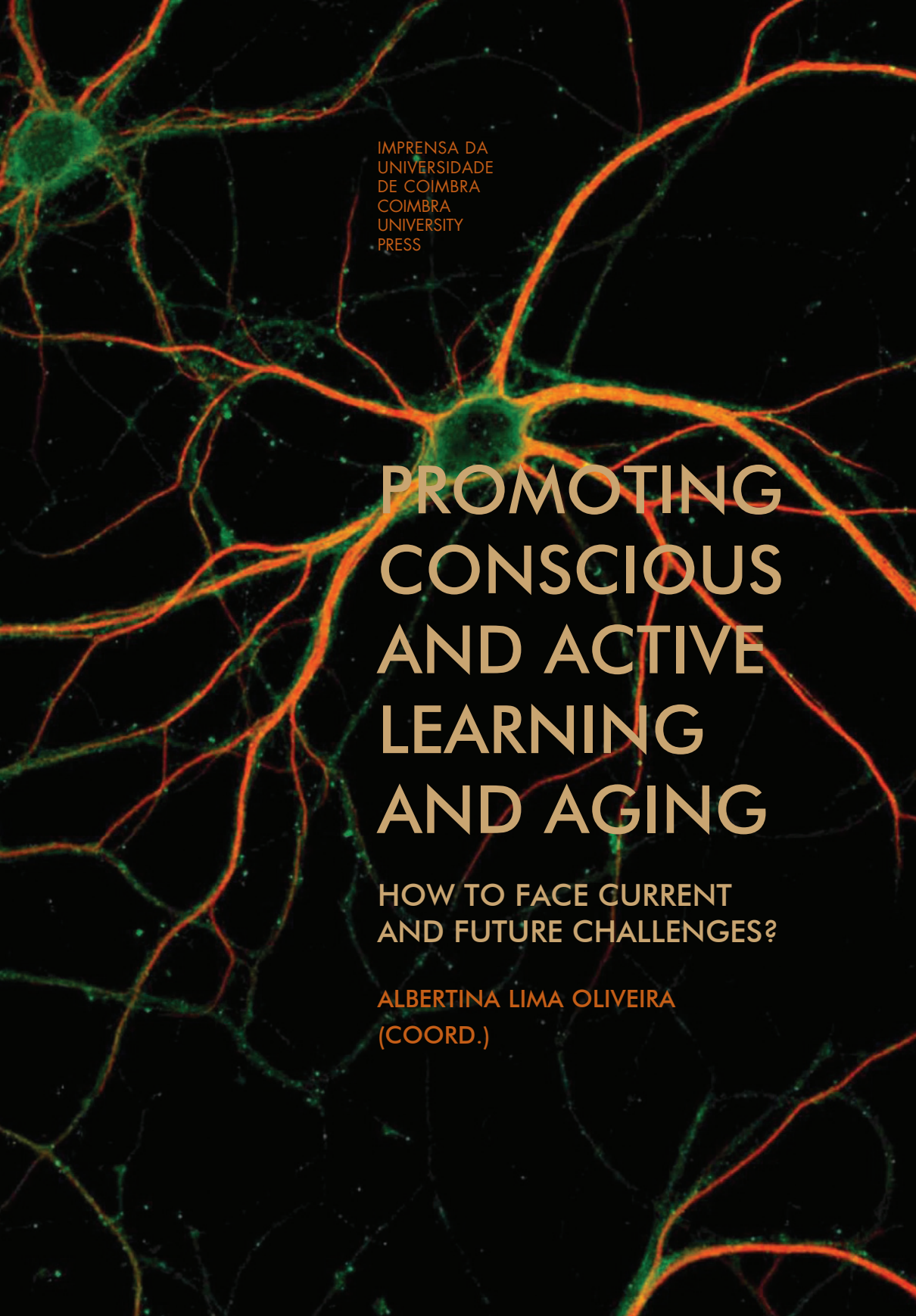

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HOW TO FACE CURRENT AND FUTURE CHALLENGES?

ALBERTINA LIMA OLIVEIRA
(COORD.)

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.

Keywords: Formal caregivers; Long-term care; Working conditions; Health

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).

		Self-Rated Physical Health		Self-Rated Mental Health	
Variable	n (%)	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	89	2[1,2]			
Yes	(52.4%)	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 circumstantial 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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