly important (European Commission, 2007). Many Europeans still reap few or no benefits from ICT and there are resilient gaps in ICT use. For instance, 57% of individuals living in the EU did not regularly use the Internet in 2005; only 10% of persons over 65 used the Internet, against 68% of those aged 16-24; only 24% of persons with low education used the Internet, against 73% of those with high education; only 32% of unemployed persons used the Internet against 54% of employed persons. Figure 25 shows the individual use of the internet and/or computers among the European Union members that allows us to identify the main group of the info-excluded: unemployed, citizens with lower education and, the most elderly (retired included):
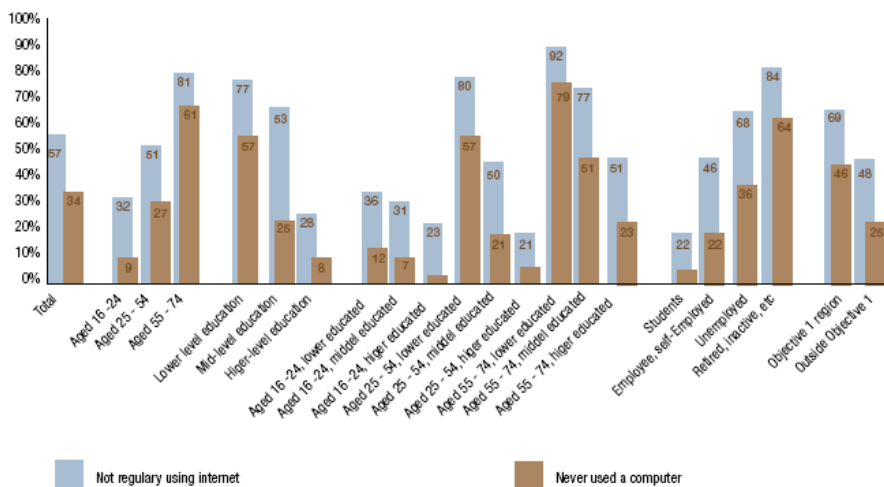
Figure 25: Individuals using the Internet and/or Computers
(EU 25, 2005).

The Ministerial Declaration of Riga (2006) was approved not only by the EU 27 but also by the EFTA and several countries that joined the Meeting in order to settle some basis for a global strategy to promote «*eInclusion*». According to the Riga Ministerial Declaration ICT is so powerful that it can promote a growth of productivity around 50% and they also believe that ICT contributes to improving the quality of everyday life and the

social participation of the European citizens. The conjunction of the aims approved on behalf of the Ministerial Riga Declaration (2006) was coherent with the «*i*2010 *e*-Inclusion Initiative» that was launched one year later by the European Commission (2007), the main aims to achieve being:

a) Exploiting the full potential of the internal market of ICT services and products for the elderly, amongst others by addressing demand fragmentation by promoting interoperability through standards and common specifications where appropriate; barriers to innovative ICT solutions for social security and health reimbursement schemes need to be addressed, particularly at the national level.

b) Improving the employability, working conditions and work-life balance of older workers to improve productivity by supporting innovative ICT solutions which can be easily used everywhere including at home, and encouraging the provision of training from the public, private sectors and from civil society, making special efforts on ICT skills for elderly people.

c) Enhancing active participation in society and economy and self-expression, through innovative ICT-enabled access to goods and services, and relevant content, to facilitate interactions with public and private entities, entertainment, and social contacts.

d) Realizing increased quality of life, autonomy and safety, while respecting privacy and ethical requirements; these aims can be achieved through independent living initiatives, the promotion of assistive technologies, and ICT-enabled services for integrated social and healthcare, including personal emergency and location-based services.

'Info-exclusion *vs.* Info-inclusion': Main reasons, main barriers and main constraints

In the '*developed*' parts of the world we live in aging societies in which technology is of increasing importance in everyday life. Given this conjunction, it becomes ever more important to examine the ways in which

technology serves the elderly population. There is a need not only to focus on the detail of usable interfaces for elderly people, but also to examine the wider implications of the introduction of technology into their lives. Concerns among gerontologists that technology is growing faster than its implications can be understood must be taken seriously (Dickinson & Gregor, 2006). The requirement to learn to use new technologies is becoming pervasive in the lives of adults, young and old. For example, computer systems of various forms are prevalent in nearly every aspect of our lives, including video-cassette recorders, computerised library catalogues, electronic banking, information kiosks, multi-function answering machines *ad infinitum* (Selwyn, 2004).

ICT can support learning in many ways, allowing more individual learning approaches; compensating for disabilities; and providing new opportunities to access information and services as well as to interact with other people and communities. However, it may also bring new obstacles. ICT are new for many older people today and the threshold for taking up new tools and applications to begin new learning activities may be high. Attention should be paid to improving the usability of tools; access to the equipment; and to the types of learning opportunities provided. As the background and motivation of elderly people may differ from those of the other elderly people, as well as from younger generations, special considerations are needed to design ICT-supported learning approaches that can provide relevant learning for all participants (Purdie & Boulton-Lewis, 2003). Concerning the older people of tomorrow ('*baby boomers*') some authors see tremendous exposure to computer applications which will lead to a growing openness and increasing competency with respect to using technological innovations. However, they do not expect that all elderly people in this group will be able to take advantage of these technological advances ('*digital divide*') since their experiences with future technology, their educational backgrounds and their incomes may vary significantly. As argued by Malanowski, Özcivelek and Cabrera (2008), they predict a number of elderly nonusers of ICT in the near future who will be at risk of being excluded from important social domains. For elderly adults who are not comfortable with IT, feelings of exclusion may

increase. They then would seem less likely to recognize the potential for the technology in their own lives. Because of the rapidity with which IT is changing and progressing, this problem is unlikely to diminish (White & Weatherall, 2000). The conceptualization of a technological divide is based on notions that social inequities exist in relation to the use and optimization of ICT. In the opinion of West and Heath (2009), these inequities manifest themselves in various forms both locally and globally. Particularly in recent decades social researchers have questioned technological inequity and attempted to establish theoretical frameworks to enhance understandings of human use of ICT, factors which influence this use and the consequences of not using technology. Digital exclusion comes in many forms but can broadly be described in this context as comparative or relative limitations in any combination of technological access, knowledge, awareness, learning opportunities, support and/or skills. According to the ICT4T (2006) the digital divides are determined not only by age, but also by gender aspects, educational backgrounds and income levels and also geographical locations. The research revealed that even though home computer availability declined with age, part of this relationship was due to the effects of such factors as employment status, marital status, race, gender, family income, living arrangements, education, and number of disabilities. Interestingly, use also declined with age among persons who owned a computer, irrespective of socio-demographic differences. In the opinion of Blit-Cohen and Litwin (2005), the analysis concluded that age-related computer availability is influenced by socio--demographic factors, but that computer use indeed declines with age. Millar and Falk (2000) also noted that a lack of practice time is a barrier for some elderly adults who do not have computers and skills-learning support, resulting in a lack of confidence but they also suggest this is associated with limited literacy skills.

As argued by Barnett and Adkins (2004), research also indicates that there are complex issues related to elderly people's up take of computer technology. For instance, the costs of set up and access, lack of computer and Internet literacy, and physical difficulties that are associated with the use of many electronic services are one set of factors. Elderly users

may also have either a favourable or negative response to the design and operational features of computers. Typically, technology researchers and developers are young, and do not fully appreciate the needs of elderly users. According to Morgan (2005) it is generally believed by those involved in manufacturing new computer equipment that elderly adults, because they often have fewer financial resources or have older children with computers, will hold back on purchasing new computer equipment and software or acquiring basic training. As a result, there are very few companies who see a market in developing computers that are user--friendly for older adults.

For elderly learners the new developments mean the need to acquire media literacy, the basic know-how of using the new technical tools for information, communication and exchange, but also digital literacy, which means the possession of knowledge on how to evaluate information for accuracy and value to personal needs and how to integrate and to apply the accessed information with an awareness of ethical, social and economic issues. The development of target-group-oriented courses and other education activities to familiarise the elderly people with the use of the ICT or education activities which use the ICT as tools is complex due to the diversity within the age groups in terms of interests, capabilities, physical fitness, life situations, motivation to learn, etc. and to changing age perceptions and focus (ICT4T, 2006). In the opinion of Timmermann (1998), the seemingly obvious way for elderly people to learn how to use a computer is to enrol in computer classes with people of all ages. But this is far from an ideal situation because most computer classes are designed for job-related training. Research in adult learning theory and practice indicates that reaction time slows as people age, and more time is needed to learn by rote and to process information. We also know that elderly adults learn well in a learning environment that allows for self-paced instruction; this principle is especially applicable for those who must learn to use unfamiliar high-tech equipment. There are also some attitudinal barriers that need to be overcome; many elderly adults are uneasy about trying their hand at a computer, and need an opportunity to build their confidence and self-esteem. However,

as argued by Timmermann (1998), many elderly people believe they are '*too old*' to learn the computer. This attitude stems, in many ways, from unfamiliarity with and anxiety about new technology. The fear of hitting the wrong key and then being unable to make corrections, or even breaking the computer, can be paralyzing for people of all ages, and particularly elderly adults. Embarrassment is another emotional barrier. Many older men, particularly those in management or the professions, relied on their female secretaries to type their correspondence; they never had experience with a keyboard and never felt it was appropriate to learn. Learning keyboarding as well as the technology from fast-paced instructors in a class full of young adults is a humbling and, for some, a threatening experience. In this context, Barnett and Adkins (2004), suggests that age-related impairments such as vision, hearing and memory loss, and loss of mobility, contribute to loss of confidence and difficulties in orientation and absorption of information. Timmermann (1998) also stressed that remembering the operating instructions such as turning on the computer, using the mouse, naming and saving files and printing documents can prove to be difficult for some elderly adults. Elderly people may experience some short term memory loss and, coupled with computer anxiety, may have a difficult time remembering the seemingly illogical steps required to operate the computer.

Computer technology allows people of all ages to engage in a wide range of undertakings, such as playing computer games for pleasure, word processing, conducting information searches, sending e-mails and participating in multi-user chats on the Internet. Moreover, computer-based communication allows people to freely disseminate their own ideas, to acquire new social ties and to even establish new identities Morgan (2005). However, the use of computers requires access to and knowledge of computer technology. As a result, many elderly people today are unable to participate in computer-based activity. The entry of computers as a component of social engagement took place after many members of the current older cohort had already retired from employment. In addition, elderly people who remain actively employed often do not engage in computer-generated tasks as part of their work. Consequently, access to

computer technology among the older generation is still limited (Blit-
-Cohen & Litwin, 2005). As argued by Hazzlewood (2001), barriers faced
by elderly and younger adults accessing information and communication
technology are not only those blocking physical access to computers and
connection to the Internet, but also to appropriate and timely availabi-
lity of training and support matching the special needs of older adults.
According to the viewpoint of ICT4T (2006), '*offliners*' who are distanced
from the Internet, who refuse it or who are not interested in it, do not
believe that the web is a great invention. They do not see the benefits
or its attractiveness. There are nearly no impulses for access or growth
resulting from the new technological possibilities. Social pressure or the
feeling of being isolated is the main reasons to get access. Those who
plan to get access or those who are already experienced see barriers like
costs, technological knowledge or handling of the data volume.

Info-inclusion: The main advantages for '*the next step*'

The field of *gerotechnology* frequently refers to the digital divide, most
often meaning the divide between elderly adults and the younger popu-
lation as computer users. However, the uniqueness of technology, and
particularly the application of technology for information and communi-
cation, is that it provides a bridge for people of all social and economic
backgrounds to access parts of the world they might not have ever known
existed. Thus by opening up these new opportunities, technology plays
a significant role in society by helping to equalize the opportunities for
personal growth and decision making throughout the life span, including
opportunities for seniors who are limited in their activities of daily living
(Morgan, 2005). When technology is made available to elderly adults it is a
way of changing how they relate to themselves, their families, and society
and how their families and society can relate to them. As a mechanism of
social change, both computer-based technology and assistive technology
are unique instruments that produce important social benefits. Although
some have claimed that computer-based technology may diminish social

isolation, there are others who see just the opposite – how this technology enables individuals to renew or develop new relationships with their family and establish a new circle of friends with common interests. Such networks can be made in their community, as well as globally. This empowerment of individuals to determine what they would like to do to enhance their lives is one of the key social impacts of this computer-based technology. '*Independent Living*' has been one of the objectives of the many research programmes of the European Commission since 1990s. A technology initiative for disabled and elderly people – TIDE (pilot action in 1991) – aimed to stimulate the creation of a single market in assistive technology in Europe with a view to enabling elderly and disabled people to live more independent lives and become more integrated into the community. In the Fourth Framework Programme (1994-1998), one of the activity areas was 'Telematics' for improving employment and the quality of life. Equal access, independent living and participation for all in the Information Society were also part of the strategic objectives of Framework Programme 6 of European Commission (2007). In the opinion of Malanowski, Özcivelek and Cabrera (2008), central to independent living is the recognition that each individual has a right to the independence that comes from exercising control over his or her life, based on an ability and opportunity to make choices in everyday activities. These activities may include participating in community life; fulfilling social roles, employment, and citizenship; sustaining self-determination; and minimizing physical or psychological dependence on others. Independent living addresses the question of all citizens having an equal right to participate in society, and sharing the opportunities, risks, and rewards. The independent living philosophy promotes full participation of older people and also of people with disabilities in our society.

As argued by Bernard and Phillips (2000), technology is not something we can ignore in the new century, and we too would argue that technology should be at the heart of social policy for elderly people for several reasons:

    a) First, it is *intergenerational* in the sense that technology has the ability to improve the situation and quality of life for *all* people. Each

new generation in our society will be involved in creating new types of technology to improve the overall quality of peoples' lives. This in turn will place a '*technology lag*' on the older generations who will need to learn how to adopt this technology into their lives. Perhaps one of the most positive social aspects of the current development of computer-based technology is that it has been an opportunity to build new relationships between the generations. Today, intergenerational learning is becoming much more accepted and developed as a way to increase learning capacity for both youth and older adults. This intergenerational approach also provides a better understanding of the strengths and needs of society in a much more purposeful and supportive manner (Morgan, 2005).

b) Secondly, technology is important to a social policy of aging because it pervades *every aspect of life* and has the potential for assisting with many of the '*traditional*' problems associated with aging...

c) Thirdly, technology is *pluralistic and preventative*. It is about facilitating communication which can enable people, of whatever race, age or gender, to participate as citizens in decision-making and can empower people as they shop, vote and seek expert help 'on line' in all areas of policy. Technology can assist us to overcome some of the barriers already noted between conventional policy areas such as housing, health and social services, education and work, in order to create a '*seamless service*'.

Technology will continue to move forward, and we do not know where it will venture next in helping improve our lives. However, as our society ages, we all have the opportunity to benefit from these new advances. This is the great challenge to us as researchers in the field of aging (Morgan, 2005). Exciting possibilities exist for new technologies to support elderly adults and their caretakers and to enable the maintenance of social contacts for those whose mobility is reduced. Technology developers must understand the special communication needs and the cognitive, affective, and sensory characteristics of older people and take these into account in developing technology for this population. Three major barriers impede communication with and for elderly adults: over

accommodation to aging, word retrieval, and multitasking; each has implications for the design of communication technology for older adults. Technology has specific effects on work and especially on older workers, with significant differences in cohort responses to new technology. Technology can help elderly workers remain employed and maintain or upgrade their skills, as well as support the transition to retirement, through adaptive interfaces and other means of supporting computer input and output, software to provide planning and cueing assistance, and health monitoring devices.

In sum, these intergenerational relationships not only help individuals make better decisions for themselves and their communities, but also to become more sensitive to and participate in the understanding of national and global issues as concerned members of a civil society. Underneath this social change process, computer-based technology has been and will continue to be the driving force (Morgan, 2005).

Lifelong learning & ICT: Training elderly people for their info--inclusion

As a result of the lack of consumer involvement, some authors point out that, in their view, technology has diminished social interaction of older persons with service providers and perhaps with family members, as well. Moreover, it is suggested that technological determinism has frequently driven rather than responded to the needs of the consumer – in essence, making the consumer adapt to the technology (Morgan, 2005). One of the key research challenges in this field is getting elderly adults, family caregivers, and those intermediaries who work with them to understand that adoption of this new technology will help improve their lives, be cost effective, and will help increase personal control over their decision making. But this goal requires translating the new technology into potential benefits that are meaningful to the target population. Little research is currently directed to this agenda, particularly the value and cost-savings aspects.

According to Barnett and Adkins (2004), the relationship between *habitus* and field in the context of older learners using computer technology can be understood as one of adaptation to the new in regard to interests, or dispositions. In this kind of learning relationship, the work of the peer tutor is important. In the first instance, the tutor has an understanding of the kinds of problems encountered by people in their later years. In a style highly reminiscent of the kinds of rote learning older people would have encountered in their school days, tutorials follow a similar logic. Repetition and practice is the basis of the teaching theory, maintaining the same format and reinforcing the terms and processes to use for various activities such as word processing, email and web browsing.

Knowledge society stands not only for knowledge and productivity, but also for the continual growth and update of knowledge. The term '*life-long learning*' is often used in connection with vocational and continuing education. This applies also to elderly people. Especially in the area of vocational training is there a great need for training of older workers in order to keep them in employment. Although there is a large offer of this type of training in the area of eLearning, this is not focused on the needs of elderly workers (ICT4T, 2006). During recent years, the social and economic challenges that tend to be connected to these developments have received increasing policy attention, and the potential offered by ICT for better coping with them as well. Recently, the European Commission (2007) has adopted an Action Plan on Information and Communications Technology for Ageing in the framework of its *i*2010 e-Inclusion Initiative. In this context, it is highlighted that better leveraging of the potential generally provided by ICT for independent living in an aging society represents both a social necessity and an economic opportunity. More specifically, it is emphasized that ICT holds considerable potential for more efficient management and delivery of health and social care, as well as increasing opportunities for community care and self-care and service innovation more generally. On the other hand, it has become evident that market forces alone have been insufficient to ensure the realization of this potential. As highlighted in this action plan, the market of ICT for aging well in the information society is still in its nascent phase, and

does not yet fully ensure the availability and take-up of the necessary ICT-enabled solutions (European Commission, 2007).

As argued by Harper (2007), to create universal usability by designing for all involves making generalizations about users, and it is these exact generalizations that have led to so many users being excluded from the technological world in the first place. In practice, we suggest that universal usability is possible but not by using this '*design-for-all*' ethos, in point of fact we suggest that it is only possible by '*design-for-one*'. Once the opportunity is provided, interfaces can be developed to access that information in the most appropriate way to the user and not to the information itself. For instance, if an audio file is created without the opportunity of both a graphical or textual expression, then a hearing impaired user could not interact with that source. As stated by Chisnell and Redish (2004), younger users are more familiar with the language of the Web than elderly adults are. This becomes important as elderly adults encounter labels on navigation, buttons, fields, and links that use language that is unfamiliar to them and prevents them from inferring what the next content or step might be if that interaction widget is clicked. In order for older adults to benefit from advances that technology brings, but not be harmed by potential for technological failures, we must ensure that systems are designed with the capabilities and limitations of the older user in mind, provide proper training, and consider the needs of the elderly user in the development of future technologies. It is further pointed out that a central factor in abandonment of new assistive technology development is the lack of consumer involvement in the design and delivery process. This is particularly true for new technologies designed for older adults ranging from grab bars in bathtubs to computer-based automated medicine reminder systems.

Hazzlewood (2001) proposes that short courses tailored to meet the needs and interests of elderly people and avoiding information overload to ensure initial success are considered to be most effective in overcoming negative attitudes. Cases were also made for: formal small-group training to foster social interaction; individual instruction and support for oldest--old in residential care; and on-line learning for those isolated by distance

or other circumstances. The ICT4T (2004) also refers that peer teaching models in which trained seniors take on the role of teachers have proved to be effective in teaching and guiding through the first encounters with the technical aspects of the new media. Peer trainers can understand and handle the initial fears and adjust better to the elderly people's learning pace. Barnett & Adkins also agree that the use of peer teachers is fundamentally important because they have an understanding of the kinds of problems likely to be encountered by older learners – unfamiliarity with technology, memory loss, and tentative confidence levels.

A proposal for the design of a training course for elderly people may include the following categories according to the opinions that were collected and presented from Hazzlewood (2001), Chisnell and Redish (2004), ICT4T (2004) and, Harper (2007):

a) <u>Content</u>: elderly people must participate in the development of the subject and contents in order to take into account their needs (e.g., age, gender, education, learning types, professional experience) and the opening of new fields of activity and roles in society for the learner.

b) <u>Methods/didactic</u>: Methods must be developed for elderly learners; self-determination, i.e., learners influence methods and didactics; active participation of learners in the learning process (e.g., giving lectures, seminars); diagnosis of the level of learners' technical skills (preparatory courses and previous training materials for elderly); transparency of concept (aims, learning goals, learning times, success criteria); interactive communication (e.g. use of multi-level communication in learning platforms and real life meetings); consultation and support (both technical and administrative, conflict solving, moderation of subject matter and process); innovative aspects (inclusion of new methods and new technical developments).

c) <u>Accessibility and participation</u>: Acceptable cost (course, equipment and other materials); barrier freedom (in the design and layout of the technical tools, technical level does not exclude learners); good information measures (press work, public relations, information actions and campaigns).

d) <u>Continuity/sustainability</u>: long-term use of the acquired skills and competencies; development of follow-up projects; influence of public policy-makers; publicity, dissemination and publication of results).

e) <u>Quality control</u>: Activities of R&D /accompanying research, application of findings); evaluation (external and/or internal); documentation of success and constraints.

Final remarks

In a context of financial and economic crisis, improving digital inclusion can act as an enabler for citizens to actively participate in the economy and society of tomorrow. Greater e-Inclusion also generates systemic innovation, new business models, and new modalities for service delivery. By linking technology and service innovation to local entrepreneurship, e-Inclusion can become an engine for social enhancement and economic growth. Digital inclusion therefore can be considered a "structural investment" for innovation and economic growth.

The EU is increasingly seen as a reference in fostering innovation of social and health care systems through the use of ICT and by encouraging research and innovation through proper funding. Thanks to research on e-Accessibility, ICT in support of the elderly, or e-Health, key advances are generated for the benefit of weaker users, but also providing breakthroughs in consumer and electronics and mainstream technologies. The acquisition of computer literacy is becoming a necessity as a result of technological pressures changing ways people receive necessary services within our society. To function properly today and in the near future seniors will be required to enhance their ability to use computers on the same scale as they currently use telephones.

In addition, use of the Internet and e-mail can improve the quality of older adults' lives by providing a new connection to the outside world. As they grow older, many adults may become socially less active and may be separated by great distances from their family members. The Internet has the capability of creating a virtual "social network" (computer-mediated

social network) that crosses generations and includes family members, friends, or other persons. In addition, older adults may retrieve a wide variety of helpful information (health, travel, and hobbies) from the Web. These characteristics of the Internet and e-mail could lead to enhanced social support and well-being of older adults.

A countervailing and important trend in ICT is user empowerment. Older users can be much better informed than ever before and thus increasingly take charge of their own health, fitness and independent living with the help of information on the Internet, television theme channels, and ICT-enabled daily life, personal health and fitness solutions.

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SENIOR STUDENTS IN THE KNOWLEDGE SOCIETY: A CURRICULAR PROGRAM OF DIGITAL LITERACY

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Abstract

As part of its educational mission, the Polytechnic Institute of Leiria has been developing a lifelong learning project, *Program IPL 60+*, where senior students are provided with learning opportunities on themes of interest to this age group. These seniors, being also a part of the so-called Knowledge Society, must seek to know and learn the "new literacies" to be and feel part of this society. Therefore, *Program IPL 60+* includes "computer literacy "as part of the curricular offer of this project.

Designing a curriculum in "informatics" that appeals to this age group and implementing it in a course offers several challenges. Besides the specific profile of students in this age group, which requires specific methodological choices, we must frame the course contents taking into consideration the needs and interests of each student, so that each one can make an adequate appropriation of the technologies. This issue presents a greater challenge when we consider that a significant part of this population does not know *a priori* all these technologies and their potential and, thus, cannot express their interests to the trainers concerning what would they like to learn.

This paper presents a proposal to offer ICT training for this audience, based on an informatics course of 3 academic years. This proposal comes from the experience of the authors in this project and is based on some theoretical frameworks on methodological issues, seeking to make a compromise between the expectations

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of students, meeting the interests directly manifested, and the introduction of new concepts and potential of the technologies that they generally don't know. We observed that students try to appropriate the material learned, giving it a personal meaning and a creative use and therefore, a compromise between the subjects that students wish to learn and the introduction of new "unknown" subject material can be advantageous.

Keywords: Digital Literacy; Lifelong Learning; Senior Students.

Project IPL 60+

As part of its educational mission, the Polytechnic Institute of Leiria has been implementing a lifelong learning project, *Program IPL 60+.* This project provides educational and social-cultural opportunities to senior students, focusing on the themes of interest of this age group. One of the project's main objectives is to implicate senior students pro-actively in their own well-being in a perspective of citizenship and social well--being in order to help their social inclusion, changing the conceptions of seniority (IPL, n.d.).

This project, framed under the Polytechnic's Strategic Plan 2007-2011, is aimed at the development of the community and region, providing and promoting learning and cultural activities for new audiences (as shown in Figure 26) and to contribute to gerontological research, development and innovation (Pimentel et al., 2012).

Figure 26: Seniors citizens in an informatics class.

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Senior Students & Digital literacy

The European demographic changes

According to some studies, the number of elder citizens will reach 58 million in Europe by 2050 representing 77% of the current population of the European Union (Malanowski, Özcivelek & Cabrera, 2008). In Portugal alone, the United Nations foresee that 37% of the population will be 60 years old or older by 2050, with the age group of 80 or older being about 26% of the population. Such profound changes in the European countries' demographical pyramid demand the emergence of social answers at community level that integrate seniors socially in that community.

Until recently it was accepted that man's biological and psychological evolution could be seen through three stages: *infancy* (as a stage for development and preparation for adult life), *adult* (as the active life stage, dedicated to production) and *senior* (as a retirement stage). Seniors were seen from a set of psychobiological theories that interpreted old age as a stage of degeneration (the neurophysiological factor of aging). But currently we know that it is precisely the lack of exercise that leads to deterioration. We must therefore use the specific characteristics that this population has (such as retirement, health, available free time and loneliness) to implement both *educational* and *animation* projects that take into account their experience, knowledge and competences. Therefore, we may say that these two solutions, education and animation, may help in seniors' social integration.

The World Health Organization (WHO) also emphasizes that although chronological age is an indicator of senescence, the importance of understanding "getting old" as something personal and multifactorial should be highlighted. As Silva and Caldas (2007) put it:

> "[…] it is important to recognize that chronological age is not a precise indicator of the changes that go along with aging. There are significant changes related to health status, participation and independency levels between elders that have the same age. Authorities need to

consider those variations when formulating policies and programs for such elder populations. Enforcing comprehensive social policies based on chronological age alone can be discriminatory and counterproductive to well-being in the third age" (Silva & Caldas, 2007).

Therefore, the active participation of senior citizens in the community could be promoted in two ways: one is by implementing *socio-cultural activities*, as seniors have longer idle times than the rest of the population (as most of them are retired), enabling individuals and groups to select activities and experiences that fit their own needs, interests and preferences, promoting good general health and wellness (Cabeza, cit. in Trilla, 1998). The other way lies in *educational activities*. As Simões (2006, p. 12) recalls:

"Old people today are not only healthier but also more educated, and will be increasingly so in the future. However, experience shows that education calls for more education in the sense that the educational level of older people triggers increased demand for education."

According to the studies in this area, older people still maintain their ability to learn, a reasonable mental plasticity and the experience and knowledge acquired and built during life (Simões, 1999). There are still some concerns about seniors' "lack of memory", but the identified problems are not due to loss of "storage capacity", but "[...] the processes that ensure the transfer of information from temporary storage for the long-term memory, and its recovery" (Marchand, 2005). In another words, at this age it is essential to create participation processes, create spaces for group communication, taking elders to collaborative activities and thus giving them a healthy aging.

In 1986 UNESCO emphasized the importance of conceiving educational and cultural activities targeting the elderly "[...] To better assume their own aging [...] [...] to make societies benefit from their long experience" (Silvestre, 2003). Senior educational opportunities fall under the "Adult Education" pedagogical category, which moves away from traditional

school models and emphasizes the importance of new learning contexts. This way, institutions try to go beyond formal education, recognizing the educational role of non-formal and informal learning activities. Therefore, projects and programs have been born, taking advantage of the amount of seniors' free time and that are adequate to their interests, taking into account their life path.

Knowledge Society and digital literacy

Currently education is seen as a global and permanent process, not limited to a unique time and space in human life. The Portuguese Ministry of Science and Technology, in its *Green Book for the Society of Information in Portugal* (MCT, 1997), emphasized educational objectives marked by the demands of lifelong learning. These are translated in terms of four fundamental apprenticeships: learn to know, learn to do, learn to live in society and learn to be. In this sense, it is fundamental that the educational system prepare individuals in how to live together and interact with new technologies (Meirinhos, 2000).

Digital inclusion is being promoted as a necessary, new literacy (digital literacy). The lack of this literacy excludes the citizen from the culture of the information society. The threat of info-exclusion is enormous, resulting in disadvantages in terms of citizenship (Marques, 1998). Thus, for a full exercise of the rights of citizenship in the current information and knowledge society, it is urgent to ensure that the greatest number of citizens have access to the new Information and Communication Technologies (ICT).

This *information society* has been imposing a new concept of literacy. Previously, a literate person was one who could read and write but today, this know-how is insufficient to be able to access information. Thus, it is important that seniors have access to digital literacy. For that matter, the Resolution of the Council of Ministers No. 155/2007, establishes the guidelines for government and public services and central government website accessibility by citizens with special needs, recognizing that "The

information society technologies represent to all people with special needs (disabled and elderly) a means towards inclusion and social participation by excellence" (DR, 2007).

Considering that the information and communication technologies are an integral part of people's lives (leisure, communication, work), it is pertinent provide the elderly with the same opportunities, through education. Machado (in Silva and Caldas, 2007) states that "Seniors who return to school, will not only be intellectually enriched, but they will also have chances of modifying and creating opportunities for dialogue, exchange of knowledge, social participation (...) individuals must use all its possibilities to learn and improve". According to Papert (1997) "the real contribution of digital media for education is the flexibility that could allow each individual to find personal paths to learn." This means that technology must serve the interests of seniors. As this age group is also a part of the so-called Knowledge Society, seniors must therefore seek to know and learn the "new literacies" to be (and feel) part of this society and *Program IPL 60+* includes "computer literacy" as part of its curricular offer.

Construction of an ICT curriculum for seniors

Challenges

The construction of an ICT curriculum tailored to the specific needs of seniors, using adult learning methodologies, has been a challenging process. One of the first challenges was to find a definition of "significant learning", defended the models of adult education, when elders are involved. Malcolm Knowles (in Ferreira, 1999) was the first to talk about the concept of andragogy, and the term adopted by UNESCO in 1976 to designate "(…) art and science of helping adults to learn."

In the processes of adult learning, there are the following assumptions: learning by interests and motivations; active participation in activities; relationship between learning and experience, immediate application of

learning, respect for diversity and mental processes (Silva, 2002). The fundaments of adult learning theory are based primarily in the needs and interests of adults, having a focus on the learner, valuing their role of prior experience and will and motivation to learn.

Also, the concept of non-formal education plays an important role in the IPL 60+ design of its ICT curricula, as it aims to address the needs and specific interests of the public. We had to incorporate active and participatory methodologies, contents that are generally contextualized, with class activities that require few or no academic pre-skills.

