



INVESTIGATION OF COPING METHODS AND PERCEIVED BENEFITS OF INDIVIDUALS WITH CHRONIC MUSCULOSKELETAL PAIN

Sabiha BEZGİN^{1*}, Tezel YILDIRIM ŞAHAN², Fırat ÇİÇEKLİ¹, Murat ÖZKAYA³

ABSTRACT

Purpose: The aim of this study is to examine the coping methods of individuals with chronic pain due to musculoskeletal problems and the perceived usefulness of the method they apply in the treatment of their pain, according to the region, severity and duration of pain.

Method: Individuals aged 18-65 years with complaints of musculoskeletal pain for more than three months were included in the study. Pain assessment was performed by inquiring about the region of pain, frequency, intensity, and duration of pain. Pain intensity was evaluated with a visual analog scale. The methods used to reduce pain and the effect of these methods were questioned.

Discussion: A total of 101 individuals (52 women and 49 men) with a mean age of 42.11±11.49 years participated in the study. It was determined that individuals with low back pain most frequently preferred hot applications to cope with pain, while individuals with lower extremity pain most frequently preferred cold applications (p=0.005 for low back pain, p=0.002 for lower extremity pain). No significance was found in the preference for various coping strategies for different pain duration, frequency, and intensity (p>0.05).

Conclusion: As a result of the study, it was determined that the approaches to cope with pain of individuals with chronic musculoskeletal pain consisted largely of physiotherapy and rehabilitation modalities and that they benefited greatly from these modalities. It would be useful to raise individuals' awareness about the correct application methods related to pain management in physiotherapy, which is scientifically dominant for agents such as massage, hot-cold agents, and breathing techniques.

Keywords: musculoskeletal pain, coping skills, physical therapy modalities

ÖZET

Amaç: Bu çalışmanın amacı, kas-iskelet sistemi sorunlarına bağlı kronik ağrı şikayeti olan bireylerin başa çıkma yöntemlerini ve ağrılarının tedavisinde uyguladıkları yöntemin algılanan yararlılığını, ağrının bölgesine, şiddetine ve süresine göre incelemektir.

Yöntem: Çalışmaya üç aydan uzun süredir kas iskelet sistemine ait ağrı şikayeti olan 18-65 yaş bireyler dahil edildi. Ağrı değerlendirildi; ağrı bölgesi, ağrının süresi, sıklığı, şiddeti ve ne kadar zamandır devam ettiği gibi bilgiler sorgulanarak yapıldı. Ağrı şiddeti Görsel Analog Skalası ile değerlendirildi. Ağrıyı azaltmak için kullandığı yöntemler ve bu yöntemlerin ağrı üzerinde ne derecede etkisi olduğu sorgulandı.

Bulgular: Çalışmaya yaş ortalaması 42.11±11.49 yıl olan 52 kadın, 49 erkek olmak üzere 101 birey katıldı. Bel ağrılı bireylerin ağrı ile başa çıkmada en sık sıcak uygulamayı tercih ettiği, alt ekstremité ağrılı bireylerin ise en sık soğuk uygulamayı tercih ettiği belirlendi (p=0.005; p=0.002). Farklı ağrı süresi, sıklığı ve yoğunluğunda farklı başa çıkma stratejilerinde tercih edilmede anlamlılık bulunmadı (p>0.05).

Sonuç: Çalışmanın sonucunda, kas iskelet sistemine ait kronik ağrıya sahip bireylerin ağrı ile başa çıkma yaklaşımlarının büyük oranda fizyoterapi ve rehabilitasyon modalitelerinden oluştuğunu ve bu modalitelerden büyük oranda fayda gördükleri belirlendi. Masaj, sıcak-soğuk ajanlar, nefes teknikleri gibi fizyoterapinin bilimsel anlamda hakim olduğu ajanlar ile ilgili olarak, ağrı ile mücadelede doğru uygulama yöntemleri hakkında bireylerin bilinçlendirilmesinin sağlanması ve yaygınlaştırılması yararlı olacaktır.

