

# Examination of Neck and Back Pain-Related Awareness of Health Professionals Working at Family Health Care Centers: Cross-Sectional Study

## Aile Sağlığı Merkezlerinde Çalışan Sağlık Çalışanlarının Boyun ve Sırt Ağrısı Konusundaki Farkındalıklarının İncelenmesi: Kesitsel Araştırma

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**ABSTRACT Objective:** Family health center employees are aware and knowledgeable about musculoskeletal problems, and it is crucial to show the patient with the problem that they are knowledgeable and to use patient-centered approaches when planning the treatment. The present study aimed to examine the awareness of health professionals working in family healthcare centers about neck and back health. **Material and Methods:** This study was performed with 60 healthcare professionals working in six different primary health centers affiliated with the General Directorate of Public Health of the Ministry of Health of the Republic of Türkiye. The sociodemographic information form and Pain Attitudes and Beliefs Scale (PABS-TR) were used in the study. **Results:** 70% (n=42) of the health professionals participating in the study were women. The mean value of the working time of the individuals was 16.33±10.13 years (1-37), and it was 6.44±5.16 (1-24) years in their current institution. 36.6% (n=22) of the participants were family physicians, and 63.4% (n=38) were other health professionals. The average score of PABS-TR was 52.88±9.42. **Conclusion:** This study revealed that primary healthcare professionals had high rates of awareness of neck and back health. In future studies, we think it is critical to control the reflection of this awareness of applicants with neck and back pain with a satisfaction scale.

**ÖZET Amaç:** Aile sağlığı merkezi çalışanlarının kas-iskelet sistemi sorunları konusunda bilinçli ve bilgili olmaları bu konuda sorunu olan hastaya bilgili olduklarını göstermeleri ve tedaviyi planlarken hasta merkezli yaklaşımları kullanmaları önemlidir. Bu çalışmada, aile sağlığı merkezlerinde görev yapan sağlık çalışanlarının boyun ve sırt sağlığı konusundaki farkındalıklarının incelenmesi amaçlanmıştır. **Gereç ve Yöntemler:** Bu çalışma, Türkiye Cumhuriyeti Sağlık Bakanlığı Halk Sağlığı Genel Müdürlüğüne bağlı altı farklı birinci basamak sağlık merkezinde görev yapan 60 sağlık çalışanı ile yapılmıştır. Çalışmada, sosyodemografik bilgi formu ve Ağrı Tutum ve İnançları Ölçeği (ATİÖ) kullanıldı. **Bulgular:** Çalışmaya katılan sağlık çalışanlarının %70'i (n=42) kadındı. Bireylerin ortalama çalışma süresi değeri 16,33±10,13 yıl (1-37), şu an çalıştıkları kurumda 6,44±5,16 (1-24) yıl idi. Katılımcıların %36,6'sı (n=22) aile hekimi, %63,4'ü (n=38) ise diğer sağlık çalışanlarıydı. ATİÖ'nün ortalama puanı 52,88±9,42 idi. **Sonuç:** Bu çalışmada, birinci basamak sağlık çalışanlarının boyun ve sırt sağlığı farkındalığının yüksek olduğu ortaya çıktı. Bundan sonraki çalışmalarda boyun ve sırt ağrısı şikâyeti ile başvuran adaylarda bu farkındalığın yansımalarının bir memnuniyet ölçeği ile kontrol edilmesi-nin kritik olduğunu düşünüyoruz.

**Keywords:** Pain; neck; back; awareness; health personnel

**Anahtar Kelimeler:** Ağrı; boyun; sırt; farkındalık; sağlık personeli

Pain is the most common cause of complaint among patients who apply to family healthcare centers, and approximately 10-20% of these patients complain of chronic pain. In an example of general health practice, the percentage of chronic pain pa-

tients needing medical treatment was 14%, and 6% were determined to suffer from severe pain.<sup>1</sup> World Health Organization (WHO) has stated that the three most commonly reported areas of pain are the head, neck, and back.<sup>2</sup>

