



Evaluation of the Use of Complementary and Alternative Treatment Methods in Patients with Mechanical Low Back Pain

Mekanik Bel Ağrısı Olan Hastalarda Tamamlayıcı Alternatif Tedavi Yöntemlerinin Kullanımının Değerlendirilmesi

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Abstract

Aim: Low back pain is the most common cause of chronic pain. Our aim was to evaluate the use of Complementary Alternative Treatment Methods in patients with chronic mechanical low back pain and the relationship between these methods and sociodemographic characteristics.

Materials and Methods: A cross-sectional descriptive study was conducted in the Family Medicine and Physical Therapy and Rehabilitation outpatient clinics. The study included 500 selected patients with chronic mechanical low back pain who applied to these outpatient clinics between December 2018 and May 2019.

Patients answered the study form, including demographic characteristics, pain intensity, diagnosis, and use of complementary alternative treatments. Pain intensity was assessed using a visual analogue scale.

Results: Among the patients who participated in the study, 72.8% were female, and 29.8% were between 50 and 59 years of age. The diagnoses of patients with chronic mechanical low back pain were analysed. The diagnoses were lumbar disc herniation (62.4%), myalgia pain (14.8%), spondyloarthritis (13.6%), scoliosis (8.4%), spondylolisthesis (6.8%), and lumbar stenosis.

60.2% of the patients used complementary alternative therapies, and 63.8% reported that they benefited from them. Pain severity was significantly higher in patients who used complementary alternative therapies than in those who did not.

Manipulative, body-based methods (75.7%) and nutritional/herbal support (73.8%) were most frequently used by 75.7% of the patients.

Conclusion: The rate of application and use of complementary alternative treatments in patients with low back pain has been determined to be high.

Keywords: Chronic low back pain; complementary alternative treatment methods; chronic pain

Öz

Amaç: Bel ağrısı, kronik ağrıların en sık nedenidir. Amacımız kronik mekanik bel ağrısı olan hastalarda Tamamlayıcı Alternatif Tedavi yöntemlerinin kullanımını ve bu yöntemlerin sosyodemografik özelliklerle ilişkisini değerlendirmektir.

Gereç ve Yöntemler: Aile Hekimliği ve Fizik Tedavi ve Rehabilitasyon polikliniklerinde kesitsel tanımlayıcı bir çalışma yapıldı. Çalışmaya Aralık 2018 ile Mayıs 2019 tarihleri arasında bu polikliniklere başvuran ve kronik mekanik bel ağrısı olan 500 hasta dahil edildi. Hastalar, demografik özellikleri, ağrı şiddetleri, tanıları ve tamamlayıcı alternatif tedavi kullanımları içeren çalışma formunu yanıtladılar. Ağrı şiddeti, görsel analog skala ile değerlendirildi.

Bulgular: Çalışmaya katılan hastaların %72.8'i kadın ve %29.8'i en sık 50-59 yaş arasındaydı. Kronik mekanik bel ağrısı olan hastaların tanıları incelendi. Tanılar lomber disk hernisi (%62,4), miyalji (%14,8), spondiloartrit (%13,6), skolyoz (%8,4), spondilolistezis (%6,8) ve lomber stenoz idi. Hastaların %60,2'si tamamlayıcı alternatif tedaviler uygulamış ve %63,8'i tedavilerden fayda gördüğünü belirtmiştir.

Ağrı şiddeti tamamlayıcı alternatif tedavi kullanan hastalarda kullanmayanlara göre anlamlı olarak daha yüksek bulunmuştur.

Hastaların %75,7'si en sık manipülatif, vücut temelli yöntemleri (%75,7) ve beslenme/bitkisel desteği (%73,8) kullanmıştır.

Sonuç: Bel ağrısı olan hastalarda tamamlayıcı alternatif tedavilerin uygulanma ve kullanılma oranı yüksek olarak saptanmıştır.

Anahtar sözcükler: Kronik bel ağrısı; tamamlayıcı alternatif tedavi yöntemleri; kronik ağrı

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Geliş ve Kabul Tarihi: 06.10.2024/14.02.2025