Anahtar kelimeler: kas iskelet sistemi ağrısı, başa çıkma becerileri, fizyoterapi modaliteleri

¹Hatay Mustafa Kemal University, Faculty of Health Sciences, Department of Physiotherapy and Rehabilitation, Hatay, Turkey

²University of Health Science, Faculty of Gulhane Physiotherapy and Rehabilitation, Department of Orthopedic Physiotherapy and Rehabilitation,

³Istanbul Hospital, Physical Therapy and Rehabilitation Unit, İstanbul, Turkey

*Corresponding author e-mail: sabihahilog@gmail.com

INTRODUCTION

Pain is a sensory and emotional symptom that results from the brain's perception of signals reaching the spinal cord through tissue receptors and peripheral nerves due to tissue damage in many orthopedic and/or neurological diseases (1). The sudden onset of acute pain as a result of tissue damage is like an alarm system that activates the body's defense mechanism. Chronic pain begins when tissue healing takes longer than three months. Chronic pain is a condition where pain persists continuously or intermittently for at least 3-6 months (2). Self-care refers to all the actions people take to stay healthy, including preventing illness and maintaining health brushing their teeth, sleeping regularly, eating healthy food, and so on (3). Self-management is defined as an individual's ability to manage the symptoms, treatment, physical and psychological consequences, and lifestyle changes inherent in living with a chronic condition (4,5).

Chronic pain due to orthopedic problems is a condition that negatively affects the quality of life and sleep of patients, causes frequent hospital visits, and creates a burden on patients, caregivers and hospitals. Individuals with chronic pain symptoms tend to create their own self-management strategies for pain. They aim to fulfill their duties by coping with the pain they often experience and alleviating it . Individuals with chronic pain symptoms tend to create their own self-management strategies for pain. They aim to fulfill their duties by coping with the pain they often experience in a similar way and alleviating their discomfort (6,7). Understanding the extent and nature of daily self-management of chronic pain symptoms is critical to the effectiveness of treatment. It is also known that self-management strategies for pain are effective in improving chronic pain treatment outcomes and positively contribute to improving the lives of individuals with chronic pain by reducing pain levels, increasing compliance with ongoing pain management, and enhancing well-being. For this reason, it is important to determine the behaviors of individuals with chronic pain in their effort to reduce pain and to conduct research on the effects of the methods they apply (8,9). Today, the rapid and uncontrolled spread of information without verification of its truthfulness, causes information pollution about diseases and treatments. Determining

strategies for managing pain and related conditions is serves as a guide to provide information about the effective use of preferred methods. It is the duty of health professionals to identify practices that are used due to social beliefs, but are known to cause more serious problems when used incorrectly, and to raise public awareness on this issue. Ho et al, examined coping strategies for coping with chronic pain in older adults in their study (10). However, there are few studies in the literature that examine the coping skills of individuals with musculoskeletal system problems in chronic pain and the benefits they perceive according to pain region, duration, and severity (9).

This study was planned to examine the coping methods of individuals with chronic pain complaints due to musculoskeletal system problems. It also aimed to assess the perceived usefulness of the method they apply in the treatment of their pain according to the region, severity, and duration of pain. Furthermore, such comprehensive studies evaluating a wide range of pain characteristics are limited. In our study, pain characteristics of different body parts, with varying intensity, frequency, and duration, were examined. The hypothesis of this study is whether there is a difference in the preference rate of different modalities according to pain regions, duration, frequency, and intensity.

METHODS

Study Design and Subjects

This study was conducted at Hatay Mustafa Kemal University, Faculty of Health Sciences, Department of Physiotherapy and Rehabilitation between October 2021 and January 2023. Ethics committee permission was obtained from the Hatay Mustafa Kemal University Non-Invasive Clinical Research Ethics Committee (09-15). In this descriptive cross-sectional study, qualitative and quantitative research methods were used together. The questionnaire method was used as a data collection tool. Volunteers aged 18 to 65 years who had complaints of pain due to an orthopedic condition of the knee, shoulder, waist, and neck for at least 3 months and were referred to the physiotherapy and rehabilitation clinic were included in the study. Those with neurologic problems and chronic diseases of the respiratory,

circulatory and cardiovascular systems were excluded from the study. Written informed consent was obtained from the participants based on the principles of the Declaration of Helsinki.

