RIASE
REVISTA IBERO-AMERICANA DE SAÚDE E ENVELHECIMENTO
REVISTA IBERO-AMERICANA DE SALUD Y ENVEJECIMIENTO

CHRONIC PAIN, FAMILY FUNCTIONALITY AND LONELINESS IN ELDERLY PEOPLE FOLLOWED IN PAIN CONSULTATION

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VOL. 4 N.º 1 APRIL 2018

ABSTRACT

The aging process is characterized by physical, emotional and social changes. This observational cross-sectional study took place between March and June of 2017 and included 59 elderly patients in the Consultation of Pain at the Amato Lusitano Hospital in Castelo Branco. The objective of this study was to verify the relationship between Chronic Pain, Functional Disability, Loneliness and Family Functionality, in the elderly seen in pain appointment. Participants completed: Sociodemographic Characterization Questionnaire, Brief Mental State Questionnaire, Pain-Related Disability Index, UCLA Loneliness Scale, and Family APGAR. It was verified that women seek more the consultation of the pain, the complaints are mainly of non-oncological origin and present a greater functional commitment. The complaints of pain of cancer origin prevail in men. The pain is more intense in women, widows, in those who live alone or with their sons, and in non-oncologic chronic pain. Loneliness is greater in singles, in those who live with other relatives and have chronic non-oncologic pain. The family functionality is greater in married couples, those living in rural areas, with spouses and sons; is lower in individuals with oncological diseases.

Keywords: Elderly; pain; functional disability; loneliness; family functionality.

INTRODUCTION

The aging process is characterized by the high incidence of health problems, such as chronic and degenerative diseases, which often result in high levels of dependence[1].

Persistent pain is common among the elderly population. It is an unpleasant sensorial and emotional experience, resulting from sensory stimuli or neurological lesions and modified by individual memory, expectations and emotions, usually associated with an injury or a pathophysiological process[2]. It is a problem that daily affects thousands of people worldwide and according to the International Association for the Study of Pain (IASP), is one of the reasons why most people search for health care, being the most frequent and old complaint in Medicine history.

Pain is considered chronic when exists for 3 or more months, or when it persists beyond the normal course of an acute illness or the recovery of the injury that gave rise to it[3]. Its approach is getting more distant from a purely biomedical method, based on symptoms and pharmacological control, and have been approaching a biopsychosocial model,

through a team of multidisciplinary professionals capable of producing better results in the management of pain[4].

Chronic pain is common among elderly and it can have a strong impact on their quality of life. It's often associated with depression, decreased socialization and functional capacity, leading to isolation and the need of support and dependence on a third person, that is usually a member of the household[5].

Functional Capacity

The World Health Organization (WHO) emphasises the functional capacity and the independence of elderly as preponderant factors for the physical and mental health of this population.

The progressive reduction of functional capacity, which characterizes the aging process, is described by the WHO International Classification of Functioning, Disability and Health (ICF) as a "term encompassing all body functions, body structures, activities and participation. It indicates the positive aspects of the interaction between an individual (with a health condition) and their contextual (environmental and personal) factors". Opposing to it, disability is described as "a term that includes impairments, activity limitation and participation restrictions. It indicates the negative aspects of the interaction between an individual (with a health condition) and their contextual (environmental and personal) factors "[6].

A health care policy of the elderly must be implemented based on this assumption[7]. With regard to the causes, the loss of functional capacity may be associated, either alone or together, with the loss of a loved one, economic difficulties, an incapacitating illness, a mental disorder, or an accident that may have important implications for the family, the community , to the health system and to the life of the elderly itself[8].

The high rates of disability and functional limitations associated with the aging process often translates into a need of caring from others, with an impact on the family and the health system[9]. When the family system presents difficulties in accepting and understanding the aging process of one of its members, family cohabitation becomes conflictive and can have physical, emotional, social and economic repercussions at this stage of the family life cycle[10].

Family Functionality

Family is a social construction influenced by culture, historical context and relationships; in general, is synonymous of affectivity, companionship and solidarity. It works internally through three components: structure, development and adaptation[11] and can be classified as functional or dysfunctional.

A family is considered to be functional when there is an harmonious and balanced relationship between the members of a family, with defined tasks or clear functions accepted by their family members, to help solve problems using their own resources[12]. There is an emotionally stable response to conflicts and critical situations, and the members are able to live in harmony while remaining independent but committed to each other. They are families with relationships based on respect, knowledge and understanding, and play a fundamental role in the care of the elderly[11]. On the other hand, in dysfunctional family systems, members give priority to individual interests rather than the family group, do not assume their roles that are up to them and in crisis situations, they blame their own relatives. Ties are superficial and aggression and hostility between them are commonplaces. The fact that an elder belongs to this type of family system affects his ability to solve the difficulties associated with aging[11].

