

# Explaining of chronic pain management process in older people: A grounded theory Study

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## ABSTRACT

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**Background:** With regard to the multi-dimensional and complex nature of chronic pain management process in the elderly, the identifying of its various aspects is essential for proper management of this type of pain. The current study aimed to explain the chronic pain management process in the elderly.

**Methods:** This study was conducted based on grounded theory approach in health care centers of Ahvaz in 2013-2014. Participants including 62 persons consisted of 30 elderly people who were confirmed about the lack of cognitive disorders through using I.V.A.M.T.S , 3 persons of their relatives and 29 persons of health care providers. Data collection was done through using semi-structured interview, observation and field note. Data analysis was performed based on Strauss and Corbin's method of analysis.

**Results:** Data analysis showed that the "comprehensive support" is considered as an important and facilitating factor in the process of chronic pain management in the elderly which consists of four sub-categories as "being with family", "team work", "targeted treatment" and "social support".

**Conclusion:** Chronic pain Management in the elderly will not be achieved without helping of effective supportive resources. . Making appropriate decisions can be effective in order to identifying and gaining support from these sources for effective management of pain.

## 1. Introduction

Chronic pain is a common experience and serious problem in the elderly. Its prevalence is higher among this population and increases with age.<sup>1</sup> Improper treatment of chronic pain leads to decreased mobility, avoidance of activities, falling, depression, anxiety and sleep disorders. Moreover, chronic pain can cause disability in the elderly, which is mostly associated with heavy economic burden on the society.<sup>2</sup>

Public policies of the healthcare system should be designed for chronic disease prevention and control in order to reduce the prevalence and consequences of such diseases in the society.<sup>3</sup> Considering the multiple complications of chronic pain in the elderly and its effects on the healthcare system, this issue must be appropriately managed and controlled, resulting in enhanced health and quality of life of patients.<sup>4</sup> Since pain management is

associated with improved quality of life, increased ability to work and productivity, it is beyond relieving pain.<sup>5</sup>

Pain management consists of a set of complicated correlations and processes, achieved through teamwork and continuity in providing care.<sup>6</sup> Evidence-based measures must be taken in pain management, which should be presented through a standardized process based on patient needs. In this regard, collaboration between the members of healthcare team and patients is crucial to planning healthcare interventions.<sup>7</sup>

Pain management in the elderly is often a challenge due to reduced organ function, impaired cognitive status, presence of comorbidities, increased vulnerability to medication side effects, and multiplicity of medication, which might interfere with the process of pain management.<sup>8</sup> Currently, all aspects of chronic pain management are not taken

into account for the elderly. Therefore, implementation of a comprehensive care plan with special attention to the influential factors in chronic pain could lead to effective management of chronic pain in the elderly.<sup>9</sup> Nurses are the most important members of the healthcare team, who are responsible for pain management of the patients. As such, these healthcare providers must be appropriately trained to acquire proper skills to evaluate pain and its effects, use methods of pain relief, and assess the effectiveness of these approaches.<sup>10</sup>

In this regard, raising awareness about the methods of chronic pain management in the elderly can significantly increase the quality of life in this population and decrease the associated healthcare expenses in the society.<sup>11</sup> Application of evidence-based qualitative and quantitative studies is the most efficient method to learn about the process of chronic pain management.<sup>12</sup>

In a study by Park *et al.* (2013), social support, positive attitude and available resources were recognized as non-pharmacological measures of chronic pain management in the elderly.<sup>13</sup> Furthermore, Bair *et al.* (2009) conducted a qualitative research, in which the facilitating factors to chronic pain management were identified as encouragement of patients by nurses, reducing depression through therapy, patient support by family and friends, and providing a list of different measures in relation to the methods of chronic pain self-management for patients suffering from depression and chronic pain.<sup>14</sup>

Chronic pain is a common problem among nursing home residents in Iran, which is significantly associated with depression and reduced quality of life.<sup>15</sup>

Considering the growing population of the elderly, having access to detailed, transparent and comprehensive data on chronic pain and its management is of paramount importance. However, there is insufficient information in this area and further research must be conducted to design appropriate pain management interventions based on the individual needs of elderly patients.<sup>16</sup>

Despite the fact that few studies have been conducted in this regard, employing a qualitative approach and studying the experiences of patients, who are constantly faced with issues and problems caused by chronic pain, could help identify various aspects of chronic pain management. As chronic pain has a multidimensional, complex nature, it might be influenced by many physical, psychological, biological, social and religious factors.<sup>17</sup> Application of qualitative methods in cases with inadequate knowledge of this issue could be beneficial.<sup>18</sup> In this regard, Boswell and Cannon

(2014) have declared that qualitative methods are more appropriate to explore the complex issues related to human nature.<sup>19</sup> With this background in mind, this study aimed to evaluate the process of chronic pain management in elderly patients.

## 2. Methods

### 2.1. Design

This mixed-method, sequential, explanatory study was conducted based on the grounded theory approach to determine the process of chronic pain management in healthcare centers of Ahvaz, Iran during 2013-2014.

