

ARAŞTIRMA /RESEARCH

Pain Assessment Preferences in Healthcare Providers: A Survey from Turkey

Sağlık Çalışanlarında Ağrı Değerlendirme Tercihleri: Türkiye'den Bir Çalışma

Eylül Pinar KISA¹, Uğur CAVLAK¹, Damla MERCAN²

¹Biruni University, Faculty of Health Sciences, Istanbul, Türkiye

²Biruni University, Graduate Institution, Physical Therapy and Rehabilitation Program, Istanbul, Türkiye

Geliş tarihi/Received: 03.04.2023

Kabul tarihi/Accepted: 03.11.2023

Sorumlu Yazar/Corresponding Author:

Uğur CAVLAK, Prof. Dr.

Biruni University, Faculty of Health Sciences,
Istanbul, Turkey

E-posta: ucavlak@biruni.edu.tr

ORCID: 0000-0002-5290-9107

Eylül Pinar KISA, Dr.

ORCID: 0000-0003-4707-4528

Damla MERCAN, Physiotherapist

ORCID: 0000-0002-8398-4740

Abstract

Objective: Pain assessment of individuals with acute or chronic pain while creating a physiotherapy program is of great importance in demonstrating the effectiveness of the treatment. The aim of this study is to determine the pain assessment preferences of healthcare providers.

Material and Method: We tried to reach different healthcare providers who are dealing with patients suffering from pain, living and working in Turkey via a Google survey. Healthcare providers (aged 18-60) with at least one year of work experience in their field were included. In the questionnaire, age, gender, profession, working time in the profession, institution, acute/chronic patient follow-up, pain severity assessment scale preference, and pain localization assessment preference were questioned.

Results: A total of 159 healthcare providers (114 females and 45 males) participated in this survey and replied to the questionnaire. 54.7% of them reported that they preferred the Visual Analogue Scale (VAS), and 11.9% of them preferred the Verbal Rating Scale (VRS) to evaluate pain intensity. The participants preferred verbal feedback and palpation to determine pain localization.

Conclusion: In this survey was conducted in Turkey, health providers' preferences were found to be similar to the related literature. The results obtained from this survey also indicate that health providers working in Turkey mostly prefer VAS in pain intensity assessment.

Keywords: Pain, assessment, survey, healthcare providers, VAS.

Öz

Amaç: Akut ya da kronik ağrısı olan bireylerde tedavi fizyoterapi programı oluştururken ağrı değerlendirme tedavinin etkinliğini göstermede büyük önem taşımaktadır. Bu çalışmanın amacı, sağlık hizmeti sunucularının ağrı değerlendirme tercihlerini belirlemektir.

Gereç ve Yöntem: Google anketi ile Türkiye'de yaşayan ve çalışan ağrılı hastalarla ilgilenen farklı sağlık kuruluşlarına ulaşıldı. Kendi alanlarında en az bir yıllık iş tecrübesine sahip sağlık hizmeti sunucuları (18-60 yaş arası) dahil edildi. Ankette yaş, cinsiyet, meslek, meslekte çalışma süresi, kurum, akut/kronik hasta takibi, ağrı şiddeti değerlendirme skalası tercihi ve ağrı lokalizasyon değerlendirme tercihi sorgulandı.

Bulgular: Bu ankete toplam 159 (114 kadın ve 45 erkek) sağlık çalışanı katılmış ve anketi yanıtlamıştır. Ağrı şiddetini değerlendirmek için %54.7'si Görsel Analog Skala (GAS) ve %11.9'u Sözel Derecelendirme Ölçeği'ni (SDÖ) tercih ettiğini belirtmişlerdir. Katılımcılar ağrı lokalizasyonunu belirlemek için sözlü geri bildirim ve palpasyonu tercih ettiler.

Sonuç: Bu çalışmadan elde edilen sonuçlar, sağlık hizmeti sunucularının tercihlerinin ilgili literatür ile benzer olduğunu göstermiştir. Ayrıca Türkiye'de çalışan sağlıklı hekimler en çok ağrı şiddeti değerlendirme tercih etmektedirler.

Anahtar Kelimeler: Ağrı, değerlendirme, anket, sağlık çalışanları, GAS.

