



Perception of Physical Therapy as A Profession by Orthopedic Surgeons of South Punjab

Umm-e-Farwa, Shazia Khadim, Tehniyat Yasar, Haroon Mansha, Anas Habib

Original Article

ARTICLE INFORMATION

Corresponding Author:

- haroonmansha978@gmail.com

Affiliations:

Multan College of Rehabilitation Sciences, Multan
Medical & Dental College, Multan

Keywords: Physiotherapy, Orthopedic Surgery, Perception Study, Medical Collaboration, Treatment Methodology, Professional Autonomy.

ABSTRACT

Background: The field of physiotherapy is increasingly recognized in the medical domain for its solid theoretical underpinnings and advancements in treatment methodologies. However, perceptions among orthopedic surgeons vary, with some viewing physiotherapy as potentially impacting their professional domain, including the frequency of surgical interventions and post-operative patient management.

Objective: This study aims to explore and analyze the perceptions of orthopedic surgeons regarding physiotherapy, focusing on their attitudes towards its role, efficacy, and professional autonomy.

Methodology: A cross-sectional descriptive study was conducted involving 125 practicing orthopedic surgeons from various hospital settings in South Punjab i-e Multan, Muzaffargarh, Layyah, Dera Ghazi Khan, Taunsa Shareef and Bahawalpur. Non-probability convenience sampling was done. Data were collected using a self-administered questionnaire, which included items on the surgeons' experience, types of surgeries performed, and their frequency, alongside queries about their perceptions of physiotherapy.

Results: A significant proportion of participants 61.1% strongly endorsed the positive role of physiotherapy, especially in post-operative care. 32.5% respondents strongly agreed about preoperative role of physiotherapy in specific diseases. Conservative methods of physiotherapy in patient's management are strongly agreed by 56.3% respondents. The autonomy of the physiotherapy profession was recognized by 18.3% of surgeons. However, only 27.8% strongly agreed regarding the diversity of physiotherapy's scope while 14.3% disagree. Innovative approaches in physiotherapy were acknowledged by 27.8% strongly while 14.3% disagree. Competency of physiotherapists as professionals was strongly agreed upon by 32.5% of surgeons while 14.3% disagree. 23.0% respondents strongly agreed the role of scientific and theoretical role of physiotherapy in patient care while 9.5% disagree.

Conclusion: The study highlights a generally positive perception of physiotherapy among orthopedic surgeons but also identifies areas of skepticism, particularly concerning the scope and autonomy of physiotherapists. To address these challenges, it is crucial to foster clearer communication and mutual understanding between the two professions. Actionable steps include joint training sessions, regular collaborative meetings, and the development of shared protocols for patient care, which would strengthen interdisciplinary relationships and optimize treatment outcomes.

Introduction:

Physiotherapy is a medical field that focuses on optimizing physical potential and human function and mobility.(1) In the areas of promotion, prevention, treatment/intervention, habilitation, and rehabilitation, it focuses on finding and optimizing quality of life and mobility potential.(2) It takes into consideration variances in health condition and use physical methods to promote, maintain, and recover a person's physical, psychological, and social well-being.(3) The evidence that supports and guides its practice and delivery is supported by science, and it is devoted to extending, implementing,

assessing, and reviewing that evidence. Its fundamental component is the use of clinical discretion and informed interpretation.(1, 2) Physiotherapists and Physical Therapists (PTs) work within a wide variety of health settings to improve a broad range of physical problems associated with different 'systems' of the body.(4) In particular they treat neuromuscular, musculoskeletal, respiratory and cardiovascular systems.(5) Physiotherapists are independent workers who frequently collaborate with other medical and social care professions. Reflective conduct and methodical clinical reasoning are



hallmarks of physical therapy practice, and they both support and contribute to a problem-solving approach to patient-centered treatment.(6)

Orthopedic physical therapy that specialize in orthopedics assess, manage, and treat musculoskeletal injuries, abnormalities, such as scoliosis, acute trauma like sprains and strains, chronic ailments like tendinopathy, bursitis, and rehabilitation following orthopedic surgery.(7) The outpatient clinical environment is where this particular kind of physical therapy is most frequently encountered. In the orthopedic setting, modalities used to speed recovery include joint and spine mobilization and manipulation, dry needling, therapeutic exercise, neuromuscular techniques, muscle re-education, hot/cold packs, and electrical muscle stimulation (e.g., cryotherapy, iontophoresis, electrotherapy).(8)