Chronic pain management in the elderly is a procedural phenomenon in nature, mostly occurring during social interactions with actual environments.<sup>7</sup> The grounded theory approach was used in this study due to its applicability for in-depth study of this process in a natural environment

### 2.2. Participants and setting

Participants were selected via purposive sampling, followed by theoretical sampling.<sup>20</sup> In total, 62 participants were enrolled in this study, including 30 elderly patients, 3 patient companions, and 29 healthcare providers engaged in various educational and non-educational healthcare centers of Ahvaz.

Inclusion criteria were age of  $\geq 60$  years, a history of non-malignant chronic pain, full consciousness, ability to speak Persian, proper mental stability to share experiences (based on clinical diagnosis), no cognitive disorders or confirmed mental diseases, and no visual or auditory disorders as determined by a physician. Participants were selected based on the type of experienced pain at the time, with maximum diversity in terms of pain-related factors, including age, gender, marital status, socioeconomic status, and living conditions (with spouses or family members).

A shortened Persian version of the abbreviated mental test (AMT) was used to assess the risk of cognitive impairment. This 10-item questionnaire was first designed by Hodkinson in 1972,<sup>21</sup> sensitivity and specificity of which were determined by Qureshi and Hodkinson in 1974.<sup>22</sup>

AMT is used to evaluate the cognitive status and awareness of the elderly. This questionnaire, which was first translated and standardized in Persian by Foroughan *et al.* (2008), includes short-answer items, and one score is allocated to each item. Reliability of this questionnaire has been confirmed ( $\alpha=0.78$ ),<sup>21</sup> with the sensitivity and specificity of the cut-off point determined at 90% and 84%,

respectively.<sup>23</sup> In addition, validity of AMT was calculated at the Cronbach's alpha of 0.79.

Inclusion criteria for the companions of the elderly (mostly their children) were active participation in pain management, appropriate knowledge of elderly care in case of chronic pain (evaluated based on responses to questions regarding the modality of chronic pain and different methods of pain management), and willingness to restate this information.

Meanwhile, inclusion criteria for healthcare team members were nursing experience in chronic pain management of elderly patients, being an expert or having adequate information regarding the treatment of chronic pain in elderly patients (determined by evaluating patient satisfaction of pain management and conducting interviews with faculty members to identify such experts), and willingness to restate this information.

### 2.3. Data Collection

Preliminary data obtained from interviews with the elderlies prompted the researcher to conduct subsequent interviews with some of the companions of patients and healthcare team members; in doing so, the participants could help clarify the further emerging of the applied theory. On the other hand, considering the complex nature of chronic pain and its widespread prevalence, its diagnosis and management often require a multisectoral, comprehensive approach.<sup>24</sup> Therefore, we used the triangulation method (three mainstreaming) in the selection of participants.

Interview setting was selected to assure the convenience of participants. Interviews were performed in nursing homes, personal residence of the elderlies, hospitals or parks of Ahvaz (selected based on participants' desire) due to the employment of some healthcare providers in various health centers, hospitals, and nursing homes.

Data collection continued through semi-structured interviews and observation of unstructured behaviors until data saturation. Face-to-face interviews were carried out, starting with basic questions and continuing with more specialized questions based on the determined categories and study objectives.

Interviews were initiated by asking the following questions: "Would you please explain what you do to control your pain?" (elderly patients). "What do you do to manage the pain of your elderly relative?" (patient companions). "What experience do you have regarding the control and management of chronic pain in elderly patients?" (healthcare team members).

In the next stage, follow-up questions were asked based on the information provided by the participants to clarify the evaluated concept. Subsequent questions in interviews, which were designed based on the extracted categories, were as follows: "Which contributing factors help you in the process of chronic pain management?" and "Which aspects do you consider in selecting the method of chronic pain control for elderly patients?"

Duration of each interview was 30-50 min depending on the tolerance and interest of participants.

In order to ensure the accuracy and compliance of the transcript in the transmission of responses, statements of the participants were transcribed verbatim from a tape in the spoken language of the participants from digital transcript until data analysis. Afterwards, transcripts were read several times for full comprehension, followed by the immediate use of MAXQDA-10 qualitative data analysis software to organize and analyze the data.

In the conducted observations, non-verbal reactions, attitudes and communication of participants during the interviews were discussed and recorded immediately after the interviews. Obtained data were analyzed by the researcher using the mentioned software.

### 2.4. Ethical considerations

In the research process, confidentiality terms were observed, and subjects were allowed to withdraw from the study at any time. Moreover, validity of this study was confirmed by the officials of Shahid Beheshti University of Medical Sciences (Tehran, Iran) and Ahvaz University of Medical Sciences. Written informed consent was obtained from the authorities and participants before data collection.

### 2.5. Statistical analysis

Data analysis was performed concomitant with data collection using the approach proposed by Strauss and Corbin (2008).<sup>25</sup> In addition, obtained data from the interviews and observations were simultaneously analyzed through constant comparison and memoing of data. In open coding, possible research issues were determined and assigned specific codes. In this regard, two coding systems were used; the codes were either allocated to the participants' words or were implicit codes understood by our researcher.