1. Introduction

As known well, pain is defined as an uncomfortable experience that negatively affects the lives of patients (1). For the first time since 1979, the International Association for the Study of Pain (IASP) introduced a revised definition of pain, the result of a two-year process that the association hopes will lead to revised ways of assessing pain. The current definition is "an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage" (2,3,4). The revised definition of pain is "an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage" (4,5). Evaluation of the pain status of individuals with acute or chronic pain while creating a treatment program is of great importance in demonstrating the effectiveness of the treatment (6). There are many measurement methods to evaluate Many aspects of acute and chronic pain in adults, older adults and children suffering from pain. Evaluating the level of pain as "present or absent" is not sufficient to create a treatment program and evaluate its effectiveness (7). Therefore, the first step of pain management is to evaluate the pain with the appropriate assessment tools or scales, which can be used as subjective or objective measurements. Pain scales have been accepted as the most accurate and reliable measure of evaluating a patient's pain and response to treatment (8). There are many unidimensional and multidimensional self-report assessment scales in the assessment of pain. Multidimensional pain scales question multiple factors related to the definition of pain, such as location, time of onset, severity, type, allocating and aggravating factors and facial expression. One-dimensional scales, on the other hand, only aim to assess the severity of pain. Using one-dimensional scales, health providers ask the patient to describe her/his pain severity on numerical, verbal, visual, or mixed scales (9). One-dimensional scales measure only intensity and cannot be viewed as a comprehensive assessment of pain. Most of the studies in relevant literature evaluate the use of scales by patients, not healthcare providers. Therefore, we tried to reach different health providers who are dealing with patients with pain living in Turkey. The aim of this study is to determine the pain assessment preferences of healthcare providers.

2. Materials and Methods

This cross-sectional study was conducted in Biruni University Division of Physiotherapy and Rehabilitation. Ethical approval was obtained from the Non-invasive Research Ethics Board of Biruni University (Approval number: 2023/77-44) and conducted in conformity with the Declaration of Helsinki. All participants who opened the Google questionnaire were accepted as volunteers to be participated in the study.

Healthcare providers (aged 18-60 years) who had at least one year of work experience in their field were included. A total of 159 (114 females and 45 males) participated in this survey and replied to the questionnaire. Sample size has been determined as the number of participants who answered the survey. A 7-question survey prepared on Google was sent to healthcare providers, including physiotherapists, occupational therapists, medical doctors, nurses, midwives, and other health workers working in the health services in Turkey. The survey was delivered to the

target groups via private or institutional email addresses. In the survey, age, gender, profession, working time in the profession, institution, acute/chronic patient follow-up, pain severity assessment scales preference, and pain localization assessment preference were questioned with open-ended survey.

Statistical Analysis

Descriptive data were analyzed using IBM SPSS for Windows (SPSS (Statistical Packages for the Social Sciences version 21.0). Demographics and the data obtained through Google survey were given as Mean±Standard Deviation (Mean± SD) or number (n) and percentage (%).

3. Results

One hundred fourteen females (mean age: 31.50±8.28 years) and 45 males (mean age:34.56±8.85 years) healthcare providers participated in the study. Of the participants, 130 physiotherapists, 11 occupational therapists, six medical doctors, four dentists, six nurses/midwives, and two paramedics (Table 1). Most of them reported that they preferred the VAS and VRS to evaluate pain intensity. Verbal feedback and palpation were mostly preferred to determine pain localization. Thirty participants did not answer the questions "scales used" and "detection of pain localization" (Table 2).

Table 1. Sociodemographic data belonging to the study sample

Variable	N (%)
Gender	
Female / Male	114 (71.7) / 45 (28.3)
Age, years	
Mean±SD (min-max)	32.36±8.53(22-57)
Profession	
Physiotherapist	130 (81.8)
Occupational Therapist	11 (6.9)
Medical Doctor	6 (3.8)
Dentist	4 (2.5)
Nurse/midwife	6 (3.8)
Paramedics	2 (1.3)
Duration in profession, year	
Mean±SD (min-max)	9.82±8.09 (1-37)
Institution	
University Hospital	41(25.8)
Private Hospital	29 (18.2)
Private Clinic	24 (15.1)
Rehabilitation Center	34 (21.4)
Public Hospital	20 (12.6)
Healthy Life Center	7 (4.4)
Nursing Home	4 (2.5)

4. Discussion

Studies show that the patient's self-report about the presence and pain intensity is the most accurate, reliable, and valid for patients of all ages, regardless of communication or cognitive deficits (10,11). Numerical Rating Scale (NRS), Visual Analog Scale (VAS), and Verbal Rating/Descriptive

Scale (VRS/VDS) were determined as the most used one-

Table 2. Pain localization preferences by the healthcare providers

Variable	N.(%)
Pain Intensity	
VAS	87 (54.7)
NRS	6 (3.8)
McGill	5 (3.1)
VRS	19 (11.9)
WOMAC	5 (3.1)
Wong Baker	4 (2.5)
Other surveys	3 (1.9)
No answer	30 (18.9)
Pain Localization	
Palpation	38 (23.9)
Body Diagram	31(19.5)
Verbal feedback	41 (25.8)
Other surveys	19 (11.9)
No answer	30 (18.9)