However, this age group was not born in the information society and thus cannot have a correct perception of the relevance or importance of most of the content or tools of a digital society. Thus, it is appropriate to balance the (pre) concepts of this age group concerning technology (i.e. their "interests") with the contents or tools that they do not know but that the teachers considered to be promoters of an active citizenship. For example, Social Networks or Photo Sharing services, such as Picasa, are relatively unknown to this age group but very popular after apprehended.

We also tried to create an ICT program that balanced the socio-cultural objective of the IPL 60+ with its educational objective. In this sense, the digital tools to be learned should make the students *learn better* but also to *better integrate them in socio-cultural activities*.

Concerning the educational side of the ICT program, we tried, as the current prevailing theories in the field of adult education suggest, to use their life experiences as a fundamental starting point: the critical importance of the knowledge acquired through life and the role of experience should be an anchor in the production of new knowledge (Canário, 2000). We tried to look at the life paths taken by the seniors that are in this program and tried to identify, for the benefit of learning, the situations, professions, contexts, experiences, different types of formalized training, skills and knowledge they had acquired (Canário, 2000). This pedagogical approach makes learning more valued, as the experiential heritage of each is the most important resource for learning new things.

Therefore, we survey the seniors that enter in the program, concerning the subjects they would like to learn, but we also, when teachers are in

classes with them, invited them to explore the contents of the disciplines to meet their needs, interests and motivations.

A first course in basic competences on ICT

An initial course in informatics must focus on what might be the "Basic ICT competences" for digital literacy (to be part of the information society). Thus we have designed a curriculum based on the Government's Decree Law nº 140/2001 (DR, 2001) where, by recognizing the importance of ICT, the Diploma of Basic Competences of Information and Communication Technologies was created. These competences are "write, print and save a text", "search for information on the Internet" and "send and receive an email message". Thus, in the context of the classroom, activities are developed by performing tasks such as "Create a folder and give it a title; Type, save and print a given text; Access to the World Wide Web; Enter into a search engine of choice; Research on a given theme and print one of the respective pages; Enter the e-mail box; Read a received message and print it; Send a message by attaching the previously typed text." (DR, 2011).

This introductory course takes one academic year.

A course on Multimedia and Web 2.0

We have designed one other ICT course aimed at seniors who concluded the one-year introductory course and have, therefore, the basic competences of digital literacy. This course concerns Web 2.0 technologies, focusing on blogs as educational tools. Blogs are used successfully in constructivist educational settings that see students as creators of knowledge and see learning as a social process of negotiation and construction (Jonassen, 1999).

In a first stage, seniors were taught some of the most popular multimedia creation tools, so that they could produce contents that could

later be used in social media. The students brought to class their cameras (with photos on them) and learned how to transfer their photos to the computer. They also learned how to create slideshows in Windows Movie Maker with their photos (Figure 27) and to compress the movie to be able to send it by e-mail to their family. Finally, students also learned how to introduce those photos and movies in content sharing services, such as Picasa and YouTube.
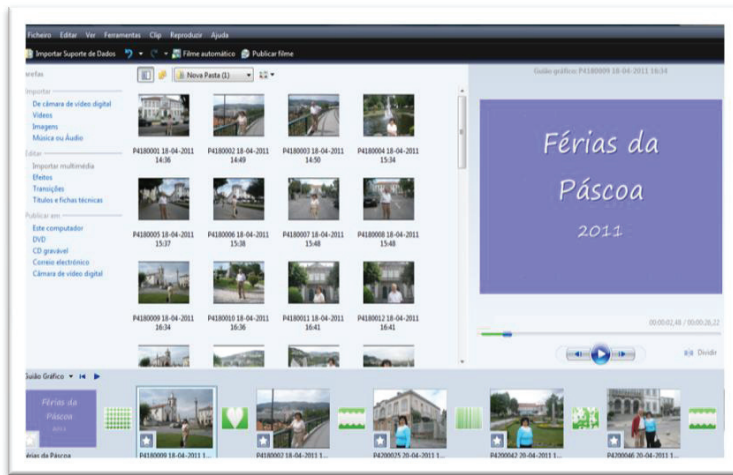
Figure 27: A senior edits a movie in Windows Movie Maker.

By seeing that their photos and videos were now online, students began to feel the web 2.0 paradigm, as teachers now explained how the web had evolved into an environment of both information consumption and production. To help students consolidate this vision, teachers encouraged students to visit several online Portuguese newspapers that allowed visitors to make comments. This strategy made students experience first--hand one of the simplest roles of a "content producer": *the student as commentator.* By commenting on other people's contents (in this case, news from a newspaper) students saw that their opinion was taken into account in the current Internet.

Our methodological strategy for introducing blogs was, therefore, to give students the opportunity to explore several roles of "information producers", from the most simple to the most complex. For example,

another site where students were commentators was the teacher's ICT class blog (http://60mais.wordpress.com/). This approach had a double purpose, as it was also aimed at making them experience the feeling of how a small, community blog could enhance the sense of belonging to a virtual community: by reading comments made by people they knew (the other seniors of the class) and commenting back, they began to have a sense of belonging to a virtual "social network".

The next step was to give students a role in which they had more privileges: as co-authors (or guest authors) in a community blog. Teachers created, therefore, a class blog (http://projecto60mais.blogspot.com/) where each student could simultaneously be an author (by inserting posts) or a commentator (by commenting on other senior's posts).

Finally, each student was taught how to build their own individual blog and thus play the role of its administrator. Having total control of a platform that allowed them to be "publishers", students had the opportunity, if they wanted to, to use blogs as tools to support their learning, use them as some form of socialization platform, or content authoring platform (ex: hobbies). Full control of a blog also allowed each student to invite others to participate in it, giving them some kind of editing privileges.

As we imposed no themes on their blogs (to have a pedagogical scenario of significant learning), we observed that seniors used blogs for very different purposes: most seniors used the blog as a way of sharing content with other colleagues (although not educational content). In this sense, they would usually put "entertaining content" (musical videos from YouTube), "social content" (photos of class dinners, meetings, and parties) and "hobbies" (recipes, paintings). Only one senior, who was enrolled in the program "New Opportunities", used his blog as a repository of educational content, in the strict sense of developing a life portfolio (Barreto & Santos, 2011). Some of the blogs that were created are seen in Figure 28.
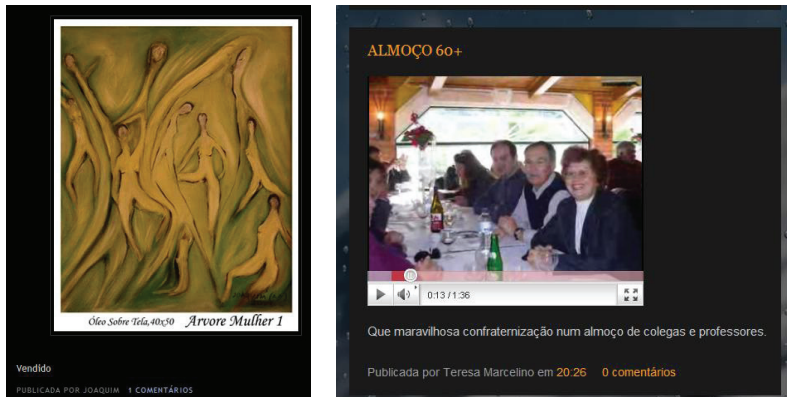
Figure 28: A blog of a senior's paintings (left) and another with a video of a class informal lunch (right).

The ICT courses, both the introductory one and the intermediary one (multimedia and web 2.0), don't have a component where the student's competences are evaluated. Students don't do tests and are not assessed by the teachers in any way, as happens in most formal and non-formal scenarios. Still, students are encouraged to make self-assessments. These assessments are important, in the authors' opinion, as they have an impact on their choices of ICT curricula in the next school year. Some students take the same course twice, either because they enjoy a specific part of the curricula (ex: photo editing) or because they think that they had several limitations that didn't allow them to succeed as well as they wished, and want to take the course again with a fresh perspective and stronger confidence.

Trad'Inovações

Besides these "traditional" ICT courses, Project IPL 60+ also has an ICT course that runs in parallel with the others, but which is different in its design philosophy. This course is, in fact a project, Project Trad'Inovações, one that aims to gather seniors on the issues of Portuguese traditions and make students learn, socialize and share knowledge and experience

on this topic through the use of ICTs. In other words, the project aims to develop skills in ICT in the context of archiving and discussing some Portuguese traditions. Trad'Inovações is aimed at people aged over 50, motivated to learn, socialize, share knowledge and experience, who have a taste for learning technologies and Portuguese popular traditions. The people attending this project range, in terms of educational levels, between medium/high, served as qualified professionals and come with high expectations of the Project.

This project began with the following objectives in mind:

– Perpetuate the traditional and popular culture, acknowledging the traditions of the Portuguese people, living them and recreating them through ICT and innovative situations;

– Create a dynamic intergenerational approach to traditional and popular culture, putting generations in interaction – children, young adults and the elderly;

– Share knowledge and practices on the folklore of several countries to understand and accept cultural difference, appreciation of local and regional identities and the promotion of values such as fraternity and universality;

The pedagogical approach of the project is a constructivist one, since the sessions are based on the use of active methodologies to develop democratic skills and attitudes, to encourage the participation and co-operation in groups, solve problems and develop oral communication and technology skills (Marques, 1999). Project activities are also oriented according to the principles of adult education. These start from a non--formal educational strategy, from the needs and specific interests of key actors, and the use of active and participatory methodologies (Jacob, 2007). During the sessions, the key is to combine the preferences of seniors with technological learning, and respect the rhythm of each one, because only then will they be motivated to continue their journey in this area (Morrison, J., Barnett, S7D).

Seniors are bearers of knowledge and, when queried, they reflect enormous wisdom. Throughout the classes, they are invited to explore new technological tools while working on significant topics, such as

festivals, processions, costumes, legends, food, customs and popular wisdom, among others. The digital tools that are explored in class are chosen according to their interests and needs, and are divided into two distinct categories: offline tools (Office, Photostory, MovieMaker, Picasa, among others) and online tools (Facebook, Blogs, Slideshare, Youtube, Storybird, Google Docs, Prezi, Slideshow, etc). Figure 29 shows one of the blogs produced under this project.
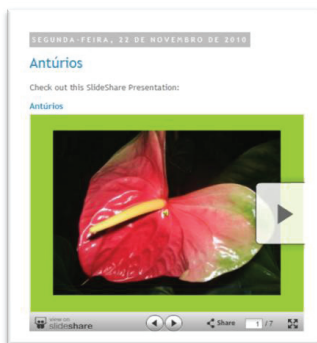
Figure 29: A blog entry on flowers.

The assessment is a fundamental process that serves to assess whether the objectives are being achieved and whether the results are meaningful.

The project's webpage (www.tradinovacoes.blogspot.com) is also used to share knowledge with the community (children, adults and seniors) by publishing the seniors' works made during classes. It is a way to share knowledge and apprenticeships with the community (Rodrigues & Varregoso, 2011; Rodrigues, 2009). The project has also a space in the Institute's E-Learning platform, a space that is used mainly as a repository of resources, but also where seniors participate in forums, asking questions and raising doubts. It is still in an early stage.

Conclusions

In this article we have presented the principles that guided the design of several ICT courses for senior students, under a project that aims

to provide seniors with educational and socio-cultural opportunities in order to make them active participants in the information society, promoting their social inclusion. These courses offer a curriculum that aims to teach students digital tools based on their interests, experiences and expectations, but also by providing them with opportunities to explore new unknown tools that, in the authors' opinion, can be used to have an active role in the information society.

The seniors have been giving some feedback on the courses, either informally and formally (surveys) that lead us to conclude that the courses are pertinent and interesting. Still, we expect to elaborate a more holistic evaluation of the project (on the ICT learning perspective) in the near future.

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FORMAL CAREGIVERS' HEALTH CHARACTERIZATION AND SELF-PERCEPTION: IMPLICATIONS FOR LONG-TERM CARE PRACTICES

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Abstract

Formal caregivers' health can affect the quality of care provided in long-term care settings. Therefore, this study aimed to analyze formal caregivers' health perception and how it varies according to socio-demographics, working conditions and other health-related variables. A cross-sectional study with 170 formal caregivers was performed in the central region of Portugal. A structured questionnaire based on International Classification of Functioning, Disability and Health Checklist (ICF--Checklist) was used to collect information about socio-demographic data, working conditions and health status. Formal caregivers reported a better perception of mental than physical health. Statistically significant differences in physical health perception were found according to age, educational levels, marital status, work experience, reasons for choosing job, medication intake, physical pain and functionality. Self-reported mental health was also significantly different according to educational levels, physical pain and functionality. The results highlight that formal caregivers mainly perceive themselves as being physically overloaded.

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Thus, long-term care institutions should invest in interventions to prevent and alleviate physical and emotional overloads and promote strategies for self-care.

Introduction

The proportion of older people is growing faster than any other age group, particularly those aged ≥ 85 years (Christensen, Doblhammer, Rau & Vaupel, 2009). This population is highly susceptible to some health conditions, such as stroke (Marini et al., 2004), musculoskeletal disorders (Mottram, Peat, Thomas, Wilkie & Croft, 2008), cancer (Lock & Higginson, 2005), and dementia (Corrada, Brookmeyer, Paganini-Hill, Berlau & Kawas, 2010), which lead to high levels of physical dependency and increased need for care and support. Therefore, it is expected that a greater number of older people, particularly the "oldest old", will require long-term care (Herrmann, Michel & Robine, 2010).

Formal caregivers (also known as direct care providers, paid caregivers or support workers) represent a key-element in long term care institutions (Hussein & Manthorpe, 2005). These professionals have the most direct contact with clients, are considered to be those primarily responsible for their well-being, and are often referred as the "eyes and ears" of the care system (Gage et al., 2009; Montgomery et al., 2005; Stone & Dawson, 2008). They are defined as the workers who provide personal care (such as bathing, dressing, toileting and eating), support in instrumental activities of daily living, comfort, companionship and basic health care (administering medications and measuring vital signs) (Smith & Baughman, 2007). Formal caregivers' interpersonal skills, technical abilities and well-being have great influence on the quality of care provided (Castle & Engberg, 2007; Nolan et al., 2008). However, there are some barriers which could affect their well-being, such as long hours, poor pay (minimum wage), minimal benefits, few opportunities for job advancement and being prone to injury (Jorgensen et al., 2009; Mustard

et al., 2010; Smith & Baughman, 2007; Wilner, 2000). Moreover, formal caregivers have high work demands combined with low work control experience, job strain (Edvardsson et al., 2009), face persistent physical and mental demands and thus, are at risk of adverse health effects, which could affect their quality of work, well-being and may lead to absence from work (Menzel & Robinson, 2006; Mustard et al., 2010).

In the last decade a growing number of studies regarding formal caregivers have emerged, focusing particularly on: (1) formal caregivers' socio-demographic profile (gender, age, education level, marital status) and work conditions (including wages, benefits, organization culture, and satisfaction) (Jorgensen et al., 2009; Montgomery et al., 2005; Potter et al., 2006; Smith & Baughman, 2007; Wilner, 2000); (2) training and/or educational interventions (Aylward et al., 2003; Beer et al., 2010; Nolan et al., 2008); (3) the impact of work conditions on workers' satisfaction and performance (Ejaz et al., 2008; Kemper et al., 2008; Morris, 2009); and (4) stress and burnout (Duffy et al., 2009; Edvardsson et al., 2009; Jenkins & Allen, 1998). However, little attention has been given to their health perception and associated factors. The existing studies focus on musculoskeletal injuries and are mostly targeted to professionals in the health sector (e.g., nurses) (Ando et al., 2000; Daraiseh et al., 2003; Jansen et al., 2004; Morse et al., 2008; Sveinsdóttir & Gunnarsdóttir, 2008), neglecting the formal carers. Therefore, this study aimed to analyze formal caregivers' health perception and to explore its relationships with socio--demographics, working conditions and other health-related variables.

Methods

Study Design

A cross-sectional study was conducted in the central region of Portugal. Ethical approval was obtained by the Ethics Committee of the Research Unit of Health Sciences at the Health School of Nursing in Coimbra, Portugal. Written informed consents were obtained from participants.

Procedures

Fifty-seven care homes were contacted and information about the study was provided to the service managers in an arranged meeting. Forty institutions agreed to participate. Formal caregivers were identified by the service managers and were included in the study if they: provided direct care services to dependent older people, such as personal care activities (bathing, dressing, toileting and eating), supervision and simple health care (administering medications and measuring vital signs); had worked in the care home for at least 6 months (steady regime); agreed to participate and sign the written consent form. Formal caregivers were excluded if they: were trainees or temporary workers; were responsible only for cleaning, transportation or meal preparation; had a specialization such as nurses, occupational therapists, physical therapists and social workers. A convenience sample of 170 formal caregivers was recruited. Data were collected between November of 2010 and September of 2011.

Measures

A structured questionnaire based on International Classification of Functioning, Disability and Health Checklist (ICF-Checklist) (World Health Organization, 2001) was used to collect data about socio-demographic (gender, age, education and marital status), working conditions and health status. The questions about formal caregivers' working conditions included: work experience in same care home (years), type of schedule (fixed or rotary) and the main reason for choosing the actual profession. Information to characterize caregivers' health included: height, weight, physical pain complaints (localization), medication intake, hospitalization (last year), sick leave (last 6 months), illness or injury that affected their functionality (last month), reduction in usual activities due to the health condition (illness, injury and/or pain) or due to the work (last month) and perception of physical and mental health (last month).

Analyses

Statistical analyses were performed using the PASW Statistics 18.0 for Windows. Descriptive statistics were applied to characterize the sample. Data did not assume normality parameters; therefore non-parametric tests (Mann-Whitney test and Kruskal–Wallis test) were used to assess whether physical and health perception differed across socio-demographics, working conditions and health-related variables. The level of confidence considered was 0.05.

Results

Sample characterization

Formal caregivers' mean age was 45.0±10.2 years old. Most were female (99.4%), married (67.6%) and had 7 or more years of formal education (61.8%) (Table 7).

Table 7: Socio-demographic characterization of the formal caregivers

Variable	n (%)
Gender	
Female	169 (99.4%)
Male	1 (0.6)
Age (years)	
≤ 20	0
21 to 30	16 (9.4%)
31 to 40	37 (21.8%)
41 to 50	64 (37.6%)
51 to 60	42 (24.7%)
61 or more	11 (6.5%)
Education level (years)	
1-4	29 (17.1%)
5-6	36 (21.2%)
7-9	72 (42.4%)
10-12	33 (19.4%)
Marital status	
Married	115 (67.6%)
Widowed	10 (5.9%)
Divorced or Separated	26 (15.3%)
Never married	19 (11.2%)

Formal caregivers' working conditions

Caregivers were working in the same workplace for 8.6±6.6, mostly in rotating shifts (68.2%). These workers were in this profession due to circumstantial reasons, i.e., unemployment, geographic proximity with the workplace or need to change job (61.8%) (Table 8).

Table 8: Work conditions

Variable	n (%)
Time at the same care home (years)	
≤ 5	69 (40.6%)
6 to 10	48 (28.2%)
11 or more	53 (31.2%)
Type of schedule	
Fixed	54 (31.8%)
Rotating	116 (68.2%)
Main reason for choosing this profession	
Circumstantial reasons	105 (61.8%)
Liking	63 (37.1%)
Other reasons	2 (1.2%)

Formal caregivers' health characterization

Most participants (58.2%) were overweight or obese (BMI≥25.00) and were taking, at least one type of medication (53.5%): anti-inflammatories (17.1%), analgesics (15.3%), anxiolytics/hypnotics (12.9%), antidepressants (11.8%), lipid-lowering (10.0%), antihypertensive (8.2%) and/or anti-diabetics (4.1%). A total of 136 (80%) formal caregivers complained of physical pain, particularly in their spine (64.1%). Hospitalization in the last year was reported by 5.3% of the participants and the need to take sick leave by 15.9%. Illness or injury affecting functionality was mentioned by 10.6% of the sample. Approximately half of the participants (52.4%) reported a reduction in their usual daily activities (e.g., housekeeping, leisure), during the last month, due to work obligations/demands and 15.3% due to their health condition. Most of the participants considered their physical health as "good" (47.1%) or "moderate" (42.4%). The

majority had a positive perception of their mental health, as 52.4% had considered it as "Good" (Table 9).

Table 9: Formal caregivers' health characteristics

Variable	n (%)
Body Mass Index (kg/m2) (WHO, 1995)	
Normal (18.50 – 24.99)	71 (41.8%)
Overweight (25.00 – 29.00)	91 (53.5%)
Obese class – I, II, III (≥30.00)	8 (4.7%)
Medication Intake	
At least, one type of medication intake	91 (53.5%)
None	79 (46.5%)
Types of medication	
Anti-inflammatories	29 (17.1%)
Analgesics	26 (15.3%)
Anxiolytics/Hypnotics	22 (12.9%)
Antidepressants	20 (11.8%)
Lipid-Lowering	17 (10%)
Antihypertensive	14 (8.2%)
Anti-diabetics	7 (4.1%)
Physical pain	
No complaints	34 (20.0%)
Presence of physical pain	136 (80.0%)
Location of physical pain	
Spine	109 (64.1%)
Upper limb	63 (37.1%)
Lower limb	61 (35.9%)
Head	14 (8.2%)
Hospitalization	
Yes	9 (5.3%)
No	161 (94.7%)
Sick leave	
Yes	27 (15.9%)
No	143 (84.1%)
Illness or injury that affected functionality	
Yes	18 (10.6%)
No	152 (89.4%)
Reduction of daily activities due to work obligations/demands	
Yes	89 (52.4%)
No	81 (47.6%)
Reduction of daily activities due to health condition	
Yes	26 (15.3%)
No	144 (84.7%)
Perception of physical health	
Good	80 (47.1%)
Moderate	72 (42.4%)
Bad	18 (10.6%)
Perception of mental health	
Good	89 (52.4%)
Moderate	68 (40.0%)
Bad	13 (7.6%)

Differences in health perception according to socio-demographics, working conditions and health-related variables

Statistically significant differences in physical and mental health perception were found for education, physical pain and reduction in daily activities, i.e., participants with low educational levels, physical pain complaints and with reduction in daily activities reported a worse perception of physical and mental health (Table 10). No significant differences were found according to type of schedule, body mass index, hospitalization, sick leave and consumption of anxiolytic/hypnotic drugs. However, physical health perception was significantly different according to age, marital status, period of time working at the same workplace, reason for choosing the profession and functionality affected by illness/injury. Formal caregivers who had reported a worse health perception tended to be older, widowed or separated, with 5 or more years of work experience in the same care home and had chosen this profession for convenience. Furthermore, they also tended to consume analgesics, antidepressants or anti-inflammatory drugs and to report a decrease in their functionality due to illness/injury.

Table 10: Differences in the health perception (physical and mental) according to formal caregivers' characterization variables (n=170).

Variable	n (%)	Self-Rated Physical Health		Self-Rated Mental Health	
		M [IQR]	P	M [IQR]	ρ
Age (years)					
21 to 30	16 (9.4%)	1[1,2]		2[1,2]	0.735[2]
31 to 40	37 (21.8%)	1[1,2]		1[1,2]	
41 to 50	64 (37.6%)	2[1,2]	**0.034**[2]	1[1,2]	
51 to 60	42 (24.7%)	2[1,2]		2[1,2]	
61 or more	11 (6.5%)	2[1,2]		2[1,2]	
Education level (years)					
1-4	29 (17.1%)	2[2,3]		2[1,2]	**0.015**[2]
5-6	36 (21.2%)	1.50[1,2]	**0.000**[2]	1[1,2]	
7-9	72 (42.4%)	1.50[1,2]		1[1,2]	
10-12	33 (19.4%)	1[1,2]		1[1,2]	
Marital status					
Married	115 (67.6%)	1[1,2]	**0.006**[2]	1[1,2]	0.115[2]
Widowed	10 (5.9%)	2[1.75,3]		2	
Divorced or Separated	26 (15.3%)	2[1,2.25]		[1,2.25]	
Never married	19 (11.2%)	1[1,2]		2[1,2]	
				1 [1,2]	

Table 10 (cont.).

Time at the same care home (years)			**0.021**[2]		
≤ 5	69 (40.6%)	1[1,2]		1[1,2]	0.397[2]
6 to 10	48 (28.2%)	2[1,2]		2[1,2]	
11 or more	53 (31.2%)	2[1,2]		1[1,2]	
Type of schedule					
Fixed	54 (31.8%)	2[1,2]	0.241[1]	1.5[1,2]	0.839[1]
Rotating	116 (68.2%)	1.5[1,2]		1[1,2]	
Main reason for choosing this profession			**0.018**[2]		
Circumstantial reasons	105 (61.8%)	2[1,2]		2[1,2]	0.133 [2]
Liking	63 (37.1%)	1[1,2]		1[1,2]	
Other reasons	2 (1.2%)	---		---	
Body Mass Index (kg/m2)					
Normal (18.50 – 24.99)	71 (41.8%)	2[1,2]	0.717[2]	2[1,2]	0.141[2]
Overweight (25.00 – 29.00)	91 (53.5%)	1[1,2]		1[1,2]	
Obese class – I, II, III (≥30.00)	8 (4.7%)	2[1,2]		1[1,2]	
Types of medication					
Anti-inflammatories	29 (17.1%)	2[1.50,2.50]		2[1,2]	0.190[1]
None	141 (82.9%)	1[1,2]	**0.002**[1]	1[1,2]	
Analgesics	26 (15.3%)	2[1.75,2.25]		2[1,2]	
None	144 (84.7%)	1[1,2]	**0.003**[1]	1[1,2]	0.114[1]
Anxiolytics/Hypnotics	22 (12.9%)	2[1,2]		2[1,2]	
None	148 (87.1%)	2[1,2]	0.361[1]	1[1,2]	0.055[1]
	20 (11.8%)				
Antidepressants	150 (88.2%)	2[1,2.75]		2[1,2]	
None		2[1,2]	**0.038**[1]	1[1,2]	0.247[1]
Physical pain					
Presence of physical pain	136 (80.0%)	2[1,2]	**0.000**[1]	2[1,2]	**0.002**[1]
No complaints	34 (20.0%)	1[1,1]		1[1,1.25]	
Hospitalization					
Yes	9 (5.3%)	2[1,2.50]	0.617[1]	2[1,2]	0.827[1]
No	161 (94.7%)	2[1,2]		1[1,2]	
Sick leave					
Yes	27 (15.9%)	2[1,2]	0.565[1]	2[1,2]	0.243[1]
No	143 (84.1%)	2[1,2]		1[1,2]	
Illness or injury that affected functionality					
Yes	18 (10.6%)	2[1.75,2.25]	**0.015**[1]	1.50[1,2]	0.739[1]
No	152 (89.4%)	1.50[1,2]		1[1,2]	
Reduction of daily activities due to work obligations/demands					
Yes	89 (52.4%)	2[1,2] 1[1,2]	**0.009**[1]	2[1,2]	**0.007**[1]
No	81 (47.6%)			1[1,2]	
Reduction of daily activities due to health condition					
Yes	26 (15.3%)	2[2,2.25]	**0.000**[1]	2[1,2]	**0.006**[1]
No	144 (84.7%)	1[1,2]		1[1,2]	

M - median; IQR – interquartile range [p25, p75]; [1] Mann-Whitney; [2] Kruskal-Wallis.

Discussion

Formal caregivers tended to report a worse perception of physical than mental health. These results may be justified by their exposure to heavy workloads and high biomechanical difficulties. Previous studies have shown that musculoskeletal demands such as awkward postures, heavy lifting and repetitive movements negatively influence health (Bowers et al., 2003; Mustard et al., 2010; Pope, 2002; Roelen et al., 2007) and compromise well-being.

The statistically significant differences in physical health perception suggest negative physical impacts of the demands of care and alerts to the influence that age, marital status and education level could have on physical health perception. Caregivers with a worse self-reported physical health tended to be older, widowed, divorced or separated and had a lower education level. These findings were also supported by previous studies (Kelleher et al., 2003; Lambert et al., 2004). Ilmarinen (2001) suggested that the functional capacity to work for long periods and perform demanding and heavy tasks tends to decline after the fourth decade of life which could explain the influence of age found in this study. Additionally, marriage and a superior education level have been associated with a positive impact on life-style behaviors, improving self--esteem and self-efficacy (Lillard & Panis, 1996; Winkleby et al., 1992).

Physical health perception was also different according to work conditions. Formal caregivers who reported a worse physical health perception had been working at the same institution for a longer period of time and had chosen this job for circumstantial reasons. As caregiving is a difficult job, with continuous musculoskeletal demands (Jorgensen et al., 2009; Mustard et al., 2010; Smith & Baughman, 2007; Wilner, 2000) it is expected that it leads to caregivers' exhaustion (Jorgensen et al., 2009; Wilner, 2000) and therefore, influence their perception of physical health. Moreover, caregivers who chose this job for circums-tantial reasons have less motivational factors that negatively influence their behaviors, satisfaction, performance and job commitment (Tadin et al., 2005).

Furthermore, self-reported physical health differed significantly according to physical pain, medication intake (analgesics, anti-inflammatories and antidepressants), illness or injury that affected functionality and reduction of activities. Hard working conditions affect musculoskeletal outcomes in multiple body regions (Daraiseh et al., 2003; Mehlum et al., 2006), causing chronic pain and poor self-reported health status (Bergman et al., 2004; Roelen et al., 2008). Analgesics and/or anti-inflammatories are one of the possible ways to alleviate physical pain and are widely used to treat arthritis, sprains, painful periods and other painful conditions (INFARMED, 2011) commonly found in these workers (Boyer et al., 2009). Additionally, caregivers who reduced their daily activities also mentioned a worse self-related physical health. Demanding and repetitive tasks increase the risk of illness and consequently lead to a loss of productivity in the short term (Roelen et al., 2008) and long-term sickness absence (Roelen et al., 2007).

Mental health perception was related with educational level, physical pain and reduction of daily activities. As mentioned above, positive health behaviors are associated with a higher education level (Winkleby et al., 1992). Moreover, functional limitations, such as physical pain and reduction in daily activities, have a considerable impact on physical and mental health perception (Bergman et al., 2004).

Although this study provided a more comprehensive understanding of formal caregivers' profile in long-term care settings, our findings are limited by the exploratory nature of the research. Thus, further studies with a wider range of formal caregivers should be conducted, in order to include formal caregivers of dependent older people in different support services, such as home care services. Studies with specific subjective health measures are also needed in order to confirm the extent of our findings.

Nevertheless, some recommendations for long-term care settings can be retrieved. The results highlight the importance of institutional investment in occupational health by providing training/education to formal caregivers, work tools and standardized protocols for evaluating the handling and moving of patients as well as protocols to decide the number of workers needed (Ilmarinen, 2001; Ngan et al., 2010; Peled, 2005).

Moreover, it is recommended that physical workloads should be adapted in line with advancing age, and appropriate work postures and the use of equipment aids should be promoted (e.g. transfer sling, gait belt and bath chair) which could facilitate the carrying out of tasks (Ilmarinen, 2001; Tuomi et al., 2001) and eventually reduce the pain and the need for anti-inflammatories and analgesics.

Conclusion

Although the role of formal caregivers in clients' well-being and quality of care have been recognized (Bowers et al., 2000; Castle & Engberg, 2007), the importance of this workforce is still neglected by policies.

This study suggested that professionals caring for dependent older people are frequently exposed to distressing physical and emotional situations. More detailed knowledge on these workers in terms of health and associated factors, alert to the role of authorities and organizations in adjusting the workload to the functional capacities of caregivers, investing in interventions to prevent and alleviate physical and emotional overloads and promote self-care strategies. There is a growing demand for high-quality personalized care, and therefore it is essential to attract and qualify workers to the area of aging and create conditions for them to remain in this job.

