



ORIGINAL ARTICLE

Coping with the pain of elderly pain patients: Nursing approach

Geriatrik ağrı hastalarının ağrıyla başa çıkma durumları: Hemşirelik yaklaşımı

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Summary

Objectives: This study was designed to examine methods used by elderly patients to cope with pain and serve as a guide for nurses.

Methods: This descriptive survey was carried out with geriatric patients (n=100) aged 60 years or more in inpatient Algology Unit of a university hospital between November 28, 2014 and January 28, 2015. Data were collected using descriptive characteristics questionnaire prepared based on review of the literature and via one-on-one interviews using Pain Coping Questionnaire (PCQ). Data were evaluated using descriptive statistical methods, Independent sample t-test, one-way analysis of variance test, and Pearson correlation coefficient.

Results: Duration of pain experienced by the patients ranged from 1 month to 40 years, with mean duration of 63.57±82.65 months. Mean subscale scores of PCQ were: self-management, 19.22±6.54; helplessness, 13.45±3.86; conscious coping efforts, 11.90±3.97; and medical remedies, 12.62±3.98. Score of the patients who reported that they could manage their pain on their own (p<0.05), and of those who relied on medical remedies, believing that pain control is in the hands of nurses (p<0.05), were significantly higher.

Conclusion: Means of coping with pain vary in geriatric patients and it is recommended that these differences be taken into account in nursing interventions.

Keywords: Coping with pain; geriatric pain; nursing care; pain.

Özet

Amaç: Bu tanımlayıcı çalışma geriatrik ağrı hastalarının ağrıyla başa çıkma yollarını belirlemek amacıyla yapıldı.

Gereç ve Yöntem: Tanımlayıcı tipte yapılan araştırma, bir üniversite hastanesinin Algoloji Servisi'nde yatan, 60 yaş ve üzerinde olan 28 Kasım 2014–28 Ocak 2015 tarihleri arasında 100 hastayla yürütüldü. Veriler araştırmacılar tarafından ilgili literatür taranarak hazırlanan Tanımlayıcı Özellikler Veri Formu ve Ağrıyla Başa Çıkma Ölçeği kullanılarak yüz yüze görüşme yöntemiyle toplandı. Verilerin değerlendirilmesinde tanımlayıcı istatistiksel metodlar, t testi, One-way Anova testi kullanıldı.

Bulgular: Hastaların ağrı yaşama süresi 1 ay ile 40 yıl arasında değişmekte olup, ortalama ağrı yaşama süresi 63.57±82.65 aydı. Hastaların ağrıyla başa çıkma ölçek alt boyutundan aldıkları puan ortalamaları; kendi kendine başa çıkma 19.22±6.54, çaresizlik 13.45±3.86, bilinçli bilişsel girişimler 11.90±3.97 ve tıbbi çare arama 12.62±3.98 idi. Ağrı kontrolünün kendisinde olduğu inancına sahip hastaların kendi kendine başa çıkma ölçek puanları (p<0.05), ağrı kontrolünün hemşirede olduğuna inancına sahip olanların tıbbi çare arama ölçek puanları (p<0.05) anlamlı düzeyde yüksek bulundu.

Sonuç: Sonuç olarak, geriatrik bireyin ağrıyla başa çıkma yolları değişiklik göstermekte ve uygulanacak hemşirelik girişimlerinde bu farklılıkların göz önüne alınması önerilmektedir.

Anahtar sözcükler: Ağrıyla başa çıkma; yaşlı ağrı; hemşirelik bakımı; ağrı.