Data Collection

Demographic Information such as age, gender, educational status, were recorded.

Pain was evaluated by gathering information about the pain region, duration, frequency, and severity, factors that increase and decrease pain, the nature, and its duration. Patients were asked to mark their painful areas on the body diagram. Accordingly, the results were divided into four main regions: upper extremity, neck region, low back, and lower extremity. The Visual Analog Scale was used to determine the severity of pain. The visual analog scale allows the person to evaluate the pain they feel on a 10-point scale (11). Accordingly, 0 indicates no pain, 5 indicates moderate pain, and 10 indicates unbearable pain. In this study, the responses obtained from the patients were classified as 1-4, indicating mild pain; 5-6, indicating moderate pain; and 7-10, indicating severe pain. Pain frequency was evaluated by questioning whether the pain was continuous or intermittent during the day. The duration of pain was categorized as 3-6 months, 6-12 months and 12 months or more (12).

Strategies for Coping with Pain were evaluated under the following headings: use of medication, massage, hot pack, cold pack, use of respiratory techniques, exercise, and distraction by performing leisure time activities. The effectiveness of the method they applied in the face of pain was evaluated with the answers "not effective at all, somewhat effective, and very effective".

Statistical Analysis

Statistical analysis of the study was performed using the Statistical Package for Social Sciences (SPSS) version 21.0 (SPSS inc., Chicago, IL, USA). Categorical variables as number and percentage. Qualitative data were given in terms of numbers (n) and percentages (%). Frequency and percentage values were given for the proportion of answers provided to the pain coping questionnaire according to the

pain region. Additionally, the pain coping strategies and their perceived usefulness were assessed according to the duration of pain. Chi-square analysis and Fisher's Exact tests examined differences between the categorical variables. Fisher's Exact Test was performed because the Chi-Square Test could not be performed when one of the expected values was less than 2.0 and 20% or more of the expected values were less than five. $p < 0.05$ was considered statistically significant in all analyses.

RESULTS

The study included 101 individuals, 52 female and 49 male, aged between 19 and 63 years. The mean age of the participants was 42.11 ± 11.49 years. When the marital status of the participants was analyzed, 26 patients (25.7%) were single, and 75 patients (74.3%) were married. Of the participants, 39 were primary school graduates (38.61%), 17 were middle school graduates (16.82%), 28 were high school graduates (28.76%), and 17 were university graduates (15.81%). When the participants' strategies for coping with pain were analyzed, it was observed that the majority (85.13%) preferred the use of medication. This was followed by massage (62.42%), hot pack (60.42%), and exercise (58.43%), which were among the first four preferred methods. When the participants' pain coping strategies and perceived usefulness were analyzed according to the pain region, the majority of them had pain complaints related to the upper extremities (30.72%). This was followed by lower extremity (24.59%), low back (22.86%), and neck (21.83%) pain (Table 1).

When coping strategies were analyzed according to pain regions, it was seen that the lumbar pain group preferred the use of hot pack the most ($p=0.005$), and the lower extremity group preferred the use of cold pack the most ($p=0.002$). When the perceived usefulness rates of the participants were analyzed, it was concluded that the participants typically experienced positive results from the methods they preferred. There is no difference in perceived benefit rates across different applications by pain region ($p > 0.05$) as shown in Table 2.

Table 1: Demographic characteristics of patients and distribution of general pain coping strategies

	n	%
Gender		
Female	52	51.5
Male	49	48.5
Marital status		
Married	75	74.30
Single	26	25.70
Education status		
Primary school graduates	39	38.61
Middle school graduates	17	16.82
High school graduates	28	28.76
University graduates	17	15.81
Strategies for coping with pain		
Use of medication	86	85.13
Massage	63	62.42
Hot pack	61	60.42
Cold pack	11	10.90
Use of respiratory techniques	6	5.91
Exercise	59	58.43
Distraction by performing leisure time activities	9	8.91
Pain region		
Upper extremity	31	30.72
Neck	22	21.83
Low back	23	22.86
Lower extremity	25	24.59
Duration of pain		
3-6 months	55	54.52
6-12 months	14	13.98
>12 months	32	31.50
Frequency of pain		
Continuous	37	36.60
Intermittent	64	63.40
Severity of pain		
Mild	23	22.81
Moderate	65	64.42
Severe	13	12.77

n: number; %: percent

When the coping strategies of the participants were examined according to the duration of pain, no application was preferred over the others. It has been determined that individuals with different pain durations prefer different coping strategies at similar rates ($p>0.05$). When the perceived usefulness ratios of the participants were analyzed, no differences were found between perceived benefit ratios based on the duration of pain (Table 3).