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HOME-VILLAGES AS A RESIDENCE AND REVITALIZATION SYSTEM OF THE TERRITORY

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Abstract

Home-villages in Portugal, as a system of residence and revitalization of the territory are the main objective of this work. Based on the case study of the Home-Village of São José de Alcalar, in Mexilhoeira Grande - Portimão, it seeks to identify rules of conception and space, as well as implementation systems that will contribute to establishing a special equity in habitation and also identifying the daily flows of the populations in their territory of action and influence, by examining the use of mobility systems and equipment.

The demographic challenge, with the increase in the number of people over 65 years and their higher longevity, adds the challenge of promoting relations of proximity and interaction of populations with their homes, as place of shelter, and the territory in which they move and work. It is necessary to establish a land structure and intergenerational architecture that removes physical and psychological obstacles, minimizing the isolation of the elderly population, where the introduction of the time factor in urban and architectural planning aims to encourage and enhance the social and civic participation of people in the community. Through the development and introduction of a balanced planning system, rural or/and urban land use too, the aim is to establish a qualified supply of housing, equipment, jobs and services to promote the establishment of a population which can fight the abandonment of the territory and its desertification.

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The relevance of this research relates to the timeliness of the theme and the necessity to create workable answers, contributing to the development of knowledge enhancement of housing problems, permanent or temporary, that despite concerns over accessibility and mobility needs for the aging population, it intended to be intergenerational.

Keywords: Territory; Home Village; Housing; Spatial Equity; Population Aged; Revitalization.

Introduction

Contextualization of the theme

The aging world population appears to reflect the developments of medical, scientific and technological knowledge, as well as the improvement of hygiene and sanitation in housing and in the territory. It is still relevant to include educational, cultural, political, social and economic factors, which influence the rates of fertility and life expectancy of populations and also their migration flows. In this context, population aging presents itself as a global problem, a reflection of globalization (Harper, 2009).

The 20th century was marked as a time of high population growth. Between 1900 and 2000, there was a world population increase from 1.5 billion to over 6 billion, and this may increase to 8 or 9 billion until 2050. Projections indicate that, during the first half of the 21th century, developed countries in Europe, North America, Japan, Australia and New Zealand, will register; at most, a slight increase of population, with the expectation of it stabilizing from there one, with maybe even a slight decrease occurring. Developing countries are expected to stabilize, as a consequence of the decrease in the fertility rate (Wilson, 2009).

In the transition from the 20th to the 21th century there were, within the European Union (EU)-15, more people of 60 and more years old than young ones under 15 years old. The convergence rate of longevity (aging at the top) with the decrease in fertility rate (aging at the base) reflects the aging demographic, where the coexistence of these two factors leads

to a double aging, result in the increasing number of elderly in the total population and the decreasing number of young.

Migration may contribute to enhancing or reversing this process, as immigration appears as a retarding factor for aging and migration as a leverage factor. We conclude that although world population numbers will stabilize, the proportion of elderly people will continue to increase, with a significant rate of growth of people aged over 80, and it is at this age where there will be the fastest growth worldwide (Harper, 2009).

World population aging is presented as a consequence of temporal stabilization in the population growth, verifying that the strong population growth in the twentieth century eased the aging process.

According to Jorge Gaspar (2009), the 20th century was the century of population growth; the 21th century will be the century of aging.

This work deals with the problem of population aging and how it interacts with the housing structure and the territory, where it belongs. It seeks to contribute to the promotion of a territorial structure and architectural intergenerational that minimizes or even eliminates the obstacles and the isolation of the (elderly) population, thereby aiming, for an improvement of their quality of life and integration in their family community and social support. It starts with an analysis of models/ systems of Home Villages, explores how these may be structural for a sustainable land - by offering qualified housing structures, employment and services - and thus promote the settling of the population, fighting desertification and abandonment of territory.

Contextualizing of the theme in the Portuguese scenario

In the early 21th century, Portugal appears as one of the most aged countries in Europe; where for people who were born in 1960 there was an average life expectancy of 60.7 years for men and 66.4 years for women. For those born in 2010, this expectancy, rose to 76.14 years for men and 82.05 years for women, which represents an increase of nearly 15 years in six decades.

There is also an increase in the population aged 75 or over. While in 1960, this segment of the population accounted for 34% of the total population over 65 years, in 2001 it represented 41% and in 2008 it accounted for 46%. Another factor that characterizes the Portuguese population is that for every five people 75 and over at least three are women (Rosa & Chistas, 2010).

The results of the 2011 Census indicate that, in Portugal, a growth in the resident population of 2% was found in the last decade, which corresponds to about 205 thousand individuals. However, this value is lower than that recorded in the previous decade (1991-2001), where there had been a growth of 5 %.

Another important factor is the dual aging population in Portugal, where 19% of the population is 65 or more years and only 15% between 0 and 14 years of age. Thus, for each 100 young people there are 129 elderly people. Since 2001, the number of elderly people has been higher than for young people (with an verified index of 102), which until then had never been registered, for example: in 1970 there were 37 elderly per 100 young people, in 1981, there were 40 and in 1991 there were 68. The autonomous regions of Azores and Madeira are those that exhibit the lowest indices of aging in the country, respectively 74 and 91, while the Alentejo region has the highest rate (179), followed by the Central region (164).

Table 11: Index of aging in Portugal

1980-1982	1984-1988	1988-1990	1992-1994	1996-1998	2000-2002	2004-2006	2008-2010
75.15	76.27	77.30	78.09	78.88	80.01	81.30	82.05

Source: http://www.ine.pt

Another important factor in the analysis and characterization of our population are their rates of migration. The National Institute of Statistic (INE) indicators for 2008 show a growth rate of 0.09% migration and natural growth rate of almost zero, with a rate of increase of 0.09% and thus a further slowdown of population growth, which in 2007 had been 0.17%.

The Eurostat report, published in June 2010, states that Portuguese rural areas lose their young generations faster than urban areas and indicates that five countries of the twenty-seven EU Member States have a percentage of elderly people living in rural areas higher than 20% - Portugal, Spain, Italy, France and Greece. It is anticipated that, for the year 2060, an average of 30% of the population will be 65 years and over in Portugal.

In this context, and with their demographic expression, the elderly population presents itself as a significant part of population, which has a tendency to increase and presents specific needs of living, mobility and accessibility, both within the housing structure, and in the territory where they live and move. The possibility of remaining in their homes and in their reference communities (social and family) will be the biggest challenge for the development of spatial planning and housing. The opportunity to live close to the family (in the same house or with a relationship of physical proximity) is not always presented as a viable alternative. The use of Assisted Residences Homes is revealed as a possible choice, though not always that most desired by the elderly population and their families (Schwarz, 2001). For the elderly population, the possibility to continue in their homes (permanent or temporary), in their territory of domain and knowledge, in their family and in their social communities, helps to promote the proper interaction between the elements of Housing | User | Time.

Home-Villages as a residence and revitalization system of the territory

The *Home-Villages* concept

The concept of *Home-Village* appeared in Portugal in 1989 with the construction of São José de Alcalar village, in Mexilhoeira Grande, Portimão, presenting itself as an alternative to institutionalization for elderly people.

Its construction was initiated by Father Domingos Monteiro da Costa, after becoming aware of the specific accommodation needs found in the

Home in the parish. This Home works within a "conventional" structure of shared rooms - differentiated by sex - not taking into account the separation of families or couples who should, despite their age and specific needs, stay together and continue to share the same space, though unable as never before to remain in their homes.

The São José de Alcalar village was designed by the architect Martin Garcias, who developed a composed structure of five cores that respond to the functions of housing, support services for the village, fellowship and support for visitors, arranged in a radial and concentric design.

Figure 30: São José de Alcalar Village – Mexilhoeira Grande, Portimão
Picture by António Pinto, architect (2011)

The model proposed an intergenerational experience, allowing for the improvement of quality of life of local residents and their interaction with the local community and family, unlimited in its physical space, interconnected with the existing territorial network (Costa, 2000).

In Portugal there are other similar structures, like São Martinho das Amoreiras village (in Odemira, Beja) and Monte da Palhagueira (in Gorjões, Faro), and this model combines residence in single houses and Assisted Living with services dedicated to the specific needs of elderly people, in an urban planning of a village[40]. Another case study, although

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[40] Village is understood as a (urban) structure without its own jurisdiction and that in its essence is identified with a rural identity.

with a different concept from *Home-Villages* (since this is not the main base of its conception), but as a multifunctional and intergenerational structure, is the village of Santa Isabel (Rio de Mouro, Sintra) property of Santa Casa da Misericórdia de Lisboa, which includes a nursing home, children's home and professional training schools for young people, with a totally cross social component.

The concept of *Home-Village* includes structures designed and built for this purpose, where all services for its operation are provided, which may vary according to the specific needs of its population and the territory where it stands, as well as the use of towns and villages, in the interior of the country (Portugal), in the process of depopulation and desertification of the territory. These may be the preferred spaces for the installation of housing and support services for the aging population (local, national and foreign) in order to improve their quality of life and simultaneously encourage the setting of the population by creating specialized jobs in the area of geriatrics and long-term care, among others, promoting its intergenerational component.

Figure 31: São Martinho das Amoreiras – Odemira, Beja
Source: João Martins (2009)

Figure 32: Monte da Palhagueira – Gorjões, Faro
Source: http://www.retirementvillageportugal.co.uk

The villages are characterized by their urban structure defined over time of their formation and maturation, with the shared of the experience local community and reconciled with the housing and specialized support services for the elderly population.

As well as a perspective on integration of planning, the *Home-Villages* may also be a base for tourism and economic development strategies, aimed at seniors, offering specialized services and equipment associated with the different conditions that our territory offers, such as climate, richness of cultural heritage, architecture, landscape and gastronomy. According to Ferreira (2006), the statement of our territory as a destination for international senior European tourism *"is founded on the knowledge/ recognition of the factual importance but also on the various implications associated with this demand. From a wider perspective - across the majority of tourism products - to the most confined reading of a certain tourist program profile aimed exclusively or mainly at seniors (product perspective), the national territory and the Algarve in particular, have attributes already marked out and/or with potential to be promoted as holiday destination for the European elderly population".* We should also consider that the senior tourists tend to be greater in number, but also older, with greater economic power and more active (Cavaco, 2009), and

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represent, therefore, a stimulating and key factor for economic development of regions and countries with tourism potential.

It is in this context that the importance of integrated and inclusive territorial planning and architectural production arises, and this is where the case of *Home-Villages* in Portugal can reveal a real alternative to particular problems, not only for a specific (and significant) portion of the population, but throughout the entire social and urban structure. As the fact is that the world's population is aging, this model appears as an alternative to the aging of the territory, facing the context of the desertified interior as a solution and not as a problem.

The villages and towns suitable for *Home-Village* should be those whose population is already aged, where there is no job's offer and where population loss implies the existence of many empty houses. According to João Martins (2009), this scenario raises the possibility of introducing quality products and services for senior citizens (resident or tourist), through the enhancement and differentiation that the country offers, thereby contributing to better planning, aimed at its revitalization. As well as the improvement of living conditions and establishment of the resident population, by implementing a specialized economic and physical structure, with particular regard to residence services, health and all complementary services (such as laundry, hairdresser, banks, pharmacy, catering, accommodation for visitors, leisure activities, among others) - urbanity.

The *Home-Villages* framework in the international context

On the international scene there are similar structures, such as *Cohousing*, the concept of which originated in Denmark in the 60s, and was subsequently implemented in the Northern Europe and North America, and which also aims to promote intergenerational and integration between the host communities. There are currently *Cohousing* designed to respond to the specific needs of the population over 55 years old, where they seek to remain *"in a housing that promotes good*

neighbourly relations and mutual support to aging with respect, dignity and autonomy" (Daré, 2010).

Other examples of urban structures with similar characteristics, are the expansion of the City of Vienna (Austria) to 10,000 residents, whose urban and architecture planning was designed by architects Peter Ebner and Franziska Ullman. This refers to the inclusion of intergenerational buildings, which allows young families to share their experiences with parents, cohabiting with the existence of small *lofts* for students. Another example is the expansion of the city of Ypenburg (Netherlands), with urban planning by studio MVRDV, which includes housing for 120 families, and also considers intergenerational issues, relating the developed habitations on different floors with a Home for seniors on the top floor. The architectural project was developed by Van den Oever, Zaaijer and Partners (Schittich, 2007).

In 2004 the Bauhaus Foundation began promoting a project, based on utopian and futuristic models, for medium-sized German cities, targeting the year 2030.

Figure 33: Ypenburg (Holland)[41]

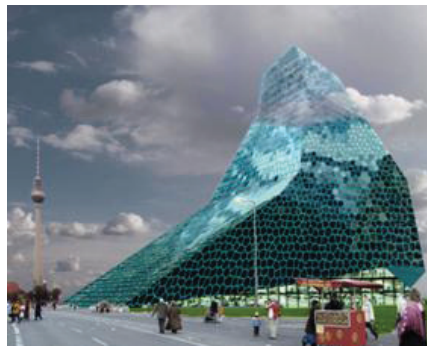**Figure 34:** Geropólis conceptual project[42]

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[41] Source:http://www.flickr.com/photos/sarahlynndunham/3702060529/in/photostream/

[42] Source:http://infotechmfp.wordpress.com/2011/12/07.new-aging-reinventing-living-for-the-second-part-of-life/

This project emerged in order to explore how existing cities may be restructured to promote the satisfaction of its residents and seeks to promote the reduction of isolation among the elderly population, by motivating involvement of the community, based on a new *"lifestyle"* and a new society. This is founded on sociological, architectural and urban interventions which should have a positive impact, by eliminating barriers and not limiting the range of action of its inhabitants (HOLLWICH, 2010).

Housing for the elderly appears to be one of the actual central focuses of architecture, urban planning and the housing market (HUBER, 2008). In our society the concept of housing / home, is crucial, contributing significantly to the level of quality of life of individuals and their habitat (domain territory). It marks and characterizes our culture and our customs, as well as the political system itself in its legislation, urban planning and architecture programs (HIGINO, 2010). Thus, urban and architectural planning for the future must respond to the specific needs of different population layers (social, cultural, economic, age, physical, etc.). It should also be flexible for different stages of life, in order to promote proper interaction between the physical space and the specific needs of its use in the normal course of life and experience, promoting the autonomy of their users, whether elderly or not.

São José de Alcalar village – Case study

Framework

Located in the village of Mexilhoeira Grande, Portimão, São José de Alcalar village presents itself as a relevant case study in the context of housing dedicated to seniors, in Portugal. It goes from a focus on important factors for analysis and interpretation of this habitat system/structure, through the characterization of the elderly residents, to architectural and urban structure - as it was designed to be a *Home-Village* - and its territory of action and influence.

Its construction began in 1989 with a structure based on five cores: One central core, where they develop common services to support the village, such as administrative services, lounge, chapel, dining hall, kitchen, medical room, nursing and occupational therapy (for internal and external consultation), a small library, hairdresser and laundry.

Property Boundary
Green Spaces
West Housing Core
Kindergarten
Main Building
Green Spaces
East Housing Core
Outdoor Amphitheatre
Geriatric Park

Figure 35: São José de Alcalar Village - Aerial view, Core areas Location

There is another core for living, with open-air amphitheatre, coffee shop, games room and mini-market (not currently functioning), last year a geriatric park was inserted in this core, to carry out fitness exercises. There are two housing cores with single floor townhouses. The fifth core is for visitor support and includes accommodation, a multipurpose room, kitchen and supporting areas and it's in this building that we can currently found a Nursery, a Kindergarten and activity services for leisu-

re and occupation of young people. Its conceptual structure allows the existence of small gardens, cultivated by the residents.

Characterization of the São José de Alcalar village

The characterization of São José de Alcalar village was established considering the analysis of its *micro-scale*, by conducting field work, which included the preparation of survey forms and interviews with its leaders and residents. This analysis was complemented with the analysis of its *macro-scale*, via the plans of the territory planning.

The *macro-scale* of São José de Alcalar village analysis:

Starting from the insertion of São José de Alcalar village in the territory, we considered the following equipment and services for analysis of their neighbourly relations and proximity to the Central Hospital of Portimão; Private Hospital of Alvor; Health Centre of Mexilhoeira Grande and Portimão; Portimão Sports Hall; Municipal Swimming Pool and Tennis Centre; Alvor Sports Centre; Shore – Beaches; Golf Courses; Portimão Marina – Harbour and Airfield – Airport.

It's possible to deduce through the analysis, that São José de Alcalar Village is integrated with its local neighbourhood, giving support to local residents, regarding the possibility of giving medical assistance in the village, as well as use of available services, such as: Coffee Shop; Mini-Market; Geriatric Park; Library; Cultural Activities (parties, festivals, concerts, among others); Nursery; Kindergarten and Leisure Time Activities.

However, it is far from the *large urban network*, having to rely on the available transport services, such as: Public Transports (that are few), Private Transports and Fire Service, to travel to hospitals and health centres.

These features gives São José de Alcalar village a position of interiority in the territory, where, despite being assured of interaction with

the neighbouring communities, the distance to facilities and services (such as hospitals, health centres, cultural facilities and sports, among others) have to be travelled in motor vehicles, and the fact that public transport is almost non-existent is presented as a leverage factor of isolation and restriction on the autonomy and mobility of its inhabitants in the territory.

The *micro-scale* of São José de Alcalar village analysis:

To make the reading of the *micro-scale* of São José de Alcalar village, we created a survey form and inquiry the local residents and the sponsors of the village (that was carried out in May 2011). We analysed the existing housing typologies, equipment's and available services, which allowed us to establish the physical characterization of the village and of the residential population. For this, it was relevant to program the following four parameters:

1. General characteristics of areas - Relationship of the total area of land (18.820,00m^2), with the built areas of occupation, landscaping, access and outdoor spaces.

Table 12: General Description of Areas

Total area of São José de Alcalar village		18.280m^2
Construction area	5285m^2	28.91%
Housing	3395m^2	18.57%
Service	1890m^2	1.,34%
Accesses and outdoor spaces	7095m^2	38,81%
Green area	5900m^2	32.28%

2. Characterization of the resident population - by age, gender and family structure.

Table 13: Age Distribution of the Resident Population

Max. cap. of accommodation		130 Inhabitants
Current occupation	114	88%
Men under 65 years old	5	4%
Women under 65 years old	62	48%
Total with less than 65 years	*67*	*52%*
Men over 65 years old	44	34%
Women over +65 years old	3	2%
Total with less than 65 years	*47*	*36%*

Table 14: Distribution per family structure

Family structure		
Married	14	12.28%
Sons, father and/or mother	5	4.39%
Brothers	2	1.75%
Other kin	1	0.88%
Without kin	92	80.70%

Table 15: Distribution of types in the housing structure

Typologies			
1 bedroom	26 units	52	50.00%
2 bedrooms	18 units	54	34.62%
3 bedrooms	8 units	24	15.38%
Total	*52 units*	*130*	

Characterization of the available services – Medical, nursing, occupational therapies services and other complementary support services available (like: hairdresser, coffee shops, mini-market, church, and others);

Capacity and structure of existing housing - Types, number and characteristics of units;
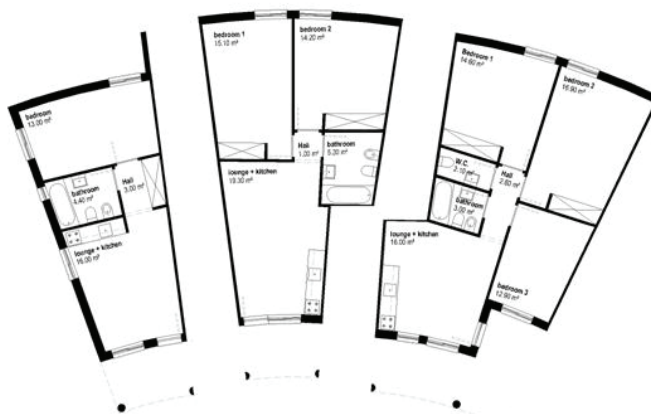
Figure 36: São José de Alcalar Village – Plan of units type T1, T2 and T3 (from left to right)

With regard to the characterization of the resident population and the physical structure of São José de Alcalar village, it's possible to verify that it has a stipulated maximum occupancy capacity of 130 people, in fifty-two apartments consisting of: twenty-six with one bedroom, eighteen with two bedrooms and eight with three bedrooms. The area for housing represents the highest percentage of built area (19%), however 71% of the total area of the village is dedicated to access, green spaces, outdoor spaces (amphitheatre, geriatric park, gardens, wasteland, between others), i.e., it is not built.

At the time of the survey, conducted in May 2011, the occupation of the village was 114 inhabitants, of whom 65 were women (57% of the total population – mostly under 65 years, 54%) and 49 were men (43% of the total population – mostly over 65 years, 39%). Another significant factor in the characterization of the resident population, is the fact that fourteen of the dwellings are occupied by couples (12%) and eight people with a direct kinship relations (7%), indicating that most dwellings are shared by people who have no family relationship between them (81%).

In this village we can also find an outpatient medical service, a permanent nursing service, occupational therapy and complementary dining room (with own kitchen), laundry, hairdresser, coffee shop, mini-market

(currently disabled), nursery, kindergarten, leisure time activities for young people, accommodation for visitors and chapel.

Conclusions

The concept of active aging, launched in 2002 by the World Health Organization introduced a new perspective and a new consciousness in the way we look at the elderly and their contribution to society. It promotes autonomy, independence, with a healthy life expectancy, quality of life in health, safety and social participation, making space to inhabit a major factor in day-to-day populations (elderly) or in the core housing, either in the territory where it stands.

The São José de Alcalar village has a broad range of services geared to the needs of the elderly people available to its residents and the neighbourhood, but is in a position of interiority in the territory, where the distance to the different equipment and services may be a leverage factor of isolation and barrier to autonomy and mobility of its inhabitants in the territory.

The analysis of São José de Alcalar village is part of ongoing research, which involves the analysis of the same parameters of the villages of São Martinho das Amoreiras, Monte da Palhagueira and Santa Isabel village, as a system of planning, as well as the contextualization of the *Home-Villages* theme in the national and international scenario.

This research seeks to identify and characterize the physical design (on the *macro-scale* and *micro-scale*) and the resident population (how many, what age, and with which social, cultural and economic characteristics). The aim, through this reading, is to design structural lines of research, not only from the perspective of architectural design (built for purpose or recovery/revitalization of the existing architectural heritage in villages in the process of depopulation), but also from the perspective of planning, where the insertion of these villages could lead to the sustainability of the place, either as a strategy for tourism and economic development oriented to the elderly.

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ARCHITECTURE FOR ACTIVE LEARNING AND AGING: TOWARDS OPEN INNOVATION IN UNIVERSITIES

Pablo Campos Calvo-Sotelo[43]

Abstract

Open innovation in Universities should be founded on several principles: Education is an affective act (implying special attitudes between faculty and students); Education is a collective act (a community of learning generates more knowledge than the individuals): Education is a sustained act (an activity linked to active learning and ageing); Education is a spatial act (human contact is necessary to achieve a complete formation for future citizens, beyond their achievement of mere technical abilities). To achieve these goals, this paper proposes the philosophy of the "Educational Campus", a modern paradigm that can be applied to transformation processes of Institutions of Higher Education. Actually, this conceptual tool has been used by the Spanish Ministry of Education in the Program "International Campus of Excellence", since its first edition in 2009.

Excellence in Universities must be based on the main principle of the "Educational Campus": that the human contact that makes Education possible must take place in a real location. Consequently, it is necessary to underline the critical role that Architecture has to play in the evolution of Universities towards innovation, as it hosts the human contact needed to achieve the true mission of Universities: the integral formation of a human being.

The "Educational Campus" has the capacity of fostering open innovation processes at four scales: relation between University, city and territory; the campus as an independent complex; the building as an architectural piece; and finally, the classroom, as the basic learning spatial unit.

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Overall, the quality of Universities is intimately tied in with human attitudes, but also with the quality of its Architecture. Through sound planning (using the "Educational Campus" paradigm), Universities can improve the nature of their spaces, transforming them into sites where innovative teaching and learning modalities can be hosted, as well as places to invite citizens of all ages to keep on participating through all their lives in the fascinating task of education.

1. Education as an affective, collective, sustained and spatial event.

According to the current Higher Education international situation of change and innovation, it is time to remark several fundamentals about learning processes and space.

The first one is that Education is an affective event. The mission of a University is the integral formation of human beings; consequently, that transcendental process requires a sensitive approach from faculty to students.

The second one is that Education is a collective act as well. It has been demonstrated through the history of institutions addressed to this social function that a group progresses more than the individuals in the genesis and transference of knowledge. As a consequence, a University campus becomes an ideal environment in which to build up a true community of learning and research.

The third fundamental is that Education is a sustained act. As inherent to the Long Life Learning idea and suggested by the European Higher Education Area, Education is an activity subject to be developed through the whole life, and thus active learning and aging should be promoted by all kind of policies.

The fourth fundamental has to do with the idea that Education is a spatial act. If human contact is a necessary component of integral formation, that activity has to happen within a physical framework; and this is where Architecture plays a key role, as the material host of such a

relevant relation. Universities cannot be understood properly or planned without a global consideration of their physical spaces, as the material projection of their global reality.

Urban and architectural places designed to house activities of education and research ought to fulfill functions beyond those of service as a part of the built context. Recent studies, such as Pink's: "A whole new mind: Moving from the Information Age to the Conceptual Age" point out that IQ accounts for a reduced portion of career success: just 4% - 10% (Pink, 2005). Consequently, we must ask ourselves what factors account for successful student learning and for the maintained interest of people in active learning and aging? Amongst others, curiosity, feeling of wellness, visual, psychological and environmental comforts, positive perception of shape and form, etc. All have then to be born in mind before starting the formal design of a Campus (or of any human settlement) (Alexander et al., 1976). Another recent study suggested a stable social context might reduce attrition rates, and help students achieve academic and social aims (Wisely & Jorgensen, 2000). But, it's necessary to underline now that an appropriate physical environment may foster positive attitudes, which may build into excellence in education itself. Thus, a university's Architecture should be oriented to achieving such fundamental objectives, the most relevant being the enhancement of student motivation, as the most important energy that can be transmitted to those future citizens in order to encourage their positive learning attitude; and, as a direct consequence of that through time, active learning and aging as a sign of identity of our current modern societies.

2. Excellence in Education - Excellence in its urban & architectural dimension

2.1. Basic concepts

Excellence in Education is intimately tied into the correspondent excellence of its physical setting.

Some principles are critical, the guidelines before starting any Campus plan. The most relevant one could be expressed by stating that the quality of the University is directly connected with the quality of its Architecture. As a first approach, the interference of foreign styles improperly understood should be avoided, in particular those whose origin, essence or formal display would not fit in with local cultures (Chaabane & Mouss, 1998).

Higher Education has a supreme purpose, which is the formation of human beings, building them up as future committed citizens (Nussbaum, 1998). This mission imposes special emphasis on the proper arrangement of spaces that host this central undertaking. University Architecture stands as an interactive dialogue between buildings and individuals; if not resolutely related to the human beings, it risks becoming an empty, cold and meaningless shell. Consequently, any planning process of a Campus has to go beyond merely providing facilities. Designing a complex site demands artistic purpose as a mandatory requisite, and, in the project's development, open spaces must play as much part as built space. Besides, Campus Architecture may be considered as a genuine form of public Art.

2.2. Function, culture and character

It has been already stated that good Architecture consolidates the good University. This claim rests on three elements: function, culture and character; reviewing them over the nine centuries of University life will allow us to assess the different weight and impact that each of these dimensions has had upon the University.

Function-From Classical Rome comes the Vitruvian canon – the three-fold "utilitas, firmitas, venustas" (utility, stability, beauty) – that encapsulates the qualities present in any good form of Architecture. Universities ought not to ignore this at all. In educational terms, functionality should also entail a sensible relation with cities, as an active exchange from which mutual benefits flow. Universities both fulfill a wide range of activities. Higher education Institutions of the early 21st century do not focus exclusively on teaching & learning, as they also

must attend to the extracurricular domain. Nowadays, the planning of Universities should keep in mind the need of building up global "urban" academic areas, strongly influenced by the cultural presence of Higher Education. As a consequence, in present times, any Campus should be designed under the global principle of being understood as part of a global neighborhood, as universities must be fully understood as an extremely relevant part of cities; this idea implies the need of paying attention to the different communities that can benefit from educational processes, in particular the seniors (through Long Life Learning), amongst other groups of citizens.

Culture-Universities have to serve as the cradle for the trends, artistic, intellectual and avant-garde, of their time. In facing this challenge, Campus Architecture becomes an outstanding showcase, a sort of dynamic laboratory of contemporary Art and building innovation. In such an educational context, culture implies a rational adaptation to social, natural, urban and architectural circumstance and environment. Understanding the specific task this relationship imposes begins with the definition of heritage itself; it is recommendable to review the approach that was carried out by Marina Waisman, an architect from Argentina interested in the connections between Education, Architecture and History:

"The particular characteristic of heritage is precisely the relationship between the historical object and its environment (...), this unit presents new meanings which cannot be provided by one of the elements alone" (Waisman, 1995, p. 63).

Character-Architecture can be made to transmit subliminal messages, conjure up poetic dimensions, and provide meaning and significance as a whole whilst maintaining a functional capacity for laying down utilitarian spaces. "Character" sets it apart from more conventional or prosaic works. The "character" of an architectural project lies in its strength, originality or (expressed in a more poetic way), its capacity to "stir men's blood". Put differently, the central idea of the project – its essence or "soul" – should inscribe itself deeply upon the mind of its 'consumers'. This, without doubt, is the key role Architecture plays through the external image it projects and the personality it enshrines. When understood

as a series of formal responses in the form of buildings located within the same complex, the particular "character" emerges from the criterion that differentiates them as the artistic projection of their internal personality. Possessing such character, they stand as significant offshoots of Architecture; if, oppositely, architectural pieces lack it, buildings amount to little more than meaningless transcriptions of the general undertaking. Applied to Universities, this third dimension "character" is primordial. A creative expression is essential if it is to have a solid impact upon those who make use of the constructs that encapsulate it.

Among the many examples that History provides of deliberate use of "character" paradigms, is the splendid façade of the University of Salamanca, with its outstanding Plateresque masterpiece - a fascinating sandstone elevation together with the adjacent Patio de Escuelas. Finished in 1529, today it too stands as an emblematic architectural "stamp", evidence of the commitment of the Spanish monarchs Ferdinand and Isabella, who commissioned Juan de Álava to draw up an abiding tribute to the magnificence of the Alma Mater, and in so doing, created the best--known icon of all Spain's universities (Rodríguez Cruz, 1989, p.56). A comparable development took place in other Spanish University, Alcalá. Its main façade, designed around 1553 by Rodrigo Gil de Hontañón, appears in our time as an architectural symbol, a lasting testimony to the enthusiasm of the founder, Cisneros, who envisioned in 1499 the first ever planned "University City" of Europe. Viewed as a metaphor, its vertical frontage is a stone tapestry, which solemnly proclaimed the presence of the University before a delighted society. The City of Alcalá, recognizing this, opened up a small piazza (Plaza de San Diego), in front of such a superb architectural masterpiece. Thus, an uncluttered space with certain cloister overtones enhanced the view of the incomparable building. Constructed as a sort of Agora, the rectangular court laid open the urban fabric the better to make the façade more visible.

Thus, in the reviewed cases of Salamanca and Alcalá, City and University each contributed to bettering the other by extending the crucial impulse their architectural character transmitted in both form and spirit.

As a consequence of all these arguments, it must be remarked that making use of the power of its function, culture and character, the Campus layout, itself a meaningful heritage creation, has to be shaped with extreme sensitivity to the underlying educational model of its own University, as well as reinforcing on a human scale its surrounding community, a policy that will necessarily involve the elderly.