Sociocultural and systemic barriers, such as limited awareness of physiotherapy's full potential and traditional perceptions of its role in healthcare, hinder its broader acceptance in the region. Many healthcare professionals, including orthopedic surgeons, have a narrow view of physiotherapy, limiting referrals and collaboration. Additionally, misconceptions about the autonomy and expertise of physiotherapists contribute to resistance in integrating them fully into patient care. Addressing these challenges will help optimize patient outcomes and foster a more integrated approach to healthcare. In Pakistan, orthopedic surgeons' recommendations for physiotherapy are a crucial part of all-inclusive patient care for musculoskeletal problems.(9) Orthopedic surgeons play a key role in the diagnosis, treatment, and surgical management of musculoskeletal problems, which affect the bones, joints, ligaments, tendons, muscles, and more. Although one of their main methods is surgery, they can manage and treat patients non-surgically. Orthopedic surgeons frequently collaborate closely with physiotherapists to offer their patients comprehensive care. Through the combination of the knowledge from both professions, this partnership seeks to improve patient outcomes. The condition of the patient is initially evaluated and diagnosed by orthopedic surgeons. They decide whether surgical intervention is necessary based on their evaluation or whether non-surgical treatments, such as physiotherapy, can solve the problem. An orthopedic surgeon will recommend physiotherapy sessions if they think it would aid in the patient's recovery or management of their musculoskeletal problem. This prescription often contains information regarding the kind of therapy required, the frequency of sessions, and particular rehabilitation objectives. Emerging technologies and innovations are increasingly shaping physiotherapy, enhancing treatment methods like electrotherapy, spinal manipulation, and dry needling. Digital tools, such as telehealth and wearable devices, are improving patient monitoring and recovery tracking. Advanced equipment enables more personalized rehabilitation plans tailored to individual needs. Integrating AI and data analytics helps optimize treatment outcomes through precise and evidence-based approaches. These innovations ensure physiotherapy's growing relevance in modern healthcare, providing effective, patient-centered care.(10)

A study by Keramat Ullah concludes that a poor acquaintance an information about the Physiotherapy and its role in health maintenance 50% of 108 surgeons have knowledge of

Physiotherapy. Most of them think that Physiotherapy is just a part of collective medicine. Further this study presented thoughts to take steps & initiative to aware Medical Professionals about the profession of Physiotherapy as an integral part of health management. (11) A study by Zahoor Ahmad & Zahra Shah concludes that Medical doctors in Swabi who were familiar with the field of Physiotherapy and its role in patient's care were 60% out of 145 participants. Out of this proportion 80% of doctors; including Orthopedic, neurologists, pediatricians, gynecologists & other specialists have the awareness about the role of Physiotherapy in pain management patient care and community well-being. Out of 145 participants that Physiotherapy is an excellent profession in patient and community care.(12) A study by Alnajjar, Omar O. et al. concludes that Physiotherapy is a topic of close collaboration between orthopedist and neurosurgeons. 96.9% of the physicians agree that physiotherapist is crucial to the patient's treatment strategy and it is critical to talk to a PT about the patient's discharge. 71.9% of them feel that PT has the authority to refer a patient back to a doctor owing to misdiagnosis. A shocking finding was that 95.3% of the physicians claim to make recommendations for the patient's care on referrals, which is a severe breach of PT ability to make their own decision. The study demonstrated that physicians have a distinct understanding of and views about the physical therapy. To give patients the greatest care possible, this relationship has to be strengthened and expanded.(13) A study by Ifra Aimen et al. concludes that clinical doctor's perceptions towards the profession of Physical therapy were typically unfavorable. 52.67% of the participants from total of 150 participants considered their current knowledge of physiotherapy is not sufficient to counsel patient in need of physiotherapy, in contrast to 46.67% who believed their knowledge is. The research also indicated several key aspects that may have had a detrimental influence on the level of physiotherapy treatment use.(14) A research concluded by Khadija Irfan et al. concludes that A literature review on patient referral to physiotherapy by healthcare practitioners would involve examining research related to the factors that influence practitioners' decisions to refer patients to physiotherapy services. This could include analyzing studies on the awareness and understanding of physiotherapy benefits, the role of communication between practitioners and physiotherapists, the impact of clinical guidelines, barriers to referral, and the overall patient care outcomes resulting from appropriate referrals. The review would offer insights into the complexities of the referral process and suggest strategies to enhance effective patient referrals to physiotherapy. Their research showed 14 % didn't refer, 22% rarely refer, 49% refer sometimes while 15 % refer regularly. It concludes participants have good response to referral and believe in autonomy.(15) A research concluded by Saeed Taj Din and Neelam Shakeel, Lahore A Literature review of factors affecting the extent of utilization of physiotherapy services among Orthopedic consultants involve Societal perception and knowledge affection the embracing of physical therapy. To find out the vantage point of orthopedic surgeon s towards physical therapy. Results conclude 84.8% respond to its importance but don't agree for direct access while 74.5% believes that physical therapists lack skills to access and cure patients.(16) A study



