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Knowledge, Attitudes and Beliefs of Clinical Physiotherapists Towards Chronic Back Pain

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ABSTRACT

Background: Millions of people worldwide suffer from the common and severe ailment known as chronic low back pain. Effective management of this condition involves not only information but also positive attitudes and beliefs on the part of healthcare practitioners. Clinical physiotherapists play an important role in the treatment of individuals suffering from persistent low back pain. The purpose of this study was to investigate clinical physiotherapists' knowledge, attitudes, and beliefs about chronic low back pain.

Methods: The study included 98 clinical physiotherapists, representing a diverse population in terms of gender and age in Hayatabad Peshawar. The HC-PAIRS (healthcare providers pain and impairment ratio scale) were filled from the clinical physiotherapists for assessing their Attitudes and beliefs towards chronic low back pain. The NPQ were also filled for checking the knowledge of clinical physiotherapist about chronic low back pain.

Results: The average knowledge score of the clinical physiotherapists in the study was 7.7959, showing a relatively good degree of understanding of chronic low back pain. A wide range of knowledge scores, ranging from 2.00 to 12.00, revealed significant heterogeneity. Surprisingly, the study found unfavorable attitudes and beliefs among clinical physiotherapists, with higher scores suggesting stronger agreement that persistent low back pain warrants disability and activity restriction.

Conclusion: Presence of unfavorable attitudes highlights the importance of focused interventions and training programs to improve patient care in this environment. The study emphasizes the changing nature of healthcare practice, with personal experiences, exposure to diverse treatment techniques, and evolving viewpoints within the field of physiotherapy possibly influencing attitudes and beliefs.

Key Words: Knowledge, Attitudes, Beliefs, Chronic Low Back

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INTRODUCTION

Pain or discomfort between the costal margins and the gluteal folds that lasts longer than 12 weeks is referred to as chronic low back pain, regardless of whether it is accompanied by leg pain. A significant public health issue on a global scale is chronic low back pain (LBP). In fact, it is thought to be the main reason for time off work and activity restrictions globally.[1] One of the most pervasive illnesses, Worldwide, low back pain (LBP) affects people of all ages and socioeconomic statuses. It is a major cause of pain and disability and a serious health concern.[2] Although low back pain is a widespread health issue, there are many elements that contribute to it that are influenced by ethnic groups and do not manifest themselves consistently across cultures.[3]

Non-specific persistent low back pain is widely recognized as a major medical, social, and economic problem that complicates the provision of healthcare. Physical pathology or the degree of pain are frequently not significant factors that influence how patients manage non-specific chronic low back pain.[4] The social expenses associated with this illness are high and are expected to rise in the ensuing decades.[5] Age seems to worsen severe back pain whereas benign back pain appears to decrease. Compared to older people without pain, older people with pain have a higher chance of losing function.[6] Distress, fear of pain, and low self-efficacy have all been recognized as psychological

elements that may contribute to chronic impairment after acute LBP. However, research looking at these characteristics usually utilize cross-sectional designs and infrequently account for confounding variables, which has led some specialists to assert that these elements are consequences of chronic LBP rather than its cause.[7]

Depending on the degree of spinal inflammation, people with chronic LBP can be divided into two major diagnostic groups. LBP without inflammation, the vast majority of the time, inflammation is regarded to have only a small influence in the diagnosis.[8] Complex interplay involving biological, psychological, and social variables lead to chronic low back pain. It's crucial to realize that pain is different from nociception and involves context-dependent emotional, cognitive, and behavioral components in addition to A delta and C fiber activation.[9] Age, educational level, psychological factors, work satisfaction, occupational characteristics, and obesity are all factors that affect the development of back pain. Age is one of the most common risk factors for the onset of low back pain.[10] Patients who experience chronic back pain as a sign of another illness.[11] Even though numerous individual, psychological, and work-related determinants for the progression of low back pain have been discovered by epidemiological studies.[12] Studies indicate that a variety of anatomical elements can cause low back discomfort. There are particular causes of low back discomfort, including osteoporotic fractures, tumors, and infections.[13] Maigne Syndrome is an underappreciated pathogenesis of low back pain that consists of two distinct entities: the "peripheral variant" (Cluneal Nerve Entrapment Syndrome) and the "central variant" (Thoracolumbar 10 Junction Syndrome). Whereas the latter is brought on by spinal nerve irritation from potential referred pain from periarticular structures, such as facet joint degeneration at the transitional vertebra (usually T12-L1), the former is brought on by peripheral impingement of the medial superior or middle 17 cluneal nerve branches.[14] Age is one risk factor that can lead to low back pain. According to certain studies, the third decade has the highest incidence.[15] A review of lifting at work revealed that risk rose with both load weight and lift frequency, Smoking, obesity, depressive symptoms, and obesity are all lifestyle factors that raise the incidence of LBP. These contraindications only slightly enhanced the likelihood of experiencing back pain.[16] There have been reports that a number of individual and environmental factors raise the risk of LBP.[17] A variety of psychological risk variables as well as social and environmental risk factors for disability and job loss were discovered by Kendall and colleagues in their study. These psychological risk factors included worries about getting hurt or hurting oneself, unhelpful recovery beliefs, and distressed affect (such as worry and depression). The attitudes of employees regarding the workplace's lack of support and too supportive health care providers were among the social and environmental risk factors.[18] Individual, physical, and psychological risk factors that have been linked to the development of LBP and are modifiable can be categorized as predictive risk factors from longitudinal studies, and those should be targeted in primary preventive settings.[19] This study was conducted to assess clinical physiotherapists knowledge, attitude and beliefs about chronic low back pain in Hayatabad, Peshawar.