In axial coding, the coded data were compared, and initial coding was limited to the categories. Similar categories were grouped together, and each category was compared with the others in order to ensure discrimination between categories and

emergence of more abstract ones. Furthermore, the main categories were linked with subcategories based on the paradigm of “contextual condition”, “phenomenon”, “strategies applied to control the phenomenon”, and “consequences of the approaches”.

On the other hand, the researcher focused on the hidden process of data and attempted to identify the pivotal category in selective coding. In this regard, frequent review of the data, codes and emerged categories, and memoing and evaluating the observation results were assessed by the researcher to identify the central category of this study.

Validity of research was determined based on Lincoln and Guba's evaluative criteria in terms of credibility, transferability, dependability and confirmability.<sup>26</sup>

Validity of findings was ensured through long-term interactions with the participants (one year) in order for the detailed understanding of their experiences. In addition, our sampling method (i.e., integrated approach for selecting participants and data collection) was applied in the categorization of participants in a wide range of samples and gender variations to increase the validity of data. In addition, responses of the participants were reviewed to determine the validity of findings and verify the accuracy of data and codes.

Manuscripts of some interviews were revised by other observers to establish the reliability of data. To do so, codes and extracted categories were evaluated by three faculty members in addition to the researcher, which resulted in 86-90% agreement of the extracted results. Agreement rate was calculated using the method proposed by Polit and Hungler.<sup>26</sup> In this regard, 92 codes were extracted from each interview by the researcher, while the second coder agreed with 81 cases for these codes (88.04% estimated agreement rate).

### 3. Results

In this study, 16 participants were male and 14 were female with mean age of  $67 \pm 4.6$  years. In terms of educational level, 27 individuals had diploma and below diploma degrees, while 3 cases had academic education. On the other hand, mean age of patient companions ( $n=3$ ) was  $40 \pm 14.36$  years, including one man with academic education and two women with high school or below diploma degrees. Demographic characteristics of the participants are shown in Table 1.

Data analysis resulted in the recognition of four main categories, as follows: 1) being with the family, 2) teamwork, 3) targeted therapy, and 4) community support. In addition, eight subcategories

were identified, each one establishing a part of the overall management of chronic pain in the elderly. Analysis of emerged categories was carried out during axial coding based on the similarities and differences of categories and paradigm model (Table 2).

#### 1.3. Being with the family

According to the results, it was indicated that living with the family could lead to better management of chronic pain in the elderly, so that treatment implementation and follow-up processes were highly facilitated. This category consisted of two subcategories, including family support and maintaining the dignity of the elderly.

##### 1.1.3. Family support

Due to the financial problems observed in elderly adults, support of the family and providing financial assistance could significantly increase their quality of life. In this regard, one of the elderlies affirmed:

*"My son pays all my medical expenses. I can endure the pain better when I am with my family, my children and grandchildren."* (gender: male, age: 69 years, disease history: 10 years)

Another positive impact of being with the family is performing the rehabilitation and follow-up treatments at home, as well as medical centers. In this respect, one of the elderlies declared:

*"My daughter always takes me to my doctor appointments and purchases my medication. I have no idea what to do when she is not around."* (gender: female, age: 71 years, disease history: 15 years)

##### 2.1.3. Maintaining the dignity of the elderly

One of the basic needs of the elderly is respect and dignity. Evaluation of the interviews revealed that living with the family could contribute to meeting the needs of the elderly, better management of chronic pain, and maintaining their dignity. In this regard, one of the companions claimed:

*"We always try to respect my father, and when it comes to taking him to the doctor, we always consider his problems first because we are all indebted to him."* (gender: male, age: 35 years, educational level: academic)

#### 2.3. Teamwork

Data analysis revealed that teamwork in the form of participation in different sections could lead to scientific management of chronic pain in the elderly, thereby decreasing the complications of

diagnosis and treatment. This category consisted of two subcategories, including therapy based on the needs of the elderly, patients and their families and collaboration of different specialties.

### 1.2.3. Therapy based on the needs of the elderly, patient family and disease

One of the causes of failure in chronic pain management in the elderly was negligence and lack of attention to the supporting networks, as well as disregarding the characteristics of the elderly and their families. In this regard, a neurosurgeon stated:

*"People are multifaceted, and if we consider all the aspects of the life of patients and their families to recognize the nature of pain and disease as a whole, we can help them in a better way."* (gender: male, age: 45 years, clinical experience: 15 years)

In addition, a psychiatrist noted:

*"In the pharmacological treatment of the elderly, we start from very low doses and gradually increase the dose. We frequently observed this principle."* (gender: female, age: 42 years, clinical experience: 10 years)

In this respect, our researcher identified an elderly woman, hardly walking with a cane in one of the healthcare centers. She stated:

*"Most of the time, it is really difficult to get my medication due to my foot pain."*