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Neck and back pain affect the individuals' quality of life, creating societal costs.<sup>2</sup> In addition, pain is a major complaint of the musculoskeletal system that causes job absenteeism, disability, and sleep disturbance in working adult individuals.<sup>3</sup> It is stated that 80% of the people in the community experience back pain at least once in their lifetime.<sup>2</sup> Neck pain ranks second place after back pain (the prevalences of 22-31% and 14-23%, respectively), and as it advances into a chronic state, the referral rate to doctors increases.<sup>4</sup> Neck and back pain, in which the prevalence increases day by day, occurring more in women than men, is most often treated in primary care in all developed countries.<sup>5,6</sup> As back pain management is a condition in where the treatment should start at the primary care clinic, the most appropriate treatment method for this common musculoskeletal problem is determined by family physicians servicing in these centers.<sup>7</sup> For this reason, it is observed that the preferences of the patients are primary care centers.<sup>8,9</sup>

Parsons et al. researched the effects of the knowledge, predictions, and expectations of patients and primary care practitioners on the chronic musculoskeletal pain care process. Their systematic review revealed that primary care practitioners' knowledge, predictions, and expectations of primary care practitioners affect patient management and satisfaction.<sup>10</sup> Another study performed in primary care centers focusing on back pain indicated that the awareness of practitioners, the patients' needs, the positive interactions of patients with healthcare practitioners, and the active involvement of patients in their treatments are positively associated. Therefore, they discussed that the needs of patients should be understood.<sup>11</sup> In a study, it was determined that informing patients of the fight against diseases of the musculoskeletal system by primary care professionals increases and supports their quality of life.<sup>12</sup> Ahern et al. stated that when necessary information is not provided in family healthcare centers, the needs of people related to musculoskeletal disorders are not adequately met. They argued that good integration between healthcare providers and patients and more client-centered care should be provided to improve patients' experiences.<sup>13</sup> According to biopsychosocial models, it is necessary to accept that healthcare practitioners

should consider patients' personal factors in treatment so that the adoption of new clinical practices is maximized.<sup>14</sup>

Accordingly, it is crucial for family healthcare professionals to be knowledgeable and conscious about musculoskeletal system problems. Because with their knowledge, they would be able to direct their patients correctly and take these problems into account when planning the treatment of patients.<sup>15</sup> However, most of these studies were conducted in European countries. There are limited studies demonstrate the awareness of professionals working in primary healthcare centers in our country.<sup>16</sup> In addition, WHO has published a statement that there are not enough studies on back and neck health and argued that this issue should be discussed more due to the cost increases and the burden on the health system.<sup>2</sup> Therefore, the present study aimed to examine the awareness regarding the neck and back health of health professionals working at primary care centers.

***Recommendations that can be given by healthcare professionals to people with back pain in primary care:***

**Physiotherapy:** In many developed countries, the importance of the "exercise counseling system" has been demonstrated to improve the quality of life of the society and to increase the level of health and welfare, and this system has been implemented in schools, nursing homes, hospitals, primary care institutions, that is, at all levels.<sup>17</sup> With recent studies, physiotherapists are involved in family healthcare services in our country.

**Exercise/Sports:** Exercise is a safe method that can be recommended for people who experience chronic back and neck problems and those with the risk of back and neck pain problems so that their lives are not interrupted. Exercises for neck and back muscles are an evidence-based therapeutic intervention that enhances a person's flexibility and endurance. In the literature, a decrease in the severity of the pain experienced by the individual was observed after the exercise programs. At the same time, it has been demonstrated that the risk of injury can be reduced by implementing exercise as a behavior.<sup>18</sup> It is critical to perform the exercises consciously. It should be

recommended by relevant physicians (family physicians, orthopedists, physical therapy doctors) and physiotherapists.

**Walking:** A study by Hendrick et al. indicated that in back pain, walking alone showed low-medium evidence as an effective intervention strategy.<sup>19</sup> In another study, a six-week gait training program was observed to be as effective as a six-week specific strengthening exercise program for back pain.<sup>20</sup> Walking as an activity for chronic back pain is generally recommended and can be considered an alternative to other physical activities. Physical pain and injuries are improved by walking and exercising when applied appropriately. Adding walking to exercise does not provide improvement in the short term. Walking can be an easier alternative to physical exercise for chronic back pain.<sup>21</sup>

**Occupational therapy:** Occupational therapists are healthcare professionals who work to promote health and maintain well-being. They provide a person-centered intervention for individuals with low back and neck pain complaints to fulfill their roles, improve their professional competence and increase their participation in daily life activities. These are performed by redesigning the lifestyle, modifying the individual's occupations, adapting the environment, or teaching energy conservation techniques.<sup>22,23</sup>