When the coping strategies of the participants were analyzed according to the frequency of pain, no application was preferred over the others. It has been determined that individuals with different pain frequency prefer different coping strategies at similar rates across different frequencies

($p>0.05$). When the perceived benefit ratios of the participants were analyzed, there was no difference between the perceived usefulness ratios in relation to the duration of pain (Table 4).

When the coping strategies of the participants according to the intensity of pain were analyzed, no preference of the applications over each other was determined. It has been determined that individuals with different pain intensity prefer different coping strategies to similar extents ($p>0.05$). When the usefulness rates perceived by the participants were analyzed, there was a difference in the rates of perceived usefulness when using medication ($p=0.03$). Most of the

Table 2. Pain coping strategies and patient perceived usefulness rates according to pain region

Strategies % (n)	U.E.	Neck	Lomber	L.E.	Usefulness ratio	U.E.	Neck	Lomber	L.E.
Use of medication	77.32	87.11	91.33	84.00	Not effective at all	5.90 (1)	7.45 (2)	4.82 (1)	19.00 (4)
	(17)	(27)	(21)	(21)	Somewhat effective	82.42 (14)	74.13 (20)	85.71 (18)	81.00 (17)
					Very effective	11.68 (2)	18.25 (5)	9.47 (2)	-
p		0.59		p	0.82	0.60	0.84	0.06	
Massage	68.20	64.57	60.90	56.00	Not effective at all	-	10.0 (2)	7.11 (1)	19.00 (4)
	(15)	(20)	(14)	(14)	Somewhat effective	86.62 (13)	85.0 (17)	85.73 (12)	81.00 (10)
					Very effective	13.38 (2)	5.00 (1)	7.15 (1)	-
p		0.84		p	0.06	0.21	0.68	0.13	
Hot pack	59.11	71.00	78.31	32.00	Not effective at all	-	-	5.61 (1)	12.51 (1)
	(13)	(22)	(18)	(8)	Somewhat effective	92.27 (12)	77.33 (17)	83.33 (15)	62.49 (5)
					Very effective	7.73 (1)	22.67 (5)	11.06 (2)	25.00 (2)
p		0.005*β		p	0.11	0.44	0.69	0.38	
Cold pack	-	3.23	4.35	36.00	Not effective at all	-	-	100 (1)	11.11 (1)
		(1)	(1)	(9)	Somewhat effective	-	100 (1)	-	77.62 (7)
					Very effective	-	-	-	11.27 (1)
p		0.002*β		p	-	-	-	0.87	
Use of respiratory techniques	-	3.23	4.34	16.00	Not effective at all	-	-	-	-
		(1)	(1)	(4)	Somewhat effective	-	-	100 (1)	50.0 (2)
					Very effective	-	100 (1)	-	50.0 (2)
p		0.09		p	-	-	-	0.33	
Exercise	50.00	64.56	60.91	56.00	Not effective at all	5.0 (1)	5.00 (1)	-	14.27 (2)
	(11)	(20)	(14)	(14)	Somewhat effective	90.90 (8)	70.00 (14)	92.90 (13)	64.30 (9)
					Very effective	9.10 (2)	25.0 (5)	7.10 (1)	21.43 (3)
p		0.74		p	0.53	0.59	0.40	0.26	
Distraction	13.61	9.71	4.35	8.00	Not effective at all	-	33.30 (1)	-	50.00 (1)
	(3)	(3)	(1)	(2)	Somewhat effective	100 (3)	66.70 (2)	100 (1)	50.00 (1)
					Very effective	-	-	-	-
p		0.74		p	-	0.76	-	0.33	

n: number; %: percent; U.E.: Upper extremity; L.E.: Lower extremity; p: Chi-square test; β: Fisher Exact; *p<0.05

participants indicated that for moderate pain, the use of medication was somewhat effective (Table 5).