Following that, the mentioned elderly showed her prescription with a very sad face, saying: *"I went to several pharmacies to buy these medications but I couldn't find them. Now, I came back to the doctor so that he could write another type of medication for me."* (gender: female, age: 65 years, disease history: 10 years)

### 2.2.3. Collaboration of different specialists

Given the variety of underlying diseases in the elderly, providing care and treatment by a specialized team is of paramount importance. In this regard, an orthopedic specialist declared:

*"Pain management in the elderly requires teamwork. Colleagues from other specialties should be involved in the treatment process, and there should be collaboration between them so that the treatment could be efficiently carried out."* (gender: male, age: 52 years, clinical experience: 25 years)

### 3.3. Targeted therapy

Data analysis revealed that targeting of different levels of care could help demonstrate the expected results and prevent wasting time, energy and expenses. Another category obtained from analysis of data was targeted therapy, which included two subcategories of demonstration of the therapeutic

objectives and reasonable scientific expectations of the treatment.

### 1.3.3. Demonstration of therapeutic objectives

Data analysis indicated that demonstration of targeted and expected treatment outcomes might be associated with less potential problems in chronic pain management, while it could be beneficial for the evaluation of treatment results. In this regard, a neurologist stated:

*"We should have an objective in treating elderly patients. Treatment alone is senseless in every way."* (gender: female, age: 45 years, clinical experience: 15 years)

### 2.3.3. Logical and scientific expectations of treatment

Factors such as compliance and confidence could be incorporated into care in order to rationalize the beliefs and expectations of elderly patients and their families regarding treatment. In this respect, a general practitioner suggested:

*"The elderly and their families must be completely convinced that their pain will not be assuaged completely, but it could be controlled."* (gender: male, age: 49 years, clinical experience: 20 years)

### 4.3. Social support

In this study, the majority of participants were faced with a plethora of disabilities and limitations, which increased their need for social institution services. Social support category (as emerged after data analysis) consisted of two subcategories of enjoying a dynamic environment and support from social institutions.

### 1.4.3. Enjoying a dynamic environment

Environmental dynamism is associated with increased vitality, motivation, and confidence, resulting in enhanced cooperation of the elderly in performing and following-up care plans. However, one of the major problems of the elderly is lack of specialized healthcare centers in the community. In this regard, an elderly stated:

*"When we visit doctors, they write some prescription, and they each work in different parts of the city. It would make a lot of difference if there was a place especially for the care of senior citizens."* (gender: female, age: 67 years, disease duration: 8 years)

Furthermore, an anesthesiologist affirmed:

*"It would be a great idea to establish healthcare centers specifically for senior citizens. In other words, such centers should be managed as multi-*

disciplinary clinics." (gender: male, age: 50 years, clinical experience: 17 years)

#### 2.4.3. Social institution support

Most of the subjects in this study were faced with financial difficulties. Cooperation and financial support of community health insurance were among the facilitating factors in this area. In this respect, a social worker stated:

"There are seniors who know the way to deal with the system; one goes and pulls some strings and obtains a letter of recommendation from the president reducing their treatment costs to almost zero; another one does the same with a letter from a member of the parliament." (gender: female, age: 41 years, clinical experience: 12 years)

In addition, a pharmacologist noted:

"Medication prices rise every day and, unfortunately, the purchasing power of retired seniors is declining. As such, general and supplementary insurance should cover these expenses." (gender: male, age: 58 years, clinical experience: 30 years)

The majority of healthcare members argued that teamwork could increase the support of members towards one another through assigning responsibilities and facilitating chronic pain management.

In this regard, a psychologist remarked:

"Chronic pain should be considered as a comprehensive pain, not a one-dimensional health matter, in the elderly, which could not be related to

only one psychologist, nurse or doctor." (gender: female, age: 34 years, clinical experience: 4 years)

Moreover, an anesthesiologist claimed:

"In the management of chronic pain in the elderly, all aspects of emotional and perceptual pain must be taken into account, which requires complete support." (gender: male, age: 45 years, clinical experience: 15 years)

Based on the aforementioned remarks, it could be inferred that the main concern of all participants was lack of proper support, which affects various aspects of chronic pain management. As such, comprehensive support services play a pivotal role in the management of pain in the elderly. These services could be provided in different forms for the elderly, their families and healthcare team members.