Loneliness

Loneliness can be described as a feeling of isolation or withdrawal from others, whether in their presence or not. It is an emotional state resulting from situations of incomprehension or rejection by others, and/or lack of appropriate or satisfactory social contacts for a given activity, especially those that provide a sense of social integration and opportunities for emotional intimacy[13].

It is characterized by unpleasant and distressing feelings[14], which result from the individual's perception of discrepancy between existing and desired social relationships. This is a subjective experience, which can not be predicted by objective indicators such as physical isolation[15].

With aging, elderly tend to decrease their social contacts; social relations and family support diminish, carrying feelings of insecurity, instability, anxiety, low expectations, fear and loneliness[14].

In personal terms there are two fundamental milestones in a person's life that may be the source of feelings such as loneliness: family and work, the two main axes that structure and define human existence.

Since the eighteenth century there have been changes in family structure, with repercussions on care and support provided to the elderly. One of the first milestones in family life is the departure of the children. The decreasing of the family members is often associated with the "empty nest" or post-partum period, usually faced by parents from age 50, when children leave home to study or work, with a profound emotional impact manifested in a decrease of sense of well-being and solitude[16].

With the ease of mobility of active population, the elders live increasingly alone or in a small family home and away from close relatives such as children or grandchildren. Elderly are either left alone in their own homes or institutionalized[13]. In rural areas, where, despite the existence of more social networks, at the family and neighbourhood levels, many dwellings are isolated and have difficult accesses due to the geographic isolation[17].

Another important milestone is the death of the spouse, lived by the elderly in a painful way for the end of a long term and loving relationship, and the loss of the person with whom they shared their secrets, concerns and intimacies. The elderly widows, in general, feel lonely and disappointed with life[17]. To the sadness for loss of a partner, the elderly is forced to assume their loss as definitive. In most cases, the elderly are confronted with the need to choose a new way of life: living alone, living with family member, or being institutionalized in a senior residence[18].

Concerning to work, retirement is an important and delicate change in the course of individuals' lives; in addition to cutting with their daily activities, there is a profound change in day-to-day tasks. On the one hand, the person is confronted with the disorganization of life and lack of initiative to face the new reality, dominated by a definitive rupture with work obligations and great amount of available time. Also, the abandonment of labour market entails a process of social untying[18].

Aging is then characterized by a process of physical changes and the loss of professional, family relationships and social roles. These changes become unavoidable and they attribute an intense affective loss to aging. In this way, the real challenge of aging is the confrontation and re-adaptation to these new conditions.

The maintenance of autonomy and independence are necessary conditions for a healthy aging process and a health care policy for the elderly must be both implemented and operationalized based in this assumption. Faced with this reality, it is important to understand the relationship between chronic pain, elderly followed in medical appointments for pain, functional disability, loneliness and family functionality.

METHODS

This is a quantitative, observational, cross-sectional study. It took place in the Unit of Chronic Pain and Palliative Medicine, Hospital Amato Lusitano in Castelo Branco and External Consultation of Fundão's Hospital, between March and June 2017.

The sample was intentional, consisting of 59 adults followed up at the Pain Management Consult Service, due to Chronic Pain of Oncologic or Non-Oncologic Cause.

People aged ≥55 years, with Chronic Pain, without cognitive deficit and who agreed to participate in the study (signed informed consent) were included.

Ethics considerations

The research was conducted within the standards required by the Declaration of Helsinki and was authorized by the Administrative Council of ULSCB and CHCB and the Service Directors involved. It obtained a positive opinion from the Ethics Committees of the institutions involved.

For data collection, a Free and Informed Consent was prepared, with an explanation of the study, its objectives and a guarantee of confidentiality of collected data. For each user, two copies were applied, one for the user himself and one for the researcher, all of them dated and signed by the participants (user and researcher). For the use of questionnaires, the authors of the Portuguese version were also asked to authorize.

Instruments

The data collection was done through the application of questionnaires, in a single moment (before or after the consultation). For the different measures, specific assessment instruments were used, namely: Brief Mental State Questionnaire (assessment of cognitive function)[20] , Sociodemographic Characterization Questionnaire, Pain-Related Disability Index (assessment of disability due to pain)[21], Family APGAR (evaluation of family functionality)[10] and the UCLA Loneliness Scale (loneliness assessment)[22]. All instruments are self-fulfilling; however, given the low levels of subject's education and the difficulty on reading and interpreting the instruments, we chose to use the interview.

For the data analysis, descriptive and interferential statistic were applied using the SPSS - Statistical Package For Social Science software.

RESULTS

59 individuals participated in the study. Sociodemographic and clinical characteristics are presented in the table below (Table 1).