Introduction

The increase in the elderly population brings about various health problems. Pain is a major problem seen along with chronic diseases which have a high incidence in geriatric population. Particularly elder individuals experience the pain in a chronic manner

and their methods for coping with the pain may vary. "Coping" is the resistance of a person against the events or factors that create stress and the cognitive, emotional and behavioral reactions to endure against these. The coping attitudes against these cases may vary according to several factors including age, gen-

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Submitted (Başvuru tarihi) 01.08.2016 Accepted after revision (Düzeltilme sonrası kabul tarihi) 17.02.2017 Available online date (Online yayımlanma tarihi) 20.02.2017

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der, culture and disease and are unique for each individual.^[1,2] The concept of coping becomes more important particularly in the elderly. Coping with the pain also refers to the management of pain. Besides the pharmacological pain management methods, behavioral and cognitive therapies can also be used to manage the pain.^[3,4] Many elderly individuals are also inclined to non-pharmacological methods of pain management. Nurses have an important role in informing and guiding the elderly about such appropriate methods as exercise, relaxation, acupuncture, music therapy and spiritual interventions.^[5]

Several previous studies have reported the differences in the methods for coping with the pain among patients with chronic pain.^[6] There are also some studies demonstrating the coping status of the elderly individuals with the pain. Among the commonly used methods for coping with pain are analgesic use, cognitive methods, (spiritual activities, praying, worship, etc.), activity limitation, resting and distraction.^[7,8] On the other hand, Benyon et al. (2013) have suggested that catastrophizing the pain is a predisposing factor for the increased pain severity and inability.^[9] Both pharmacological and non-pharmacological methods should be used for the management of pain in the elderly. Non-pharmacological methods include distraction (for example; watching TV or talking on the phone), position changes, behavioral therapy, music therapy and relaxation.^[5] Nurses have several roles and functions such as giving education, counseling, guiding, comforting, and being an administrator, caregiver and rehabilitative. Nurses should guide the elderly patients who experience pain by using these roles.^[10,11] In other several studies, it has been found that nurses are effective in the pain management.^[5,12,13] In conclusion, nurses should know the methods of elder individuals for coping with the pain in order to help them to cope with the pain.

Several studies have reported that geriatric individuals have difficulties in coping with the pain.^[8,14] Identification of these difficulties and knowing the coping methods used by elder individuals are of much importance in order for nurses to manage the pain much better. Therefore, this study was planned as a guide for nurses in order to define the coping methods of elderly pain patients.

Materials and Methods

This is a descriptive study carried out to determine the coping methods of elderly pain patients. The study was conducted on 100 inpatients in the Algology Clinic of a University Hospital between November 28, 2014 and January 28, 2015. The patients were 60 years or over, having non-malignant pain, no psychiatric disorder or no loss of consciousness due to a drug or disease, no communication problem, agreeing to participate in the study, and having at least two hours past after any intervention.^[15] The data were collected by one-on-one interview method and after obtaining informed consent. The study was approved by the Eskişehir Osmangazi University Faculty of Medicine Clinical Research Ethics Board (Number: 80558721/311, Decision No: 01) and by obtaining the informed consent form from the patients and the consent for using the scales.

Data collection

Measures

The Descriptive Characteristics Data Form prepared by the researchers by scanning the literature and the Pain Coping Questionnaire^[6,16-18] were used for collecting the data.

Descriptive Characteristics Data Form

The form was prepared by the researchers by scanning the available literature.^[6,16,17] It consists of 11 items about sociodemographic characteristics including age, gender, marital status, residence, educational status, employment status and medical diagnosis and 14 items about the pain including pain severity and the site of pain.

Pain Coping Questionnaire

The Pain Coping Questionnaire (PCQ) was developed in 1992 by Kleinke in order to determine the pain-related emotions and behaviors.^[16,18] The reliability and validity studies were carried out in 1996 by Karaca et al. and the questionnaire was adapted then into Turkish.^[6] This questionnaire evaluates the methods to cope with organic and psychogenic pain in patients with chronic pain. It consists of 4 subscales: Self-management, Helplessness, Conscious Coping Attempts and Medical Remedies. There is no cut-off value for the scores. The minimum possible score is "0" for all subscales and the maximum possible score is "36" for Self-management, "24" for

Helplessness and Conscious Coping Attempts, and "27" for Medical Remedies subscales. The reliability studies for the questionnaire yielded an internal consistency of 0.75 determined by cronbach alpha coefficient.^[6]

Statistical Methods

The data were analyzed by using IBM SPSS Statistics 21.0 package program. Descriptive statistical methods (mean, standard deviation, numbers and percentage) were used for the analysis of the data. Independent sample t test, One way Anova test and Pearson correlation test were used for normally distributed data. $p < 0.05$ was considered as significant.