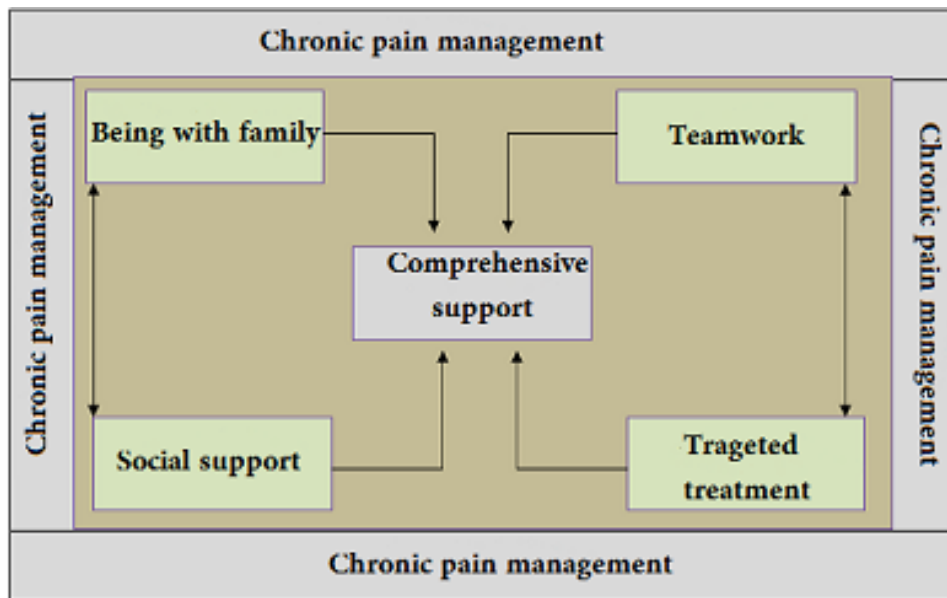
All the strategies used by the elderly (enjoying family support and a dynamic environment), their families and companions (supporting and maintaining the dignity of elderly and efforts to benefit from social institution support) and healthcare team members (treatment based on the needs of elderly, their families and disease, collaboration between different specialties, demonstration of therapeutic objectives, and scientific and rational expectations of treatment) highlight the beliefs, hopes and attempts to receive support for the management of chronic pain in the elderly. Therefore, need for comprehensive support services should be considered as the main theory of this study, as well as an appropriate method to prevent complications.

**Table 1.** Demographic characteristics of the participants

Variable		N (%)		Variable		N (%)	
The elderly	Gender	Male	16 (53.3)	Nurse	Gender	Male	1 (3.4)
		Female	14 (46.7)		Female	2 (6.8)	
	Educational level	High school diploma or below diploma	27 (90)		Educational level	Bachelor's degree	2 (60.8)
		Academic education	3 (10)		Master's degree	1 (3.4)	
Age (year)	M±SD	67±6.4	Age (year)	M±SD	42.33±7.12		
Companions	Gender	Male	1 (33.3)	Physician	Gender	Male	9 (30.6)
		Female	2 (66.7)		Female	3 (10.2)	
	Educational level	High school diploma or below diploma	2 (66.7)		Educational level	PhD	12 (40.8)
		Academic education	1 (33.3)		Age (year)	M±SD	45.08±5.9
Age (year)	M±SD	40.67±14.36	Other personnel	Gender	Male	6 (20.4)	
				Female	8 (27.3)		
				Educational level	Bachelor's degree	3 (10.2)	
				Master's degree	3 (10.2)		
				PhD	8 (27.2)		
				Age (year)	M±SD	42.75±11.9	

**Table 2.** Formation process of categories and subcategories

Categories	Subcategories	Primary categories
Being with the family	Family support	Financial assistance for the elderly Rehabilitation
	Maintaining the dignity of the elderly	Respect for the elderly Prioritizing the elderly
Teamwork	Therapy based on the needs of the elderly and their families	Considering characteristics of the elderly Considering social networks
	Collaboration between different specialties	Team of experts Intersectional collaboration
Targeted therapy	Demonstration of therapeutic objectives	Recognition of expected treatment outcomes Participation of the elderly in goal setting
	Logical and scientific expectations of treatment	Determining therapeutic compliance Enhancing confidence
Social support	Interactive environment	Healthcare facilities Welfare services
	Social institution support	Cooperation of health insurances Financial support for organizations



**Figure 1:** Map the concepts of chronic pain in the elderly

**4. Discussion**

Four main categories in the present study included being with the family, teamwork, targeted therapy, and social support, each of which had a partial role in the process of chronic pain management in the elderly. According to our findings, effective management of chronic pain in the elderly requires complete support from the family, medical personnel and social institutions.

In this regard, Bair *et al.* (2009) reported that the support received by elderly patients with chronic pain could have a significant impact on their pain self-management behaviors.<sup>14</sup> In contrast, the results obtained by Rosland *et al.* (2010) in America revealed that these support services may

occasionally act as facilitators and often as barriers to self-management in patients.<sup>27</sup> This discrepancy in the results might be due to the differences in sample populations and lack of attention to the diversity of individual needs of the elderly.

Another category evaluated in the current study was being with the family. Spending time with the family is associated with partial benefits for the elderly regarding different types of family support, financial assistance, and healthcare follow-ups and rehabilitations. In line with these findings, Panpanit (2012) affirmed that the most effective support for patients with chronic pain is received from immediate family members.<sup>28</sup> Elderly patients often feel more comfortable with their family members and are content with their support. In a study in

India, Lena *et al.* (2009) reported that a large number of elderly people received no assistance from their families.<sup>29</sup> This lack of consistency between the results of the mentioned study and our research could be due to cultural, religious and social differences in participants. In addition, even living with the family might not lead to the full support of the elderly due to the large number of family members and financial problems.