3. Opportunities for University innovation and conscious and active learning and aging

3.1. The institutional European and Spanish scenario

The European Higher Education Area (EHEA) is offering an outstanding opportunity for innovation across multiple dimensions: teaching & learning modalities, governance, and urban & architectural layout.

Faced with the prospect of the EHEA, and beyond, Universities also have the onus of drawing up innovative models of learning in which the student plays the key role, rather than the lecturer: a true paradigm shift. The coherent consequence of this priority is that the way Knowledge is transmitted and shared has to be modified. One of the positive outcomes of such a change will necessarily be conscious active learning and aging, as the EHEA clearly supports the idea of extending Education to all kind of citizens, through ideas such as Long Life Learning.

Universities respond to international trends, and are repositories of the information and know-how related to those trends (Navarro & Gallardo, 2003). From this it also follows, innovative spaces have to be defined in parallel. The physical environment plays a key role in fostering innovative approaches to learning that go beyond the formal lecture, both in Universities and in Schools (Boyd & Hord, 1994). Thus, the first stage towards a profound change in teaching strategy and technique is to define new ways of learning. This global topic has been recently deeply studied in the Research Project titled "Innovative Spaces for University Excellence: a Study of Paradigms of Optimization in Teaching and Adaptation to the

European Higher Education Area" (Lead Researcher: Pablo Campos, 2010-2011), under the Spanish Ministry of Education national policy "Programa de Estudios y Análisis".

The EHEA is provoking a major change in the University System. That change has necessarily to involve the urban & architectural dimension of Universities. The physical body of universities is critical for assuring the overall quality of the maturation of any student, as well as of the enrichment of seniors, as an important community of learning. This point is also made in documents, issued by the EHEA:

"Ministers stress the need for appropriate studying and living conditions for the students, so that they can successfully complete their studies within an appropriate period of time without obstacles related to their social and economic background". (Council of Ministers, Berlin communiqué, 2003, p.5).

Regarding the mentioned urban & architectural dimension of Universities, synergies between Campus Architecture and nearby cities play a key role in accomplishing global excellence. Implicitly, the idea of "quality" must be closely tied in with the physical space dimension. And the benefits of appropriate provision and facilities should penetrate beyond the limits of the academic establishment *stricto sensu,* into its immediate environment; this penetration will clearly contribute to bringing Education closer to different communities and citizens, especially those (the elderly) that can suffer from a lack of agility in transportation.

Universities have always promoted innovation. A Campus implanted gives rise to a centrifugal dynamism of social, cultural, economic and urban renewal well beyond academe's groves. Changes in learning patterns are decisive if major progress towards quality culture is to be effective. Innovation, which the EHEA requires, has to be applied both in the ambit of the physical "learning sites" and the range and variability of modern learning modalities. In parallel to the EHEA, some countries are developing national programs to foster innovation: United Kingdom, France and Germany. In Spain, the Ministry of Education (in coordination with the Ministry of Science and Innovation) launched in 2009 the Program "International Campus of Excellence". The basic aim of the initiative is

to promote the modernization of the Spanish University System, towards excellence and internationalization. Through a policy of aggregation amongst Institutions of Higher Education, the Program inspires new visions of campus that can be used by Universities for innovative change. The adaptation of physical spaces to the teaching & learning modalities promoted by the EHEA requires a sound reflection about the nature of all those spaces; the Spanish Program "International Campus of Excellence" takes care of the urban & architectural implementation of all Universities as a fundamental component of Higher Education.

3.2. An innovative concept for transformation of Universities towards excellence: The "Educational Campus"

A first approach to the concept of "Educational Campus"

The concept of "Educational Campus" consists of a university-spatial philosophy capable of structuring the transformation of the university's premises towards comprehensive excellence. Prior to proceeding in the definition of this innovative idea, it must be underlined that University Architecture has the essential aim of modifying human behavior, fostering visual comfort and psychological wellbeing. As suggested by the German professor Rudolph Arnheim: "The Sensualist philosophers have reminded us forcefully that nothing is in the intellect which was not previously in the senses" (Arnheim, 1962, p.2).

Higher Education in its built form has not shown in the last decades enough energy, as reported in the case of Spain by acknowledged professors such as Antonio José Campesino (Campesino, 1995), or Josefina Gómez-Mendoza (Gómez-Mendoza et al., 1987). Following the intention of suggesting a sound change to this situation, the "Educational Campus was enunciated by the author of the present text in 2005, together with the design of the new Campus of the University of Salamanca, in Spain. It was later published in the Reviews "Programme on Educational Building" by the OECD (Campos, 2005), "Centre for Effective Learning Environments

Exchange" (Campos, 2010) and in the book "Spain-Campus of International Excellence" of the Ministry of Education (Campos, 2010).

The vocational and intrinsically educational facet of a university's physical spaces is consistent with the calling of Architecture in general. The capacity to instruct that a well-made architectural object may have springs from its ability to express its own needs to its surrounding city and community, and so bring change into alignment with the needs of the environment. These issues have been addressed by several Italian authors, like Purini and Della Volpe (Purini, 1980)

Ideas or values are expressed in architecture by means of a system of geometric, three-dimensional, visual signs. That is to say, architecture uses a language made up of measurements appropriate to the creation of visible order through the repetition of similar masses... (Della Volpe, 1964).

These approaches turn on the internalization of buildings and places annexed to teaching premises in the manner of three-dimensional textbooks (Nair & Fielding, 2005); i.e., the campus as a student's first lecture. Instructing capacity of Architecture, an idea involved in the concept of "Educational Campus"- As Orr remarked in The Nature of Design, "the curriculum embedded in any building instructs as fully and powerfully as any course taught it in it" (Orr, 2002, p. 137).

Architectural units within an educational complex serve as "3D texts" and very especially so when sustainability is built into the design goals of universities: "Transparent architecture and engineering systems are ideal in a learning setting because they can engage students' imaginations and spur learning about buildings as 3-dimensional textbooks" (Nair & Fielding, 2005, p. 80).

The "Educational Campus" model is proposed here as a conceptual and practical tool, towards the transformation of Universities towards excellence. It seeks to give concrete shape to a universal philosophy capable of driving forward a process of commitment to modernization in universities generally. The success of any process of transformation towards excellence at a Higher Education institution can be structured into a tetrad of consecutive stages: conceptual foundations, planning, consensus and communication. If this itinerary is drawn with sufficient

clarity, it may suffice to introduce the conceptual basis inherent in the concept of "Educational Campus", the definition and implementation of which are the present concern of this paper.

The current European and Spanish context is an invitation to change. The "Educational Campus" was conceived as a paradigm for transforming any Higher Education establishment. It begins with the idea that the built form of the University should become a "lesson in itself and by itself". Planning a University precinct entails a special commitment to its urban, cultural, economic and social environment. Universities have the obligation to be avant-garde in all their manifestations, including, of course, Architecture. Both designing Higher Education Architecture as indeed, the Educational Campus itself, involve "works of Art". As explained by Thomas Gaines:

"Unlike the two-dimensional art of painting, the three-dimensional art of sculpture, and architecture, in which the fourth dimension is function, a campus has a fifth dimension: planning. The well-planned campus belongs among the most idyllic of man-made environments and deserves to be evaluated by the same criteria applied to these other works of art." (Gaines, 1991, Introduction)

To delineate the intervention philosophy that may guide the innovative transformation of university campuses towards excellence (and their suitable adaptation to the EHEA), there follows a definition of the concept of "Educational Campus", as an ideal University precinct embodying the values contained in these ten principles:

The Ten Principles of the "Educational Campus"

University Architecture transmits added value to the Institution: the sense of human habitation on Earth (Purini, 1980). If the built environment does not wholeheartedly relate its users, it is an empty shell. This is a devastating outcome, as the group SITE noted, particularly since Architecture is the only genuine public art form (Restany & Zevi, 1982, p.16). Amongst the values that the design of physical space should look

to foster and proclaim, the following ten may be considered, as command-ments of the "Educational Campus":

First-Utopia and integral planning (Campos, 2006). Inspired by the energy of Utopian envisions, Universities must create a "sense of place" for the Campus users, towards the performance of "learning communities" (Gabelnick, 1990). Absence of identity with "place", the sense of "belonging", of being supported in both study and research, evaporates. Planning is of high importance to root a Campus in culture, as the case of the University-City of Madrid, and evolve in a coherent manner (Campos, 2004).

Second-Building up a community of learning &research, and contributing to active learning and aging. A sense of close personal contact is essential. It can never be entirely replaced by the "virtual campus", which nowadays is one of the greatest dissolvents of educational values. As Richard Dober, whose experience of Campus Planning spanned some four decades, stated in the Annual Conference of the Society for College and University Planning (USA, July 2003): "Internet transmits facts, but not values". Transmitting the latter demands an ad personam relationship. Architecture assumes an extreme importance, in promoting that human touch.

Third-Fostering spatial harmony, a feature closely connected to sensorial and psychological perception, and to the requirement of arranging masses and voids on a human scale.

Fourth-Performing a physical metaphor of the "affective & intellectual embracement" corresponding to teaching attitudes. This implies the creation of a built allegory that reflects a "mental reference type" closely aligned with contemporary values and attitudes in education. A physical space provides those using it with comfort and protection, indispensable if students of all kinds (with special mention to seniors) are to fulfill their aims and ambitions.

Fifth-Incorporation of Nature and Art as active cultural values. This implies a sound sensitivity of physical spaces to the natural environment. A deft and well-designed overall architectural framework is a powerful medium for integrating the individual with the natural environment. Used

thus, Architecture ensures that appropriate and judicious ties are laid down between the University's built space and its natural environment.

Sixth- Considering image and accessibility. A sensitive projection of the University towards its context implies paying attention to local culture and traditions. Mies Van der Rohe believed:

"Architecture is the will of an epoch translated into space" (Mies Van der Rohe, 1923). Consequently, the design of any architectural unit should project a suitable interpretation of the locality's heritage.

Accessibility comes to be a key issue for promoting conscious and active learning and aging, as the elderly often have difficulties in reaching some University seats.

Seventh- Adequacy to local environment, fostering sustainability values and techniques. A built environment must necessarily factor in the conditions present at a particular site. If buildings are appropriately adapted to context, the advantages in terms of sustainability that result are considerable. Architecture may foster renewable resource usage, through recycling processes, energy saving and its attendant efficiency. Recognizing this priority includes strategies across such areas waste management, sustainable transportation and bio-climatic Architecture (Campos, 2008). One special sustainability value should be narrowly connected to the idea that Education is in effect a sustained act, as promoted by the policy of Long Life Learning.

Eighth-The acknowledgement of past educational urban & architectural paradigms, harmonized with a commitment to avant-garde spatial ideas. This consciousness of the "architectural memory" finds outstanding types in History. Why this particular value merits its place in "The Educational Campus" can be justified on much the same grounds as those put forward by Barry Blesser & Linda-Ruth Salter: "Evolution is fascinating just because it has the potential to offer explanations about phenomena that would otherwise appear to have no explanation" (Blesser & Salter, 2006, p. 317).

Besides, sharing knowledge with other cultures (building "bridges" between educational Architectures) can be an outstanding tool to plan innovative changes in the Universities of one particular country (Campos, 2007).

Ninth-Generating close ties between University and City. Increasingly, Universities are being required to be innovative as much in laying down new pathways of transformation as in defining new procedures for increasing synergy with Society, whether through spatial solutions, facilitating a vibrant interaction of Campus with its social and economic surrounds, through raising scientific output, or stimulating economic growth (Clark, 1998, 2005). In effect, no HEI can nowadays be taken seriously if it remains in glorious isolation from the overall social context of its Nation. Yet, there are caveats even so. As Hale, remarked: "It is a road which leads to disaster to lift a solution to a problem from one country and to try to apply it unaltered in another" (Hale, 1987).

Besides, the described relation University-City is of particular interest within the European and Spanish scenario, as History shows the long tradition of connection between both entities. Together with this, it should be kept in mind that EHEA Area fosters the University Third Mission, which is undoubtedly connected with the idea of active learning and aging; in this sense, University spaces hosted within urban fabrics are an excellent tool to foster such active learning and aging, as physical proximity is a sound advantage when planning participation in educational activities of all kind of people, particularly seniors and their potential difficulties to cover big distances on a regular basis.

Tenth-Designing of new spaces to host and foster innovative teaching & learning modalities, as the best way to adapt University buildings to the EHEA and to promote the participation of all citizens, fostering as a consequence the development of conscious and active learning and aging.

Proposing these Ten Principles of the "Educational Campus" has the purpose of recalling that planning University environments ought to be bound into the idea of positive evolution. Arguably, such a task is best developed by a diverse group, as this tends to create more inclusive plans, and deals with a wider range of needs (Proudfit, 2000). Planning means foresight, anticipating change and incorporating flexibility (Daigneau, 2005). It is an indispensable instrument for strengthening the feasibility and sustainability of a Campus, and to realize that the world of today for Higher Education is completely different from the past (Keller, 1983).

Besides, planning also implies sensitiveness towards the elderly, as its basic aim is to cover a wide range of years with educational activities that go beyond the traditional campus activities, places and addressees.

The paradigm of the "Educational Campus" can guide Universities towards excellence in Education, through urban & architectural innovative models, benefiting both the traditional University life as well as those activities associated to the active learning and aging.

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HEALTHY AGING: RETIREMENT AND EARLY RETIREMENT – ORGANIZATIONS AND HUMAN RESOURCE MANAGEMENT –

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Abstract

Healthy aging is a global challenge that concerns everyone in particular. Demographic changes and the decrease of working population have motivated – in decision makers, managers, and society in general – the need to promote health strategies to improve the quality of life, increase the participation of workers, prevent occupational diseases and accidents, promote healthy lifestyles and maintain the balance between different aspects of life: personal, professional and social.

Retirement is now a late choice: people have more years of active life and it is important that human resource management reflects that reality. Good practice around the world has given us evidence that modelling work according to the characteristics of the population benefits both employers and employees.

The European Foundation for the Improvement of Living and Working Conditions and The World Health Organization, among other institutions, analyse and regularly publish evidence about aging management models based on: non-discriminatory recruiting; career progression and incentives; phased retirement in line with health and well-being; education, training and development opportunities; leadership; and no communication barriers, as the best answer for employers and workforce. These tools have significant benefits for socio-economic evolution: they do not just increase productivity but also improve physical and mental work capacity,

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decrease absence due to sickness, and promote the needed stability between all factors of life of those involved.

Introduction

The European Parliament proposed the year 2012 as "The European Year of Active Ageing". The concept of Active Aging, strongly linked to the World Health Organization (WHO), appeared in the Second United Nations Assembly held in Madrid in April 2002 and encourages the creation of optimizing opportunities for health process, participation and security with the aim of increasing the quality of life, autonomy and independence in aging (OMS, 2005, p. 14).

In 2007 in order to emphasize, give coherence and link other concepts associated with aging and promote the dissemination of good practices in this issue, the Swedish National Institute for Public Health (SNIPH) presented the project Healthy Aging: a Challenge for Europe. This document enhances the need to act in a wider way in promoting healthy aging, as the demographic characteristics will only change with difficulty, and it focuses on ten points fundamental topics considered key in the implementation of strategies: retirement and early retirement, social capital, mental health, environment, nutrition, physical activity, injury prevention, substance misuse (minimizing the consumption of tobacco and alcohol), use of medication and associated problems, and preventive health services (SNIPH, 2007).

The present paper has as its subject the issue of retirement and pre--retirement and intends to address the objectives defined in the Healthy Aging project, its implementation and results, the best intervention strategies in health promotion in this area and if possible, the demystification that the elderly person is a mere consumer of resources. On the contrary it is the responsibility of each one of us *"... recognize and value the different contributions of older people to society in general (...) the*

intellectual and artistic creativity and innovativeness , the transmission of values and experiences and more" (EU, 2011, p. 2).

This literature review will focus on: the increased participation of older workers and the quality of their life using new concepts of management; the maintenance of balance between personal resources and professional demands, with no tolerance of age discrimination; the prevention of disease in the workplace, promoting healthy lifestyles and prevention of stress in the transition from work to retirement.

Aging of the workforce

Population aging is a fact. It is estimated that in 2050, 37% of the population will be more than 60 years old (EU, 2010) and today the ratio between workers and those in retirement is 1 to 2 [Portuguese Observatory of Good Labour Practices (OPBPL), 2010]. We are observing a strangulation of workforce age groups caused by a decrease in the number of people between 35 and 45 years old and a dramatic increase in the number of people between 60 and 70 years old who are either retired or in a pre-retirement situation. We are now witnessing a mass departure to a retired status by the generation of Baby Boomers, which is considered a very significant impact not only for its historic relevance but now also economic. This scenario challenges workers, businesses and the whole of society, particularly various social systems. The impact on workers of the impossibility of socio-economic and political management of this problem is very relevant. The increase in life expectancy, declining birth rates, the low number of workers and the increasing number of retirees leads to a decrease in production of goods and services, reduces economic growth, reduces contributions, and increases the possibility of misfit retirement aggravated by the inequitable distribution of financial resources and accessibility. This last point and the possible inadequacy of individuals often lead to isolation, a lack of active participation in the community, social exclusion, sedentary lifestyles that in turn foment disease and more health care costs due to the decline

of physical and mental potential and the growth of poverty and home-lessness [Society for Occupational Environmental Health (SOEH), 2009].

States have outlined strategies to control the negative weight that this scenario holds for the future economy, competitive and prosperous, ob-jectives/goals that depend crucially on the full utilization of capacity of labour resources of individuals. Employment policies drawn up for Europe by 2020 aim to increase the working population between 20 and 64 years of age from 69% to at least 75%, through the greater involvement of women, older workers and greater integration of immigrants (EU, 2010).

In an attempt to reduce the burden of social reform on the state, there has been a revolution in general, mainly from social security systems, with the increase of working time (Portugal, Germany, Denmark, Iceland, Norway, United Kingdom and United States), the disincentive / cut / penalty in the benefits of earlier retirement (Austria, Finland, France, Germany, Italy, Sweden and Portugal), the redefinition of the pension calculation including the year of reference (Finland, Portugal, Poland, Sweden), the use of private investment as a way to guarantee the same levels of income, related, in some cases, to the rule in previous years (Australia, Canada, Ireland), an increase in the amount of contributions (France and Sweden), monetary incentives for later retirement (Spain and UK), encouraging the creation of private accounts as a guarantee of funds for individual gains instead of government expenditure (Hungary, Mexico, Poland, Sweden) and economic manoeuvres, the level indexing factor calculation [Organization of Economic Cooperation and Development (OECD), 2008].
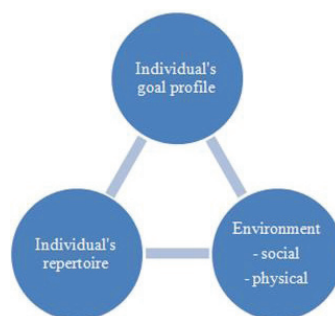

Figure 37: The balance between capacity, goals and environment
Source: Heikkinen (2006, cit. by SNIPH, 2007).

These reforms, significant from the economic point of view, have shown a reduced capacity due to lack of connection with others: health care reform and training of professionals and those who work with the elderly; an adequate access to technology; equity between socioeconomic groups; and the need to break discriminatory behaviour against the elderly, acceptance or culture change are shown as best strategies for health promotion (SNIPH, 2007). The Healthy Aging project addresses a Finnish project promoted by the government in place since 1998 based on the holistic concept of work capacity. It aims to increase the years of work and retention of professional knowledge and skills. The goal of this project is the balance of resources and work capacity of individuals, education and skills and values and attitudes, work environment and the community and the requirements of the organization. It enhances the ability to work on three levels: first - health, physical capacity, psychological and social; the second - skills and professional knowledge; the third - values, attitudes and motivation; and finally the fourth represents work and related factors. The conclusions of eleven years implementing these principles were that 60% of people with over 45 years of work maintained a good or excellent capacity for the job, in 30% there was a decrease and in 10% this capacity increased.

The balance, shown in figure 37 (SNIPH, 2007, p. 6) was also found in other case studies. Evidence in this project points to the need for Europe to manage the workplace, environment, tasks, schedules, supervision and discrimination, and the need for regulations to tighten the limits of risk exposure for older workers and reduce physical requirements and stress.

Social measures identified as urgent were a change in the attitudes of colleagues, managers and even systems for flexible work arrangements, to guarantee learning / training throughout life, and the development of programs that support an active life that promotes health and reduces the impact of retirement.

In the United States, the shock of serious economic crisis led to a rethink in all sectors of society; people are working more and more until later, the number of active older people has increased, people live longer and are pressed by the economy that impels them to work to keep their

retirement plans. Employers are beginning to see this as an advantage, the workforce is greater and is available to attend to a demand for more experienced workers. Their loss, for different reasons, has been very significant costs of replacement, the process of recruiting and hiring, education, training and medical expenses that companies are trying to avoid. The retention in employment of workers increases contributions to the state, and decreases dependence (SOEH, 2009).

Age management

Georges Liarakapis, president of CEC European Managers, said at the symposium *"Active Aging in Banking" that: The financial crisis wiped out the gains of the last ten years in terms of employment (...), companies have invested in the expertise of their staff (...) aging stops conversion and mobility."* In turn, Rui Semedo - CEO of the Popular Bank in Portugal has strengthened the idea that *"the banks are back to top – there will be more banks, making deposits, loans, savings - and to return to the beginning you have to call the oldest."* Also in this meeting, Jens T. Thau (Director of the Association of German Industry) highlighted aspects that can make professionals keep their job longer *"Attractiveness is the key word (...) greater flexibility to combine work and private life. (...) Working from home, reduced schedules, creating part-time options (...) instead of the very tempting price proposals for retirement"* (cited by OPBPL, 2010, p. 6).

The issues raised in the banking market are applicable to other areas of activity. This leads to studies of several models of human resource management, from the structure of scientific management based on specialization driven by Taylor, to Fayol´s General Principles of Management, which are based on division of labour, authority / responsibility, discipline, unity of command, centralization and direction, and the Weber models of rationalism and bureaucracy that we recognize best (in some cases abandonment) in Public Administration (Firmino, 2002). Globalization, competitiveness, the mixture of cultures, defence and economic growth lead us to consider some of the reflections of management models and an

organization that fits the new reality - the need for prolonging working life with health.

The Healthy Aging project (SNIPH, 2007) suggests further research in this area in terms of effectiveness of good practice, a better understanding of the factors affecting this group on the physical level and strengthening policies and employment regulations. This last one relates to the fact that, whether by choice or by necessity, working longer may have other consequences, for example, places where safety and health conditions are disregarded lead to more accidents, more severe and a higher number of days in recovery and the associated probability of death (SOEH, 2009).

Whatever the sector, non-implementation of management strategies capable of meeting the needs of an aging working population will have dramatic consequences (SOEH, 2009), for example:

• Increased competition between companies and labour groups of workers, particularly among younger and older;

• The reduction of workers´skills due to the exit of those more specialized;

• Work requirements that do not correspond to the characteristics and skills of human resources;

• Loss of knowledge;

• Productivity sometimes in peaks;

• Decline or stagnation of markets;

• Decline in health and well-being of workers.

Many of these consequences are exacerbated by the limitations of decision makers in understanding what the demographic changes are. Genuine commitment is essential, particularly the involvement of top management and studies of the specific reality of the organization, the arguments and benefits of change, risk assessment (population and objectives), cost-benefit analysis and indicators of success (Rolland & Luise, 2004, cited by TAEN, 2007, p. 8). Rolland and Luise proposed strategy, leadership, enthusiasm and ability in accordance with the holistic concept of work capacity based on Figure 2 below (TAEN, 2007).
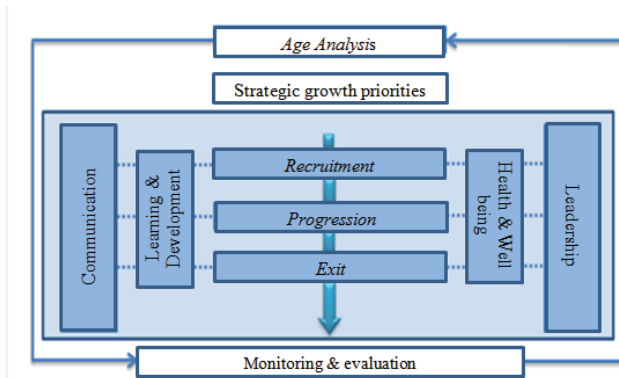
Figure 38: System of Age Management

This concept of Age Management must be a part of the human resource management model in organizations as evidenced in different case studies with positive results (TAEN, 2007 and NISC, 2008).

To meet the increased participation of workers and working time, the maintenance of balance between professional and individual requirements and the prevention of disease and promotion of healthy lifestyles, with the planning of resources focused in the following areas:

a) Leadership, which must be identified in different careers and industries. Leaders must be "seen" by their peers for recognition and authority;

b) Recruitment policy, with no exclusions based on race, creed, age, etc. and redeployment opportunities;

c) Education, training and lifelong education, with specific actions for the older ones;

d) Professional development of career structure, definition and recognition of skills;

e) Flexibility in working hours;

f) Protecting and promoting the health and development of ergonomic workplaces;

g) Exit and transition to retirement. Planning time and investment;

h) Comprehensive approach: "drawing up" the work life, fitting in private life and social objectives and characteristics of people and communities where it operates.

Good practice in human resource age management

By the year 2060 predictions are that about 30% of the EU population will be aged 65 + (APE, CR, EC, 2011). This literature review is based on the analyses of the 205 Good Practices on the theme from the Eurofound database. The Good Practices referred to are the result of the human resource management strategies of these organizations.

Their example is focused and not just as a way to reach a longer working life or a way to sustain social systems from an economic point of view[46]. Each report in the database focuses on the initiatives towards an age management policy and the criteria used by those who wrote the reports do not obey the norms of an investigation paper. In these analyses we tried to exemplify some of the actions that can be made towards the promotion of health of the workforce, particularly in advanced age, by underlining 12 topics that applied either in combination or isolation, showed an ability to meet the balance between those involved: workforce, employers and society (figure 37).

Comprehensive approach: As an integrated vision, organizations promote a management system based on Age Conscious reorganization with leading strategies and motivation. A comprehensive approach looks for participation and cooperation; people are called upon to say what their needs are and what contribution may they offer. A comprehensive approach applies the scheme in figure 38; it involves personal work with each employee and in practice can be implemented through actions such as those described in the following topics.

Changing attitudes: Engagement and co-working reduces discrimination, promotes knowledge exchange and confidence. Diversity and positive work atmosphere promotes equity.

Flexible working practices: Reorganization of working hours may be a response to the needs of the worker, combining the schedules of household work or just with the reorganization of personal life. In another aspect, flexibility can also be seen as an approach to retirement as an

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[46] Can be found at: www.eurofound.europe.eu/areas/populationandsociety/

adaptation to a new way of life, a time to rethink. Flexibility is often considered a tool against the employee, but flexibility addressed in the Practice is not an economic manoeuvre; on the contrary, it is a set of needs. Flexibility can be understood as a solution for part-time work or as an adjustment of tasks in the areas of competence.

Training and development: Training and development is the best organizational policy to improve human resource management. For learning opportunities and exchange of knowledge, the most recognized form of training to break the stigma long associated with older workers is tutor--learner experiences carried out not only in Europe but also in Australia and the United States, usually by creating protocols with educational institutions and companies. Younger workers teach new technologies and languages, the older teach experience, competence, accuracy and resilience. Skills development is also a tool that allows companies to adapt to the movement of markets, not only to adapt techniques but their human resources that are much more able to cope with changes. The training will also respond to personal inadequacies, including changes in the workplace, for example in a situation of disability. Training and development of internal resources instead of education in situations of hiring/firing is economically more advantageous for companies. We condemn the often negative attitude that workers' advanced age does not justify the company's investment in their training. Evidence shows that motivation and recognition promote collaboration, prevent stress and may even increase years of work.

Recruitment: The recruitment policy should be non-discriminatory. The exclusion for reasons of age, sex, religion, race, etc. should be abolished. With specific regard to age, the organizations studied show lower costs in hiring people with older age, the competition between workers is lower and the balance goes to the sustainability of society.

Redeployment: Often misunderstood either by employers or by decision makers, the mobility described here aims to adapt the worker between departments or between companies of the same organization for geographical or other approaches, not as a job loss option or even a temporary loss of worker's rights.

Ergonomics: Seen as one of the aspects of safety and health, ergonomics is the area of intervention for the adaptation of work to men. We live not only in an era of liberalization of labour migration, that leads us to adjust physical and also socio-cultural characteristics. On the other hand, an aging workforce requires that we adjust the tasks, equipment, jobs to this reality.

Health and well-being: Health and well-being go beyond the obligations of the organization related to safety and health regulations, or not. Health should be promoted via the development of measures that seek to promote healthy lifestyles. This is perhaps inseparable from the politics of safety and health, as we cannot implement healthy lifestyles in a organization that, for example, has a polluted work atmosphere! Strategies for health promotion are those focused on nutrition, exercise, reducing the consumption of psychoactive substances, and dealing with stress, among others that should be organized regularly with evaluation mechanisms integrated and ideally, should seek the involvement of the community in which they live.

"Wage policy": The structure and development of careers, career progression and salary incentives remain the most accepted forms of recognition for workers. A coherent evaluation scheme that rewards skill is used in many companies. In addition to the wage progressions and rewards are other means of recognition, for instance, rewards for holidays, compensation days, discounts in gyms, etc.

Exit policy: Today we are discussing the inadequacy of people to their new life in a retired status, the absence of the peer group, routines, fixed tasks and uncertainty in the occupation of time often leads to despair, loneliness and isolation. While still in work, organizations can collaborate through a program of organization of time that enables the worker to rethink their future occupation, can collaborate in the planning of that occupation, the creation of financial retirement plans, investment and a new way of working. Many workers get to retire with perfect condition, looking for action. We have to create awareness and find alternatives to sustain social relations, physical activity, and care with nutrition in order to maintain physical and cognitive function, enhancing the quality of life.

Social dialogue: The social partners, including representatives of workers and unions are a way to meet the needs of the workforce, to centralize the information somehow creating channels and enhancing communication that allows a balance between employers and employees and their governments. Social dialogue is understood as a form of joint effort towards the same goal and not as an assessment of power between the parties.

Government Support: Some states have established policies that meet the social demands that demographic changes call for. The regulation of working conditions and employability, in some cases granting financial subsidies mainly to recruit older workers or people in social exclusion, are initiatives considered essential to the revitalization of the labour market and society.

These organizations report results like the end of age-based discrimination, the increase in retirement age, the decrease of absenteeism and stress, reduced turnover rates, increased knowledge, loyalty and productivity, all of which improve the success of the organization. These results have been referred to in other studies (NISC, 2008; Schmid, 2008; SOEH, 2009; TAEN, 2007).

Conclusion

There are myths associated with aging that it is necessary to fight, especially with regard to health, functionality and ability to work, but age alone is not a determinant of health; there are numerous conditioning factors, including education, lifestyle, physical condition, environment, nutrition and socioeconomic status. These factors are more predictive of health than chronological age.

The United States has discussed the need to overcome the traditional separation between occupational health and health promotion in people and communities. Americans lost 5,890 workers due to death at work in 2006 and in the same year 4,000,000 workers were affected by occupational diseases or industrial accidents, with compensation costs

amounting to 87.6 billion dollars. On the other hand, two chronic diseases (cancer and diabetes) in 2008 accounted for 188 billion dollars in lost work days (National Institute for Occupational Safety and Health, 2009). These numbers demonstrate the importance of balance between the individual, work, environment and community and the need to look to the worker as a partner.

Strategies in human resource management for the reality of aging are evident and have very positive results with an emphasis on quality of life, in maintaining autonomy and independence.