MATERIAL AND METHODS

The study was a cross sectional study conducted in clinical settings of Hayatabad Peshawar. A sample size of 98 was determined using RAOSOFT with a 95% confidence interval. Non-probability convenient sampling method was employed. This study was carried out in six months after the proposal was approved. The study included both public and private sector clinical physical therapists with at least one year of experience, actively involved in assessing, diagnosing, and managing patients with persistent low back pain lasting longer than 12 weeks. Excluded were physiotherapists without proper qualifications, those with less than one year of experience, and diploma holders practicing physical therapy. All the willing participants were briefed about the purpose and procedure of this study and then data was collected. The agreed participants were screened through inclusion and exclusion criteria. Data was collected using following data collection tools.

Data collection instruments included the HC-PAIRS questionnaire to assess medical professionals' attitudes towards patients with chronic low back pain and the NPQ to evaluate individuals' understanding of pain mechanisms.

HC-PAIRS: A questionnaire known as the Health Care Providers' Pain and Impairment Relationship Scale is used to assess the attitudes of medical professionals regarding the functional expectations they have for patients with CLBP. It has fifteen items with a 6-point Likert scale ranging from "totally disagree" to "completely agree." Strong belief that physical disability and chronic low back pain are related is indicated by a high HC-PAIRS score.

NPQ: The purpose of the neurophysiology of pain questionnaire is to assess an individual's comprehension of the mechanisms underlying pain. There are twelve items on the questionnaire, and each one can be marked as true (T), false (F), or undecided (U). One point will be given for each correct response; zero points will be given for incoherent or unclear answers. The score goes from 0 to 12. The

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neurophysiology of pain is better understood with higher NPQ scores.

SPSS (Statistical Package for Social Sciences) version 26 was used to analyze the data. For knowledge, attitudes, and beliefs in descriptive statistics, the mean, standard deviation, and median were determined. For categorical variables, a frequency distribution and percentages were produced. Different variables were compared using inferential statistics.

RESULTS

The sample comprised 98 clinical physiotherapists, with 47 (43.5%) female and 51 (47.2%) male participants. The mean age was 27.73 years, with a standard deviation of 4.53. The age range was from 21 to 47 years (Table 1).

Table 1: Distribution of participants according to gender-wise

Gender	Frequency	Percentage
Female	47	43.5
Male	51	47.2
Total	98	100.0

The Sample of 98 participants showed a knowledge score ranging from 2.00 to 12.00, with a mean score of 7.80 and a standard deviation of 1.88. Clinical physiotherapists demonstrated a moderately high level of knowledge regarding chronic low back pain (Table 2).

Table 2: Descriptive data about the knowledge among the participants

Statistics	Knowledge
N	98
Minimum	2.00
Maximum	12.00
Mean	7.7959
Standard Deviation	1.87748

Among the 98 participants, attitude and belief scores ranged from 28.00 to 92.00, with a mean score of 67.76 and a standard deviation of 12.46. On average, clinical physiotherapists exhibited negative attitudes and beliefs towards chronic low back pain (Table 3).

Table 3: Descriptive data about the attitudes and beliefs among the participants

Attitude And belief	Values
N	98
Minimum	28.00
Maximum	92.00
Mean	67.7551
Standard Deviation	12.46278

A chi-square test indicated an insignificant relationship between knowledge and attitudes/beliefs (p=.098). The relationship between knowledge, attitudes, beliefs, and gender was found to be insignificant (p=.513) (Table 4).