In the present study, teamwork was recognized as an appropriate method to improve the care provided for the elderly and achieving the desired results. In this regard, Unné and Rosengren (2013) emphasized on the efficacy of teamwork in the management of chronic pain as a way to improve the treatment progress.<sup>30</sup> Given the complexity of chronic pain management, teamwork is of paramount importance to achieve optimal therapeutic outcomes. Teamwork can be employed in areas such as demonstrating the nature and type of treatment, implementation of treatment, and follow-up of patients.

Results of a study in America indicated that while the majority of medical centers employ different specialties to provide care, few of them are able to implement intersectoral processes.<sup>31</sup> In fact, one of the limitations of teamwork is difficulty in coordinating between different sections. In addition, healthcare providers are faced with numerous challenges in the implementation of this method, including lack of knowledge regarding the execution of the methods, communication problems, lack of logical satisfaction of group individuals, current bureaucracies, and incoherence in management.

Another contributing factor to using teamwork for the elderly is selecting therapies based on the needs of the elderly, their families, and disease. Consistent with the results of the present study, Kress *et al.* (2015) conducted a research in Austria and concluded that implementation of a patient-based treatment, building a good relationship with patients, and creating trust between the patient and therapist are essential in order to assess, diagnose, and manage all the aspects of chronic pain.<sup>32</sup> In this regard, considering the goals and values of patients could build trust in the elderly and their families, encouraging them to actively participate in the implementation and following-up the care process.

Denig *et al.* (2014) conducted a research in Netherlands, the results of which were indicative of no significant impact of patient-based therapy on empowering the patients.<sup>33</sup> This finding is inconsistent with the results of the current study, which could be due to the differences in sample populations. Moreover, one of the main factors for the success of this approach is education and raising the awareness of patients and healthcare team

members based on the treatment process. On the other hand, it is crucial to individually measure and compare the treatment outcomes for each patient.

Results of the current research revealed that collaboration between different specialties is a major component of teamwork. In line with these results, Kaye *et al.* (2014) reported that due to the complexity of chronic pain in the elderly, its diagnosis and management requires a multisectoral, specialized and all-encompassing approach.<sup>34</sup> In addition to chronic pain, many seniors suffer from underlying medical conditions affecting their mobility and performance, which exacerbate their problems. Therefore, using pain-related specialties is essential to providing necessary measures for seniors with chronic pain.

On the other hand, Chen (1996) argued that use of multisectoral, complex and specialized services for chronic pain management is not possible for all patients.<sup>35</sup> Considering the increase in the elderly population and constraints faced by the healthcare system, it is necessary to identify the patients who require specialized services. In this regard, patients with no response to initial treatments must be referred to specialized multisectoral centers to receive necessary measures. In addition, this method requires specialized, authoritative leadership, which might be difficult due to the collaborations between different specialties.

Another issue associated with chronic pain management in the elderly is the use of targeted therapies. In line with our findings, the results obtained by Reuben and Tinetti (2012) in America revealed that targeted therapy would be beneficial if implemented in a unique way based on the demographic characteristics of elderly patients.<sup>36</sup> Proper demonstration of treatment targets could lead to the formation of a well-drawn roadmap, as well as realistic and reasonable expectations of patients and their families. On the other hand, implementing this method could facilitate the process of planning and providing care through focusing on the expected results and outcomes, and patients could easily realize their treatment objectives. However, Jones and Martineau (2015) pointed out the challenges faced by healthcare providers in the implementation of a targeted therapy in patients with numerous chronic diseases.<sup>37</sup> Due to the multifaceted nature of chronic pain and pain management in the elderly, determining and coordinating therapeutic objectives with individual goals of patients is a complex process and requires proper training for all team members (at the beginning of the process) and continuous care interventions.

Results of the present study indicated that logical and scientific expectations of the treatment



and ensuring patients of treatment outcomes facilitate targeted therapy. In this regard, the results obtained by Weiner (2007) in America showed that members of group therapy should create realistic expectations of treatment in the elderly in order to achieve maximum therapeutic response regarding chronic pain.<sup>4</sup> Proper training of the elderly and their families in terms of the multifactorial nature of chronic pain and its treatment prior to the implementation of interventions leads to the willingness of these individuals to cooperate with the researcher. On the other hand, the elderly could have realistic expectations of the treatment process and adopt a positive attitude in this regard if assured of the manageability of chronic pain.

According to the findings of the current research, benefiting from social support and living in a dynamic environment could facilitate the pain management process due to the advantages of healthcare and welfare services. In their research, Ma *et al.* (2015) reported that elderly patients with less social support had lower quality of life and greater physical pain.<sup>38</sup> Given the vulnerability of the elderly to stress and diseases, social support could remarkably affect the psychosocial performance of these individuals and increase their quality of life through influencing personal abilities to cope with pain and other stressful life events. Meanwhile, results of a study by López-Martínez *et al.* (2008) were indicative of the adverse effect of social support on increased pain severity in patients.<sup>39</sup> It seems that improper social support could deteriorate behavioral responses associated with pain. Accordingly, expressing concerns by spouse or family members due to unmet emotional needs of the elderly results in intensified pain and disability.