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FACILITATORS AND BARRIERS TO ACTIVE
AND HEALTHY AGING

Anabela Correia Martins[47]

Abstract

The International Classification of Functioning, Disability and Health (ICF) was approved by the World Health Assembly in 2001. Ten years later, we have seen strong arguments on how the ICF can add value to the policies on active ageing and to investigating outcomes in healthy aging. As a conceptual framework, the ICF has universality because of its inclusive and comprehensive view of human functioning. At a practical level the ICF can be used to quantify the impact of impairment on an individual's ability to function in his/her environment and to assess interventions to minimize the impact of disability and maximize functioning. Health Promotion supports the notion that being healthy isn't just about 'not being sick' or physically unwell, it takes a bio-psycho-social view towards health, acknowledging that good health involves supportive environments, and social and emotional factors that affect health and well-being. Active aging is the process designed toward increasing and maintaining an individual's participation in activities to enhance his/her quality of life (WHO, 2001). The ICF gives a broad perspective and structured way to identify underlying facilitators and barriers to participation of THE elderly; there are several individual factors, like advanced lower extremity capacity, depressed mood, physically active lifestyle or cognitive function and environment factors, like assistive technologies, employment or rural living. Our aim is to address the advantages, opportunities and challenges, and limitations of ICF within the context of its use by active aging researchers and agents to generate discussion and contribute to developing potential solutions to promote active aging.

Keywords: Active aging; ICF; Barriers/facilitators.

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Introduction

"Healthy aging", "successful aging" and "active aging" are defined as the process of optimising opportunities for physical, social and mental health to enable older people to take an active part in society without discrimination and to enjoy an independent and good quality of life (European Commission, 2007).

The World Health Organization (WHO) (2002) assumed this as the process designed toward increasing and maintaining an individual's participation in activities to enhance his/her quality of life.

Participation is a person's involvement in a real-life situation and representing the societal perspective of functioning (WHO, 2001) and social participation in communities is one way to exercise a sense of competence and control (Zimmerman, 2000) and a sense of coherence, a mechanism which reduces reactivity to stress.

Variables determining the development, structure of social participation and functioning are multiple and need to be analysed at different levels.

The role of contextual factors

The International Classification of Functioning, Disability and Health (ICF) captures human functioning as the result of the interaction between body and environment, measured through activity and participation (WHO, 2001) (Figure 21).
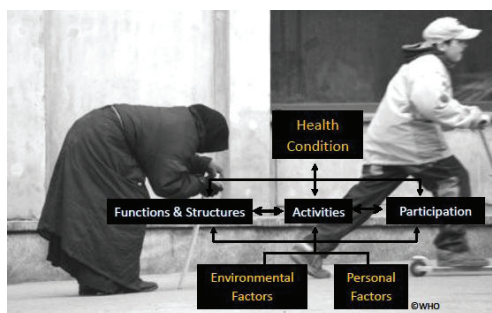

Figure 39: Multi-dimensions of human functioning

Figure 39 demonstrates the role that contextual factors (i.e., environmental and personal factors) play in the process. These factors interact with the individual with a health condition and determine the level and extent of the individual's functioning. Environmental factors, a component of ICF, are extrinsic to the individual, such as the physical world and its features, the human-made physical world, other people in different relationships and roles, attitudes and values, social systems and services, and policies, rules and laws (e.g., the attitudes of the society, architectural characteristics, the legal system) and are classified in the environmental factors classification in five chapters: Chapter 1 Products and technology; Chapter 2 Natural environment and human-environment; Chapter 3 Support and relationships; Chapter 4 Attitudes, and Chapter 5 Services, systems and policies. Personal factors, on the other hand, are not classified in the current version of ICF. However, they are included in Figure 21 to show their contribution, which may have an impact on the outcome of various interventions. They are contextual factors that relate to the individual such as gender, race, age, other health conditions, fitness, lifestyle, habits, mood, coping styles, social background, education, profession, past and current experience (past life events and concurrent events), overall behavior pattern and character style, individual psychological assets and other characteristics, all or any of which may play a role in disability at any level (WHO, 2001).

The ICF gives a broad perspective and structured way to identify underlying facilitators and barriers to participation of human beings; facilitators are factors in a person's environment that, through their absence or presence, improve functioning and reduce disability (WHO, 2001).

According to the WHO classification, there are negative and positive scales for the extent to which an environmental factor acts as a barrier or a facilitator. A point or separator alone denotes a barrier, and the + sign denotes a facilitator, as indicated below:

> **xxx.0** NO barrier (none, absent, negligible,...) 0-4%
>
> **xxx.1** MILD barrier (slight, low,...) 5-24%
>
> **xxx.2** MODERATE barrier (medium, fair,...) 25-49%

xxx.3 SEVERE barrier (high, extreme, ...) 50-95%

xxx.4 COMPLETE barrier (total,...) 96-100%

xxx+0 NO facilitator (none, absent, negligible,...) 0-4%

xxx+1 MILD facilitator (slight, low,...) 5-24%

xxx+2 MODERATE facilitator (medium, fair,...) 25-49%

xxx+3 SUBSTANTIAL facilitator (high, extreme, ...) 50-95%

xxx+4 COMPLETE facilitator (total,...) 96-100%

xxx.8 barrier, not specified

xxx+8 facilitator, not specified

xxx.9 not applicable

Giving some examples of facilitators and barriers

Environmental factors include aspects such as a physical environment that is accessible (e.g., design, construction and building products and technology for gaining access to facilities inside buildings for public use, such as washroom facilities, audio loops, lifts or elevators, and dispersed accessible seating in auditoriums or stadiums might be substantial facilitators: e1501+3); the availability of relevant assistive technology enhances capacity and performance (e.g., general products and technology for personal use in daily living, like a timer can substantially facilitate a domestic activity like cooking: e1150+3; assistive products and technology for personal use in daily living, like a voice-controlled systems might be a total facilitator, e 1151+4, assisting people in daily living; assistive products and technology for personal indoor and outdoor mobility and transportation, like adaptations to vehicles, wheelchairs, scooters and transfer devices can moderately facilitate mobility: e 1201+2); positive attitudes of people towards disability (e.g., individual attitudes of immediate family members, particularly, general or specific opinions and beliefs of immediate family members about the person or about other matters, that influence individual behavior and actions, can be a strong facilitator: e410+4), as well as services, systems and policies that aim to increase the involvement of all people with a health condition in all

areas of life (e.g., open space planning services, systems and policies, like an adapted fitness area in a public park, can substantially facilitate physical activity: e520+3). Absence of a factor can also be facilitating, for example the absence of stigma or negative attitudes. Facilitators can prevent impairments or activity limitation from becoming a restriction on participation, since the actual performance of an action is enhanced, despite the person's problem with capacity.

Barriers are factors in a person's environment that, through their absence or presence, limit functioning and create disability (WHO, 2001). These include aspects such as a physical environment that is inaccessible (e.g., design, construction and building products and technology for gaining access to facilities inside buildings for public use, such as lifts or elevators might be complete barriers: e 1501.4); lack of relevant assistive technology (e.g., assistive products and technology for personal indoor and outdoor mobility and transportation, like a transfer device, might be a severe barrier: e 1201.3); negative attitudes of people towards disability (e.g., individual attitudes of acquaintances, peers, colleagues, neighbors and community members, can prevent someone from participating in social activities: e425.4), as well as services, systems and policies that are either non-existent (e.g., health services, systems and policies: e580.4) or that hinder substantially the involvement of all people with a health condition in all areas of life (e.g., transportation services: e5400.3).

ICF and active aging

As mentioned, the ICF framework is based on the concept that health and social functioning are influenced by complex interactions between contextual factors and body functions and structures (e.g., impaired balance, loss of strength or aerobic capacity), as well as activities and participation (e.g., washing oneself, dressing, eating, maintaining one's health, preparing meals, walking, moving around, assisting others, reading, voting, or attending public events).

Several researches have been addressed the advantages, opportunities and challenges, and limitations of the ICF biopsychosocial approach to developing potential solutions to promote healthy aging (Bickenbach, 2003; Clarke & Nieuwenhuijsen, 2009; Arnadottir, Gunnarsdottir, Stenlund & Lundin-Olsson, 2011); recognizing the potential impact of personal and environmental factors should be the beginning.

A person who experienced a cerebral vascular accident can demonstrate impairments in body functions and structures, like lack of strength, increased tonus or postural and balance impairments that leads to difficulty in walking (activity limitation), which may restrict his or her involvement in life situations, such as meeting with close friends (participation restriction) or going to the park. However, he or she may continue to be active in social participation if he or she lives in an environment with an extensive and accessible public transit system or if he or she uses specific devices designed to facilitate moving around, such as a wheelchair or a scooter for moving to   his or her friends' house or going to the village park.

In Portugal, assistive technology (AT) services were detected as ineffective concerning evaluation, recommendation, advocacy, training and outcome measuring of their clients. However, it is an opportunity to rethink AT services, policies and politics to sustain community-dwelling older adults. Chronic diseases and aging will be a world-scale problem in the future, and AT will play a key role in supporting people's independence and in helping society save economic and human resources preventing or delaying assisted living or nursing homes. AT concerns: 1) devices, that are used to increase, maintain, or improve a person's functional capabilities, and 2) services that help an individual select, acquire, or learn to use an AT device. These services include customizing, adapting, maintaining, and repairing devices, AT evaluations, funding, and technical assistance and training in device use.

Active aging agents should be aware of the newest high technology devices introduced on the market, payment sources and state AT programs as well as destigmatizing dependence associated to AT.

Other studies have related specifically the contextual factors with older adult participation. According to Clarke and Nieuwenhuijsen (2009) and

Markham and Gilderbloom (1998) environmental barriers subjectively reported by older adults include poor transportation, discontinuous or uneven sidewalks, curbs, noise, and inadequate lighting.

Extreme climates have also been related to older adult health outcomes (Aylin, Morris, Wakefield, Grossinho, Jarup & Elliot, 2001).

Several researches on pedestrian-oriented designs (e.g. continuous, barrier-free sidewalks, four-way stop signals, and pedestrian amenities) and access to recreational facilities have been shown to be positively associated with physical activity and self-rated health in older adults, and negatively related to obesity (Humpel, Owen & Leslie, 2002; Addy et al., 2004; Patterson & Chapman, 2004; Fisher, Li, Michael & Cleveland, 2004; Berke, 2007; Michael et al., 2006; Li & Fisher, 2004).

Poor street conditions, heavy traffic, and excessive noise have been shown to be associated with the onset of mobility limitations (Balfour & Kaplan, 2002; Schootman et al., 2006).

Curb cuts (depressed curbs that act as ramps in sidewalks), smooth pavements, and barrier-free sidewalks are some of the environmental factors that can enhance independence and social participation in older adults at greatest risk, such as those who are socially isolated, prone to falling, or those with underlying weakness in movement-related functions and balance (Clarke & Nieuwenhuijsen, 2009).

Persons who adjust well to unexpected events, like aging, generally lead healthy, active and happy lives, but those with negative acceptance have a harder time accepting their changes in appearance and have difficulty in coping. It is the moment to highlight the role of personal factors, like self-efficacy and attitudes.

Self-efficacy was defined as the person's confidence in being able to perform a behavior (Bandura, 1977) and subjective happiness is a goal to achieve (Lyubomirsky & Lepper, 1999). It is suggested that self-efficacy and personal attitudes are key factors in improving social participation, an emergent outcome measure for active aging. Helping older persons to be successful in activities they consider meaningful, controlling their degree of difficulty/reducing the negative feedback, helping them to find their capacities, giving them time to find solutions, and promoting

positive attitudes may promote greater social participation (Booth, Owen, Bauman, Clavisi & Leslie, 2000; Reed, 2002; Rubin & Roessler, 2001).

Conclusion

Social and health professionals and agencies should have knowledge and understanding of the multiple factors that influence active aging (addressed by ICF) and programs should provide appropriate resources, like assistive technologies, physical training, self-management in activities of daily living and social rules, problem-solving strategies, self-confidence in order to enhance quality of life and well-being. Besides, policies on healthy aging, professional *bottom-up* approaches, promoting empower-ment and security, as well as family, friends and community in general can play an important emotional role, facilitating the role of older persons through inclusion in active life.

ICF has been preconized as a tool that professionals should use to encourage people-centered practice and increase their participation in decision-making for more effective and practical lower costs (WHO, 2001, 2002). Although ongoing work is needed to prove and support the utility of the ICF to identify facilitators and barriers to active and health aging, others have already proved the impact of, for example, assistive techno-logies or human support in fast variation in functioning and participation of elderly. Services, policies and politics or simply, the climate or light, should also be studied, as well as personal factors, which could represent an innovative research framework to address their impact in active and health aging, as suggested by the WHO (2001:251) in the "development of a Personal Factors component", which still does not exist.

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SUICIDE AFTER 65 YEARS OLD:
CURRENT DATA IN PORTUGAL

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Abstract

Suicide and self-injury among the elderly are a serious public health problem. There is evidence that diseases and mental disorders are strongly associated with suicide in older people. For example, using psychological autopsy, between 71% and 95% of older people who committed suicide had a diagnosis of a mental disorder at the time of their death. Recent studies show there is a strong relationship between suicidal attempts and carrying out the fatal act in the elderly, which results from the interaction of complex factors: physical, mental, neurobiological and social. In Portugal, and other countries, the highest suicide rates are found among the elderly and especially in men. Suicide methods used in this age group are specific, as they are more lethal and are often used in combination to increase the odds of a fatal outcome. We present the trends in rates of suicide in Portugal, in the period 1980 to 2009, by gender and method used, in the age group older than 64 years comparing it to the population under 65.

Keywords: Suicide Trends; Elderly; Gender differences.

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Introduction

A significant increase in suicide rates among the elderly has been verified in many industrialized countries, with incidence rates higher than those in young people (Waern, Rubenowitz, & Wilhelmson, 2003).

Aging is often associated with cognitive and functional problems. This may lead an elderly person to a situation of dependence on a caregiver. Retirement, meaning the end of active life, may be a triggering event of loss of role and social recognition (Kagamimori, Nasermoaddeli, & Wang, 2004).

Being old is often associated with loneliness and social isolation, due to a lack of a support network (Crocker, Clare, & Evans, 2006). It is also linked to a self-assessment of personal life paths, and sometimes to a clinical state of depression – when a sense of ineffectiveness in achieving life goals, and legacy for future generations, prevails (Dittmann-Kohli, 1990).

Suicide is a complex phenomenon, with a multifactorial origin. In this way, one of the most important challenges in suicide research is the identification of biological, psychological and social contributing factors in this age group (Peisah, Snowdon, Gorrie, Kril, & Rodriguez, 2006).

About 80% of individuals older than 70 years, have been diagnosed with a serious disease, and in more than 50% of cases this clinical condition undermines the autonomy and functionality of the elderly (Rubenowitz, Waern, Wilhelmson, & Allebeck, 2001). Moreover, there seems to be an agreement that the existence of a physical illness is a risk factor for suicide (Conwell, Duberstein & Caine, 2002; Erlangsen, Vach, & Jeune, 2005; Hawton & Harriss, 2006; Waern et al. 2002).

Fiske and contributors (2011) have identified the following health conditions as being correlated with an increase of suicide risk in the elderly: cancer, neurological disorders, lung diseases, incontinence, kidney diseases, problems with the central nervous system, heart problems, and vision and hearing deficits. Among these, cancer, neurological and cardiovascular disorders appear systematically associated with a significant risk factor in suicide rates (Levy, Barak, Sigler, & Aizenberg, 2010; Quan, Arboleda-Florez, Fick, Stuart, & Love, 2002). Some studies have sought to determine whether dementia is a suicide risk factor (Erlangsen,

Zarit, You, & Conwell, 2006; Erlangsen, Zarit, & Conwell, 2008; Waern, Rubenowitz, & Wilhelmson, 2003), but there is a lack of conclusive findings (Harris & Barraclough, 1997). Other studies have focused on predictors of suicide in dementia (Seyfried, Kales, Ignacio, Conwell, & Valenstein, 2011). In particular, suicide risk in Alzheimer's disease has attracted a great interest from researchers (Aizenberg & Barak, 2002; Pearson, 2002; Rubio et al., 2001).

Despite this evidence of a relationship between the presence of physical illness and suicide risk in the elderly, it is not yet fully clear whether this is a direct relationship, or one that is mediated by other factors (like depression, pain, limited functionality and autonomy, or personality characteristics leading to emotional rigidity).

Mental disorders are strongly associated with suicide in the elderly. Psychological autopsy studies report that between 71% and 95% of the elderly who committed suicide had a diagnosis of any mental disorder at the time of death (Minayo & Cavalcante, 2010).

Depression is clearly a psychiatric disorder, with features most associated with suicide in the elderly (Harwood, Hawton, Hope, & Jacoby, 2001). Bipolar disorder has also been reported in some studies as a significant risk factor in this stage of development, although less frequent in advanced age (Aizenberg, Olmert, & Barak, 2005).

Beyond these clinical pathologies, the association between personality disorders and suicide has been studied, as well as the association of suicide with schizophrenia and other psychotic disorders. The results of these studies appear to be inconclusive (Barak, Knobler, & Aizenberg, 2004; Conwell, Duberstein, & Caine, 2002; Meltzer, 1998).

To sum up, it seems that the presence of depression and physical illness in the elderly are the two factors consistently associated with suicide risk. In addition, psychosocial factors have been studied.

Living alone, coupled with the consequent social isolation and disintegration, represents a significant risk of suicide for older adults (Beautrais, 2002; Conwell et al. 2000; Szanto, Prigerson, & Reynolds, 2001).

Waern and collaborators (2003), claim that the experience of stressful life events, arising in the last six months (such as somatic illness in itself

or immediate family, family disagreements, financial problems, etc.) may be an important trigger in suicide attempts. In another sense, some studies support the idea that survival of past traumatic life events, allows the acquisition of resources to deal with adversity, thereby acting as a protective factor (Shah & Bhat, 2009; Shah & Bhandarkar, 2011).

When the psychological characteristics of the elderly are considered, a sense of hopelessness in the face of life and perspectives of future seems to emerge (Mishara, 1999; Rifai, George, Stack, Mann, & Reynolds, 1994), a low sense of perceived control over stressful events, a limited capacity for resilience, as well as a tendency for impulsive problems (Gibbs et al., 2009).

Another characteristic that cannot be neglected in suicidal attempts is the access to lethal means, such as the presence of a firearm at home (Conwell, Duberstein, & Caine, 2002). Psychotropic substance dependence and alcohol consumption has also been pointed to as a risk factor for suicide completion in the elderly.

Research suggests that suicide rates in men are higher than in women, and this trend is maintained in the elderly (Szanto, Prigerson, & Reynolds, 2001).

Some researchers explain this gap in gender suicide rates, showing that men seem to be more vulnerable to the effects of depression, as they experience a greater difficulty in asking for help, in opposition to women whose decision-making tends to be embedded in a relational and interpersonal context (Murphy, 1998). Also, widowed or divorced status, as it involves a succession of losses, has been identified by some researchers as a precipitating suicide factor (Li, 1995; Pearson, 2002).

In another sense, women seem to have a greater number of protective factors in the experience of old age. Among them, resilience may be a key indicator of health and well-being (Connor, 2006).

Old people, contrarily to younger populations, seem to plan their own death carefully, using high-lethality methods (Szanto, Gildengers, Mulsant, Brown, Alexopoulos, & Reynolds, 2002).

Sex also appears to influence the method used to accomplish suicide. In suicide attempts, men rely primarily on firearms, as well as

hanging or carbon monoxide poisoning, while women choose drug poisoning most of the time (Dennis, Shah, & Lindesay, 2009; Harwood, Hawton, Hope, & Jacoby, 2000). Poisoning by drugs often results from a combination of painkillers and anti-depressants, as well as the use of paracetamol in great abundance. The use of hypnotics such as benzodiazepines and barbiturates is also a drug category that tends to be used for this purpose.

Research shows that suicide attempts are commonly preceded by some behaviors that can alert caregivers, such as carelessness in medication taking and personal hygiene, lack of interest toward their belongings and life in general, a refuge in church or religion, and a visit to the GP (Minayo & Cavalcante, 2010).

According to a study by Harwood and colleagues (2000), more than 50% of older people visit their general practitioner before committing suicide, often complaining about physical discomfort (Harwood et al., 2000). Similarly, a study of Conwell and Thompson (2008) has concluded that about ¾ of the people who committed suicide have visited a doctor in their last months of life.

Family physicians, as first line health professionals, must be a priority resource in the prevention of suicide. Research has shown that an intervention in affective disorders, coupled with an effective service of primary health care, is the best prevention tool.

An example of the application of this knowledge is the Prevention of Suicide in Primary Care Elderly Collaborative Trial (PROSPECT) (Alexopoulos et al., 2009), which proved it possible to improve geriatric care through a combined intervention of various health care professionals.

Since there is not much reliable information on suicide trends in Portugal, especially in the elderly, our aim was to analyze elderly suicide trends and establish a comparison with those aged 64 or less.

Non-formal hypotheses are: 1) suicide rates in the elderly are increasing; 2) old men have higher suicide rates than old women; 3) there are differences in the method used by gender, in old people; and 4) the elderly use more lethal methods than non-old people.

Methods

Our study consisted of a secondary exploration of a mortality database, for the period between 1980 and 2009, for the Portuguese population, considering only deaths by suicide and the corresponding lethal methods, gender and age groups.

The database was provided by the national statistics agency, the *Instituto Nacional de Estatística* (INE).

Crude death rates of suicide were calculated for the variables mentioned above: gender, age group (64 or less, and 65 or more), and lethal methods (ICD-9, codes E950-E959, years 1980-2001; ICD-10, codes X60-X84, years 2002-2009).

The comparison of lethal methods between gender and age groups was analyzed through a chi-squared test.

The Statistical Package for the Social Sciences (SPSS) was used for statistical analyses and Microsoft Excel for Windows 9.0 for graphics design.

Results

Mortality trends, measured through death crude rates, for the Portuguese population, between 1980 and 2009 illustrate well that, although total mortality has grown only 1.03% and total deaths by external causes have decreased 43.06%, deaths by suicide grew 30.03% and deaths by undetermined cause increased 59.65% (Table 16).

Table 16: Mortality trends (crude deaths rate) per 100 000 inhabitants, 1980 and 2009, all ages

	1980	2009	Variation (%)
Total Mortality	972	982	1.03
Total External Causes	71.24	40.56	- 43.06
Suicide	7.41	9.64	30.03
Undetermined	6.68	10.66	59.65

As for suicide per age group, trends in crude death rates, between 1980 and 2009, clarify that, despite a decrease in suicide in other age groups, in the elderly suicide is still growing (Figure 40). In 2000-2009 an even higher growth is depicted (Figure 41).
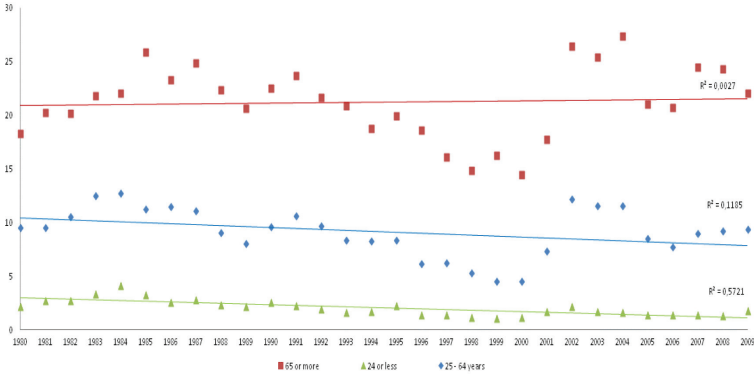

Figure 40: Suicide per age group CDR (1980-2009)
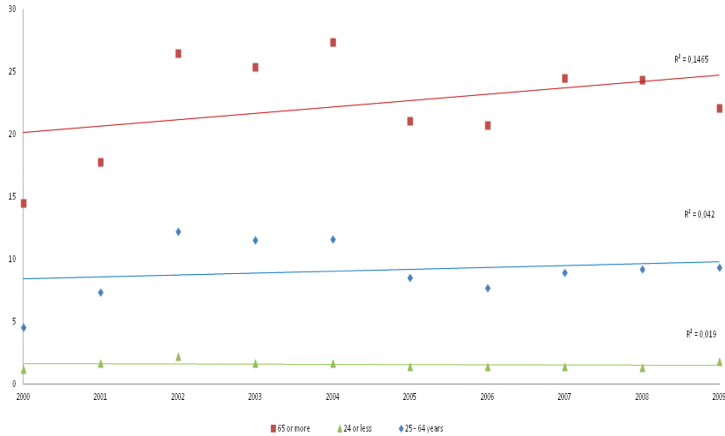

Figure 41: Suicide per age group CDR (2000-2009)

Concerning gender differences, and thus suicide trends by gender, both in the total population and age groups, and in the elderly population, men's rates are growing and women's rates are slightly decreasing (Figures 42 and 43).
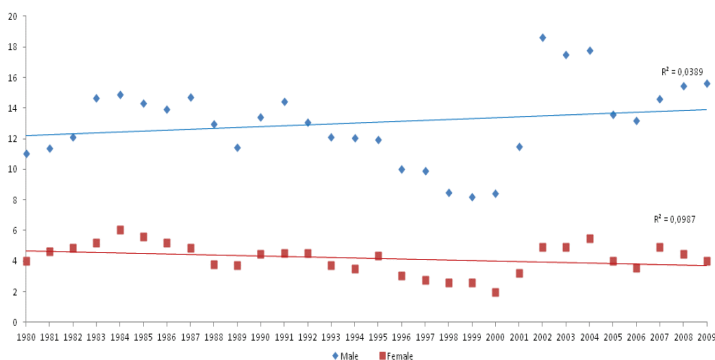
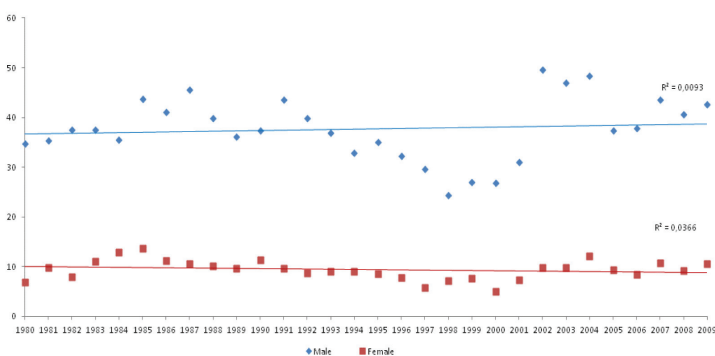**Figure 42:** Suicide per gender (all ages – 100 000 inhabitants CDR)

Figure 43: Suicide per gender (≥65 years; 100 000 inhabitants CDR)

The three most used lethal methods were, for men, hanging (57.28%), poisoning (12.07%) and firearms (10.22%) and, for women, hanging (26.73%), drowning (23.76%) and poisoning (18.81%) (Figure 44).

In the elderly, statistically significant differences were found between genders regarding methods used with a chi-square (7)= 75.971; p < .001.
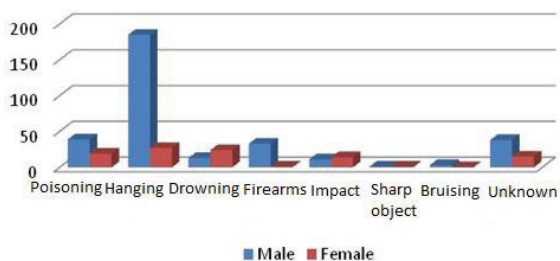

Figure 44: Suicide methods in elderly by gender – 2009 (last year available)

The three most used lethal methods by people with 64 years or less, were hanging (42.88%), impact (11.56%) and firearms (11.39%), and for people with 65 years old or more, were hanging (50.00%), poisoning (13.68%) and drowning (8.73%) (Figure 45).

Statistically significant differences were found between age groups with a chi-square (8)= 36.577; $p < .001$. The elderly presented lower raw numbers in poisoning, hanging, firearms and impact in comparison with people aged 64 or less, but higher rates in poisoning, hanging and drowning in comparison with people aged 64 or less.
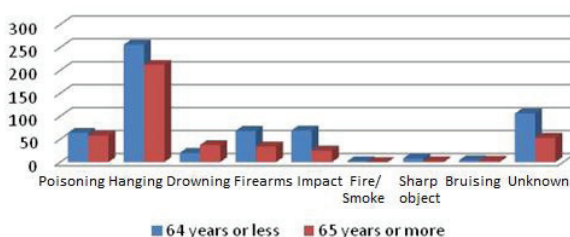

Figure 45: Suicide methods by age group – 2009 (last year available)

Discussion

Our aim was to analyse trends for suicide rates in the Portuguese elderly population, defined as 65 years old or more.

A first stated hypothesis was that suicide rates in the elderly are growing. Results showed that suicide rates in Portugal are decreasing in young people and adults but not in the elderly. Suicide trends, from 1980 to 2009, increased in people of 65 years old or more. However, this growth is even stronger in the period 2000-2009. This data is in agreement with other authors' work (Waern, Rubenowitz, & Wilhelmson, 2003) and supports our first hypothesis.

Another hypothesis was that men would have higher rates of suicide. Results showed that in the total population, considering all age groups, and also in the elderly population, men's rates are higher than women's rates, men's rates are growing and women's rates are slightly decreasing. This second hypothesis was proven and results concur

with the literature (Connor, 2006; Murphy, 1998; Szanto, Prigerson, & Reynolds III, 2001).

It was also expected there would exist differences between genders regarding the suicide method used. Although hanging is the most often used method in men and women in Portugal (Varnik et al., 2008), men presented a much higher percentage of hanging, and a higher percentage of more lethal methods, suggesting that gender appears to influence the method used to accomplish suicide. These results also confirmed this third hypothesis and support other authors' results (Dennis, Shah, & Lindesay, 2009; Harwood, Hawton, Hope, & Jacoby, 2000; Varnik et al., 2008).

Finally, it was expected that people of 65 years old or more would use more lethal methods than younger groups. Results showed that elderly have higher percentages in suicide death by poisoning, hanging and drowning and lower percentages in suicide by firearms, compared with people aged 64 or less. Nevertheless, it seems that globally, older people use more lethal methods than other age groups, as was described by Szanto, Gildengers, Mulsant, Brown, Alexopoulos and Reynolds (2002).

One clear limitation of this study is that only registered suicide deaths were considered though using also registered undetermined deaths could be more comprehensive. Indeed, we know that there are many 'masked' suicides within registered undetermined deaths (Varnik et al., 2010). This problem is particularly acute in Portugal (de Castro, 1989; Varnik et al., 2011) As many suicides as undetermined rates are registered. An estimation of 'masked suicide' within undetermined deaths could give more precision to these results and subsequent efforts of prevention.

Other variables could, and should be entered in the analysis, such as marital status, geographic distribution, activity status, and, if available, mental and physical health. Temporal trends putting suicide in relation with other causes of death in the elderly, in comparison with other age groups, could give us a notion of the relative weight of this cause of death.

All this increasingly descriptive effort will not be useful if a prevention programme is not set in motion in Portugal, adapted to the needs of different risk groups, and notably, the elderly seem to comply with this

late definition. In such a programme, suicide and suicide trends would be outcome indicators.

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HEALTH EDUCATION FACTSHEET ON MENTAL HEALTH IN THE ELDERLY

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Abstract

Health promotion has a crucial role in healthy aging. An important factor for maintaining independence and quality of life of older people is good mental health. To ensure mental health of the elderly, it is important to know the factors that may influence it, in order to promote interventions that include them, intervene on them and prove to be effective.

Based on the document "Healthy Ageing – a challenge for Europe", this study aimed to discuss some determinants of mental health in the elderly, relate them to mental health promotion programs and assess their effectiveness. To this end, 10 scientific articles related to the topic of effectiveness of mental health promotion programs among the elderly were analyzed.