Table 4: Association of knowledge and gender with attitudes and beliefs

Association of knowledge with attitudes and beliefs			
Chi-square test	Value	Degree of freedom	Asymptotic Significance (2-sided)
Pearson Chi-Square	395.07[a]	360	.098
Association of Attitudes and Beliefs with Gender			
Chi-square test	Value	Degree of freedom	Asymptotic Significance (2-sided)
Pearson Chi-Square	39.054[a]	40	.513

DISCUSSION

A cross-sectional study carried out by Grace Mukoka, Benita Olivier, and Sadiya Ravat at the University of Witwatersrand in South Africa. According to this study, final-year students believe that prolonged pain justifies disability and lack knowledge of the neurophysiology of pain. There were notable variations in the neurophysiology of pain knowledge between programs and by gender. The study's participants had unfavorable attitudes and opinions about patients who had chronic low back pain, with women showing considerably more negativity than men in these domains.[20] On contrary to our study, our population was physiotherapists and research conducted in south Africa population was last year students. This is an important difference because physiotherapists are likely to have greater expertise and knowledge regarding chronic low back pain than students. The above study was carried out in South Africa, which may have introduced cultural and geographical differences in attitudes and beliefs. Cultural factors can affect how people view and manage persistent low back pain. According to the aforementioned study, women were more likely than men to have unfavorable attitudes and ideas regarding patients who had chronic low back pain. The observed gender disparity may be explained by cultural or socioeconomic factors that impact gender norms and the way people perceive pain. Over time, attitudes and beliefs regarding chronic back pain may change in response to new research and available treatment options. The differences in findings between the time periods covered by the two studies above may be the cause of shifting perspectives on physical therapy.

A cross-sectional survey carried out in China. An accessible sample of 430 healthcare professionals working in different healthcare settings in Shanghai, answered a number of questions using the BBQ and FABQ to assess their demographics, back pain status, pain-related impairment and opinions about their

personal experiences with LBP.The study revealed that factors such as age, place of employment, degree of LBP-related impairment, and educational attainment have an impact on Chinese HCPs' beliefs and attitudes regarding LBP. Future research on the illness and how it is treated in China will be based in large part on our understanding of Chinese HCPs' attitudes towards back pain.[21] The goal of both our current study and the research done in China is to better understand the knowledge, attitudes, and beliefs of healthcare professionals regarding chronic low back pain. On the other hand, there are differences between them concerning evaluation methods, geography, sample size, and opinion-influencing factors. In Shanghai, China, Chinese healthcare providers are the focus of the study mentioned above and our study is focused on physiotherapists. As a result of this demographic disparity, attitudes and beliefs differ. A cross-sectional study carried out by Norelee Kennedy, John Healy, and Kieran O'Sullivan at the University of Limerick in Ireland. The results of this study show that the opinions of three cohorts of students regarding LBP differ from one another. Students studying physiotherapy had the most positive LBP beliefs, while nursing students had the most negative ones. While LBP beliefs of nursing students essentially stayed the same, those of medical and physiotherapy students significantly improved over the course of their four-year degree programs.[22]

In Belgium, Josephine Rialet-Micoulau carried out a cross-sectional survey study. PT students, medical students, certified PTs, and trainees for general practitioners (GPs) were the four groups of health care professionals that were sought out. This study found that health care professionals often have misconceptions about low back pain (LBP) and the risks associated with specific movement techniques used by individuals with a history of LBP or chronic LBP when lifting a light weight. Doctors and medical students were significantly more misinformed than Physiotherapists. Misconceptions about LBP were negatively impacted by one's current LBP condition.[5]

In Australia, Christina Abdel Shaheed carried out a cross-sectional investigation. The "Pharmacists' Back Beliefs Questionnaire," which was used to assess knowledge, attitudes, and beliefs, contains items from two back belief surveys that have already been published. Responses from pharmacists who recruited participants for an LBP clinical trial (n = 66) and pharmacists who attended a 2-hour LBP training workshop (n = 204) were compared to responses from a control group of pharmacists (n = 65) in order to assess the efficacy of the two interventions. The study found that pharmacists who participated in the training workshop provided the strongest evidence that education specifically created to provide evidence-based information can be helpful in enhancing practitioner knowledge, beliefs, and attitudes regarding LBP.[23]

CONCLUSION

This study illuminates the complicated landscape of clinical physiotherapists' knowledge, attitudes, and beliefs about chronic low back pain. While their knowledge base is generally strong, the presence of unfavorable attitudes highlights the importance of focused interventions and training programs to improve patient care in this environment. The study emphasizes the changing nature of healthcare practice, with personal experiences, exposure to diverse treatment techniques, and evolving viewpoints within the field of physiotherapy possibly influencing attitudes and beliefs.