According to the results of the present study, financial support provided by social institutions and the society through various means (e.g., government agencies, health insurances, non-governmental organizations and families) could be a catalyst where chronic pain management in the elderly is concerned. In a study by Dykstra (2015), it was argued that while social support is positive in nature, not all the actions and provided support for others are effective and desirable.<sup>40</sup> In other words, provided support is most effective when tailored to the specific needs of the clients. Not only inappropriate support leaves the patients' problems

unresolved, but it also might lead to patient discomfort and invaded privacy, resulting in the rejection of support services.

One of the major drawbacks of this study was inability to generalize the results due to the selection of participants from a geographically defined population. While different sampling methods were employed to control this matter, it is suggested that similar studies be carried out in various societies in the future.

## 5. Conclusion

According to the results of this study, chronic pain management in the elderly could not be possible without the assistance and support of a variety of sources involved in this area. As a result, identification and addressing effectual methods and factors (e.g., comprehensive support) as a catalyst for the management of chronic pain in the elderly is of paramount importance. It is recommended that healthcare policies and measures used to control these problems be revised in order to facilitate chronic pain management and improve the quality of life of elderly patients.

## Conflicts of interest

The authors declare no conflicts of interest.

## Authors' contributions

Manouchehr Shirazi: study design, implementation of project, drafting of manuscript. Houman Manoochehri: participation in data analysis, drafting of manuscript. Mansoreh Zagheri Tafreshi: participation in data analysis, drafting of manuscript. Farid Zayeri: Violet Alipour: participation in data analysis, drafting of manuscript.

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## References

1. Reid MC, Eccleston CH, Pillemer K. Management of chronic pain in older adults. *British Medical Journal* 2015; 30(7):1-10.
2. Mimi MY, Ho SS. Pain management for older persons living in nursing homes: a pilot study. *Pain Management Nursing* 2013; 14(2): 10-21.
3. Croft P, Blyth FM, Van der windt D. The global occurrence of chronic pain: an introduction. *Chronic pain epidemiology: from*

*aetiology to public health*. Oxford: Oxford University Press 2010; 30:9-18.

4. Weiner DK. Office management of chronic pain in the elderly. *The American Journal of Medicine* 2007; 120(4): 306-15.
5. Haller K, Rosenstein B. Pain, assessment and management. *The Johns Hopkins Hospital. Interdisciplinary Clinical Practice Manual*. 2001. Available from: [http://www.aacn.org/WD/Palliative/Docs/pain\\_assessment\\_management\\_jhopkins.pdf](http://www.aacn.org/WD/Palliative/Docs/pain_assessment_management_jhopkins.pdf).