N: number, SD: Standard Deviation, min: Minimum, max: Maximum, VAS: Visual Analog Scale, NRS: Numeric Ratio Scale, VRS: Verbal Ratio Scale.

dimensional pain severity scales in the literature (12). The results obtained from our study also showed that VAS, VRS, and NRS were preferred to determine pain intensity by most of the participants. Although relevant studies in the literature state that objective assessments facilitate the definition, scoring, and recording of pain severity (13), Perry et al. states that in the absence of objective assessments, the clinician should rely on the patient to provide key information about the localization, quality, and severity of pain (14). VAS, which is most used in physical therapy field as a subjective assessment tool, is an easy-to-use scale. It is very sensitive in detecting treatment effects, and its results can be analyzed with parametric tests (15). Although the scale is suitable for use with older children and adults, the need for a marking and the ability to visualize and mark the line can make the VAS practical for use in emergencies (8). Also, Boonstra et al. study claimed that VAS scores of 3.4 shows mild interference with functioning, 3.5 to 6.4 shows moderate interference, and 6.5 shows severe interference. For chronic musculoskeletal pain, VAS scores 3.4 were best described as mild pain, 3.5 to 7.4 as moderate pain, and 7.5 as severe pain (16). NRS is another widely used tool that requires the patient to rate their pain. The strengths of this measure compared to the VAS are that it can be administered both orally and in writing and is easy to score (17). VRS, on the other hand, consists of a set of statements describing increasing pain intensities. Patients are being asked to choose the word that best describes the severity of pain (18). In the systematic review of Williamson et al., it was revealed that all three pain rating scales are valid, reliable, and suitable for use in clinical practice. However, the systematic review also indicated that VAS has more practical difficulties than VRS or NRS. It was stated that while NRS has good sensitivity for general purposes, patients may prefer VRS because of its simplicity, but when it is not sensitive, the answers can be misleading

(19). In another systematic review by Hjerstad et al., it finalized data on the use and performance of one-dimensional pain scales. 15 of 19 studies comparing VAS, NRS, and VRS showed that NRSs were better adapted to patients' use, and 11 studies recommended the scale for use (20). In our study, we thought that the reason why clinicians prefer VAS and NRS, which gives numerical results more than VRS, which gives subjective data, is due to this situation. All these studies evaluating the ease of use and frequency of the questionnaire were published according to the results reported by the patient. There is no information in the literature about the ease of use or frequency of the questionnaire for health workers. That is why studies investigating the preferences of the health providers, like our study, are important to give us about health providers' preferences. This was a strong aspect of our study.

Although there are approximately 30,000 physiotherapists and more than ten times of health providers working in Turkey, unfortunately we could not reach most of them. This is the first limitation of our study. The second limitation is that the number of health providers is not equal. Most of them were physiotherapists.

5. Conclusion and Recommendations

Using one-dimensional scales to evaluate a patient's pain intensity is common, and the perception and response to the measurement tool by the health provider depends on the correct scale selection. It is important for health providers to have knowledge about evaluation scales, understand the scale, use it easily and practically, in terms of preference in the clinic. In brief, our results about health providers' preferences in the present study are similar to the related literature.

6. Contribution to the Field

This study provided information on healthcare providers' preference for using pain scales. Healthcare providers should use pain assessment scales and know how to use these scales.

Ethical Aspect of the Research

This cross-sectional study was conducted in Biruni University Division of Physiotherapy and Rehabilitation. Ethical approval was obtained from the Non-invasive Research Ethics Board of Biruni University (Approval number: 2023/77-44) and conducted in conformity with the Declaration of Helsinki. All study participants provided informed consent, and the appropriate ethics review boards approved the study design. All the authors have approved the manuscript, and agree with the submission to your esteemed journal and were fully involved in the study and preparation of the manuscript.

Acknowledgement

We would like to thank Zülal Nur Akalın, Şevval Atılğan, Elif Dilara Aydın, Melike Beki, Emir Demirbaş, Şevval Erhan, Selen Genç, İrem Güney, Beliz İnan, Güldane Nalbantoğlu, Asuman Parlak and Dilara Seren, who are Master Program students in Biruni University for their support during data collecting.

Conflict of Interest

This article did not receive any financial fund. There

is no conflict of interest regarding any person and/or institution.

Authorship Contribution

Concept: UC; **Design:** UC; **Supervision:** EPK, DM; **Funding:** -; **Materials:** -; **Data Collection/Processing:** EPK, DM; **Analysis/Interpretation:** UC, EPK; **Literature Review:** UC, EPK; **Manuscript Writing:** EPK; **Critical Review:** UC, EPK.