The evidence showed that, to ensure effectiveness, the elderly mental health promotion programs should take into account the factors that influence the mental state of their recipients, must meet the needs of the target audience, and should include an evaluation of their process.

The findings of this study led to the development of a document designated as a "health education page", which contains clear and simple information about the topic of the promotion of mental health in the elderly, specifically regarding the caregiver's health. This document is intended to be a useful instrument for elderly people, caregivers, and professionals.

Keywords: Health promotion; Mental health; Healthy aging.

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Introduction

The elderly population in Europe has been increasing and it is expected to maintain this trend in the coming years. In 2000, the population over 65 years old represented around 15%, while forecasts for 2030 point to 24%, and close to 30% in 2050 (Draper & Low, 2004; *The Swedish National Institute of Public Health* (SNIPH), 2007). In Portugal, the population aged over 65 represented about 16.5% in 2001, reaching 17.9% in 2009 (Carrilho & Patrício, 2010).

Along with population aging, there are also increases the number of elderly people with disability, defined as difficulty in performing daily activities of self-care, compromising independent living and social participation. Impairment causes a decline in the quality of life and increases the risk of hospitalization, institutionalization or even premature death (SNIPH, 2007). In addition, the current society, which is performance--oriented, associates seniors with passivity, deficit, worthlessness, and increased social costs (*National Research and Development Centre for Welfare and Health* (STAKES), 1999).

Given this notable population aging, the need has become evident to take measures towards the prevention of health conditions associated with aging, and the promotion of health and quality of life of older people.

In 2007, a document entitled *"Healthy Aging - a Challenge for Europe"* was published by SNIPH, in partnership with the European Commission, of which goals were to review current practices and policies for older people's health across Europe, to review the literature on evidence-based health promotion and study practical interventions to prevent health hazards, and to present the findings on their effectiveness and make these findings accessible to practitioners and policy makers.

Healthy aging was defined in this document as the process of optimizing opportunities for physical, social and mental health, allowing the elderly to have an active role in society, without discrimination, and to enjoy an independent and good quality of life (SNIPH, 2007).

Health promotion has an important role in healthy aging, since it can help prevent health problems associated with aging or make sure

that elderly people with some of these problems can remain active and independent, preventing institutionalization (SNIPH, 2007).

An important way to maintain autonomy in old age is good mental health and well-being (STAKES, 1999). Specifically, as regards mental health, dementia and depression are the major psychiatric disorders related with aging, with an expected increase in these conditions associated to this age group. Other conditions such as anxiety, schizophrenia, bipolar disorder and disturbances inherent in substance abuse are also prevalent in the elderly (SNIPH, 2007; Draper & Low, 2004).

According to the International Classification of Disability, Functioning and Health (ICF), from the World Health Organization (WHO), impairment always results from the interaction between the health condition of the individual (with their structural and/or functional alterations, activity limitations and social participation restrictions) and the factors inherent to the context in which the individual lives, which can be intrinsic or extrinsic to the individual (personal or environmental) (WHO, 2001). Thus, to ensure the mental health of older people, it is important to know the factors that may influence the mental state of the elderly, in order to promote programs that engage them and act at their level.

Based on the document *"Healthy Ageing - a Challenge for Europe"*, this paper aims to discuss the factors that may influence older people's mental health, to relate them to mental health promotion programs and to assess their effectiveness.

Methodology

This study was based on the document *"Healthy Ageing - a Challenge for Europe"*, respecting its structure and methodology. Additionally, it was based on the reading and analysis of 10 scientific papers (systematic reviews, meta-analysis and randomized controlled trials (RCTs) on the topic "mental health in the elderly." The research was carried out in several databases and search engines (Scielo, Cambridge Journals, Allacademic, Google Scholar, etc.), using key words and phrases such as

"mental health", "elderly", "health promotion" and "aging". We considered the following inclusion factors: relevance, publication date after 1998, the nature of the study (science), the language (English or Portuguese) and the availability of the full text.

Discussion

After reading the surveyed articles, in respect of the structure of the document *"Healthy Ageing - a Challenge for Europe"* and the proposed objectives for this study, we now explore some factors inherent in older people and their context, which may restrict their mental health, and subsequently we discuss the effectiveness of interventions to promote mental health in the elderly.

Determinants of mental health in the elderly

The stigmatization of the elderly is present in most societies. Stigma and discrimination related to mental disorders are also common and are strongly associated with suffering, disability and economic losses. When the target of discrimination is the elderly person with mental illness, there is a double loss for the individual. The consequences of this problem, among others, are the establishment of prejudices and stereotypes regarding the elderly (weak, bizarre, dangerous, useless, etc.), feelings of shame, low self-esteem and reluctance to seek healthcare by the discriminated person. Discriminatory attitudes often extend to families and caregivers, and are reflected in the poor quality of care or lack of access to health services (Graham et al., 2007). The project *Key Concepts*, developed by STAKES (1999), which aimed to develop a model for the promotion of mental health in Europe, includes in its recommendations the prevention of stigma and discrimination against the elderly.

On the other hand, participation of the elderly in significant activities, public, private or in the family is seen as an important way of maintain-

ing their mental capacities. In some European societies, the elderly are seen as an important resource, particularly in the support for younger generations (children and grandchildren, for example) in family activities, or even in their work in non-governmental organizations (STAKES, 1999). This aspect is important for maintaining good mental health and well-being since the elderly feel they are contributing to society, although sometimes they find barriers to this type of public or private social participation (SNIPH, 2007).

Personal relationships are considered in the literature as a key factor on mental health in the elderly. Isolation and loneliness are risk factors for mental health decline of the elderly (SNIPH, 2007). In many European countries, most elderly people are living alone and about 50% suffer from loneliness and social and emotional isolation (STAKES, 1999). The importance of fighting loneliness and social isolation in the elderly is recognized in order to promote their well-being and quality of life. Regarding social networks, the evidence shows that social relations have a major impact on mental health (Antonucci, 2001; Krause, 2001; Russell & Cutrona, 1991, cited by Fiori, Antonucci & Cortina, 2006). In the elderly population, more than the size of the social network, the nature of the relationships is determinant, since their social relations may be particularly heterotypic. On a study about the typology of social networks and their implications on older people's mental health, more diverse social networks had better results in terms of depressive symptoms, while the most restricted had worse results. In addition, it was found that mental health benefits from belonging to a diverse network that includes friends and it is due, in part, to the fact that these individuals perceive greater care and attention from its members than individuals belonging social networks which are more restricted and limited to the family (Fiori et al., 2006). The implementation of health promotion programs intended to alleviate the loneliness and isolation is therefore considered of great importance, and to promote the development, improvement or maintenance of social contacts (Cattan, White, Bond & Learmouth, 2005).

Physical health status is also, unquestionably, an influential factor on the mental status of the elderly. The practice of physical activity is

pointed out specifically as a key facilitator of good mental health. Among other benefits, physical activity is associated with better cognitive functioning, higher levels of life satisfaction and self-perceptions, and a lower prevalence and severity of anxiety and depression symptoms (Berger, Pargman & Weinberg, 2007; Colcombe & Kramer, 2003; Reifschneider, 1998; Schechtman & Ory, 2001, cited by Fernandes, Vasconcelos-Raposo, Pereira, Ramalho & Oliveira, 2009). Other evidence also demonstrates the positive relationship between physical exercise and improvement of some mental illnesses, including depression (Deslandes et al., 2009).

By contrast, poverty, in particular homelessness, is a leverage factor of mental illness in the elderly. Mental illness is associated with homelessness, either as cause or consequence, as we can verify in the literature that mental disorders are very common in the homeless elderly. Although it is established that access to healthcare services protects against the negative effects of poverty and homelessness (Hwang, 2000; Stark, 1992, Kessler et al., 1997, cited by Limbo & Joyce, 2009), the truth is that access to them by these individuals is limited (Limbo & Joyce, 2009).

Violence against the elderly, defined by WHO as "acts or omissions committed once or many times, damaging the physical and emotional integrity of the elderly, preventing the performance of their social role" (WHO, 2004, cited by Valadares & Souza, 2010), is another factor conditioning the mental health of the elderly (Gaioli & Rodrigues, 2008). Feelings of guilt, shame, low self-esteem and fear of retaliation lie behind the abused elderly (Gonçalves, 2006). The role of the caregiver must be stated, often the aggressor, and who the literature associates with the tense nature of the elderly-caregiver relationship, and states that the caregiver only becomes the offender when he/she is socially isolated, suffers from depression or other psychiatric problems, or when the bonds of affection with the elderly are weak or when the caregiver was him/herself victim of violence by the elderly (Kleinschmidt, 1997; Rey & Browne, 2001, cited by Gonçalves, 2006). Also, alcohol and drug abuse enhances the aggressive attitude of the caregiver (Valladares & Souza, 2010). We can, therefore, deduce that the caregiver must be taken into account when planning mental health promotion in the elderly. Beyond the physical,

psychological, financial and sexual abuse, neglect is also a form of abuse (Gonçalves, 2006). Evidence shows that older people with mental illness are neglected, not only in the family but also through limited access to health services and social support (SNIPH, 2007, STAKES, 1999).

Effectiveness of interventions for the promotion of older people's mental health

The effectiveness of psychotherapeutic and psychosocial interventions in the improving of psychological well-being of the elderly is described in the literature (Pinquart & Sörensen, 2001, cited by SNIPH, 2007).

The document *"Healthy Ageing - a Challenge for Europe"* lists, among the forms of psychotherapeutic and psychosocial interventions, cognitive behavioral therapy, reminiscence, psychodynamic approaches, relaxation, supportive interventions, control enhancement, psycho-educational treatments, activity treatments and training in cognitive skills.

Research shows that cognitive behavioral therapy (a strategy that includes education, motivational interviewing, relaxation training and coaching skills for problem solving) as a strategy for intervention in anxiety and associated symptoms, is effective in the elderly. One study showed that this type of intervention had better results in improving the severity of anxiety, depressive symptoms and overall mental health than a support intervention, maintaining the improvement after one year (Stanley et al., 2009). This result is consistent with the guiding document of this paper, which states that interventions to enhance control and cognitive behavioral therapy have an above-average impact on measures of psychological well-being, compared with reminiscence, mixed therapies, supportive interventions, psycho-educational interventions, activity promotion and cognitive training (Pinquart & Sörensen, 2001, cited by SNIPH, 2007).

A study intended to ascertain the long-term effects of a program to promote mental health in older adults with depression, with a duration of one year, found that over two years, participants in the program felt less depressed, in better physical condition, with better quality of life and more

satisfied with care. Although the effects of the program, which consisted of pharmacological therapy, behavioral activation, psychotherapy oriented to problem solving and education, reduced after 18 and 24 months (follow-up), they remained up to one year after the program (Hunkeler et al., 2006).

According to a study referred to in the guiding document, it was found that relaxation has a greater impact than supportive care, psycho-educational interventions, activity promotion and cognitive training. In addition, individual interventions were associated with significantly greater improvements in psychological well-being, compared with group interventions, as well as interventions aimed at institutionalized elderly also promoted significantly greater improvements compared with interventions in the community. Interventions carried out by professionals specialized in Geriatrics were more effective than those carried out by professionals without expertise in this area (Pinquart & Sörensen, 2001, cited by SNIPH, 2007).

Relating the determinants of mental health with the health promotion programs for the elderly, there are some interventions that target specific factors. Two systematic reviews have studied the effectiveness of health promotion programs aimed at preventing or alleviating the loneliness and social isolation of older people (Cattan et al., 2005; Findlay, 2003), a factor which was identified previously as a determinant of mental health in this population. In the review conducted by Cattan et al. (2005), it was found that the most effective programs were those carried out in groups, involving an educational or training component, and social activities aimed at specific groups. On the other hand, the interventions which were less effective were the individual, and those performed at home. Both studies found that programs that allow the active involvement of seniors in the planning, development and implementation of activities, interventions carried out in pre-existing community resources, and interventions that include a process evaluation proved effective. Findlay (2003) also notes the importance of training the facilitators/coordinators of interventions as a determinant of their success.

Physical activity appears to be important to alleviate the effects of aging on physical, social and mental health, and to promote functional independence and autonomy. Increased levels of physical activity allow

an improvement in perceptions of continuous development, personal enrichment, life satisfaction and self-esteem (Fernandes et al., 2009).

One study indicates that elderly patients undergoing a personalized program of physical activity, with a frequency of three times a week for four months, significantly decreased the rates on anxiety and depression scales in relation to the initial assessments (Sheikh et al., 2003). Also an RCT which intended to determine the effectiveness of a health promotion program for seniors in the community, in which they were subjected to an intervention directed at multiple risk factors with exercise being a core component for six months, showed that at the end of the program, the group showed improvements in performance indicators, in particular depression scale (CES-D) compared with the control group, which showed a decrease in the indicators (Wallace et al., 1998).

However, the overall results on the effectiveness of exercise programs in preventing or reducing depression in the elderly are inconclusive, to the extent that the findings are conflicting, with significant improvements in some programs and not in others (SNIPH, 2007).

Caregivers of older people with mental illness often suffer from high levels of stress, which can lead to negative repercussions on their mental health, creating an increased risk of depression. The pressure on caregivers in order to disregard their own needs, and the long lasting physical and psychosocial stress to which they are subjected, makes them a risk group for the emergence of physical and mental conditions (STAKES, 1999). Since many need psychosocial and instrumental support, it is important to develop interventions targeted to caregivers to improve their psycho-logical well-being (Donaldson, Tarrio & Burns, 1998; Livingston, Manela & Katona, 1996; Dura, Stukenberg & Kiecolt-Glaser, 1990; Covinski et al., 2003, cited by Mittelman, Brodaty, Wallen & Burns, 2008; Sörensen, Pinquart & Duberstein, 2002).

The literature shows that individual psychosocial interventions are effective in reducing depressive symptoms for caregivers of relatives with Alzheimer's disease (Mittelman et al., 2008). In some studies, it appears that psychosocial interventions directed at caregivers have lasting effects and are inexpensive, preserve the caregivers' health and delay institutio-

nalization of the care receiver until several years after participation in the intervention program (Brodaty, Gresham & Luscombe, 1997; Brodaty & Peters, 1991; Mittelman et al., 2007; Mittelman et al., 2006; Mittelman et al., 1996, cited by Mittelman et al., 2008; Brodaty, Green & Kosch, 2003, cited by SNIPH, 2007). There is also evidence that, in interventions of this type, providing information only to the caregiver is a somewhat less effective strategy and it is, therefore, important to pay attention to the emotional needs of caregivers to adopt strategies that suit them and can be effective (Brodaty & Gresham, 1989, Marriott et al., 2000; Brodaty, Roberts & Peters, 1994, cited by Mittelman et al., 2008).

In a 2002 meta-analysis on the effectiveness of interventions in caregivers, intervention studies that included psycho-educational interventions, support, instrumental support, psychotherapy, and interventions with multiple components were gathered. Outcome indicators grappled with the assessment of caregiver burden, depression, subjective well-being, ability and knowledge of symptoms of the care receiver. Psychotherapeutic and psycho-educational interventions were the most effective in all indicators, while the multi-component interventions were effective in three indicators and supportive interventions were effective in two. Psychotherapy (note that it is an intervention directed solely to the caregiver) had a positive impact on symptoms of the care receiver (Sörensen et al., 2002).

These findings are consistent with what is described in the guiding document, as it is noted that the most effective programs were those which involved the elderly and their concerned family, were intensive, and were driven by the needs of caregivers, such as caregiver skills training. Also proved effective were the interventions that included practical support, individual counseling and structured, consistent and durable professional support (Brodaty et al., 2003, cited by SNIPH, 2007). Also, the network of integrated care was proved effective in increasing the possibility of resorting to formal support services, while psychotherapy for caregivers can delay institutionalization of the elderly. The use of computer networks improves self-confidence of the caregiver in decision making, especially in rural communities. Educational interventions with a component of training in coping strategies, in addition to specific information about the health

condition of the elderly, are more effective than educational interventions without this component (Peacock & Forbes, 2003, cited by SNIPH, 2007).

Conclusions

After review and discussion of the studies, and bearing in mind the guiding document, it is concluded that, in fact, the mental health of older people benefits from the promotion of psychotherapeutic and psycho-social programs, individualized and carried out by professionals. This conclusion is also valid for the caregivers/family members, which must be included in these approaches. Regarding the effectiveness of physical activity programs for the prevention or reduction of depressive symp-toms, although it is proven that physical activity has an important effect on the improvement of depression, it cannot be said that mental health promotion programs including physical activity are effective.

Interventions to promote mental health of the elderly must take into account the factors that influence the mental state of their recipients, and must be specifically directed to the factor or factors on which we intend to work. They must also meet the needs of the target audience, which may be not only the elderly but also their caregivers. These needs can be psychological, emotional or even practical. To achieve effective interventions, participants should be active elements in the planning, development and implementation.

Interventions should also include a form of evaluation of their pro-cess in order to perceive if the expected results are achieved or not and why, and the results of this evaluation, positive or negative, should be disseminated, so that the mistake of continuing to promote interventions which have proved to be ineffective isn't repeated.

Also in order to respond to the specificities of this population, further research is recommended on care providers and minorities within the elderly population.

In general, recommendations at the European level go towards the promotion of autonomy, specifically the development of programs to

promote self-sufficiency, and the development of effective and feasible preventive measures.

As a practical result of this study, we created a support tool called "Health Education Factsheet" (Figure 46), which contains useful, simple and clear information on the promotion of mental health of caregivers of older people with mental illness. This tool is intended to be a vehicle of simple and accessible information, for both professionals and caregivers, or even for the elderly themselves.

Figure 46: Health Education Factsheet

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AGING, HEALTH AND DISEASE: THE EFFECT
OF RELIGIOSITY ON THE OPTIMISM OF ELDERLY PEOPLE

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Abstract

In the aging process religiosity has been shown to be associated with important benefits. In this paper we seek to analyse the agency factors of religiosity in optimism and its mediation in satisfaction with life in both healthy and ill elderly people. The sample surveyed by the CROP Questionnaire, consisting of 376 Portuguese elderly people, 238 classified as healthy and 138 as ill, showed that there is a positive relationship between religiosity and optimism only for the group of healthy elderly people. For the ill elderly, optimism was only promoted by satisfaction with life. The distinction between optimism of internality and externality showed that the healthy elderly anchor their optimism in internality beliefs, while the ill elderly base their optimism on external factors. The establishment of a self-regulating system is discussed with beliefs and religious practices as perpetuators. Confrontation with personal frailty, powerlessness, and fear were discussed as predetermining factors to disembedding, as described by Giddens (1991, 1997), while reembedding occurs with the elderly regaining self--control, as a result of divine factors prone to optimism.

Keywords: Religiosity; Optimism; Healthy elderly; Ill elderly.

"The religious phenomenon, although complex, is a very important factor for understanding different human societies, in time and space,

because all of them, in one way or another, have been shaped by religious thought" (Rodrigues, 2007, p. 171). Religion performs vital functions in such a way that it becomes inseparable from human existence (McCullough & Willoughby, 2009). Considering the analysis of the roles of religiosity and its impact on health, risk behaviours, and well-being as classic, research about the impact of religiosity on optimism in the elderly has been neglected. In this paper we compare the differences in religiosity and optimism of both healthy and hill elderly people. In addition, we analyse the impact that religiosity has on the optimism of both and we evaluate the mediating role of life satisfaction.

Religiosity

It is understood that religiosity is the individual level of commitment to beliefs, doctrines and practices of a religion (Baker & Warburg, 1998; Mookherjee, 1994). The counterpart expression of religious experience (Geerts, 1990), it concerns the extent to which an individual believes, follows, and practices a religious doctrine, viewed between its two regulating poles: beliefs and rites. James (1902/1985) defines it as "a set of feelings, acts and experiences of the individual (…) while situated in a relation which he considers divine" (p. 50). This can be introduced either in a traditional way, in a formal and non-reflective way and obeying customs, or in an individual way, looking for answers to questions, needs, ideas and ideals (Grom, 1994).

Both religion and religiosity have an expression resulting in spirituality, namely, recognition of a non-material force that transcends all affairs, human and nonhuman, materialized in the search for meaning, unity, and human transcendence (Hill & Pargament, 2003; Pargament, 1997). The concepts of spirituality and religion share a considerable overlap (Taylor, 1998), where we do not find existing consensus related to the conceptual delimitation of the former (Barros, 2000). Although many authors refer to religiosity using the term spirituality, the first differs from the latter by reference to a specific doctrinal system of

worship of a god and/or other deities, shared with a group (Koenig, 1998; Yuen, 2007).

At the birth of the contemporary era, Houf (1945) pointed out the following functions of religion: ensuring superhuman help to individuals, depicting the nature and the problem of evil in societies, enabling a path to salvation, integrating the personality, providing opportunities for understanding and acceptance of life's meaning, gain mastery over oneself, being a model of individual and group life, and upholding moral values. More recently, Pargament, Koenig, and Perez (2000) summarize the functions of religion in attributions of meaning and control, intimacy, and comfort, associated with spirituality and life transformation.

Optimism

"No one doubts the importance of optimism for the happiness of people, for their physical and mental health, and also for their professional success" (Barros, 2004, p. 98). Also regarded as a belief, optimism refers to expectations of good results: "optimists are people who expect good experiences in the future. Pessimists are people who expect bad experiences" (Carver & Scheier, 2000, p. 31). The tendency towards the positive, the expectation of future success, and the explanation given to negative events generally characterize optimism detected in such diverse areas of life as health, academic or professional achievement, interpersonal relationships and security (Buunk, 2001; Hoorens, 1994; McKenna, 1993; Simonds, 2005; Weinstein, 1982, 1983). The conceptual definitions orientate themselves to positive expectations, usually generalized and stable, demonstrating that people consider themselves, generally, slightly happier than others; they show a positive asymmetry in respect to distribution of positive experiences, as opposed to an opposite asymmetry for the experiencing of negative events (Scheier & Carver, 1985, 1992; Tiger, 1979; Weinstein, 1980, 1983, 1984, 1989).

Regarding the subject, when we speak about the "stable tendency to believe that good instead of bad situations will happen" (Scheier & Carver,

1985, p. 219), we refer to the absolute or dispositional optimism, that is, to widespread expectations of achieving good results in the individual confrontation with problems in important life areas (Scheier & Carver, 1992), differentiating from social or situational optimism (Barros, 2001, 2004). This kind of optimism, having an influence on the set of expectations in a stable and consistent way across situations and reflected in the tendency to establish positive predictions about results for the individual, is seen as a personality trait, a disposition or attitude that positive results will arise from for the individual, regardless of individual abilities (Carver & Scheier, 2000; Scheier & Carver, 1985), adding to widespread expectations of getting few or no negative results (Scheier & Carver, 1992).

The conception of dispositional optimism, dealing with general events and not focusing on specific perceived differences between the self and the others (Chang, 1998, 2000; Scheier & Carver, 1985), emerges as the most present in literature, concomitant with the observation that people predict, in comparison with others, that they will experience a greater number of positive situations and fewer related to negative outcomes (Peeters, Czapinski, & Hoorens, 2001; Shepperd, Carrol, Grace, & Terry, 2002). This trend is known as comparative optimism (Weinstein, 1980, 1984, 1989).

Satisfaction with life

Life satisfaction is a complex phenomenon, difficult to measure because it is subjective. It evaluates the state of life of the individual in relation to his life in general and specific areas such as health, family, love relationships, economic conditions, social relations, autonomy, etc. (Joia, Ruiz, & Donalisio, 2004; Mookherjee, 1994). It is a cognitive evaluation of the favourability of life according to pre-established criteria for the individual. Satisfaction with life, in general, reflects the overall assessment of subjective well-being of the individual, according to his own criteria. It refers to the perception of the individual about his position in life,

within the context of his culture and values and in relation to his goals, expectations, standards and concerns (e.g., psychological concerns, levels of independence, social relationships, environmental characteristics, spiritual patterns; Moberg, 1984; Pavot & Diener, 1993, 2008).

Research problem and hypothesis

There are known areas of life in which the elderly direct their aims: health, emotional balance, family, social adaptation. The behaviour of the elderly is determined by their aims, operating several self-regulatory mechanisms. Optimism enters in self-regulation when the elderly, although anticipating obstacles to achieving the goal of health, hold the conviction that they will be successful (Scheier & Carver, 1992). Prediction based on Social Comparison Theory (Festinger, 1954) does not give optimism the widespread character that it has in literature (Alick, 1985; Carver & Scheier, 2000), especially in old age, in which the adversities of life, such as health problems, are inevitable (Alloy & Ahrens, 1987), sometimes leading to pessimism. In these situations, religious beliefs can take a key role in cognitive balance of the elderly, especially in the disease stage.

Believing in divine beings, with superhuman powers, is, among other things, a coping mechanism (Brown, 1987; Hinde, 2006; Pargament & Mahoney, 2002) which, in times of difficulties and frustration, can promote optimism in the elderly. In this sense we hypothesize that religious beliefs, legitimated by reference to a tradition or a practice (Barros, 2000; Wallis & Bruce, 1991), can be considered a determinant of optimism in the elderly, ill or healthy.

In our empirical study we want to analyse religiosity, optimism and satisfaction with life in healthy and ill elderly people. Three research hypotheses were formulated. *Hypothesis 1: There is a positive correlation between the extent of religiosity and levels of optimism in the elderly. Hypothesis 2: The relationship between religiosity and optimism is mediated by individuals' satisfaction with lif*e.

Internality and externality optimism

The dichotomization internality / externality applied to optimism and pessimism led us to the development of the *Hypothesis 3*: *The association between religiosity and optimism in the elderly will differ according to the anchor in internality or externality beliefs of optimism*. As a basic premise of optimism anchored in internality beliefs is the expectation that desirable occurrences will happen via assignment of causality to factors internal to the individual, personal and dependent of himself. Inversely, individuals with optimism based on externality beliefs believe that their positive events will be determined by situational factors, external and not controllable by themselves, caused by others or determined by luck or by chance. Applying the concept of internality and externality to pessimism, we found the same reasoning. As the locus of control (Rotter, 1990), we consider that the continuum which goes from extreme optimism to extreme pessimism is permeated by internality or externality beliefs, and the anticipation of positive (optimism) or negative (pessimism) outcomes can be attributed to internal or external individual factors. Thus, by internality optimism we consider the expectation that good future experiences depend on their own personal skills. Externality optimism refers to the conviction that good results will prevail due to situational factors, with the elderly control not having over these factors, like luck or chance (Mónico, 2010).

Method

Participants

The study included 376 participants, surveyed through a self-administered questionnaire, of whom 238 are healthy elderly people (M_{age} = 74.87, SD = 6.77 years, age range: 52–91 years) and 138 are ill (M_{age} = 68.92, SD = 10.35 years, age range: 62–89 years), all Portuguese citizens. The criterion established for considering an elderly person as ill or healthy

was the establishment of two cut off points (up to the 25th percentile for the ill elderly and starting on the percentile 75 for the healthy elderly) in the responses to the question "how do you evaluate your state of health?", from 1 (totally sick) to 11 (completely healthy).

Eighty eight of the elderly (23.4%) live in the northern region of the country, 243 (64.6%) in the central region, 14 (3.7%) in Lisbon and the Tagus Valley, 9 (2.4%) in the Alentejo, 7 (1.9%) in the Algarve, and 14 (3.7%) in the Autonomous Regions of Madeira and Azores. Among the healthy elderly, 55 (14.6%) are male and 183 (48.7%) are female, while among the ill elderly 49 (13.0%) are male and 89 (23.7%) are female. Considering educational level, 55 (14.6%) cannot read or write, 84 (22.3%) can read and write without having the 4th grade (corresponding to the 1st cycle of Basic Education), 123 (32.7%) have the 4th grade, 28 (7.4%) the 6th grade, 30 (8.0%) the 9th grade, 14 (3.7%) the 12th grade, and 42 (11.1%) higher education. We found 189 (50.3%) married elderly people, 171 (45.5%) widowed, 15 (4.0%) divorced and 1 (0.3%) single.

Materials and Procedure

We drew up the CROP Questionnaire – Portuguese acronym for *Religious Beliefs, Optimism and Pessimism* – duly treated with reliability and factorial analyses (Mónico, 2010). We established 3 indicators: Religiosity, Optimism, and Satisfaction with life. For the first one, *Religiosity*, we considered the following measures:

a) *Attitudes and religious practices*: [DEUS] 16 items, KR-20 = .93, unifactorial according to PCA) and *Kind of beliefs [ACRE]* (19 items, grouped into four factors according to PCA: *F1*-Christian beliefs, α = .95, *F2*- Paranormal/Occultism, α = .92, *F3*-Futurology, α = .85, and *F4*-Synesthesia, α = .81), all dichotomic (0 = does not apply to you and 1 = applies to you), retrieved from Mónico (2010).

b) *Orthodoxy, Tranquility and Religious Conflict Scale [OTCR]*: 20 dichotomic items (1 = true and 0 = false), retrieved from Moberg (1984), composed by two factors according to Principal Components Analysis

(PCA), F1- *Religiosity* (internal consistency coefficient KR-20 = .94) and F2- *A-religiosity* ((KR-20 = .80);

c) We also consider the following set of items (for a complete analysis, see Mónico, 2010): i) Multiple choice questions *Belief in God [CREN]* (1 = never believed to 4 = always believed) and *Level of Religiosity* (1 = absolutely not religious to 7 = extremely religious), retrieved from Cabral, Vala, Pais, and Ramos (2000); ii) *Attitude towards religious expression and teaching [VORE]:* two questions with seven response options (1 = *completely agree* to 7 = *completely against*); *iii) Attending courses / training programs of a religious nature* [FRCA] e *Use of iconographic objects [OBIC]:* selection questions, composed by multiple choice categories unordered (0 = *nor marked*; 1 = *marked*) regarding several courses and iconographic objects; iv) *Frequency of prayer [CORE],* retrieved form Fortuna and Ferreira (1992): one multiple choice question with six response options (1 = *every day* to 6 = *never*); v) *Attribution of success to the help of God [SUCE_Deus]* one multiple choice question with seven response options (1 = strongly disagree to 7 = strongly agree); vi) *Attendance of religious advices [CONR], Influence of religion on time management [REIN],* and *Requests fulfilled in prayer [PEAT]:* measures composed by a multiple choice question with five response options (1 = *rarely/none* a 5 = *almost always/all*).

For the indicator *Optimism and Pessimism*, we considered following measures:

a) *Optimism [OISE]*: 21 items, evaluated from 1 (strongly disagree) to 5 (strongly agree), adapted from Barros (1998), Scheier, Carver, and Bridges (1994), Schweizer and Koch (2001), Snyder et al. (1991) and Wiseman (2003), composed by three factors according to PCA (for a complete review, cf. Mónico, 2010): Internality optimism *[OISE_F1]* (α = .83), Openness to experience *[OISE_F2]* (α = .64), and Positive expectations *[OISE_F3]* (α = .67).

b) *Estimation of future desirable events [POAC]* – 24 items (measured from 0 to 100%), retrieved from Wiseman (2003) composed by three factors according to PCA: Happiness, love, courage and luck *[POAC_F1]* (α = .83), Physical attractiveness, admiration and success *[POAC_F2]* (α = .77),

and Highly unlikely desirable event *[POAC_F3]* (α = .70) – and *Wish for positive future events [DAPO]*– the same items evaluating the wish for positive future events from 1 (almost never) to 7 (almost always).

c) *Internality Pessimism [PESS]*: 7 items, evaluated from 1 (strongly disagree) to 5 (strongly agree), adapted from Scheier et al. (1994), Schweizer and Koch (2001), and Snyder et al. (1991), unifactorial according to PCA.

d) *Estimation of future negative events [PANE]* – 21 items (measured from 0 to 100%), retrieved from Mónico (2010) composed by three factors according to PCA: Depressive profile *[PANE_F1]* (α = .88), Fatalist profile *[PANE_F2]* (α = .86), and Victim profile *[PANE_F3]* (α = .66) – and *Fear of negative future events [MANE]* – the same items evaluating the fear of negative future events from 1 (I have no fear) to 7 (I am very afraid).