by Einas S Al-Eisa et al. concludes 75% of the participants from total 280 participants know about the field and role of physiotherapy they concluded that physiotherapist should bear the responsibility of awareness and perception of their field and its role in health management.(17) A study by Mansour Abdullah Alshehri et al. concludes that out of 108 participants only met the criteria of inclusion because responders attitude was too below regarding physiotherapy there were some factors which were observed that limit the physiotherapy service in SA though physiotherapy institution or clinicians should pay attention to fulfill the needs required for the awareness of physiotherapy services.(18) A study by Rizwan ulla Shah concluded that According to a survey, general practitioners are well-versed in physiotherapy. 87% of 105 practitioners are well aware about physiotherapy profession. The roles physical therapists perform in patient care and health promotion are viewed by senior medical professionals as being quite favorable. Leading medical experts have a solid understanding of physiotherapy. However, doctors believe that prescription exercises are the main therapy technique used by therapists, and little is known about the most current advancements and inventions in the field of rehabilitation. Orthopedic treatment and treatment for sports injuries, in the opinion of practitioners, are the most effective physiotherapy treatments.(19) A Study by Aleezay Fatima, Farukh Murtaza concluded that there were 42.9% female and 57.1% male physicians but there is an average level of awareness about physical therapy and noteworthy association between physician awareness and a rate of patients referral to physiotherapy. Physician have appreciation about physical therapy for patient's improvement.(20)

MATERIAL AND METHODS

The present study is a cross-sectional descriptive study conducted in the orthopedic outpatient wards of various public and private hospitals in Multan, Muzaffargarh, Layyah, Dera Ghazi Khan, Taunsa Shareef and Bahawalpur that have physiotherapy departments. The study was completed over a six-month period. The inclusion criteria focused on orthopedic surgeons currently practicing in these hospitals, with a minimum of one year of experience in the field and direct professional interrelation with physical therapists. Conversely, orthopedic surgeons with less than one year of experience or those working in hospitals without physiotherapy departments were excluded. Convenience sampling was used to obtaining relevant data from available participants who meet the research criteria and the potential biases were acknowledged when drawing conclusions or making recommendations A self-administered questionnaire using likert scale, was administered to a sample size of 125 orthopedic surgeons, calculated using an appropriate formula. Data collection involved both the distribution and collection of the self-administered questionnaire. Ethical considerations were prioritized; ensuring participants were informed about their rights, potential risks, and benefits, with provisions for confidentiality. Consent was obtained through oral and written communication, with all ethical guidelines. Data analysis was performed using SPSS version 21, focusing on the frequency and percentage of surgeons' perceptions regarding the physical therapy profession.

RESULTS

Demographic results showed that 119 consultants that are 95.2% are males while 06 consultants that are 4.8% out of 125 are females. 64% consultants are from age group 21 to 30 years and are young in mean of experience. 16% consultants are from age group 31 to 40 years while 15.2% consultants are from age group 41 to 50 years and 4.8 % consultants are from age group 51 to 60 years. Maximum number of percentage 34.6 goes with 6-10 year of experience. 50 percent of the consultants perform 6-10 surgeries per week.