Results

Sociodemographic Characteristics

The age of the participants ranged from 60 to 87 years with a mean age of 67.26 ± 6.43 years. Of the patients, 74.0% were female, 77.0% were married and 72.0% were primary school graduates. On the other hand, 40.0% of the patients reported their income level to meet their expenses, 93.0% was unemployed and all (100%) had social insurance. Of the participants, 91.0% were living at home with the spouse and children and 98.0% reported that they get social support from their family outside the hospital. On the other hand, 88.0% had a diagnosis of musculoskeletal disease and 78.0% were using non-steroidal anti-inflammatory drugs (NSAIDs) for the pain management (Table 1).

Pain-Related Characteristics

Of the geriatric patients, 93.0% had a pain resulting from other causes with 97.8% of these patients reporting that they have been treated for this complaint. Moreover, 81.0% reported that there are individuals close to them experiencing pain. The pain was in the back or lumbar region in 36.0% and was severe in 39.0% of the patients. The duration of the pain ranged from 1 month to 40 years with a mean duration of 68.57 ± 82.65 months. The most common treatment program was radiofrequency (51.0%). The duration of the treatment ranged from 1 month to 15 years with a mean duration of 27.49 ± 33.30 months. Of the patients, 76.0% were satisfied from the treatment. 74.0% of the patients believed that the pain is controlled by the God and 88.0% of the patients reported the other person helping the pain manage-

Table 1. Sociodemographic characteristics (n=100)

	n	% ^a
Gender		
Female	74	74.0
Male	26	26.0
Marital status		
Married	77	77.0
Unmarried	23	23.0
Educational status		
Illiterate	9	9.0
Only-literate	4	4.0
Primary school graduate	72	72.0
Secondary school graduate	10	10.0
Highschool or over	5	5.0
Income level		
Income is lower than expenses	31	31.0
Income meets the expenses	40	40.0
Income is higher than expenses	29	29.0
Employment status		
Employed ^b	7	7.0
Unemployed ^c	93	93.0
Households		
Living alone	9	9.0
Spouse/children	91	91.0
Social support outside the hospital		
Family	98	98.0
Relatives, friends, neighbors	2	2.0
Medical diagnosis		
Musculoskeletal disease ^d	88	88.0
Neuralgia ^e	8	8.0
Migraine	4	4.0
Drugs in use for pain management		
NSAIDs	78	78.0
Opioids	8	8.0
Adjuvant Drugs ^f	50	50.0

^aPercent of the sum of the column; ^bWorker, cervant, shopkeeper, farmer; ^cHousewife, retired, unemployed; ^dLumbar discopathy, cervical discopathy, arm-shoulder pain, frozen shoulder, tarsal tunnel syndrome, carpal tunnel syndrome, fibromyalgia, gonarthrosis, ankylosing spondilitis, post-laminectomy syndrome; ^eTrigeminal neuralgia, atypical fascial pain, pudental neuralgia, neuropathic pain; ^fAntidepressants, anxiolytics, anticonvulsants, myorelaxing agents, immunosuppresives.

ment as the physician. Of the patients, 95.0% reported that they have knowledge about the pain with the most common source is neighbors and friends (44.6%). However, 82.1% reported that this information is inadequate (Table 2).