At last, for the indicator *Satisfaction with life*, we considered the multiple choice question *Self-evaluation of current life [SITA]*(1 = very bad to 5 = very good), as well as the *Perception of current problems [POPR]* (adap. from Mónico, 2003; 15 items, KR-20 = .84) and the *Satisfaction with life Scale [AVAP]*: 17 adjectives with seven response options (0 = does not apply to me; to 7 = applies to me).; unifactorial according to PCA, α = .91).

Procedure

After guaranteeing the anonymity and confidentiality of the answers, we requested the informed and voluntary consent of the elderly to answer the questionnaire. The questionnaires were administered by the author and a team of students coordinated by her as part of a research work for the discipline of Research Methods in Psychology I of the Master in Psychology, Faculty of Psychology and Educational Sciences of the University of Coimbra. The questionnaire was administered to the elderly mostly in a structured interview format by the interviewer team. We used

SPSS 19.0 version for statistical data analysis. The process of construction and adjustment of measuring instruments, as well as the reliability and factorial analysis of the measures were treated in Mónico (2010).

Results

Religiosity

We made a standardization of the measures of the religiosity indicator, since they have different measurement scales, and held a Multivariate Analysis of Variance (MANOVA). We found that, in general, the healthy elderly are more religious than ill elderly, Wilks' Λ = .840, F (17, 3658) = 4.02, p <.001, η2 = .160, (1-β) > .999. The univariate tests (see Table 17) show that the multivariate effect was due to all measures of the indicator Religiosity, except for *Attending courses/training programs of a religious nature* and beliefs in *Paranormal/Occultism, Futurology,* and *Synesthesia*. Among the most significant measures, we found the *Level of religiosity*, the *Frequency of prayer*, the factors *Religiosity* and *A-religiosity* (reversed score) from the scale *Orthodoxy, tranquility and religious conflict*, *Attitudes and religious practices*, and *Christian Beliefs*. We conclude that the healthy elderly are more religious than the ill elderly.

Table 17: Average standardized scores and standard-deviations of measures of Religiosity: Univariate tests

| Religiosity | Elderly | | | | F | η2 |
| | Healthy (n = 238) | | Ill (n = 138) | | (1,374) | |
Measures:	M_z	SD_z	M_z	SD_z		
[CREN] Belief in God	.16	.71	-.27	1.33	16.22***	.042
[RELI] Level of religiosity	.24	.87	-.42	1.08	42.70***	.102
[VORE] Attitude towards religious expression and teaching	-.08	1.00	.13	.99	3.95*	.010
[FRCA] Attending courses / training programs of a religious nature	.01	1.05	-.02	.90	0.07	.000
[PEAT] Requests fulfilled in prayer	.16	.95	-.27	1.04	16.79***	.043
[CORE] Frequency of prayer	.23	.73	-.39	1.25	37.05***	.090
[OBIC_Obj] Use of iconographic objects	.08	.93	-.13	1.10	3.79*	.010

Religiosity	Elderly					
	Healthy (n = 238)		Ill (n = 138)		F	η2
Measures:	M_z	SD_z	M_z	SD_z	$(1,374)$	
[SUCE_Deus] Attribution of success to the help of God	.17	.85	-.29	1.16	19.25***	.049
[REIN] Influence of religion on time management	.14	.92	-.25	1.09	13.62***	.035
[CONR] Attendance of religious advices	.14	.88	-.24	1.14	13.04***	.034
[DEUS] Attitudes and religious practices	.21	.75	-.36	1.25	29.62***	.073
Kind of religious beliefs						
[ACRE_F1] Christian Beliefs	.19	.80	-.33	1.21	25.16***	.063
[ACRE_F2] Paranormal / Occultism	.03	.98	-.04	1.03	0.42	.001
[ACRE_F3] Futurology	-.02	.98	.04	1.03	0.37	.001
[ACRE_F4] Synesthesia	.00	1.01	.00	.99	0.00	.000
Ortodoxy. tranquility and religious conflict						
[OTCR_F1] Religiosity	.22	.65	-.38	1.34	34.10***	.084
[OTCR_F2] A-religiosity (reversed score)	.21	.76	-.36	1.24	30.50***	.075

*** $p < .001$

Optimism and pessimism

We standardized measures for the optimism and pessimism indicator and performed two MANOVAs, one for measures of optimism and one for pessimism. For measures of optimism, as expected, the result of the multivariate test indicated superiority in the healthy elderly, Wilks' Λ = .887, F (9, 366) = 5.18, p <.001, η2 = .113, (1-β) > .999. Inversely, we found a superiority of pessimism in ill elderly, Wilks' Λ = .896, F (7, 378) = 6.07, p <.001, η2 = .104, (1-β) > .999. Analysing the univariate tests (see Table 18), we found that the healthy elderly are more optimistic than the ill elderly in all measures (except *Openness to experience*), demonstrating higher scores in *Internality Optimism, Estimation for positive future events* related to *Happiness, love, courage and luck*, but also to *Physical attractiveness, admiration, and success*. However, the ill elderly wish for more positive future events concerning with happiness, love, courage, luck, physical attractiveness, admiration, success, and highly unlikely desirable events like winning the lottery.

As regards to pessimism, the ill elderly are more pessimistic, as we can see in Table 2. They estimate more future negative events related to

depressive, fatalist, and victim profiles. They also show more fear about these future negative events.

Table 18: Average standardized scores and standard-deviations of measures of Optimism and Pessimism: Univariate tests

Optimism and Pessimism Measures:	Elderly				F (1.374)	η2
	Healthy (n = 238)		Ill (n = 138)			
	M_z	SD_z	M_z	SD_z		
Optimism						
[OISE] Optimism						
[OISE_F1] Internality optimism	.16	.97	-.10	1.04	6.24**	.006
[OISE_F2] Openess to experience	-.05	1.01	.08	.97	1.33	.004
[OISE_F3] Positive expectations	.08	.95	-.13	1.08	3.70*	.010
[POAC] Estimation of future desirable events						
[POAC_F1] Happiness. love. courage and luck	.23	1.01	-.13	.97	11.82***	.031
[POAC_F2] Physical attractiveness. admiration. and success	.18	1.10	-.10	.93	6.85**	.018
[POAC_F3] Highly unlikely desirable event	.14	1.03	-.08	.97	4.33*	.011
[DAPO] Wish for positive future events						
[DAPO_F1] Happiness. love. courage and luck	-.17	1.02	.30	.89	20.72***	.052
[DAPO_F2] Physical attractiveness. admiration. and success	-.14	.97	.24	1.02	13.20***	.034
[DAPO_F3] Highly unlikely desirable events	-.08	1.03	.13	.94	3.78*	.010
Pessimism						
[PESS] Internality pessimism	-.12	1.00	.20	.97	8.83**	.023
[PANE] Estimation of future negative events						
[PANE_F1] Depressive profile	-.20	.90	.35	1.08	28.09***	.070
[PANE_F2] Fatalist profile	-.23	.95	.40	.96	37.47***	.091
[PANE_F3] Victim profile	-.14	.92	.24	1.08	13.42***	.035
[MANE] Fear of negative future events						
[MANE_F1] Depressive profile	-.13	1.00	.23	.95	11.51***	.030
[MANE_F2] Fatalist profile	-.16	1.02	.27	.91	16.31***	.042
[MANE_F3] Victim profile	-.10	.95	.17	1.06	6.34*	.017

* $p < .05$, ** $p < .01$, *** $p < .001$

Test of research hypothesis

Hypothesis 1 and 2

Hypothesis 1 points out the existence of a relation between the extent of religiosity and the levels of optimism. We built a structural equations

model considering that the measures of the indicator Religiosity have a predictive effect on Optimism in healthy and ill elderly people. In addition, we evaluated the mediating role of satisfaction with life in the association religiosity-optimism, in order to test Hypothesis 2: The relationship between religiosity and optimism is mediated by individuals' satisfaction with life.
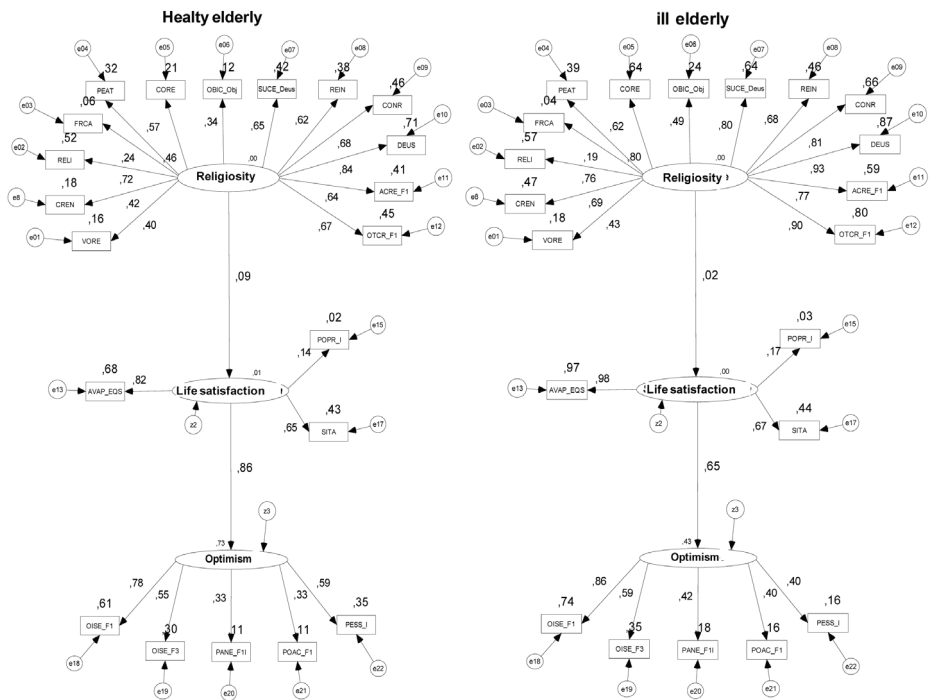
Key: *Religiosity Indicator*: Religiosity Indicator: [VORE] Attitude towards religious expression and teaching; [CREN] Belief in God; [RELI] Level of religiosity; [FRCA] Attending courses / training programs of a religious nature; [PEAT] Requests fulfilled in prayer; [CORE] Frequency of prayer; [OBIC_Obj] Use of iconographic objects; [SUCE_Deus] Attribution of success to the help of God; [REIN] Influence of religion on time management; [CONR] Attendance of religious advices; [DEUS] Attitudes and religious practices; [ACRE_F1] Christian Beliefs; [OTCR_F1] Orthodoxy, tranquility and religious conflict _Factor Religiosity.

Life Satisfaction Indicator: [AVAP_EQS] Satisfaction with life; [POPR_I] Perception of current problems (reversed score); [SITA] Self-evaluation of current life.

Optimism Indicator: [OPFF] [OISE_F1] Optimism and internality; [OISE_F3] Possibility of negative future events_Depressive profile; [PANE_F1] Depressive profile (reversed score); [POAC_F1] Happiness, love, courage and luck; [PESS_I] Internality pessimism (reversed score).

Figure 47: Multigroup structural equation modelling: Regression coefficients for the healthy and ill elderly

After specifying the measurement model, we proceeded to the estimation and evaluation of the degree of adjustment, using AMOS 18.0 (see figure 47). The dependency relationships, developed between the latent constructs and observable variables, were based on the theoretical hypothesis that points to a positive relationship between religiosity and optimism (Mónico, 2010). We build a path diagram and we specified the model (Byrne, 2001; Kline, 2005; Schumacker & Lomax, 1996), fixing the residual variance at zero (Hatcher, 1996). Thereby, a multigroup structural equation modelling was performed for the healthy and ill elderly, regarding the test of the two first research hypothesis, goodness of fit *CMIN / DF* = 3.26, $\chi2$ (417) = 1358.55, *p* <.001, NFI =. 706, *CFI* = .787, and *RMSEA* = .068.

We found that the optimism of healthy elderly people was significantly determined by their religiosity (β = .09, *p* < .05 for healthy elderly vs. β = .02, *p* > .05 for ill elderly), while for ill elderly people optimism is only promoted by satisfaction with life (see figure 47). Thus, Hypothesis 1 received empirical support only for the healthy elderly. *Satisfaction with life* was shown to be a mediator between religiosity and optimism, giving support to Hypothesis 2.

Hypothesis 3

According to the content of the items, we made a distinction between internality and externality measures of Optimism and performed a new multigroup structural equation modelling (see Mónico, 2010 for a detailed review). We considered the following measures for *Internality Optimism*: Internality optimism [OISE_F1], Openness to experience [OISE_F2], Depressive profile (reversed score) [PANE_F1], Happiness, love, courage and luck [POAC_F1], and Internality pessimism [PESS] (reversed score). For *Externality Optimism* we adopted the measures of: Positive expectations [OISE_F3], Highly unlikely desirable events [POAC_F3], Fatalist profile [PANE_F2] (reversed score), Physical attractiveness, admiration, and success [POAC_F2], and Victim profile [PANE_F3] (reversed score).

Given the reference values of the goodness of fit (Bentler 1990; Schumacker & Lomax, 1996), we concluded that the proposed structural model is adjusted: CMIN $\chi^2(188) = 3.12$ ($p < .001$), *NFI* = .802, *CFI* = .889 and *RMSEA* = .053. The results are highlighted in Figures 48 and 49. When we compare the models considering internality and externality optimism, we found that the optimism of the healthy elderly is based on internality beliefs ($\beta = .09$, $p < .05$ for Internality Optimism vs. $\beta = -.05$, $p > .05$ for Externality Optimism), as shown in Figure 48. On the other hand, the optimism of the ill elderly is more based on externality beliefs ($\beta = .01$, $p > .05$ for Internality Optimism vs. $\beta = .09$, $p < .05$ for Externality Optimism; see Figure 49).
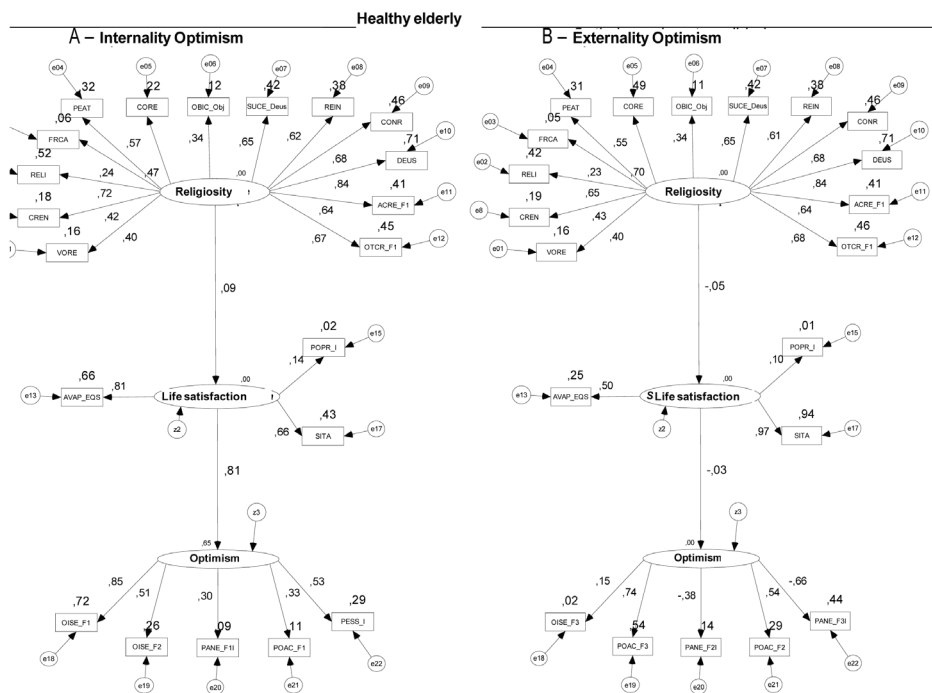
Key: Measures of Internality Optimism: [OISE_F1] Internality optimism; [OISE_F2] Openness to experience; [PANE_F1I] Depressive profile (reversed score); [POAC_F1] Happiness, love, courage and luck; [PESS_I] Internality pessimism (reversed score).

Measures of Externality Optimism: [OISE_F3] Positive expectations; [POAC_F3] Highly unlikely desirable event [PANE_F2I] Fatalist profile (reversed score); [POAC_F2] Physical attractiveness, admiration, and success; [PANE_F3I] Victim profile (reversed score).

For the remaining measures, see legend of Figure 47.

Figure 48: Multigroup structural equation modelling: Regression coefficients for healthy elderly

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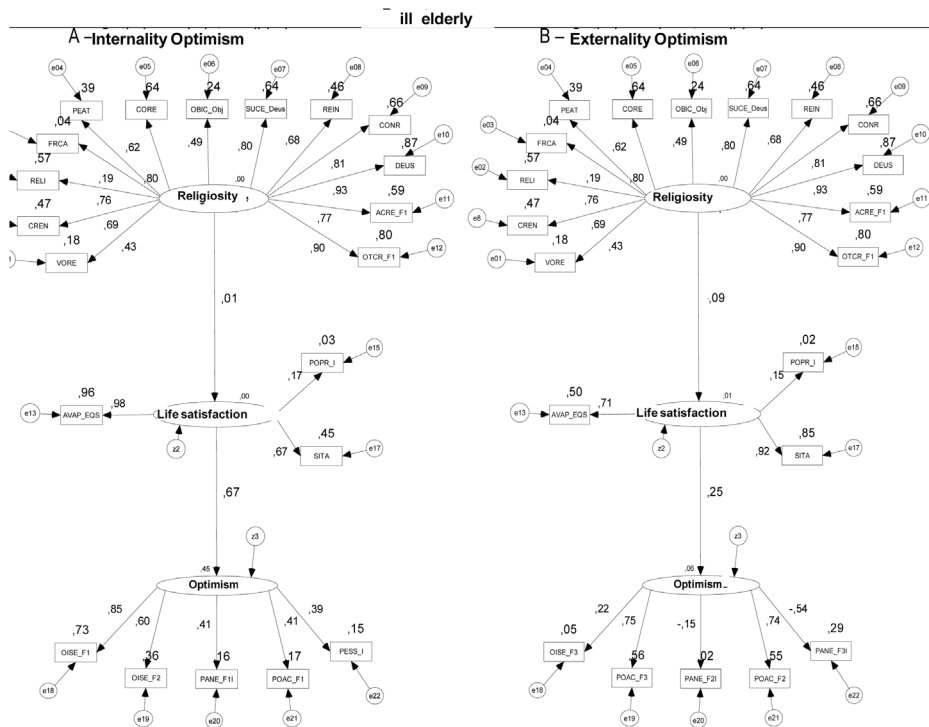
Note: see key of Figure 48

Figure 49: Multigroup structural equation modelling:
Regression coefficients for ill elderly

Discussion

In this article it was seen that the state of health or disease of the elderly showed clear effects on Religiosity and Optimism measures. In general, the healthy elderly are more religious and more optimistic than the ill elderly. Religiosity was found as an antecedent of optimism only in the healthy elderly, with the optimism of ill elderly being dependent on their satisfaction with life. The Hypothesis 1 found empirical support only in the healthy elderly, where religiosity promotes optimism. Satisfaction with life was found to be a mediator between religiosity and optimism, showing high correlations with optimism, supporting Hypothesis 2 in general.

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"Optimism is seen as a cognitive feature (a goal, an expectation, a belief or a causal attribution) about the desired and perceived as successful future" (Barros, 2004, p. 101). The distinction between internality and externality optimism (Hypothesis 3) has shown that the healthy elderly and ill elderly anchor their optimism in different kind of beliefs. Healthy elderly people anchor their optimism in internality beliefs, showing the model of forecasting the optimism based on externality beliefs totally insignificant. Inversely, the ill elderly base their optimism on external beliefs, showing religiosity as unable to predict optimism anchored in internality beliefs. This demonstrates the importance of distinguishing internal causes of external causes in the kind of beliefs underlying optimism.

Searching for an interpretation for these results, in recent decades researchers in positive psychology have come to recognize self-regulation as an important aspect of the self, such as resilience, adaptation to adversities (Barros, 2000; Brown, 1987; Higgins, Grant, & Shah, 1999), or even spiritual and religious development (McCullough & Boker, 2007; Pargament & Mahoney, 2002). We consider that individuals can use beliefs and religious behaviours as a self-regulatory mechanism, which confers on them stability and promotes optimism. As McCullough and Boker (2007) state, "to a certain point, spiritual and religious changes can also be caused by self-regulatory processes that are intrinsic to the functioning of the individual" (p.385). The importance that each one gives religion is, in some way, ruled by the functioning of an internal orientation system that seeks to achieve internal balance.

Giddens (1991, 1997) draws attention to the disorientation of individuals currently forming social organizations as if they found themselves involved in a number of situations that they do not fully understand. For the author, in modern societies time and space do not blend, as social space is no longer confined by the set of boundaries of space in which people move. Given this distinction, events are ever-changing and occur at a fast rhythm; there are feelings of discomfort, fear and anxiety, consequences that Giddens called *disembedding*, in other words, "dislocation of social relationships of local interaction contexts and their restructuring by means of undefined extensions of time-space" (Giddens, 1991, p. 29).

The personal frailty caused by old age and, specifically, the state of disease promotes disembedding, emerging the need to reduce tensions and reach security and self-control. The individuals develop mechanisms that seek to acquire security and reduce anxiety. These mechanisms, which Giddens calls *reembedding*, consist of "a way to establish trust in reliability and integrity of familiar people" (p. 90). Religiosity can be seen as a self-regulatory strength, a route of self-monitoring, and a coping strategy, enabling a new cognitive balance that promotes reembedding (Giddens, 1991, 1997). In these circumstances it is understandable that the healthy elderly are more religious than the ill elderly. A self-regulatory system is established, where beliefs and religious practices are promoters of optimism, anchored in internality beliefs for healthy elderly people, and in externality beliefs for the ill elderly.

Limitations and future directions

The main limitation noted for this study is the lack of an objective measure about the health condition of the participants. The measure used, based on self-perception of one's health condition, may have been influenced by the degree of optimism of the participants. Another limitation is the lack of distinction on the religious orientation of the participants, intrinsic or extrinsic, according to description of Allport and Ross (1967). An intrinsic religious orientation is characterized as something deeply personal, as "a motivating force that allows the individual to live his religion and not just use it as a means to an end" (Linares, 2012, p. 32), while an extrinsic orientation is focused on utilitarianism of religion while satisfying primary needs. It would be important in future studies to analyse the structural model of promoting internality or externality optimism by religiosity, given the religious orientation. A further direction of this study might be to measure the feelings of disembedding, in the sense of Giddens (1991, 1997), and examine how religiosity may constitute itself as a buffer effect of these feelings, and how the religious orientation of the participants, intrinsic or extrinsic, can contribute to reembedding.

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DISPOSITIONAL FORGIVENESS AND GRATITUDE AMONG OLDER PEOPLE

Félix Neto[51]

Abstract

This work analysed whether the three factors of forgivingness observed in adults – lasting resentment, sensitivity to circumstances, and unconditional forgiveness – were also present in older people. In addition, it examined whether gratitude accounted for a significant portion of the variance of dispositional forgiveness beyond that of socio-demographic variables. The sample comprised one hundred and nine old people (65 women and 44 men, mean age = 70.3 years). The same three-factor structure that emerged in adults was also evidenced in older people. The expectation of (a) a negative correlation between lasting resentment, and gratitude, and (b) a positive correlation between unconditional forgiveness and gratitude was supported. Furthermore, results showed that gratitude explained a significant amount of variance of lasting resentment, and unconditional forgiveness.

Keywords: Forgiveness; Gratitude; Older people; Resentment.

A quick look at the handbook edited by Worthington (2005) is enough to demonstrate that, if much research has been performed among adults, by contrast the literature on older people is very scarce. Forgiveness is important to people of all ages; however, it seems that until recently researchers of forgiveness had prioritized college student participants

(Worthington, 2005). In the current study we will examine the relationships between forgivingness and gratitude among old people.

"No future without forgiveness" (Tutu, 1999). Indeed, forgiveness lubricates interpersonal and intergroup interactions (Neto, 2013). Forgiveness has been defined as the "forswearing of negative affect and judgment by viewing the wrongdoer with compassion and love, in the face of a wrongdoer's considerable injustice" (Enrigth & the Human Development Study Group, 1991, p. 123). Forgivingness, dispositional forgiveness, has been defined by Roberts (1995) as "the disposition to abort one's anger (or altogether to miss getting angry) at persons one takes to have wronged one culpably, by seeing them in the benevolent terms provided by reasons characteristic of forgiving" (p. 290). Factorial studies, first conducted in France, have evidenced a three-factor model of forgivingness (Mullet et al., 2003): (a) Lasting resentment (an emotional component) expresses basic physiological reactions to the harmful situation; (b) Sensitivity to the circumstances (a cognitive component) can be considered as representing the "earthly" aspect of forgiveness, one that has no relationship to religious involvement (Akl & Mullet, 2010); (c) finally, Unconditional forgiveness (a transcendental component) can be viewed as the product of a type of personal, spiritual growth that may be relatively independent of external influences (Neto & Mullet, 2004; Paz, Neto, & Mullet, 2007). According to Mullet, Neto, and Rivière (2005, p. 161) "it is essential to differentiate these concepts and measure the impact of different personality measures on each component".

Past empirical work has examined the relation between several socio--demographic variables and forgiveness, such as gender, age, educational level, and religious involvement (e.g., Mullet et al., 1998; Paz et al., 2007). Several investigations examined the effect of gender on forgiveness, and in general its role is very limited (Worthington, 2005). The effect of age on forgiveness has also been examined in previous research. For example, the propensity to forgive increased from adolescence to old age (Girard & Mullet (1997). However, the present study included only old people. As most of the research about forgiveness has been conducted among college students the educational level rarely has been examined. However, in a previous study, individuals who had completed secondary education had

higher scores on sensitivity to circumstances, and lower scores on lasting resentment than people who had not (Mullet et al., 1998). Past research has also shown a relationship between religious involvement and the following forgivingness constructs: lasting resentment and unconditional forgiveness (Mullet et al., 2003).

A variety of reasons why individuals forgive are advanced in the literature (Enright & Fitzgibbons, 2000; Worthington, 2005). According to Munoz Sastre et al. (2005, p. 766) "these reasons range from very general personal-level ones (e.g., agreeableness), to relational-level ones (e.g., previous acquaintance with the offender) to psycho-attributional ones (e.g., perceived offender's repentance), to very concrete offense-related ones (e.g., cancellation of the consequences of the offense)". In the current study our interest directs to one general personal-level reason: gratitude.

McCullough, Emmons, and Tsang (2002, p. 112) defined "the grateful disposition as a generalized tendency to recognize and respond with positive emotions to the role of other people's benevolence in the positive experiences and outcomes that one obtains". In that research gratitude appeared related to prosocial characteristics. "The prosocial nature of gratitude suggests the possibility that the grateful disposition is rooted in the basic traits that orient people toward sensitivity and concern for others" (McCullough et al., 2002, p. 114). Given the prosocial nature of gratitude, a link with forgiveness could be expected.

A recent work sought to determine whether gratitude accounted for a significant portion of the variance beyond that of personality in the study of dispositional forgiveness (lasting resentment, sensitivity to circumstances, and unconditional forgiveness) among young adults (Neto, 2007). The findings supported that personality, particularly agreeableness and neuroticism correlate with lasting resentment and unconditional forgiveness. Additionally, results using multiple regression models indicated that gratitude explained a significant amount of variance of unconditional forgiveness.

In the present research we had three aims. The first aim was to identify whether the three factor structure of dispositional forgiveness emerged among older people. This structure should include the following factors: lasting resentment, sensibility to circumstances, and unconditional forgi-

veness. The second purpose of the present research was to analyse the relation between socio-demographic factors and forgiveness. The third aim of this investigation was to examine whether gratitude adds a significant amount of explained variance to our understanding of forgivingness beyond socio-demographic variables.

In particular, three questions were posed: (1) how does forgiveness relate to socio-demographic factors, such as, age, gender, level of education, and religious involvement? The first hypothesis, based on previous research (Mullet et al., 2003) was that men and women would have similar scores in forgivingness. The second hypothesis was that a link should be found between the educational level and two forgivingness factors: sensitivity to circumstances and lasting resentment (Mullet et al., 1998). Our third hypothesis was that religious involvement variables should be linked to two forgivingness factors: lasting resentment, and unconditional forgiveness (Mullet et al., 2003). Religious involvement will positively predict unconditional forgiveness and negatively lasting resentment. Concerning sensitivity to circumstances, we did not advance any hypothesis. (2) How does forgivingness relate to gratitude? Our fourth hypothesis was that a relationship between forgivingness and gratitude should be found: lasting resentment and unconditional forgiveness should be linked negatively and positively, respectively, with gratitude. (3) Does gratitude predict forgiveness, beyond socio-demographic factors? The fifth hypothesis was that gratitude would predict lasting resentment, and unconditional forgiveness beyond socio-demographic factors (Neto, 2007).

Method

Participants

There were 109 participants (65 women and 44 men). Ages ranged from 65 to 90 years. Mean age was 70.3 (SD = 5.8). Thirty eight per cent of the participants declared they had completed secondary education, 82% declared they believe in God, and 41% declared they attend church on a regular basis.

Material

The material was composed of a questionnaire including:

(a) The *Forgivingness Scale* (Mullet et al., 2003). It was composed of 15 sentences expressing willingness to forgive under various conditions, five for each of the three factors. Examples of items are: "I feel unable to forgive even if the offender has begged for forgiveness" (Lasting resentment factor); "I feel it is easier to forgive once the consequences of the harm have been cancelled" (Sensitivity to circumstances factor); and "I can forgive easily even when the offender has not begged for forgiveness" (Unconditional forgiveness factor). An 11-cm scale was printed after each sentence. The two extremes of the scales were labelled *completely disagree* and *completely agree*.

(b) Participants completed also the *Gratitude Scale* (McCulough et al., 2002; Neto, 2007). This measure consists of six items. A sample item is: "If I had to list everything that I felt grateful for, it would be a very long list". Respondents rated their degree of agreement with the items using a five-point Likert-type scale (where 1 = *strongly disagree* and 5 = *strongly agree*). Higher scores indicate greater dispositional gratitude. Neto (2007) reported satisfactory psychometric properties in a Portuguese population. In the present study the coefficient alpha was .72.

 (c) Furthermore, participants answered socio-demographic questions, such as age, gender, and educational level. Two additional questions were asked: "Do you believe in God?" and "Do you attend church every week (except when you are truly unable to do so)?"

Procedure

Recruitment and tests of the participants were performed by a trained psychology student in the Porto area, Portugal. The sample was recruited at a range of venues, including shopping centres and community groups. The research assistant was present when the participants filled in the questionnaires. The respondents completed

the questionnaire in approximately 15 minutes. All participants were unpaid volunteers.

Results

Each rating by each respondent of the forgivingness questionnaire was converted to a numerical value expressing the distance (from 1 to 11) between the point on the response scale and the left anchor, serving as the origin. These numerical values were then subjected to statistical analyses.

An exploratory factor analysis was first performed. Using the scree test to identify the number of factors arising from this analysis, three factors emerged which accounted for 60.2% of the variance (Table 19). The first factor explained 36% of the variance and loaded items expressing Unconditional Forgiveness. The second factor explained 15.1% of the variance and loaded items expressing Lasting Resentment. The third factor explained 9.1% of the variance and loaded items expressing Sensitivity to Circumstances.