Table 1: Demographics

Demographics	Frequency (N)	Percentage (%)
Age		
26-30	80	64
31-35	20	16
36-40	19	15.2
41-45	06	4.8
Gender		
Male	119	95.2
Female	06	4.8
Work Experience		
1-5	24	19.2
6-10	43	34.6
11-15	29	23.1
16-20	29	23.1
Number of Surgeries		
1-5	19	15.4
6-10	63	50
11-15	29	23.1
16-20	14	11.5

Table 2 and Figure 2 shows the finding of the results, when questioned about the role of physiotherapy in conservative management of specific diseases 71 surgeons answered that they strongly agree in positive role of physiotherapy in the concerned field that reckons for almost 56.3% of total orthopedic surgeons participated and 48 surgeons just agreed rather strongly agreed to the following question and that counted for 38.1%. 06 surgeons are uncertain about the role of physiotherapy in conservative management of specific diseases which constitutes about 4.8% of surgeons participated. In answer to the question about the role of physical therapy in preoperative patients for optimal post-operative recovery 41 surgeons out of 125 answered as strongly agreed, 60 surgeons answered in agreed category and 24 surgeons are uncertain about the idea of role of physiotherapy in preoperative patients for post-operative optimal recovery that counts for 32.5%, 47.6% and 19.0% respectively. When questioned about role of physiotherapy in post-operative patients to add up in speedy recovery 77 surgeons stated that they strongly agreed and 48 surgeons said that they agree that physical therapy plays important role in speedy recovery of postoperative patients that stands 61.1% and 38.1% respectively and they think that physical therapy is an adjuvant to the recovery of patients. Participants when asked about their opinion about the autonomy of physical therapy profession than 23 surgeons answered that they strongly agreed that makes 18.3%, 78 surgeons answered in agreed category that counts for 61.9% and 24 surgeons were uncertain in their views that tallies 19.0% out of total 125 participants.

35 out of 125 surgeons strongly agreed when asked about the diversity of physical therapy profession in terms of diagnosing

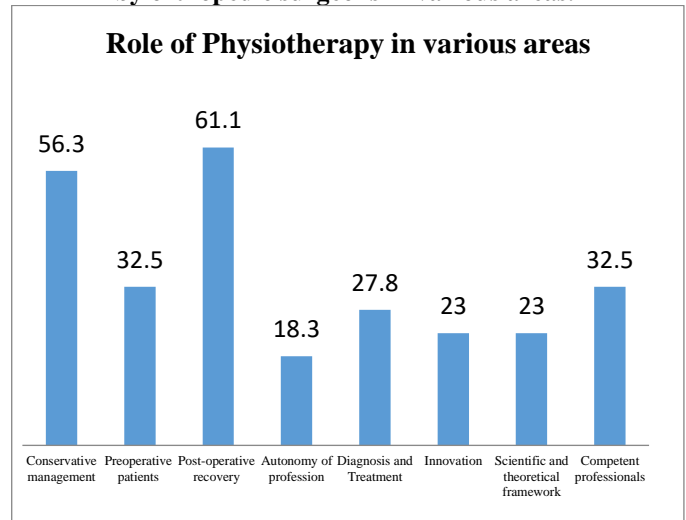


and treating the patients with different diseases that counts for almost 27.8%, 48 answered in agreed that stands for 38.1%, 24 said that they are not sure about the diversity and that makes 19.0% and 18 replied in disagreed category means that in their opinion this profession doesn't have diversity and that reckons for 14.3% of total surgeons. When questioned about the different innovative ways physiotherapy is having for the treatment of specific diseases than 35 surgeons strongly agreed that makes 27.8%, 72 surgeons answered just agreed that stands for 57.1% and 18 surgeons are uncertain with the opinion that counts for 14.3% of total surgeons. All the participants were questioned about whether the physical therapy profession is a dynamic health profession or not then surgeons out of 29 answered in strongly agreed that tallies 23.0%, 78 surgeons said that they agree that counts for 61.9% and 18 surgeons are uncertain about the opinion that collects 14.3% of the total surgeons. In the last question participants were asked about the competency of the physical therapists then 41 surgeons strongly agreed and 72 surgeons just agreed to the statement that collects for 32.5% and 57.1% respectively, whereas 12 surgeons are uncertain to the concerned statement that tallies 9.5% of the total surgeon.

Table 2: Perception of physical therapy as a profession by orthopedic surgeons in various areas.

Question	Frequency (N)	Percentage (%)
Role of physiotherapy in conservative management		
Strongly Agreed	71	56.3
Agreed	48	38.1
Uncertain	06	4.8
Role of physiotherapy in preoperative patients for post-operative optimal recovery		
Strongly Agreed	41	32.5
Agreed	60	47.6
Uncertain	24	19.0
Role of physiotherapy in post-operative recovery of patients		
Strongly Agreed	77	61.1
Agreed	48	38.1
Autonomy of profession		
Strongly Agreed	23	18.3
Agreed	78	61.9
Uncertain	24	19.0
Diversity of Physiotherapy in Diagnosis and Treatment		
Strongly Agreed	35	27.8
Agreed	48	38.1
Uncertain	24	19.0
Disagreed	18	14.3
Innovative ways to add in rapid recovery		
Strongly Agreed	29	23.0
Agreed	78	61.9
Disagreed	18	14.3
Role in scientific and theoretical framework		
Strongly Agreed	29	23.0
Agreed	78	61.9
Disagreed	18	14.3
Physiotherapy has competent professionals		
Strongly Agreed	41	32.5
Agreed	72	57.1
Disagreed	12	9.5

Figure 1: Perception of physical therapy as a profession by orthopedic surgeons in various areas.