INTRODUCTION

The International Association for the Study of Pain defines pain as "an unpleasant sensory and emotional experience associated with or defined as actual or potential tissue damage" (1). Head and lower extremity pain is the most common cause of acute pain, while chronic pain is most associated with back pain (2). Chronic back pain is associated with a restricted range of motion, typically located in the lumbosacral region of the spine, lasting longer than 12 weeks, and often due to pain (3). The lifetime prevalence of back pain has been documented to range from 60 to 85% (4). The most common cause of back pain is mechanical disorders. Mechanical back pain is characterized by pain that increases with physical activity and decreases with rest and is often associated with overuse, injury, or deformity of typical anatomical structures (5). It has been reported that patients with pain frequently resort to complementary alternative treatment methods (CAM) in addition to standard treatment methods for pain management (6). In 1998, the National Center for Complementary and Alternative Medicine (NCCAM) was established in the United States under the National Institutes of Health. This center aims to establish a scientific basis for CAM practices and to promote the integration of reliable and effective practices into modern medicine. This center classifies complementary and alternative therapies into five different groups: mind-body practices, alternative medicine practices, biology-based treatments, manipulative and body-based practices, and energy therapies (7). The National Center for Complementary and Alternative Medicine reported in 2007 that CAM were most commonly used for back pain.

The study aimed to evaluate the extent to which patients with chronic mechanical low back pain (CLBP) use CAM methods, which methods they frequently use, through which channels they apply these methods, and their relationship with sociodemographic characteristics.

MATERIALS and METHODS

Ethics committee approval for the study was obtained with the decision dated 25/10/2018 and numbered 2018/12-2. The cross-sectional descriptive study was conducted on male and female patients who applied to the Family Medicine, Physical Therapy and Rehabilitation outpatient clinics in 2018-2019 with the complaint of CLBP. The study included patients between the ages of 18 and 85 with CLBP and no communication problems. Those with back pain due to infection, inflammation

and malignancy, and those younger than 18 years of age or older than 85 years were not included in the study.

Sociodemographic characteristics, pain severity, and clinical diagnoses of patients who signed informed consent forms were recorded. Pain intensity was evaluated with a visual analogue scale (VAS). Pain intensity is graded on a scale of 0 to 10. Pain severity ranges are defined as 3 < mild pain, 3-6 moderate pain, and 6 > severe pain (6,7,8). The patients with questions about the use of complementary alternative therapies filled out a questionnaire.

Statistics: Research data were loaded onto a computer using SPSS (Statistical Package for Social Sciences for Windows v.22.0, SPSS Inc., Chicago, IL) and evaluated. Descriptive statistics were presented as mean (\pm) standard deviation, median (min- max), frequency distribution, and percentage. The chi-square test or Fisher's Exact Test was applied when comparing categorical variables. The $p < 0.05$ level was considered statistically significant for the variables found not to be normally distributed.

RESULTS

The study included 500 patients with CLBP. Table 1 shows their demographics, clinical characteristics, and diagnoses.

The severity of patients' back pain was as follows: 53.4% (n=267) exhibited severe pain, 42.6% (n=213) exhibited moderate pain, and 4% (n=20) exhibited mild pain. The mean VAS score was 6.59 ± 2.10 points. Of the patients who participated in the study, 60.2% (n=301) had applied for CAM. Table 2 shows the applications of patients with CLBP to CAM.

When the use of herbal/nutritional support methods was evaluated, the most frequently used methods were herbal teas with 61.3% (n=136) and topical creams with 40.1% (n=89%).

The most commonly used mind-body method was prayer in 79% (n=29). When manipulative, body-based methods were evaluated: 57.8% (n=132) used massage, 30.7% (n=70) used thermal baths, 29.3% (n=67) used chiropractic, 20.1% (n=46) used cupping therapy, 8.7% (n=20) used cupping therapy, 5.2% (n=12) used acupuncture.

All 23 patients used energy therapies, including special heat beds. None resorted to bioenergy, reiki, or magnetic field therapy.

There was no significant relationship between the use of CAM and gender, age groups, occupation, education level, duration of back pain and BMI ($p > 0.05$).

Table 1. Demographic characteristics and clinical diagnoses of patients with chronic low back pain.

	n (%)
Gender	
Female	364 (72.8)
Male	136 (27.2)
Age	
18-29	38 (6.0)
30-39	77 (15.4)
40-49	136 (27.2)
50-59	149 (29.8)
60-69	67 (13.4)
70 and above	33 (6.6)
Body Mass Index (BMI)	
Underweight	1(0.2)
Normal Weight	132(26.4)
Overweight	196(39.2)
Obese	171(34.2)
Duration of Pain(Year)	
0-1	141(28.2)
2-5	169(33.8)
6-10	109(21.8)
10 and above	81(16.2)
Diagnosis	
Lumbar Disc Herniation	312(62.4)
Myalgia	74(14.8)
Spondyloarthritis	68(13.6)
Scoliosis	42(8.4)
Spondylolisthesis	34(6.8)
Lumbar Spinal Stenosis	21(4.2)