6. Gordon DB, Dahl JL. Quality improvement challenges in pain management. *Pain* 2004; 107(1-2): 1-4.
7. Hayes K, Gordon DB. Delivering quality pain management: the challenge for nurses. *AORN Journal* 2015; 101(3): 327-37.
8. Kress HG, Ahlbeck K, Aldington D, Alon E, Coaccioli S, Coluzzi F, et al. Managing chronic pain in elderly patients requires a change of approach. *Current Medical Research & Opinion* 2014; 30(6): 1153-64.
9. McCarberg BH, Stanos S, Williams DA. Comprehensive chronic pain management: improving physical and psychological function (CME multimedia activity). *The American Journal of Medicine* 2012; 125(6): 1.
10. Monahan FD, Sands JK, Neighbors M, Marek JF, Green CJ. *Phipps' medical-surgical nursing: health and illness perspectives*. 8th ed, Philadelphia: St. Louis, MO: Mosby Elsevier; 2007.
11. Ersek M, Turner JA, McCurry SM, Gibbons L, Kraybill BM. Efficacy of self-management group intervention for elderly persons with chronic pain. *Clinical Journal of Pain* 2003; 19(3): 156-67.
12. Pain Management Task Force Report. Providing a standardized DoD and VHA vision and approach to pain management to optimize the care for warriors and their Families. Office of The Army Surgeon General. 2010; Available from: [http://www.regenesisbio.com/pdfs/journal/pain\\_management\\_task\\_force\\_report.pdf](http://www.regenesisbio.com/pdfs/journal/pain_management_task_force_report.pdf).
13. Park J, Hirz CE, Manotas K, Hooymann N. Nonpharmacological pain management by ethnically diverse older adults with chronic pain: barriers and facilitators. *Journal of Gerontological Social Work* 2013; 56(6): 487-508.
14. Bair MJ, Matthias MS, Nyland KA, Huffman MA, Stubbs DL, Kroenke K, et al. Barriers and facilitators to chronic pain self-management: a qualitative study of primary care patients with comorbid musculoskeletal pain and depression. *Pain Medicine* 2009; 10(7): 1280-90.
15. Asghari A, Ghaderi N, Ashory A. The prevalence of pain among residents of nursing homes and the impact of pain on their mood and quality of life. *Archives of Iranian Medicine* 2006; 9(4): 368-73.
16. Gibson SJ. Older people's pain. *Clinical Updates* 2006; 14(3): 1-4.
17. Pizzo PA, Clark NM, Carter-Pokras O, Christopher M, Farrar JT, Follett KA, et al. *Institute of medicine relieving pain in America: a blueprint for transformig prevention, care, education, and research*. Washington, DC: The National Academies Press; 2011.
18. Holloway I, Wheeler S. *Qualitative research in nursing*. 3th ed, Wiley-Blackwell: Oxford; 2009.
19. Boswell C, Cannon S. *Introduction to nursing research: Incorporating evidence based practice*. 3th ed, Burlington: MA: Jones & Bartlett Publishers; 2014.
20. Streubert HJ, Carpenter DR. *Qualitative research in nursing*. 4th ed, Philadelphia: Lippincott Williams & Wilkins; 2007.
21. Hodkinson HM. Evaluation of a mental test score for assessment of mental impairment in the elderly. *Age and Ageing* 1972; 1(4): 233-8.
22. Qureshi KN, Hodkinson HM. Evaluation of a ten-question mental test in the institutionalized elderly. *Age and Ageing* 1974; 3(3): 152-7.
23. Foroughan M, Jafari Z, Shirinbayan P, Ghaem Magham Farahni Z, Rahgozar M. Standardization of mini-mental state examination among Iranian elderly in Tehran. *Advances in Cognitive Sciences* 2008; 10(2): 29-37. [Persian]
24. Kaye AD, Baluch A, Scott JT. Pain management in the elderly population: a review. *The Ochsner Journal* 2010; 10(3): 179-87.
25. Corbin JM, Strauss AL. *Basics of qualitative research: techniques and procedures for developing grounded theory*. Washington, DC: Sage Publications, Inc; 2008.
26. Polit DF, Beck CT. *Essentials of nursing research: appraising evidence for nursing practice*. 7th ed, Philadelphia: Wolters Kluwer Health Lippincott Williams & Wilkins; 2010.
27. Rosland AM, Heisler M, Choi HJ, Silveira MJ, Piette JD. Family influences on self-management among functionally independent adults with diabetes or heart failure: do family members hinder as much as they help? *Chronic Illness* 2010; 6(1): 22-33.
28. Panpanit P. *Striving to maintain well-being: self-management of chronic pain by elderly people living in rural communities in North-East Thailand*. [thesis]. Melbourne, Victoria University; 2012.
29. Lena A, Ashok K, Padma M, Kamath V, Kamath A. Health and social problems of the elderly: a cross-sectional study in Udupi Taluk, Karnataka. *Indian journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine* 2009; 34(2): 131-4.
30. Unné A, Rosengren K. Staff experience of pain management: An improvement in palliative care. *Pharmacy* 2013; 1(2): 119-36.
31. Stewart DG, Phillips EM, Bodenheimer CF, Cifu DX. Geriatric rehabilitation 2 physiatric approach to the older adult 1. *Archives of Physical Medicine and Rehabilitation* 2004; 85(3): 7-11.
32. Kress HG, Aldington D, Alon E, Coaccioli S, Collett B, Coluzzi F, et al. A holistic approach to chronic pain management that involves all stakeholders: change is needed. *Current Medical Research and Opinion* 2015; 31(9): 1743-54.
33. Denig P, Schuling J, Haaijer-Ruskamp F, Voorham J. Effects of a patient oriented decision aid for prioritizing treatment goals in diabetes: pragmatic randomized controlled trial. *British Medical Journal* 2014; 349(7979): 1-14.
34. Kaye AD, Baluch AR, Kaye RJ, Niaz RS, Kaye AJ, Liu H, et al. Geriatric pain management, pharmacological and nonpharmacological considerations. *Psychology & Neuroscience* 2014; 7(1): 15-26.
35. Chen PP. Multidisciplinary approach to chronic pain management. *Hong Kong Medical Journal* 1996; 2(4): 401-4.
36. Reuben DB, Tinetti ME. Goal-oriented patient care- an alternative health outcomes paradigm. *The New England Journal of Medicine* 2012; 366(9): 377-9.
37. Jones JM, Martineau M. *Goal-oriented chronic care: defining concepts and developing tools*. The George Washington University; 2015.
38. Ma L, Li Y, Wang J, Zhu H, Yang W, Cao R, et al. Quality of life is related to social support in elderly osteoporosis patients in a chinese population. *Public Library of Science One Journal* 2015; 10(6): 1-10.
39. López-Martínez AE, Esteve-Zarazaga R, Ramírez-Maestre C. Perceived social support and coping responses are independent variables explaining pain adjustment among chronic pain patients. *The Journal of Pain* 2008; 9(4): 373-9.
40. Dykstra PA. *Aging and social support*. In *wiley-blackwell encyclopedia of sociology*. 2nd ed, 2015. Available from : <http://hdl.handle.net/1765/77705>.

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