Table 2. Pain-related characteristics (n=100)

	n	%
Site of pain		
Back/lumbar region	36	36.0
Head-neck	11	11.0
Arm-shoulder	20	20.0
Leg-knee	29	29.0
Other ^a	4	4.0
Pain severity		
Mild	5	5.0
Moderate	15	15.0
Severe	39	39.0
Very severe	31	31.0
Intolerable	10	10.0
Pain control is ^b		
In the individual	20	20.0
In the nurse	4	4.0
In the physician	45	45.0
In God	74	74.0
Other persons helping the pain management ^b		
Physician	88	88.0
Family	48	48.0
Nurse	15	15.0
Friends-neighbors	2	2.0
Information about the pain		
Yes	95	95.0
No	5	5.0
Source of information ^b	n=95	
Neighbors-friends	47	44.6
Media	46	43.7
Physician	31	29.4
Nurse	14	13.3
Other healthcare personnel	3	2.8
Adequacy of the information obtained ^c	n=95	
Yes	17	17.9
No	78	82.1

^aChest, hand-wrist feet; ^bMore than one choice was marked; ^cOnly the patients having information about the pain were included (n=95).

Pain Coping Questionnaire Scores

The mean scores on the subdimensions of PCQ were 19.22±6.54 for self-management, 13.45±3.86 for helplessness, 11.90±3.97 for conscious coping attempts and 12.62±3.98 for medical remedies (Table 3).

The Correlation Between Subscores of PCQ

Self-management subscore was strongly positively

Table 3. Subscores on the Pain Coping Questionnaire

PCQ	Min.	Max.	Mean±SD
Self-management	3.00	35.00	19.22±6.5
Helplessness	4.00	22.00	13.45±3.8
Conscious coping attempts	3.00	23.00	11.90±3.9
Medical remedies	3.00	23.00	12.62±3.9

Min.: Minimum; Max.: Maximum; SD: Standard deviation.

correlated with the conscious coping attempts subscore ($p<0.001$, $r=.798$) and weakly negatively correlated with the helplessness subscore ($p<0.001$, $r=-.432$). On the other hand, helplessness subscore was strongly positively correlated with the medical remedies subscore ($p<0.01$, $r=.340$). There was a weak positive correlation between conscious coping attempts and medical remedies subscores ($p<0.05$, $r=.278$) (Table 4).

Comparison of the Sociodemographic Characteristics with PCQ subscores

Subscores for medical remedies was significantly higher in female patients compared to male patients ($p<0.05$); however, there was no other significant difference between the PCQ subscores and sociodemographic characteristics. The subscores for self-management were significantly higher in patients using NSAIDs compared to those not using and were also significantly higher in patients not using opioids compared to those using ($p<0.05$). There was a significant difference between the diagnosis of the patients and self-management ($p<0.05$), conscious coping attempts ($p<0.01$) and medical remedies ($p<0.01$) subscores. Multiple comparisons showed that the difference is more obvious in the neuralgia and musculoskeletal disease patient groups. Self-management, conscious coping attempts and medical remedies subscores were significantly lower in patients with neuralgia compared to those with musculoskeletal disease ($p<0.01$ for each).

Comparison of Pain-Related Variables with PCQ Subscores

There was a significant difference between the site of pain and self-management subscore ($p<0.05$), conscious coping attempts subscore ($p<0.05$) and medical remedies subscore ($p<0.01$). When the difference between the sites of pain is analyzed

Table 4. Correlation between the PCQ subscores

Variables	Self-management	Helplessness	Conscious coping attempts	Medical remedies
Self-management				
r	–			
p				
Helplessness				
r	-.432***	–		
p	<0.001			
Conscious coping attempts				
r	.798***	-.185	–	
p	<0.001	.066		
Medical remedies				
r	.004	.340**	.278*	–
p	.965	.001	.005	

*p<0.05; **p<0.01; ***p<0.001.