References

1. Patricia H. Berry, C Richard Chapman, Edward C Covington, June L, DahlJeffery A, Katz Christine Miaskowski et al. NPC and JCAHO (National Pharmaceutical Council Joint Commission on Accreditation of Health Care Organizations). Pain: Current Understanding of Assessment Management and Treatments. 2001; 21.
2. Bonica JJ. The need of a taxonomy. *Pain* 1979; 6:247–8.
3. IASP Subcommittee on Taxonomy. Pain terms: a list with definitions and notes on usage. Recommended by the IASP Subcommittee on Taxonomy. *Pain* 1979; 6:249–52.
4. Bowers KS. Pain, anxiety, and perceived control. *J Consult Clin Psychol.* 1968 Oct;32(5):596-602. doi: 10.1037/h0026280.
5. Raja SN, Carr DB, Cohen M, Finnerup NB, Flor H, Gibson S, et al. The revised International Association for the Study of Pain definition of pain: concepts, challenges, and compromises. *Pain.* 2020 Sep 1;161(9):1976-1982. DOI: 10.1097/j.pain.0000000000001939.
6. Jensen MP, Miller LMD, Fisher LD. Assessment of Pain During Medical Procedures: A Comparison of Three Scales. *Clin J Pain.* 1998; 14(4): 343-9.
7. Yeşilyurt M, Faydalı S. Ağrı Değerlendirmesinde Tek Boyutlu Ölçeklerin Kullanımı. *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi.* 2020; 23(3): 444-451.
8. Miner JR, Burton JH. Pain management. In: Walls R, Hockberger R, Gausche-Hill M, editors. *Rosen's emergency medicine - concepts and clinical practice.* 9th ed. Elsevier Canada; 2018. p. 34–51
9. Eti-Aslan F. Ağrı değerlendirme yöntemleri. *Cumhuriyet Üniversitesi Hemşirelik Yüksekokulu Dergisi.* 2002; 6(1):9-16.
10. Karcioğlu O, Topacoglu H, Dikme O, Dikme O. A systematic review of the pain scales in adults: Which to use? *Am J Emerg Med.* 2018;36(4), 707–714. doi:10.1016/j.ajem.2018.01.008.
11. Chou R, Gordon DB, deLeon-Casasola O, et al. Management of postoperative pain: clinical guidelines. *J Pain* 2016;17(2):131-157.
12. Gordon Debra B. Acute pain assessment tools: let us move beyond simple pain ratings. *Current Opinion in Anaesthesiology* 2015; 28(5): 565-569. DOI: 10.1097/ACO.0000000000000225.
13. Perry S, Heidrich G. Management of pain during debridement: a survey of US burn units. *Pain* 1982;13(3):276–80.
14. Cavlak U, Kas İskelet Sistemi Ağrısı: Multidisipliner Yaklaşım, İstanbul Tıp Kitabevi, 2016.
15. Gallagher EJ, Liebman M, Bijur PE. Prospective validation of clinically important changes in pain severity measured on a visual analog scale. *Ann Emerg Med* 2001; 38(6):633–8.
16. Boonstra AM, Schiphorst Preuper HR, Balk GA, Stewart RE. Cut-off points for mild, moderate, and severe pain on the visual analogue scale for pain in patients with chronic musculoskeletal pain. *Pain.* 2014 Dec;155(12):2545-2550. doi: 10.1016/j.pain.2014.09.014. Epub 2014 Sep 17.
17. Hawker GA, Mian S, Kendzerska T, French M. Measures of adult pain: visual analog scale for pain (VAS pain), numeric rating scale for pain (NRS pain), McGill PainQuestionnaire (MPQ), short-form McGill PainQuestionnaire (SF-MPQ), chronic PainGrade scale (CPGS), short Form-36 bodily pain scale (SF-36 BPS), and measure of intermittent and constant osteoarthritis pain (ICOAP). *Arthritis Care Res (Hoboken)* 2011;63(Suppl. 11): S240–52.
18. Gracely RH, McGrath P, Dubner R. Ratio scales of sensory and affective verbal pain descriptors. *Pain* 1978; 5:5–18.
19. Williamson A, Hoggart B. Pain: a review of three commonly used pain rating scales. *J Clin Nurs* 2005;14(7):798–804.
20. Hjermstad MJ, Fayers PM, Haugen DF, Caraceni A, Hanks GW, Loge JH, et al. European palliative care research collaborative (EPCRC). Studies comparing numerical rating scales, verbal rating scales, and visual analogue scales for assessment of pain intensity in adults: a systematic literature review. *J Pain Symptom Manage* 2011;41(6):1073–93.