Table 2. Applications of Patients with Chronic Low Back Pain to Complementary Alternative Treatment

	n (%)
Application	
Family or friends	199(66.1)
Own	83 (27.6)
Media	10(3.0)
CAM Metods	
Manipulative, Body-Based Methods	228(75.7)
Herbal/Nutritional Supplements	222(73.8)
Mind Body Metods	29(9.6)
Energy Therapies	23(7.6)
Specific Dietary Methods	17(5.6)
Patient Presenting to CAM	
Useful	190(63.2)
Not Useful	111(36.8)

There was no significant relationship between disease diagnoses and CAM ($p>0.05$). However, the benefit of CAM was statistically higher in patients with herniated discs than in those without it ($p=0.025$). Use of mind-body methods. It was found to be more common in women than in men ($p=0.048$).

The pain severity of patients who used CAM was statistically significantly higher than those who did not use it ($p=0.048$).

DISCUSSION

In the study, chronic low back pain was common in women in the 40-59 age range. In this study, 60.2% of the patients reported using CAM, and 63.8% reported benefiting from these treatments. Patients who used CAM exhibited significantly higher levels of pain severity compared to those who did not use such therapies. The most common categories of complementary alternative therapies used were manipulative, body-based methods and nutritional/herbal supplements.

Similar to our work In the literature, it has been emphasized that chronic low back pain is frequently observed between the ages of 40-64 (6, 9, 10). When the incidence of chronic low back pain is evaluated according to gender, it is emphasized that although it is reported in men in some studies, it is more common in women (6, 11).

In a study conducted by Ketenci et al. including 1120 patients with LBP, it was reported that 72.3% of the patients were female. (12). The fact that this result can be attributed to factors such as women being more prone to trauma, misusing the musculoskeletal system in daily living activities, expressing their complaints more frequently, hormonal changes due to menstruation, the majority of the active working population in our society consists of men, and the fact that our study was conducted during working hours makes it difficult for male patients to participate (12). Studies have reported low lumbar extensor and flexor muscle strength and high back depression scale scores in women. This may contribute to a higher prevalence of chronic LBP in women (13, 14).

Body weight gain is a risk factor for back pain (14). In our study, 39.2% were overweight and 34.2% were obese. The increase in BMI leads to an increase in mechanical load, disrupts the load distribution in the lumbar region, and is reported to be associated with early-stage wear and degenerative changes (15).

The conservative approach plays an important role in the treatment of CLBP. In the literature, it has been

reported that regulation of activities of daily living, patient education, medical treatments, physical therapy methods and exercises are effective in pain management (16,17,18). The use of CAM in the treatment of pain is high (18). In our study, 60.2% of patients with CLBP used CAM. Studies report high rates of CAM use among patients with LBP, ranging from 60% to 92% (19). CAM applications are most often made with suggestions from family/friends. Similar to our study, Tsang et al. 60.4% of participants reported that their friends were the most common sources of information about CAM methods. In addition, it is emphasized that family traditions and shared experiences of friends also play a role in the increase in the frequency of CAM use (18). The application rate of CAM methods in CLBP may vary (19,20).

In our study, manipulative and body-based techniques were most commonly used. Among the manipulative and body-based methods, massage was the most preferred, followed by spa treatments, chiropractic, and cupping therapy, respectively. Coulter et al. reported that patients with CLBP often resorted to manipulation - mobilization therapy and reduced pain and disability when used in combination with other treatments. In addition, it is emphasized that family traditions and shared experiences of friends also play a role in the increase in the frequency of CAM use (18).

CAT application rates may vary according to different methods. Psychosocial factors play an important role in CLBP. In a review conducted by Schmittz et al. and including 1005 participants, it was reported that meditation is a frequently sought CAM method for CLBP patients. However, it was noted that there is limited evidence to support the effectiveness of meditation (19).

CONCLUSION

The rate of CAM admission was high in patients with LBP. It is believed that cultural traditions, beliefs, and accessibility influence the choice of these treatment methods.

Our study results suggest that individuals with high pain severity may be more inclined to seek different treatment methods. Given that the vast majority of patients in the study decided to use CAM methods through family/friends or independently, healthcare professionals need to know more about CAM methods. In the future, comprehensive studies in this field by health professionals may contribute integrating CAM methods with modern medicine.

Author's Contribution

The authors declare no conflict of interest.

All authors declared their contribution to the study at all stages and approved the final version of the manuscript.

All authors declared that this manuscript has not been published before and is not currently being considered for publication elsewhere.

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