Table 1 - Sociodemographic and clinical characteristics of the sample.

Gender		Age			Marital status		
Female	Male	Min.	Máx.	Average	Singles	Married	Widowers
66%	34%	56	94	77,15	5%	56%	49%
Habitation Environment		Living with			Underlying pathology		
Rural	Urban	Spouse	Institution	Children	Osteoarticular degenerative	Oncologic	
66%	34%	56	94	77,15	77,15	49%	

The complaints were located essentially at lower limbs (20.3%), lumbar spine (15.3%) and abdominal region (13.6%).

Regarding the follow-up of participants by other valences, it was found that 72.9% were accompanied by consultations of other medical specialties and only 6.8% were followed by more services, namely other Medical Specialties, Physiotherapy and Psychology.

The highest percentage of respondents who answered "no pain" were male, married, living with their spouses, had cancer pain and a highly functional family. Those who responded "maximum pain" were female, widowed, living alone or with their children and had non-oncologic pain caused by degenerative osteoarticular disease.

Participants who were followed only by consultations of other medical specialties classified the pain as "moderate", whereas those who were followed up in more valences (Medical Specialties, Physiotherapy and Psychology) classified their pain as "no pain".

93.2% of participants were mentally functional and 6.8% had average cognitive impairment.

The scores of the instruments used to evaluate each specific dimension are presented in the following table (Table 2).

Table 2 - Questionnaires scores.

	Min.	Max.	Average	Standard deviation
Pain-Related Disability Index (Total)	2	50	24,24	13,423
- Family/domestic responsibilities	0	10	6,19	3,148
- Vital activities	0	5	0,76	1,250
UCLA Loneliness Scale	33	72	59,66	8,388

Family APGAR:	Frequency	Valid percentage
- Highly functional family	45	76,3
- Family with moderate dysfunction	11	18,6
- Family with severe dysfunction	3	5,1

"Fellowship" and "Resolutive Capacity" were the Family APGAR dimensions where participants were less satisfied and "Adaptation" the dimension with greater satisfaction.

The statistical inference showed that:

- there were statistically significant differences in pain intensity; it is significantly superior in females, in degenerative rheumatologic and osteoarticular pathologies, and lower in oncological pathologies. It is also significantly higher in non-oncologic chronic pain situations. Although there is no statistically significant difference, pain intensity is greater in those living alone or accompanied by relatives other than the spouse or children and lower in those living in an institution;

- functional disability is statistically higher in females and in neurological diseases and lower in oncological post-surgical situations;

- although loneliness did not present a statistically significant difference, is greater in the singles, followed by the widowers and smaller in the married ones. It is higher in those living with other relatives and lower in those living in an institution. It is even greater in those who have chronic non-oncological pain;

- family functionality also did not present statistically significant differences, but it was found that married respondents, living in rural areas, with their spouses and children, and in post-surgery conditions, present a more functional family. Single people living in the city, alone or in institutions and who have oncological diseases, have a less functional family.

DISCUSSION

It was verified that 61% of the participants lived in small communities in a rural area of the Municipality of Castelo Branco and Fundão. We are facing a change in the family structure; the nuclear family gives rise to an extended family, where several generations co-inhabit. At the same time, those who live more distant from close relatives such as children or grandchildren are left alone in their own homes or are institutionalized[23]. 20.3% of the inquired live alone and 79.7% accompanied. The majority of the ones living with other people, lives with their spouse, children or in an institution, and the usual caregivers are also the spouse, children and employees of the institution where they live. Physical limitation tends to lead to dependence and help of others. When they live with their relatives, the elderly are happier and feel safer[13].

The highest percentage of painful complaints is associated with degenerative (47.5%) and oncological (27.1%) osteoarticular diseases and predominantly located in the lower limbs and in more than one region, followed by low back pain, just like Hall (2016) concluded[4]: the non-oncological chronic pain of higher prevalence are some neuropathies and degenerative musculoskeletal diseases, including chronic low back pain. The pain intensity is significantly higher in women than in men, as well as in non-oncologic pain cases. The data are in agreement with the literature, indicating that pain is more frequent and more intense in women[25]. Pain intensity did not vary significantly with marital status, however, it was found to be higher in people living alone than in those living with other people. Of those who live with others, the pain is greater in those who live with relatives and lower in those who live in institutions.

It was also observed that the majority of the participants (72.9%) were followed only by other medical specialties. Likewise, it was also observed that participants who were accompanied by a greater number of valences (Medical Specialties, Physiotherapy and Psychology) mostly classified pain as "no pain", instead of those who were accompanied only by other medical specialties and categorized the pain preferentially as "moderate pain" (86.7%). These data highlight the importance of multidisciplinary teams in the treat-

ment of pain, among them Psychologists, Physiotherapists, Social Work Technicians, Occupational Therapists, among others[4].