## MATERIAL AND METHODS

This study was conducted with 60 healthcare professionals (physician, nurse, health technician, laboratory assistant) working at six different primary health centers operating under the Ministry of Health of the Republic of Türkiye. For this descriptive study, Hacettepe University Ethics Committee (date: August 25, 2020, no: 16969557-1129) approval was obtained. The study was planned in accordance with the Helsinki Declaration. After the study population was informed about the study, consent forms were signed by those who volunteered to participate. 70% (n=42) of the health professionals participating in the study were female, and 30% (n=18) were male. 36.6% (n=22) of the participants were family physicians, and 63.4% (n=38) were other health professionals.

## DATA COLLECTION TOOLS

### Sociodemographic Information Form

The sociodemographic information form (age, gender, educational status, marital status, occupation, professional year) was filled out by the participants.

### Pain Attitudes and Beliefs Scale for Physiotherapists

The original Pain Attitudes and Beliefs Scale for Physiotherapists (PABS-PT) was published in 2003 and consists of 31 items.<sup>24</sup> Each item is scored on a six-point Likert scale ranging from strongly disagree (score 1) to strongly agree (score 6). A high score in the first factor represents the beliefs about the relationship between pain and structural damage, while a high score in the second factor indicates that there is no relationship.<sup>25</sup> The authors who developed the scale were asked whether the scale could be used for healthcare professionals working in family healthcare services, and then reliability analyses (Cronbach's alpha=0.714; f1: 0.553; f2: 0.604) were completed to be able to use the scale in this sample.

## RESULTS

70% (n=42) of the health professionals participating in the study were women, and 30% (n=18) were men. The overall mean age was 40.01±10.60 years (20-60). 58.3% (n=35) of the individuals were married, and 41.7% (n=25) were single. Participants had worked for an average of 16.33±10.13 years (1-37) and 6.44±5.16 years (1-24) in their current institution. The rate of participants who worked in another institution before working in their current institution was 80.0% (n=48) (Table 1).

When the participants were asked about their knowledge of neck and back health, 91.7% (n=55) responded "yes," while 8.3% (n=5) responded "no." The rate of professionals who encountered individuals with neck and low back pain was 88.3% (n=53). The ratio of the participants providing treatment/recommendations for individuals with neck and back pain was 66.7% (n=40), while 33.3% (n=20) did not provide any recommendations. Participants could make one or more suggestions depending on the patient's situation. Of these suggestions, exercise was

TABLE 1: Descriptive information about participants.				
	n	%	$\bar{X}\pm SD$	Minimum-Maximum
Gender				
Female	42	70.0		
Male	18	30.0		
Age (years)			40.1±10.6	20-66
Marital status				
Married	35	58.3		
Single	25	41.7		
How many years have you been practicing this profession?			16.3±10.1	1-37
How long have you been working in your current institution?			6.4±5.1	1-24
Did you work in another institution before working in this institution?				
Yes	48	80.0		
No	12	20.0		

SD: Standard deviation.

TABLE 2: Awareness of participants about neck and back health.				
	n	%	$\bar{X}\pm SD$	Minimum-Maximum
Do you have information about neck and back health?				
Yes	55	91.7		
No	5	8.3		
Do you have a patient with complaints of neck and back?				
Yes	53	88.3		
No	7	11.7		
Do you treat/provide recommendations to people with neck and back pain?				
Yes	40	66.7		
No	20	33.3		
Do you recommend physiotherapy?				
Yes	20	33.3		
No	40	66.7		
Do you recommend exercise?				
Yes	32	53.3		
No	28	46.7		
Do you recommend sports?				
Yes	15	25.0		
No	45	75.0		
Do you recommend walking?				
Yes	16	26.7		
No	44	73.3		
PABS total			52.8±9.4	31-75

SD: Standard deviation; PABS: Pain Attitudes and Beliefs Scale.

the most recommended method with 53.0%, and “sports” was the least with 25.0%. Among other recommendations, the rate of recommending physiotherapy was 33.3% (n=20), and the rate of suggesting walking was 26.7% (n=16) (Table 2).

The PABS-PT scores for range between 13 and 75. In our study, the minimum score was 31, and the maximum score was 75. The present study revealed that primary healthcare professionals had high awareness of neck and back health. In addition, there was

no difference found between neck and back problems in intergroup comparisons ( $p=0.615$ ).