DISCUSSION

In this study, individuals with chronic pain due to musculoskeletal problems occurring in different body parts, with different severity and frequency, and lasting for different periods of time, were examined. Self-determined coping strategies of individuals their pain were defined. In addition, the perceived usefulness of the method they applied to cope with pain was examined. This study is one of the few that demonstrate there are different coping strategies for chronic pain the strategies used in continuous pain, and intermittent pain, may be different, and the perceived benefits of the participants are different in individuals with chronic

musculoskeletal system problems. As a result of our study, it was determined that although individuals with low back pain frequently preferred many methods, they most frequently preferred hot application. Meanwhile, individuals with lower extremity pain preferred cold application.

An uncomfortable feeling that lasts longer than three months is called chronic pain (13). While the field of pain research has concentrated on pain management since the early 1980s, there is still a lack of consensus on what constitutes effective pain management for chronic pain (10). Ho et al. stated that the coping with pain is different in adults with cancer pain, arthritic pain. The coping strategies are medications, acupuncture, massage, herbal therapies, exercise, activity, relaxation, cold or warm modalities, discussion of pain, change of position (10). El-Tallawy et al. implied that

Table 3. Pain coping strategies and perceived usefulness rates of patients according to pain duration

Strategies %(n)	3-6 months	6-12 months	>12 months	Usefulness ratio	3-6 months	6-12 months	>12 months
Use of medication	87.31 (48)	76.62 (11)	84.43 (27)	Not effective at all	8.35 (4)	9.10 (1)	11.16 (3)
				Somewhat effective	81.33 (39)	90.90 (10)	74.12 (20)
				Very effective	10.32 (5)	-	14.72 (4)
p		0.92		p	0.32	0.12	0.73
Massage	63.61 (35)	64.30 (9)	59.46 (19)	Not effective at all	8.60 (3)	11.18 (1)	15.82 (3)
				Somewhat effective	85.61 (30)	88.82 (8)	68.45 (13)
				Very effective	5.79 (2)	-	15.73 (3)
p		0.70		p	0.11	0.30	0.18
Hot pack	61.83 (34)	50.00 (7)	62.57 (20)	Not effective at all	2.93 (1)	-	5.00 (1)
				Somewhat effective	82.35 (28)	85.70 (6)	75.00 (15)
				Very effective	14.72 (5)	14.30 (1)	20.00 (4)
p		0.69		p	0.26	0.36	0.41
Cold pack	10.91 (6)	14.32 (2)	9.44 (3)	Not effective at all	2.82 (1)	-	33.30 (1)
				Somewhat effective	82.45 (28)	100 (2)	66.70 (2)
				Very effective	14.73 (5)	-	-
p		0.88		p	0.59	0.83	0.27
Use of respiratory techniques	7.37 (4)	-	6.36 (2)	Not effective at all	-	-	-
				Somewhat effective	50.00 (2)	-	50.00 (1)
				Very effective	50.00 (2)	-	50.00 (1)
p		0.58		p	0.64	-	0.37
Exercise	54.51 (30)	57.13 (8)	65.55 (21)	Not effective at all	-	-	14.31 (3)
				Somewhat effective	80.00 (24)	87.50 (7)	71.35 (15)
				Very effective	20.00 (6)	12.50 (1)	14.34 (3)
p		0.32		p	0.20	0.33	0.41
Distraction	3.62 (2)	7.14 (1)	18.86 (6)	Not effective at all	-	-	33.30 (2)
				Somewhat effective	100 (2)	100 (1)	66.70 (4)
				Very effective	-	-	-
p		0.06		p	0.77	0.91	0.06

n: number; %: percent; p: Chi-square test; β: Fisher Exact; *p<0.05

pharmacological and non-pharmacological strategies can be used for chronic musculoskeletal pain. Non-pharmacological strategies included physical modalities (such as hot packs, massages, ultrasound, exercises), cryotherapy, heat therapy, therapeutic exercises, acupuncture, transcutaneous electrical stimulation (14). In this study, the participants reported that medications, massage, heat or cold therapy, breathing techniques, exercises, and distraction were the pain coping strategies that they used to manage chronic musculoskeletal problems.