With regard to pain-related disability, women had a greater and significant pain-related functional impairment compared to men. The results obtained are in agreement with the previous studies, in which elderly women present a greater functional compromise than men, due to their greater survival, greater prevalence of incapacitating conditions, as well as widowhood itself[26]. It was also verified that the functional disability due to pain is superior in the participants with neurological disease and smaller in the postoperative oncological conditions. Taking into account the origin of the pain, there was a greater functional disability in the non-oncologic pain than in individuals with cancer pain.

Loneliness was not significantly different between genders, nor in the different civil states. However, it was shown to be higher in the unmarried, followed by the widowed and, with a lower level of loneliness, the married. People who live alone are more likely to focus on negative thoughts and to move further away from society[13]. At the same time, widowhood represents a personal, familiar and social break; often translated into an increase of painful complaints and depressive symptoms, depending on personal vulnerability and degree of family and social support[27]. The place where people live (rural or urban) has not shown to influence the feeling of loneliness; although there may be geographic isolation, it is in the smaller places that there are often more social networks such as family and neighbours[17]. It was also verified that the subjects, with pain with non-oncological causes, feel more alone, than those suffering from oncological pain.

Regarding family functionality, it was found that the dimensions in which subjects were less satisfied was in Fellowship (satisfaction with the way the family discusses issues of common interest and shares with the members the solution to the problem) and Resilience (satisfaction with the time they spend with their family). Adaptation (satisfaction with the help they receive from the family whenever something worries them) has proved to be the component where respondents are more satisfied with their family. The data reveal that although there is apparently a resilience or support from the family, when there is something to worry about, most respondents are not satisfied with the time they spend with their family, or how the family argues matters relating to the elderly.

The APGAR family mean was similar across the sample, regardless of marital status, but it was found that married couples have a more functional family than singles. According to Reese et al. (2010)[28], family support is primordial and fundamental for the maintenance of the individual's physical and psychological integrity[9]. Likewise, subjects who live with others have a more functional family than those who live alone, as well as

those living with their spouses and children have a more functional family than the participants living in an institution. People who have a limited social network do not receive so much support or emotional satisfaction[13] and in that sense, a meaningful network of contacts can be an important aid to the well-being of the individual.

It was also observed that the family APGAR mean did not vary significantly, although it was higher in rural users than in those living in the city. Despite geographic isolation, in rural areas there are more social networks at the family and neighbourhood level[17]. The highest percentage of individuals with a highly functional family had a degenerative osteoarticular disease. In turn, most of the subjects who responded to have a family with moderate dysfunction have an oncologic disease. Several studies show how pain and quality of the family relationship, specifically the conjugal relationship, may be associated. Pain can have negative effects on the level of satisfaction or quality of the relationship between a person with pain and their partner and, on the other hand, partners of people with pain can have direct effects on how a person experiences and deals with pain. Having a good family relationship can make the illness more tolerable by reducing the emotional components of pain and disability, but a bad family relationship, or even being unmarried, may increase stress or hinder self-management and the adaptive process of pain[28].

CONCLUSIONS

At the end of the study, it was found that women were the ones who sought the Pain Consultation the most, referred the most intense pain and presented a greater functional compromise. The main causes of pain are chronic non-oncological diseases, such as degenerative osteoarticular diseases. In turn, men have complaints of predominantly oncological origin.

The pain is more intense in women, widows, people living alone or with their children and in situations of non-oncological chronic pain.

Loneliness is greatest in singles, in those living with relatives other than the spouse or children and in those who have non-oncologic chronic pain. It is lower in those who live in institutions and have chronic pain of oncological origin.

Finally, family functionality is greater in married couples, those living with their spouses and children and the ones living in rural areas. It is lower in individuals with oncological pathology.

Recommendations

For the conduct of this investigation, instruments frequently advised for the elderly population were used. However, in most individuals, there was some difficulty in understanding what was questioned. It may be important to apply instruments of simpler filling and understanding to the population of this age group, considering that schooling levels are usually very low in aging populations.

The structures (pain management consultations) where the sample was collected only have medicine and nursing professionals, needing to resort to other services when it is necessary to support from other areas or specialties. The organization of multidisciplinary teams would be recommendable, as a way to perform integrated therapeutic approaches.

Besides loneliness, depression appears closely linked to the aging process. It would be important to have a more active participation, from an emotional and social point of view, namely in psychology, gerontology and social work, to try to understand the reasons leading to family dysfunctions and which are the best mechanisms to minimize or solve them. The fact that most users of these Consultation, particularly in cases of non-oncological pain, is increasingly consisting in older people, reinforces in our opinion the need for the multidisciplinary approach to help meet the varied needs and problems of individual and demographic aging processes.

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