in terms of multiple comparison, there have been found a significant difference in that the subscores of self-management and medical remedies are significantly lower ($p<0.05$ for each) while conscious coping attempts subscore is significantly higher for patients having pain in the head-neck regions compared to those having in the back-lumbar region (Table 5). There was a significant difference between the pain severity and self-management subscore ($p<0.05$) and helplessness subscore ($p<0.001$). According to the multiple comparisons, the self-management subscore was significantly higher in patients having moderate pain compared to those having mild, very severe and intolerable pain ($p<0.05$). The helplessness subscore was found to be significantly higher in patients having severe and very severe pain compared to those having mild and moderate pain ($p<0.05$) (Table 5). The self-management subscore was significantly lower in patients who had previously received a treatment for pain and medical remedies score was significantly higher in patients satisfied from the treatment ($p<0.05$). The self-management subscore was significantly higher in patients believing that the control of pain is in the hands of himself/herself ($p<0.05$) and medical remedies subscore was significantly higher in patients believing that the control of pain is in the nurse ($p<0.01$). On the other hand, conscious coping attempts subscore was significantly higher in geriatric patients who had received information about pain compared to those who had not ($p<0.05$) (Table 5).

Discussion

Pain Coping Questionnaire Scores

According to the Pain Coping Questionnaire subscores given in Table 3, the self-management subscore is associated with getting away from negative thoughts, exercises, communication skills, relaxation programs and pain-related education.^[19] The helplessness subscore is associated with selective abstraction, over-generalizing and cognitive distortions related to the personalization.^[18] It is defined as the inability to cope with the pain effectively. Catastrophizing is defined as the feeling of having a disaster.^[19] The subscore of conscious coping attempts focuses on the cognitive methods and are associated with cognitive coping methods with the pain such as distraction, re-interpretation of the pain and daydreaming.^[6] The subscore of medical remedies is associated with the coping method with the pain by using medical therapy.^[18]

In our study carried out on elder individuals, conscious coping attempts subscore increased and helplessness subscore decreased with the increasing self-management subscore (Table 4). Previous studies have concluded that individuals with long-term pain and no pain control feel themselves helpless and have problems in coping with the pain.^[12,20,21] Lapierre et al. (2015) Most of the patients with chronic disease want to die with 57.9% having arthritis or rheumatoid disease. The authors concluded that especially the patients with painful chronic disease (for

Table 5. Comparison of pain-related variables with pain coping subscores

Subscales	Pain Coping Questionnaire			
	Self-management	Helplessness	Conscious coping attempts	Medical remedies
	Mean±SD	Mean±SD	Mean±SD	Mean±SD
Site of pain*				
Back-lumbar	19.05±6.65	14.36±3.88	8.18±3.40	13.69±4.30
Head-neck	14.63±6.56	14.09±3.56	12.50±4.33	9.00±4.00
Arm-shoulder	18.20±5.24	12.80±3.31	11.35±3.43	13.60±3.37
Leg-knee	21.41±6.63	13.03±4.14	12.79±3.51	12.17±3.40
Other	22.50±4.65	9.75±3.09	13.00±2.44	11.25±1.70
p/F	p=.034/F=2.721	p=.141/F=1.774	p=.011/F=3.471	p=.006/F=3.819
Pain severity*				
Mild	19.20±5.40	10.60±5.94	12.00±2.91	14.40±2.70
Moderate	23.73±4.54	10.33±3.53	14.46±2.77	11.13±3.85
Severe	19.30±6.25	13.28±3.03	11.48±3.61	12.94±4.21
Very severe	17.93±6.51	15.48±3.64	11.38±4.54	12.83±4.00
Intolerable	16.10±8.27	13.90±3.24	11.20±4.54	12.00±3.68
p/F	p=.028/F=2.853	p<.001/F=6.509	p=.108/F=1.952	p=.458/F=.916
Previous treatment for pain**				
Yes	18.93±6.38	13.60±3.79	11.84±3.92	12.80±4.05
No	27.25±1.70	11.50±5.06	15.50±2.08	10.75±2.98
p/F	p=.011/F=4.177	p=.286/F=.718	p=.069/F=1.704	p=.320/F=.684
Satisfaction from the treatment**				
Yes	19.00±6.47	13.30±3.67	11.97±4.06	13.01±4.07
No	19.65±6.60	13.47±4.31	11.52±3.62	11.13±3.50
p/F	p=.675/F=.019	p=.851/F=.2531	p=.634/F=1.164	p=.048/F=.431
Control of the pain is in the hands of himself/herself**				
Yes	21.85±7.06	12.40±4.04	12.90±4.17	13.20±3.88
No	18.56±6.28	13.71±3.79	11.65±3.90	12.47±4.02
p/F	p=.044/F=.542	p=.175/F=.014	p=.210/F=.046	p=.470/F=.434
Control of the pain is in the nurse**				
Yes	20.00±15.29	16.00±2.16	14.00±8.04	18.25±2.06
No	19.18±6.09	13.34±3.88	11.81±3.76	12.38±3.88
p/F	p=.809/F=21.142	p=.179/F=.1991	p=.283/F=9.241	p=.003/F=2.325
Having information about pain**				
Yes	19.51±6.40	13.41±3.80	12.12±3.88	12.53±4.00
No	14.66±7.63	14.00±5.05	8.33±3.98	14.00±3.74
p/F	p=.079/F=.181	p=.721/F=.991	p=.022/F=.012	p=.385/F=.789