REFERENCES

1. Sit RW, Yip BH, Chan DC, Wong SY. Primary care physicians' attitudes and beliefs towards chronic low back pain: an Asian study. PLoS One. 2015;10(1):e0117521.
2. Alshehri MA, Alzahrani H, Alotaibi M, Alhowimel A, Khoja O. Physiotherapists' pain attitudes and beliefs towards chronic low back pain and their association with treatment selection: a cross-sectional study. Bmj Open. 2020;10(6).
3. Ferreira PH, Ferreira ML, Latimer J, Maher CG, Refshauge K, Sakamoto A, et al. Attitudes and beliefs of Brazilian and Australian physiotherapy students towards chronic back pain: a cross-cultural comparison. Physiotherapy Research International. 2004;9(1):13-23.
4. Ostelo RW, Stomp-van den Berg SG, Vlaeyen JW, Wolters PM, De Vet HC. Health care provider's attitudes and beliefs towards chronic low back pain: the development of a questionnaire. Manual therapy. 2003;8(4):214-22.
5. Rialet-Micoulau J, Lucas V, Demoulin C, Pitance L. Misconceptions of physical therapists and medical doctors regarding the impact of lifting a light load on low back pain. Brazilian Journal of Physical Therapy. 2022;26(1):100385.
6. Kuss K, Leonhardt C, Quint S, Seeger D, Pfingsten M, Wolf PT U, et al. Graded activity for older adults with chronic low back pain: program development and mixed methods feasibility cohort study. Pain Medicine. 2016;17(12):2218-29.
7. Jenkins LC, Chang W-J, Buscemi V, Liston M, Skippen P, Cashin AG, et al. Low somatosensory cortex excitability in the acute stage of low back pain causes chronic pain. The Journal of Pain. 2022;23(2):289-304.
8. Sloan TJ, Gupta R, Zhang W, Walsh DA. Beliefs about the causes and consequences of pain in patients with chronic inflammatory or noninflammatory low back pain and in pain-free individuals. Spine. 2008;33(9):966-72.

9. Krismer M, Van Tulder M. Low back pain (non-specific). Best practice & research clinical rheumatology. 2007;21(1):77-91.
10. Patrick N, Emanski E, Knaub MA. Acute and chronic low back pain. Medical Clinics. 2014;98(4):777-89.
11. Vlaeyen JWS, Maher CG, Wiech K, Van Zundert J, Meloto CB, Diatchenko L, et al. Low back pain. Nat Rev Dis Primers. 2018;4(1):52.
12. Deyo RA, Von Korff M, Duhrkoop D. Opioids for low back pain. Bmj. 2015;350.
13. Hoy D, Brooks P, Blyth F, Buchbinder R. The epidemiology of low back pain. Best practice & research Clinical rheumatology. 2010;24(6):769-81.
14. Randhawa S, Garvin G, Roth M, Wozniak A, Miller T. Maigne syndrome–a potentially treatable yet underdiagnosed cause of low back pain: a review. Journal of Back and Musculoskeletal Rehabilitation. 2022;35(1):153-9.
15. Manchikanti L. Epidemiology of low back pain. Pain physician. 2000;3(2):167-92.
16. Maher C, Underwood M, Buchbinder R. Non-specific low back pain. The Lancet. 2017;389(10070):736-47.
17. Parreira P, Maher CG, Steffens D, Hancock MJ, Ferreira ML. Risk factors for low back pain and sciatica: an umbrella review. The spine journal. 2018;18(9):1715-21.
18. Nicholas MK, Linton SJ, Watson PJ, Main CJ, Group DotFW. Early identification and management of psychological risk factors ("yellow flags") in patients with low back pain: a reappraisal. Physical therapy. 2011;91(5):737-53.
19. Taylor JB, Goode AP, George SZ, Cook CE. Incidence and risk factors for first-time incident low back pain: a systematic review and meta-analysis. The Spine Journal. 2014;14(10):2299-319.
20. Mukoka G, Olivier B, Ravat S. Level of knowledge, attitudes and beliefs towards patients with chronic low back pain among final School of Therapeutic Sciences students at the University of the Witwatersrand–a cross-sectional study. South African Journal of Physiotherapy. 2019;75(1):1-6.
21. Tan B-K, Smith AJ, O'Sullivan PB, Chen G, Burnett AF, Briggs AM. Low back pain beliefs are associated to age, location of work, education and pain-related disability in Chinese healthcare professionals working in China: a cross sectional survey. BMC Musculoskeletal Disorders. 2014;15:1-13.
22. Kennedy N, Healy J, O'Sullivan K. The beliefs of third-level healthcare students towards low-back pain. Pain research and treatment. 2014;2014.
23. Abdel Shaheed C, Maher CG, Mak W, Williams KA, McLachlan AJ. The effects of educational interventions on pharmacists' knowledge, attitudes and beliefs towards low back pain. International journal of clinical pharmacy. 2015;37:616-25.