The literature has examined how perceived coping style may influence functional outcomes in different populations (15,16). Bradson et al, showed that the strategies used by patients with Multiple Sclerosis to cope with chronic pain affected their functional outcomes and depression levels (15). In their systematic review and meta-analysis, Nunez Contes et al. demonstrated the prospective association of pain coping strategies, and anxiety and depression symptoms with

absenteeism in people with upper extremity musculoskeletal disorders (16). Mallik Searle et al. emphasized the need to improve pain coping strategies in health institutions in order to provide meaningful improvements for individuals (17). One of the main signs of musculoskeletal and joint problems that leads to loss of function is pain (9). Pain localizations differ according to the problems and the risk factors carried by individuals in musculoskeletal problems. It has been determined that individuals with low back pain are more likely to develop their own coping strategies (18). The preference for a hot pack by a larger proportion of individuals with low back pain may be associated with common treatment approaches (19). In individuals with low back pain, hot packs are preferred to relax the muscles due to intense muscle spasm. As a result of a similar study in which the opinions of patients with low back pain about recovery were questioned, it was shown that they frequently preferred, hot pack (20). The recommendation of cold application in injuries

Table 4. Pain coping strategies and perceived usefulness rates of patients according to pain frequency

Strategies %(n)	Continuous	Intermittent	Usefulness ratio	Continuous	Intermittent
Use of medication	97.32 (36)	78.14 (50)	Not effective at all	16.70 (6)	4.00 (2)
			Somewhat effective	72.13 (26)	86.00 (43)
			Very effective	11.17 (4)	10.00 (5)
p	0.10		p	0.82	0.76
Massage	59.54 (22)	64.17 (41)	Not effective at all	22.75 (5)	4.82 (2)
			Somewhat effective	72.63 (16)	85.44 (35)
			Very effective	4.52 (1)	9.84 (4)
p	0.64		p	0.18	0.16
Hot pack	64.98 (24)	57.85 (37)	Not effective at all	8.30 (2)	-
			Somewhat effective	75.0 (18)	83.35 (31)
			Very effective	16.70 (4)	16.15 (6)
p	0.48		p	0.90	0.90
Cold pack	13.53 (5)	9.48 (6)	Not effective at all	40.00 (2)	-
			Somewhat effective	60.00 (3)	83.36 (5)
			Very effective	-	16.64 (1)
p	0.52		p	0.25	0.25
Use of respiratory techniques	2.72 (1)	7.81 (5)	Not effective at all	-	-
			Somewhat effective	-	60.00 (3)
			Very effective	100 (1)	40.00 (2)
p	0.29		p	-	0.09
Exercise	59.50 (22)	57.81 (37)	Not effective at all	13.54 (3)	-
			Somewhat effective	72.73 (16)	81.13 (30)
			Very effective	13.63 (3)	18.87 (7)
p	0.87		p	0.73	0.74
Distraction	10.81 (4)	7.89 (5)	Not effective at all	50.00 (2)	-
			Somewhat effective	50.00 (2)	100 (5)
			Very effective	-	-
p	0.61		p	0.13	0.17

n: number; %: percent; p; Chi-square test

such as sprains and bruises of the lower extremities may have influenced the pain management behaviors of the patients. Current publications in the literature are generally focused on chronic pain according to the duration of pain (21). The results of the few studies on acute pain also indicate that more research is needed on the effectiveness of pain coping strategies (22). In chronic pain, coping strategies have been shown to be effective because psychological factors are also involved. This situation is thought to increase as the duration, frequency and severity of chronic pain increases (21, 23). The 11th Edition of International Classification of Diseases (ICD-11) integrates the biomedical, psychological and social aspects involved in the complex experience of chronic musculoskeletal pain (24). Continuous and severe stimulation of nociceptive neurons, i.e., the persistence of pain, together with the inflammation seen in musculoskeletal problems, causes the immune system cells to release a wide variety of molecular mediators, which activate receptors and

consequently cause sensitivity to pain (9). In this condition, called peripheral sensitization, pain sensations begin to occur even at the lowest pain intensity. Therefore, it is not surprising that stimulus-based coping methods are found to be more effective in persistent severe pain, such as applying heat and exercising, in this study. This study showed that to have higher perceived benefits in persistent pain and higher pain severity.