SD: Standard deviation; *OneWay Anova test; **Independent sample t test.

example, arthritis, chronic lumbar pain, migraine-headache) want to die and feel helpless.^[22] Because

of the difficulty in coping, elder individuals having pain may feel themselves helpless. The pain patients

who feel helplessness may see themselves inadequate, guilty, and worthless and this situation leads to depression in later stages. In these cases, nurses should develop methods to intervene by getting the patients express their emotions, develop trust relationships and help to increase the contact with the patient's environment.^[11,23]

In our study, medical remedies subscore increased with the increasing helplessness subscore (Table 4). Similarly, Zamora&Clingerman (2011) have found that when elder individuals are able to cope with the pain symptoms, they usually try to get accustomed to the pain by carrying out social and physical activities instead of seeking for medical help.^[24] Thus, by keeping in mind that individuals failing in pain management will have more tendency for seeking medical help, it is important for nurses not to fail to notice these patients as well as evaluating and supporting the coping methods of individuals believing that they are able to cope with the pain.

In our study, medical remedies subscore was higher compared to conscious coping attempts subscore (Table 3). Moreover, medical remedies subscore was found to increase along with the increasing conscious coping attempts subscore (Table 4). Cornally and McCarthy (2011) have evaluated the attitudes of seeking help for chronic pain in elder individuals and have found that 83% use analgesics for pain management and 69% use analgesics frequently. Furthermore, authors have reported that the demand for medical help changes according to the cause of pain and in the patients believing that the pain is organic in nature, the demand is higher.^[25] This may be explained as the coping methods preferred by elder individuals change in accordance with their beliefs about the pain. Accordingly, the preferred ways of coping with pain in the pain management could vary with regard to patients' belief about pain. Therefore, nurses should assess patients' belief about pains and should consider the pain patients who have organic pain beliefs can be directed to seek medical remedies. On the other hand, they should consider the pain patients who have psychological pain beliefs can also benefit from cognitive-behavioral interventions.^[12] In addition, the fact that nurses give information related with the methods used in pain management can help patients select appropriate methods.^[8]

Comparison of Sociodemographic and Pain-Related Variables with PCQ Subscores

In the study, medical remedies subscore was significantly higher in female patients compared to male patients. Babadag et al. have also reported similar results in algology patients aged under 65.^[12] Accordingly, several studies have suggested that while pain sensitivity is higher, pain tolerance and pain-related self-efficacy are lower in females than males.^[26] Moreover, females were found to report the pain more than males and this case has been suggested to be associated with cultural expectancy, social responsibilities and roles.^[27] Sahin et al. have also reported that females tend to report the pain more than males and are more prone to the pain treatment.^[28] Nurses should be particularly careful on the pain assessment of male patients considering they could seek medical remedies less than female patients.^[12,27]

In our study, there was a significant difference between the medical diagnosis of the patients and PCQ subscores. Particularly, patients having a very painful disease such as neuralgia had lower subscores of self-management, conscious coping attempts and medical remedies. Similarly, several previous studies have also found lower helplessness subscores and problems in coping with the pain in patients with neuralgia or migraine.^[21] It is believed that medical diagnosis and disease story of the patients affect the pain severity and thus coping with the pain. There was also a significant difference between the site of pain and PCQ subscores in our study. The subscore of self-management was significantly lower in patients having pain in the head-neck region compared to those having pain in the back-lumbar region (Table 5). Several previous studies have also found similar results in migraine patients.^[16] While nurses provide nursing care to the pain patients, they should consider the fact that coping status may change according to the cause of pain rather than the site of pain.