## DISCUSSION

Due to the fact that neck and back pain ranks first among the applications to family healthcare among musculoskeletal disorders, a realistic and coordinated effort in primary care is required to improve this problem in the short term.<sup>1</sup> For this reason, it is crucial to be aware of the needs of people who apply with the problem of neck and back pain and to plan the solution correctly.<sup>26</sup> Primary care health professionals play a critical role in obtaining information appropriate to the needs and individual characteristics of patients.<sup>27</sup> In this study, which we performed with the aim of examining the awareness of health professionals working in family healthcare centers about neck and back health, primary care health professionals were determined to have this awareness.

In the literature, no studies have demonstrated a relationship between individual differences between healthcare professionals and their professional knowledge. There was also no relationship between demographic information and awareness on the part of healthcare professionals of neck and back problems in our study.

Various treatments are effective in short-term pain reduction and improvement of functions in chronic neck and back pain. Methods used as medical treatment are pharmacological treatment, antidepressants, and nonsteroidal anti-inflammatory drugs. On the other hand, conventional treatments, such as back training, progressive relaxation treatments, exercise therapy, and intensive multidisciplinary treatments (manipulative treatment, psychological and lifestyle management, adjunct therapy...), have been reported in the literature.<sup>2,15,28</sup> In this study, the recommendations of health professionals to patients consulting with neck and back pain were determined. It was revealed that health professionals recommend mostly exercising to patients with neck and back disorders. The study by Simmonds et al. reported that exercise recommendations are the most important program of physiotherapists to manage pain and functional problems in patients with neck and back pain is exercise rec-

ommendations.<sup>29</sup> Pool et al., reported that effective cognitive behavioral therapy had a positive effect on the treatment of neck pain.<sup>30</sup> Gross et al., stated that patient education (such as videos, websites, information booklets) had a positive effect on coping with pain.<sup>31</sup>

A study performed by Kinge et al. in 2015 revealed that the information and advice provided by healthcare professionals to patients were crucial but not sufficient in terms of intervention in health services.<sup>7</sup> In a study by Chou et al. in 2018, it was emphasized that there are limited healthcare resources and that the problems of patients should be handled correctly by health professionals in order to increase patient satisfaction.<sup>10,11</sup> In order to better manage the complexities experienced by people with permanent neck and back pain, interventions applied by healthcare professionals must meet the needs of and be well explained to the patient. Furthermore, it is observed that the duration of treatment of patients with neck and back pain is affected by the attitudes of health professionals.<sup>29</sup> The findings indicate that healthcare professionals should be aware that their beliefs about pain may affect the management of these patients in order to maximize the rehabilitation potential of patients with chronic low back pain.<sup>32</sup> Our study examined the awareness and attitudes of health professionals since these recommendations remain crucial. As a result of this study, it was determined that the overall awareness and attitudes of healthcare professionals were high.

The small number of participants was one of the limitations of this study. For this reason, we suggest that this issue should be handled more comprehensively by reaching a larger number of samples and including primary healthcare professionals in different provinces and districts in future studies. Also, in future studies, we think it is necessary to control this awareness with a satisfaction scale on the reflection of those who apply with neck and back pain.

## CONCLUSION

In conclusion, it was demonstrated in this study that primary healthcare professionals had awareness regarding back pain and neck pain patients, and they made adequate recommendations to these people. This awareness means that healthcare professionals



can provide treatment services to individuals according to their needs, which is critical for the reliability of health services at the community level.

### Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

### Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or mem-

bers of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

### Authorship Contributions

**Idea/Concept:** Gökçen Akyürek; **Design:** Gökçen Akyürek; **Control/Supervision:** Gökçen Akyürek; **Data Collection and/or Processing:** Gökçen Akyürek, Leyla Kaya Öztürk; **Analysis and/or Interpretation:** Gökçen Akyürek, Leyla Kaya Öztürk; **Literature Review:** Gökçen Akyürek, Leyla Kaya Öztürk; **Writing the Article:** Gökçen Akyürek, Leyla Kaya Öztürk; **Critical Review:** Gökçen Akyürek, Leyla Kaya Öztürk; **References and Fundings:** Gökçen Akyürek, Leyla Kaya Öztürk; **Materials:** Gökçen Akyürek, Leyla Kaya Öztürk.

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