Limitation

To our knowledge, this is one of the few studies investigating different coping strategies for pain associated with musculoskeletal problems. It highlights that the strategies used for continuous pain and intermittent pain may differ, and that the perceived benefits among participants vary for individuals with chronic musculoskeletal system problems. However, this study also has some limitations. One of them

Table 5. Pain coping strategies according to pain intensity and perceived usefulness rates of participants

Strategies % (n)	Mild	Moderate	Severe	Usefulness ratio	Mild	Moderate	Severe
Use of medication	65.21 (15)	89.21 (58)	100 (13)	Not effective at all	6.67 (1)	8.63 (5)	15.43 (2)
				Somewhat effective	60.00 (9)	86.16 (50)	76.85 (10)
				Very effective	33.33 (5)	5.21 (3)	7.72 (1)
p	0.06			p	0.1	0.03* β	0.79
Massage	60.96 (14)	63.13 (41)	61.56 (8)	Not effective at all	7.11 (1)	9.74 (4)	25.00 (2)
				Somewhat effective	71.36 (10)	85.42 (35)	75.00 (6)
				Very effective	21.43 (3)	4.91 (2)	-
p	0.98			p	0.71	0.94	0.70
Hot pack	60.94 (14)	61.52 (40)	53.81 (7)	Not effective at all	7.11 (1)	2.50 (1)	-
				Somewhat effective	57.06 (8)	87.50 (35)	85.70 (6)
				Very effective	35.73 (5)	10.0 (4)	14.30 (1)
p	0.87			p	0.15	0.76	0.80
Cold pack	8.75 (2)	10.83 (7)	15.47 (2)	Not effective at all	50.00 (1)	-	50.00 (1)
				Somewhat effective	50.00 (1)	85.68 (6)	50.00 (1)
				Very effective	-	14.32 (1)	-
p	0.82			p	0.32	0.88	0.40
Use of respiratory techniques	8.71 (2)	6.24 (4)	-	Not effective at all	-	-	-
				Somewhat effective	50.00 (1)	50.00 (2)	-
				Very effective	50.00 (1)	50.00 (2)	-
p	0.56			p	0.61	0.68	0.49
Exercise	65.20 (15)	52.34 (4)	76.93 (10)	Not effective at all	-	2.85 (1)	20.00 (2)
				Somewhat effective	66.68 (10)	82.43 (28)	80.00 (8)
				Very effective	33.32 (5)	14.72 (5)	-
p	0.19			p	0.10	0.16	0.08
Distraction	-	10.86 (7)	15.42 (2)	Not effective at all	-	14.36 (1)	50.00 (1)
				Somewhat effective	-	85.64 (6)	50.00 (1)
				Very effective	-	-	-
p	0.20			p	-	0.41	0.10

n: number; %: percent; p: Chi-square test; β : Fisher Exact; * $p < 0.05$

is that this study only includes chronic pain levels and not acute pain levels. Coping methods in acute pain and the difference between acute and chronic pain in future studies. The sample of participants was adults. The groups can be categorized into different levels, and young older adults and older adults can be compared. Chronic musculoskeletal problems follow different pathways in different cases. The main musculoskeletal problem can be categorized in the future studies as osteoporosis, osteoarthritis or fibromyalgia.

CONCLUSION

Despite the study's limitations, the findings provide new important information regarding the role that severity, contingency, and location may influence differences in methods of coping with pain from chronic musculoskeletal problems. The finding suggests medications, massage, heat or cold therapy, breathing techniques, exercises, and distraction were the pain coping strategies, and can be used for coping

with chronic musculoskeletal problems. It is seen that coping strategies for managing pain provide high rates of benefit to individuals with chronic musculoskeletal problems.

Pain coping methods should be considered in the context of coping with chronic pain in musculoskeletal system problems, and it should be kept in mind that it may be affected by parameters such as pain localization, severity, and persistence. According to the findings of the study, the need to raise patient awareness about the use of frequently preferred physiotherapy modalities is emphasized.

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