On the other hand, in our study, patients using opioid drugs had significantly lower self-management subscore ($p<0.05$). Several studies have also suggested that patients do not prefer to use opioids, resulting in difficulties in the pain management. This was attributed to the fear about the side effects, the possibility of addiction, and inadequate information

about the opioids.^[29] The fact that nurses provide education to patients who use opioid drugs in the pain management on topics such as drug use, side effects and the effects of drug on the treatment could help increase adherence to treatment and will ensure success in pain management.^[30]

The subscore of self-management was significantly higher in our patients who had received a pain-related treatment compared to those who had not (Table 5). Koch et al. (2004) have found similar results and suggested that patients make their choices about the pain management with the trial-and-error method and according to their previous experiences. Furthermore, it has been suggested that patients determine the coping method appropriate for them by their previous experiences, their level of knowledge about the pain and the severity of the pain.^[31] The fact that nurses evaluate the pain experience of patients, take the true pain history, and examine the methods and the results related with these methods that pain patients use to cope with the pain will help identify nursing interventions.

In our study, the self-management subscore was significantly higher in patients believing that the control of pain is in their hands, besides, the subscore of medical remedies was also significantly higher in patients believing that it is in the hands of nurses (Table 5). Helmes and Gioburhun (2007) have used the Beliefs about Pain Control Scale in their study and the internal, external (physician etc.) and chance factors-related pain control were evaluated. In that study, the more the internal pain control, the less the helplessness; on the other hand, the more the control from external and chance factors, the more the helplessness feeling. Because internal control is believed to have positive effects on coping with the pain, internal control will improve individual coping ability with the pain.^[32] Thus, it is important for nursing interventions to evaluate the belief of elder individuals about the pain control, to establish internal control in the patients and to use non-pharmacological methods such as cognitive-behavioral strategies (relaxation techniques, distraction etc.).

The subscore of cognitive coping attempts was significantly higher in our patients having knowledge about pain compared to those not having (Table 5).

In the study by Dijkstra et al. (2001), the status of being prepared to self-coping with the chronic pain in fibromyalgia patients was examined and it has been found that although patients use the cognitive therapies in self-coping with the pain, these therapies are preferred by the patients only when they believe that they will benefit from it.^[33] Although there are limited number of studies evaluating the efficacy of cognitive therapies in elder compared to younger individuals, some previous studies have reported beneficial effects in geriatric patients having pain.^[34] Vitiello et al. (2009) have studied the effect of cognitive-behavioral therapy on the sleep and pain and found that this type of therapy increases the sleep quality and decreases the pain after a 1-year follow-up period.^[35] Thus, it is important for nurses to help and inform the patients about coping methods with the pain.

In conclusions; results of the present study suggest that the status of coping with the pain may differ among elderly pain patients. Nursing interventions should be planned by considering the methods of coping with the pain and associated factors in elder individuals. Also, in-service training programs should be provided to the nurses about these interventions. Elder individuals should be helped when making their choice about the most appropriate coping method by considering that helplessness decreases and the use of cognitive intervention increases in elder individuals having self-coping ability.

Acknowledgments

The authors would like to thank the staffs at Algology Clinic and all the patients who so willingly participated in the study.

Conflict-of-interest issues regarding the authorship or article: None declared.

Peer-review: Externally peer-reviewed.

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• This study was presented at the 15th Euro Nursing & Medicare Summit in Rome/Italy on October 17–19, 2016.