Table 19: Results of the Factor Analysis and Means and Standard Deviations on the Whole Sample

| | Factors | | | | |
Items	I	II	III	*M*	*SD*
I can truly forgive even if the offender did harm intentionally.	.65			5.39	3.49
I can forgive easily even if the offender has not begged for forgiveness.	.93			4.50	3.62
I can truly forgive even if the consequences of harm are serious.	.86			4.75	3.55
I can forgive easily even if the consequences of harm have not been cancelled.	.80			5.50	3.37
I can easily forgive even when the offender has not apologized.	88			4.48	3.61
I do not feel able to forgive even if the consequences of the harm have been cancelled.		.68		3.31	2.76
I cannot forgive even if the consequences of harm are minimal.		.59		3.69	3.09
I feel unable to forgive even if the offender					

| | | Factors | | | |
Items	I	II	III	*M*	*SD*
has apologized.		.81		3.50	2.91
I feel unable to forgive even if the offender has begged for forgiveness.		.82		3.50	2.99
The way I consider the world has brought me never to forgive.		.59		2.45	2.35
I forgive more easily if the offender has apologized.			.65	8.30	3.00
I forgive less easily when I feel bad.			.64	4.22	3.53
I can forgive more easily when I feel good.			.75	5.61	3.74
I feel it is easier to forgive somebody I know well than somebody I do not know well.			.70	6.03	4.00
I feel it is easier to forgive once the consequences of harm have been cancelled.			.64	7.13	3.34
Eigenvalue	7.19	3.01	1.82		
Variance	35.96	15.07	9.12		

For each three factors a mean score was computed by averaging the corresponding item scores. Means, standard deviations by gender, and Cronbach's alphas for each forgivingness factor are presented in Table 20. The alpha values in the current study were .85 (Lasting resentment), .72 (Sensitivity to circumstances), and .91 (Unconditional forgiveness). Consistent with previous research (Mullet et al., 2003), no gender diffe-rences were found among the three forgivingness factors.

Table 20: Alpha Coefficients and Mean Scores by Gender for all Measures

	Alpha	Men – Mean (*SD*)	Women – Mean (*SD*)	*F*
Lasting resentment	.85	3.55 (2.54)	3.11 (2.0)	1.45
Sensitivity to circumstances	.72	10.92 (3.36)	10.43 (2.8)	.64
Unconditional forgiveness	.91	4.50 (3.1)	5.21 (2.0)	1.45

Note: *$p<0.05$; **$p<0.01$; ***$p<0.001$.

Pearson product-moment correlation coefficients were conducted among the three subscales to examine the amount of convergence (Table 21). As expected, lasting resentment and unconditional forgiveness displayed a significant correlation. This result indicates a moderate overlap between the two subscales. There is also a negative correlation between sensitivity to circumstances and unconditional forgiveness. Finally, lasting resentment and sensitivity to circumstances were not significantly correlated. This

pattern of correlations suggests that the three subscales are not assessing the same forgivingness facets.

Table 21: Intercorrelations Among Forgiveness Factors

	1	2	3
1. Lasting resentment	---		
2. Sensitivity to circumstances	.01	---	
3 Unconditional forgiveness	-.44***	-.23*	---

Note: *p<0.05; **p<0.01; ***p<0.001.

Table 22 shows the results of a correlational analysis computed between the participants' scores on the three forgivingness factors and some of the participants' characteristics. Age was only related to sensitivity to circumstances. Older participants tended to show higher scores in Sensitivity to Circumstances than younger participants. However, note that all participants were old people. Other significant relationships concerned unconditional forgiveness and educational level. People with a higher educational level tended to have lower unconditional forgiveness scores. Believers and people attending church on a regular basis showed higher scores in unconditional forgiveness and lower scores in lasting resentment. Furthermore, gratitude was related to unconditional forgiveness, and lasting resentment. Higher grateful tendency was associated with higher unconditional forgiveness and lower lasting resentment.

Table 22: Correlations Between Forgivingness Scores and Characteristics of the Participants

Characteristics	Lasting resentment	Sensitivity to circumstances	Unconditional forgiveness
Age	.09	.32**	.09
Gender	-.09	-.08	.12
Education	.12	-.15	-.28**
Believer	-.29**	-.03	.17*
Church attendance	-.29**	.15	.18*
Gratitude	-.45***	-.07	.35***

Note: *p<0.05; **p<0.01; ***p<0.001.

Three hierarchical regressions were conducted to examine whether gratitude predicted the forgivingness factors beyond the socio-demographic characteristics (gender, age, educational level, belief in God, and church attendance) (Table 23). Variables were entered into the hierarchical multiple regression analysis in two steps. In the first step, the five socio-demographic factors were entered. In the second step, the gratitude score was added. For lasting resentment, in step one, church attendance explained a significant amount of the variance. In step two, gratitude provided a significant amount of additional explained variance. For sensitivity to circumstances, in step one, age explained a significant amount of the variance. In step two, gratitude did not provide a significant amount of additional explained variance. For unconditional forgiveness, in step one, educational level and church attendance explained a significant amount of variance. In step two, the gratitude score provided a significant amount of additional explained variance of unconditional forgiveness.

Table 23: Hierarchical Multiple Regression Analyses Examining the Prediction of Forgiveness by Demographic Factors (step 1), and Gratitude (step 2)

	Step 1 Std β P	Step 2 Std β P	Step 1 Std β P	Step 2 Std β P
	Lasting resentment		Sensitivity to circumstances	
Step 1				
Gender	.05	.05	-.10	-.11
Age	.08	.04	.28***	.28**
Educational level	.11	.08	-.15	-.15
Belief in God	.18	.13	.01	.01
Church attendance	.24*	.15	-.10	-.09
Step 2				
Gratitude		-.37***		.07
R^2	.06*	.14***	.08*	.08*
	Unconditional forgiveness			
Step 1				
Gender	.08	.06		
Age	.11	.15		
Educational level	-.28**	-.25*		
Belief in God	-.12	-.03		
Church attendance	-.21*	-.13*		
Step 2				
Gratitude		.34***		
R^2	.12*	.18***		

Note: *$p<0.05$; **$p<0.01$; ***$p<0.001$.

Discussion

The current research approached forgivingness (dispositional forgive-
ness) among older people. The first purpose was to identify whether the
three-factor structure that emerged in adults was also in place in older
people. We also observed this. These findings were consonant with past
investigation (Munoz Sastre et al., 2005; Mullet, Rivière, & Munoz Sastre,
2006). Those samples, however, were described as largely composed of
young adults and adults. By contrast, in the current study the sample
consisted of older people.

The second purpose of the current study was to link the observed fac-
torial structure with socio-demographic characteristics of the participants.
Past investigation has evidenced that old individuals in general forgive
more than young individuals (e.g., Girard & Mullet, 1997; Mullet et al.,
2003). Nevertheless, participants in the present work consisted only of
older persons and within this age range a relationship between age and
forgivingness was limited to the sensitivity to circumstances factor. The
scores of this factor increased with age among older people. Education
did correlate significantly with unconditional forgiveness: the more edu-
cated the respondents, the less they displayed unconditional forgiveness.
Our second hypothesis was not confirmed as the lasting resentment and
sensitivity to circumstances factors were not related to educational level,
in contrast with previous findings (Mullet et al., 1998).

We expected that religious involvement would be linked positively
to unconditional forgiveness, and negatively to lasting resentment. This
expectation was confirmed by the data. These findings are consonant
with Mullet et al.'s (2003) results. Participants who believe in God and
attend church on a regular basis showed more unconditional forgiveness
than participants who do not believe in God and do not attend church.
Furthermore, participants who believe in God and attend church on a
regular basis declared less enduring resentment than participants who
do not believe in God and do not attend church.

This investigation also intended to scrutinize the relations between
forgivingness and gratitude. Our hypothesis was that of (a) a negative

correlation between lasting resentment and gratitude, and (b) a positive correlation between unconditional forgiveness and gratitude. This is what was observed. Furthermore, gratitude predicted lasting resentment, and unconditional forgiveness beyond socio-demographic variables. These findings add to past investigation of the grateful disposition in predicting the propensity to forgive beyond socio-demographic predictors.

This study has several limitations. First, the design of this study consisted of cross-sectional sampling of the population. No causal inferences should be made from the data. Second, generalisations of these findings to settings different from ours should proceed cautiously. Future investigation is needed to better elucidate how gratitude influences the process of forgiveness.

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PROMOTING ACTIVE AGING INSIDE PORTUGUESE RESIDENTIAL INSTITUTIONS FOR THE ELDERLY: IS THERE SOMETHING MISSING?

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Abstract

The definition of active aging endorsed by the World Health Organization (WHO) in 2002 requires from different professionals and institutions a systematic work with people along the process of ageing, involving the promotion of health, the assurance of conditions of security and the offering of opportunities for participation, including learning activities that promote personal development and well-being. Seniors living in residential care homes are not excluded from this definition and it is important to know how these institutions are trying to respond to the challenge launched by the WHO about a decade ago. This chapter is based on an empirical study carried out in eight residential homes for the elderly in the municipality of Coimbra, Portugal, and involved a sample of 146 old people who answered a structured interview protocol. The main objective of this research was to elicit elders' perceptions about their life in institutions, in order to outline possible changes with the goal of promoting their quality of life in the last years of their life in a context different from their family or their own homes. The focus of our analyses in this chapter is on the elders' answers about their participation in learning and recreational activities promoted by institutions where they live and also about their self-perceptions about their abilities to learn and to contribute to a dynamic environment inside the institution that goes beyond the 'assistentialist' perspective of these entities. Despite the small size of the sample, data showed that there is a long way to go in order to effectively

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offer opportunities for participation to institutionalized elders, whether it involves experiences of learning and of personal development, or ordinary decisions related to their daily life as individuals and full citizens.

Introduction

The active aging approach established by the World Health Organization (WHO) in 2002 recognizes the importance of the rights of older people and the principles of independence, autonomy, health, safety and continuous participation of people, along the aging process, in social, economic, learning, cultural, spiritual and civic issues, and not only their ability to be physically active or to have good health. Active aging is therefore intended to promote a new image of old age and is anchored in ideas of emancipation, citizenship and participation (Almeida, 2013). Participation in a broader sense means more than possible economic contributions of older people to society (productive aging), but also includes the performance of activities with the goal of developing their self-esteem, like volunteer activities in the community, and the full utilization of their capacities, with learning programs and recreational activities.

It is a well-known fact that being old is not synonymous with being intellectually unable to conduct a normal life or to be incapable of learning, when we are talking about an aging process without psychopathology (Simões, 1990; 1991; 2006). The participation of the elderly in activities that foster their sense of belonging to a community and their involvement as active citizens has been positively correlated with their quality of life when such activities are significant to them as individuals (Kelly, 1996; Oliveira et al., 2011; Phellas, 2013) and when the things they do have some continuity with their past positive experiences (Baltes & Baltes, 1990).

Considering the longevity of the population, we now can have people who may live more than two and a half decades after retirement with

health conditions good enough to maintain their intellectual capacities, mnemonic skills and learning abilities (Simões, 1999). The optimization of knowledge, abilities and competencies in old age is a request for the person to get older successfully in an active way and a highly preferable means of mitigating the effects of aging (Martins, 2010; Jacob & Fernandes, 2011). Concerning elders' participation in learning and recreational opportunities, Knowles (1990) outlined that the willingness to learn in adults (regardless of age) is greater when they understand its usefulness and the learning is related to real situations of their daily lives; also, the immensity of their experiences is a rich resource for their learning and the strategies that take advantage of this diversity of individual differences will be more effective in calling them to participation.

These preoccupations with old people's participation and the positive effects in their aging process of the activities they do of their own free will are not new matters in political agendas for the elderly. Many years ago, in 1976, one of the main recommendations of *UNESCO General Conference about Adult Learning*, held in Nairobi, declared that the conservation of the physical and intellectual faculties of the elderly was crucial, along with the continuation of their participation in public life and their access to knowledge domains or types of activities which were out of reach throughout their life (Simões, 2002). Almost three decades later, among the central themes running through the *Madrid International Plan of Action on Ageing*, 2002, it is possible to find the following proposal to foster a better aging process for all:

> "Provision of opportunities for individual development, self-fulfilment and well-being throughout life as well as in late life through, for example, access to lifelong learning and participation in the community while recognizing that older persons are not one homogenous group" (MIIPPA, 2002, pp. 17-18)[53].

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[53] Available in http://undesadspd.org/Ageing/Resources/MadridInternationalPlanofActiononAgeing.aspx (accessed September, 26, 2013).

In line with these previous political intentions we can find the five operating axes that were the core of actions of the *European Year of Active Aging and Solidarity between Generations*, 2012, in Portugal (AEEASG, 2012)[54]:

> - *Employment, Work and Lifelong Learning*: along the aging process people should have the right to work and to learn whenever they want and as long they want, regardless of age.
> - *Health, Welfare and Living Conditions*: along the aging process people should have the right to feel healthy and safe, meet their basic needs, have fun, and, if necessary, to receive care.
> - *Intergenerational Solidarity and Dialogue*: along the aging process people should have the right to participate in a society for all ages, contributing to it with their different talents and backgrounds in inter-action with others.
> - *Volunteering and Civic Participation*: along the aging process people should have the right to be a part of the community and to be involved in it to contribute to a better community.
> - *Knowledge and Social Awareness*: along the aging process people should have the right to have access to knowledge in order to act better and to be helped to become more conscientious.

Seniors living in residential care homes should not be excluded from these recommendations for the promotion of an active aging. This can be done by fostering participation among older ages and it is known that one of the implications of population ageing is the increasing number of the elders living nowadays in residential care institutions.

The process of institutionalization is a complex one and its impact on the individual depends on several factors, including personal and environmental. According to Lima (2010), the decision to go to live in an institution could be seen by the old person as a good opportunity to ensure his/her quality of life in later stages, but it should imply his/her

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[54] Available in http://www.igfse.pt/upload/docs/2012/Programa%20A%C3%A7ao AnoEuropeu2012.pdf (accessed October, 12, 2013).

participation in minor or large decisions, always requiring from the person the stimulation and the use of his/her cognitive abilities, the respect for his/her life experience and his/her freedom of choice.

Among the main characteristics of a good quality of life in residential institutions for the elderly, Kane (2003) outlined eleven: autonomy, dignity, privacy, individuality, security, physical comfort, interpersonal relationships, significant activities, functional competence, enjoyment and spiritual well-being. All these aspects are present in the challenge of the promotion of active aging launched by the WHO about a decade ago. So, with the goal of improving the field of Educational Gerontology (Simões, 2006), it is important to elicit data to understand how the residential institutions for the elderly are actually responding to such a task, overcoming the sanitarian, 'assistentialist' and 'remedial' perspectives traditionally associated with this type of institutions, which have been seen as the last resource for families to deposit their elders when they were no longer able to respond to their needs.

Methodology

This study was developed in the scope of a larger research project supervised by the now retired Full Professor António Simões (e.g., Simões et al., 2006; 2010). It involved a bigger team of researchers (in which were included the authors of this chapter) from the now extinct research unit Centre of Psychopedagogy of the University of Coimbra, Portugal.

Sample

The sample of this study was composed by 146 institutionalized elders without cognitive impairments, all living in eight residential care institutions in the municipality of Coimbra, in the north central region of Portugal. The majority of the participants were females (106; 72.6%) and males were the minority (40; 27.4%). Their ages range from 59 to 100 years old, with an average of 81.25 (78.90 for men; 82.11 for women) and a standard deviation of 7.65. About their civil status, 14 (9.6%) were married, 29 (19.9%) were single, 93 (63.7%) were widowed, 8(5.5%) were

divorced and 2 (1.4%) preferred not to answer. Concerning school level, 46 (31.5%) were illiterate, 30 (20.5%) attended school but did not obtain any formal qualifications, 39 (26.7%) completed four years of schooling, and only 25 (17.1%) had gone beyond compulsory school for their time, having more than four years of schooling. Six participants (4.1%) did not answer this question.

Among the reasons for the entry into the residential home, we can find in these seniors answers like the emergence of physical diseases (41; 28.1%), loneliness (51; 34.9%), the death of a relative (17; 11.6%) and other motives related to the incapacity of the family to take care of them (37; 25.4%).When asked about their freedom of decision concerning the institutionalization process, 98 elders (67.1%) said that they were in the institution by their own choice, 16 (11.0%) agreed that they were previously reluctant to enter to the institution and 31 (21.2%) mentioned that they were deceived by family members or relatives who did not tell them that they were going to the institution.

Instrument

In this study data were collected through a structured interview protocol composed by five distinct parts with low literacy demands, called *Interview about the Quality of Life of Elderly People Living in Institutions*. The first part of the protocol was conceived to obtain socio-demographic information about the respondents; the second part had questions related to the institutionalization process (type of institution; years of institutionalization, perception of autonomy in daily routines and rules, etc.); the third part was designed to evaluate subjective health; the fourth part involved questions related to social support networks; and the last part was dedicated to activities carried out by the institution and the level of participation of the elders.

The interview protocol was previously subjected to a pilot study with a small group of institutionalized elders, with whom a cognitive debriefing was done (George et al., 2013) in order to make the questions

more accessible, after the identification of problematic words, unclear meanings and testing the adequacy of alternative answers in each section. The final version of the interview protocol is composed by sixty closed-ended questions.

Procedure

The participants in this study were independently contacted inside the institutions where they lived. After an explanation about the main goal of the research they were asked to answer the interview individually, with the interviewer ensuring the respect for all ethical principles that guide research with human subjects. Despite some lack of privacy in some institutions during data collection, the elderly were in general pleased to be asked about their life in institutions (Sardinha, 2008). Previously the research team obtained the consent of the Directive Board of the institutions to contact the residents and to spend some time with them collecting data.

Results

The data selected for presentation in this chapter are divided in two main parts, directly connected to the main objective of this particular study. So not all the sixty questions answered by the elders in the scope of the larger research project mentioned previously are explored here. The first part of data is related to the perceptions of the elderly about their autonomy and freedom of choice in the institutions where they live, considering aspects directly involved in their daily life as residents. The second part of data involves answers about learning, civic and other types of activities which they usually do inside and outside the residential institution, about their self-perception concerning their own abilities to learn and about the things they do to occupy free time and how satisfied they are about that.

1. Elders' perceptions about institutional life and their autonomy and freedom of choice

As it is possible to see in Table 24, the majority of elders (53.8%) are happy in general with their resident condition in an institution for the elderly and only 12.4% declared to be unhappy with institutionalization. One third (33.8%) of the sample was not completely sure about the final answer and stated that they were more or less happy.

Table 24: *Elders' general evaluation about their institutionalization*

How do you feel about being institutionalized? (n=145)*	n	%
Happy	78	53.8
More or less happy	49	33.8
Unhappy	18	12.4
Total *(1 missing value)	145	100.0

When asked about their satisfaction (Table 25) with general functioning of the institution, almost three quarters of the respondents (72.6%) agreed that they were satisfied, 22.9% hesitated in giving a definitive answer to that question, and only 3.5% expressed their dissatisfaction.

Table 25: *Elders' satisfaction about the general functioning of the institution*

Are you satisfied in general about the institution functioning? (n=144)*	n	%
Yes	106	72.6
More or less satisfied	33	22.9
No	5	3.5
Total *(2 missing values)	144	100

Concerning the degree of freedom and control over their lives, data presented in Table 26 show clearly that the majority of the seniors answered that they had enough control over their personal issues and that they felt free to decide about their life.

Table 26: *Elders' perception about their degree of freedom and control over their life*

Do you feel that you have enough freedom and control over your life? (n=144)*	n	%
Yes	97	67.4
More or less	25	17.4
No	22	15.2
Total *(2 missing values)	144	100

In order to help them to reflect about the decision to enter the residential institution, seniors were asked what their decision might be if they could go back in time and choose to go, or not to go, to the institution. Their answers shown in Table 27 revealed that 59.7% of them would take the same decision, 15.3% of them would hesitate and a quarter of them (25%) would prefer an alternative solution to institutionalization.

Table 27: *Elders' opinion about their decision to go to the institution if they could decide again*

If you could decide again, would you choose to enter to the residential care home? (n=144)*	n	%
Yes	86	59.7
Maybe	22	15.3
No	36	25.0
Total *(2 missing values)	144	100

The evaluations of elders´ satisfaction about their relations with the other seniors that live with them inside the institution are reported in Table 28. Most of them (60.4%) confirmed that they are satisfied with their peer relations, 33.3% declared to be more or less satisfied and only a minor percentage (6.3%) revealed their dissatisfaction with this issue.

Table 28: *Elders' perceptions about their relations with other seniors inside the institution*

How do you feel about your relations with other seniors that live in this institution? (n=144)*	n	%
Satisfied	87	60.4
More or less satisfied	48	33.3
Unsatisfied	09	6.3
Total *(2 missing values)	144	100

Elders' perceptions about their relations with their family visits and contacts are described in Table 29. Concerning this matter, 69.2% of the seniors interviewed said they were satisfied, 22.4% declared that they were more or less satisfied and only 8.4% expressed their disappointment with these relations.

Table 29: *Elders' perceptions about their relations with their family*

How do you feel about your relations with your family? (n=143)*	n	%
Satisfied	99	69.2
More or less satisfied	32	22.4
Unsatisfied	12	8.4
Total *(3 missing values)	143	100

Other aspects of institutional life were approached in the interview, in order to ascertain old people's freedom of action and their participation in ordinary routines on a daily basis. Some of the answers can be found in Table 30.

Table 30. *Other answers about institutional life*

Separate questions about institutional life (n=144)*	Yes (n; %)	No (n; %)
a) Did you choose your room?	19 (13.3)	124 (86.7)
b) Are you alone in your room?	24 (16.8)	119 (83.2)
c) Did you choose the persons that sleep in your room?	18 (13.1)	119 (86.9)
d) Did you know anyone institutionalized herebefore entering the institution?	31 (22.5)	107 (77.5)
e) Do you usually contact other seniors of the institution just to talk or to ask for help?	92 (65.2)	49 (34.8)

*Missing values in these questions vary between 2 and 9. Questions b) and c) are mutually exclusive.

Despite their satisfaction with the situation of institutionalization and the regular functioning of the institutions previously highlighted, it is interesting to observe that the vast majority of the seniors participating in this study did not choose their rooms (86.7%), were not alone in their accommodations (83.2%), did not have the possibility to choose those persons who slept in the same home division with them (86.9%), and

did not know any person that had already been living there before they entered the residential home (77.5%). Answers are not so extreme when they were asked whether they were in the habit of contacting other seniors of the institution just to talk (chat) or to ask for help. To this later question 65.2% of the interviewed responded positively and 34.8% said they did not do that.

1.1 Elders' participation in learning and other types of activities

Data collected with our seniors in this research showed that they are not regularly involved in learning or recreational activities that could improve their quality of life, whether they take place inside or outside the residential care institution. In Table 31 almost the totality of them (98.6) declared that they did not participate in learning or recreational activities inside the institution.

Table 31: *Elders' participation in learning or recreational activities inside the institution*

Do you usually participate in any educational or recreational Activities inside the institution? (n=142)*	n	%
Yes	2	1.4
No	140	98.6
Total *(4 missing values)	142	100

In Table 32 it is possible to confirm that the participation of institutionalized elders of our sample in civic, volunteer or other types of activities that require coming out of the institution, the contact with other persons and the seniors' contributions to communitarian life is almost absent. In fact, 98.6% of them denied being involved in any such type of actions.

Table 32: *Elders' participation in civic or volunteering activities outside the institution*

Do you usually participate in any civic or volunteering activities outside the institution? (n=142)*	n	%
Yes	2	1.4
No	141	98.6
Total *(3 missing values)	143	100

It is interesting to analyze the data presented in Table 33, bearing in mind the answers shown in former tables. When asked to evaluate their ability to learn, 35.2% declared they were satisfied with it, 51.1% said they were averagely satisfied and only 13.7% confirmed they were not satisfied (i.e., they were unable to learn).

Table 33: *Elders' self-evaluation about their ability to learn*

How do you feel about your ability to learn? (n=139)*	n	%
Satisfied	49	35.2
More or less satisfied	71	51.1
Unsatisfied	19	13.7
Total *(7 missing values)	143	100

According to what was expected after the literature research and was mentioned in the introductory section of this chapter, in our sample we found a positive significant correlation between elders' self-perception of their health condition and their evaluation of their own abilities to learn ($r=0.242$; $p<0.01$). This indicator of association between variables is shown in Table 34. Therefore, the better seniors evaluate their health conditions, the more able they tend to feel in facing the challenges of learning tasks.

Table 34: *Correlation between elders' perceptions of their health condition and ability to learn*

Variables (n=139) (7 missing values)	Self-perception about the ability to learn
Self-evaluation of health condition	r=0.242**

**p<0.01

Results shown in Table 35 counteract any hope about the effective promotion of significant activities in residential homes for the elderly, based on the previous answer reported in Table 34. A scrutiny of the activities which institutionalized elders who responded to our interview protocol used to do to occupy their free time was the basis for the presentation of Table 35.

Table 35: *Activities performed by the elders to occupy free time*

How do you spend your time in the institution? (n=144)*	Yes (n; %)	No (n; %)
a) Watching television	69 (47.9)	75 (52.1)
b) Talking with friend/colleagues	48 (33.6)	95 (66.4)
c) Performing a particular hobby	46 (32.4)	96 (67.6)
d) Reading newspapers and magazines	26 (18.2)	117 (81.8)
e) Going for a walk	41 (28.7)	102 (71.3)
f) Practicing sports	13 (9.0)	131 (91.0)
g) Doing nothing	34 (23.6)	110 (76.4)

*Missing values in these questions vary between 2 and 3.

Among activities described by the seniors it is important to emphasize that the great percentages of them that do not have reading habits (81.8), do not usually go for a walk (71.3), do not have particular hobbies (67.6%), do not fraternize with peers, do not practice any sport (91%) and said they do nothing in their free time (23.6%). Although the lack of reading habits could be explained by the low literacy rates of the sample, other answers may not be expected in relation to institutions that work to ensure a life with quality for their residents. Watching television tended to be indicated by half of the respondents (47.9%) as a normal activity to occupy their free time.

Table 36: *Elders' satisfaction about the things they do to occupy their free time*

How do you feel in relation to the things you do to occupy your free time (n=140)*	n	%
Satisfied	85	61.6
More or less satisfied	35	25.4
Unsatisfied	20	13.0
Total *(6 missing values)	140	100

When asked how they feel about having such limited alternatives for occupying their free time and to exercise their full capacities (Table 36), most of our seniors declared themselves satisfied (61.6%) with the opportunities offered by the institution, 25.4% revealed some hesitation in communicating their satisfaction and only 13% asserted that they were definitively displeased with the issue under analysis.

Discussion

The entrance of an elderly into a residential care institution tends to constitute an important transition in the individuals' life because it generally implies his/her adaptation to a new lifestyle, with less autonomy in daily habits and the need to respect a set of rules that determine collective life inside the institutions. Such a change could also require the seniors to make some readjustments in their relations with relatives and friends and also accept the establishment of new routines. Undoubtedly, for this transition to succeed, old people should also be open to making new acquaintances and should be able to live with people who up until then had been strangers. These, of course, pose questions related to the respect of privacy, intimacy and dignity of old people, which constitute fundamentals rights of all persons, regardless of age, and should be carefully observed by the local and central authorities who supervise institutions for the elderly.

The promotion of an active aging of the institutionalized elders should include a concern for their participation in society by different means, beyond the response to their needs for safety and security. If this happens, seniors can feel useful to others and can exercise their full abilities, avoiding the tendency sometimes associated with the institutionalization process of a progressive withdrawal from external social life (Preti, 1991), as if there was a rupture with previous networks and an abrupt cancellation of previously performed social roles.

In accordance with other studies focusing on elders' perception about their institutionalization (e.g., Santana et al., 2012; Cunha, 2013), seniors

from our sample said that in general they were satisfied with the institutional contexts where they live, with their relations with peers, and with the contact they had with their families. But this study helped us to elicit information that deserves a careful reflection when we are dedicated as professionals to the promotion of an active aging of the population.

Despite the fact that in our sample there was a positive correlation between elders' self-perceptions of their own health conditions (cf. Table 34) and their ability to learn, almost all of them did not participate (98.6%; cf., Tables 31 and 32) in regular activities with educational or civic purposes. Surprisingly, more than a half of the respondents (61.6%) declared they were satisfied with that state of affairs and only 13% said they were unsatisfied (cf. Table 36).

From our perspective, these data are even more worrying if we compare seniors' self-evaluations about their own ability to learn (cf. Table 33) and the apparent complacency which appears in their agreement with the fact that it is not problematic for them not to do activities that encourage them to act as full citizens and that may keep them cognitively and civically active. Given this scenario, there seems to be in these elderly a certain resignation to this new but monotonous lifestyle and some accommodation to an 'assistentialist' environment where they receive care and support for basic needs, but where they do not have the opportunity to engage in critical thinking or participate in the everyday world of sharing knowledge and contributing to collective life.

According to article no. 72 from the *Constitution of the Portuguese Republic,* older people have the right to economic security and living conditions and to a family and community life that respect personal autonomy, avoiding and overcoming isolation or social marginalization; also, article no. 25 of the *Letter of Fundamental Rights of the European Union* states that the Union recognizes and respects the right of old people to have a dignified and independent life and also recognizes their right to participate in social and cultural life (Perista & Perista, 2012). Elders' participation in learning, recreational, civic and spiritual activities, among others, has positive impacts on cognitive functioning and in their self-evaluation of health, well-being and quality of life (e.g., Simões,

2006; Simões et al., 2010; Oliveira et al., 2011). But the existence of such opportunities for participation inside the residential institutions should be regulated beyond this knowledge and the aforementioned legal norms – and its absence should be legally penalized – by the official entities.

As it is possible to read in the *Manual of Good Practices: a guide for residential care for older people – For leaders, professionals, residents and family* (GCPAS/CID, 2005)[55], published by Portuguese Institute of Social Security, with European financial support:

> older people, when they are in situations that call for support, need quality responses. These responses should be developed with the perspective of the recognition of the right of elderly persons to full citizenship, equal opportunities, and participation in economic, social and cultural development. They also involve the access to necessary care, welfare and quality of life (p. 6).

Despite the small size of the sample, data obtained in this study showed that there is a long way to go in order to effectively offer opportunities for participation to institutionalized elders, whether it involves experiences of learning and of personal development, or ordinary decisions related to their daily life as individuals and full citizens. In fact, there are no 'standard seniors' that fit the requirements of a residential care home for seniors. Nor are there 'model' residential care homes, because they are located in specific socio-cultural contexts, with different resources and surroundings, and their potential 'clients' vary a lot from one to another.

So, it is not enough to develop social policies for social protection of the elderly; supervision and monitoring is also imperative, considering that seniors are not a homogeneous group and there are specific factors like low literacy rates, the emergence of chronic diseases or the lack of social support (outside and inside the institution) that could transform aging

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[55] Available in (accessed October, 21, 2013):
http://www4.seg-social.pt/documents/10152/13328/acolhimento_residencial_pes-soas_mais_velhas

into a very different process from one individual to another. In addition, there are more and more healthier and better educated elderly people, with better economic resources and who are perhaps more demanding (Simões, 2006) about their higher order needs (e.g., self-concept, self-determination, self-actualization), who live longer than in the past and who pose new challenges for society and for their caregivers.

Further research is needed in Educational Gerontology and other scientific fields to clarify which best practices can be developed in institutional contexts where seniors live, in order to promote their active aging and to ensure as much as possible the quality of their existence in the last years of their life. But, official entities that supervise residential homes for the elderly should also be aware about what kind of participation institutions are actually requiring from their residents with the goals of detecting situations of inefficiency and to reward and to disseminate good examples.

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