Discussion

The present study's results offer intriguing insights into the evolving perception of physiotherapy among orthopedic surgeons, especially when compared with past evidence. Previous studies highlighted a general skepticism among physicians towards physiotherapy, marked by limited awareness of its training, the view of it being merely complementary to medicine, and doubts about its scientific basis. In contrast, the current study shows a shift in perceptions, albeit with some lingering reservations. The findings highlight a need for policies and training programs that emphasize the importance of clear communication and mutual respect between orthopedic surgeons and physiotherapists. Policies could focus on creating interdisciplinary educational initiatives that enhance understanding of each profession's role and capabilities. Training programs should integrate joint workshops and collaborative case studies, helping both fields recognize the value of physiotherapy in pre- and post-operative care. Additionally, guidelines should encourage physiotherapists' active involvement in decision-making and patient management. This approach will foster stronger professional relationships, improve patient outcomes, and increase recognition of physiotherapy's full potential within healthcare systems. A key finding of our study is the perception of physiotherapy primarily as an adjunct to medicine, as 56.8% orthopedic surgeons strongly agreed about the role of physical therapist in conservative management of specific diseases while 38.1% orthopedic surgeons just agreed to this idea, out of 125 orthopedic surgeons. This aligns with previous findings by Mir et al. (2021), where orthopedic consultants acknowledged the role of advanced practice physiotherapy (APP) in pediatrics, seeing it as an integral part of a multidisciplinary approach that enhances service efficiency and patient care quality.(21) Our study also reveals a perception among medical doctors regarding physiotherapists' diversity to diagnose and treat, with 35 out of 125 orthopedic surgeons which constitutes 27.8%, 48 participants agreed with this concept which constitute about 38.1%, while 24 participants were uncertain about the physical therapist's diversity in diagnosis and treatment which constitutes about 19% of the total while 14.3% participants disagreed including



a specified medical diagnosis in their referrals. This contrasts with the findings of Volkmer et al. (2021), where physiotherapists on orthopedic wards expressed a need to balance protocol care with patient-tailored approaches, highlighting a desire for more integrated, collaborative practices within multidisciplinary teams.(22) The discrepancy could be attributed to differences in the perceived roles and competencies of physiotherapists, suggesting a need for clearer communication and understanding between professions as 32.5% strongly agreed, 57.1% participants just agreed whereas 9.5% participants are uncertain with the idea of professional competency of physical therapist out of total 125 participants. While searching orthopedic surgeons' perceptions on the significance of physical therapy in pre-operative patient recovery, it was discovered that out of 125 participants, 32.5% strongly agreed, 47.6% agreed, and 19.0% were unaware of the role of physical therapy in pre-operative patients. In addition to pre-operative role probing, out of 125 participants, 61.1% strongly agreed and 38.1% agreed on the post-operative function of physical therapy. Furthermore, our results point to a degree of uncertainty about the innovative capabilities of physiotherapy, mirroring the need for ongoing professional development and integration into the broader medical framework. In contrast, the study by Samsson et al. (2016) on physiotherapist-led orthopedic triage presents a model where physiotherapists assume a more central role in patient care, with patients reporting higher quality of care compared to standard practices.(23) This disparity indicates that, while opinions are evolving, there is still a gap in the full acknowledgment and use of physiotherapists' skills and autonomy in certain medical circles. In context of knowledge about the role of physical therapist in scientific and theoretical framework, 23.0%, 61.9% and 14.3% strongly agreed, agreed and uncertain respectively. Out of total 125 participants, 61.9% just agreed while 19.0% are uncertain about the autonomy of profession. These collective insights underscore the dynamic and evolving role of physiotherapy in orthopedic care. While there is recognition of its value, there also exists a need for enhanced understanding and collaboration between orthopedic surgeons and physiotherapists. Bridging this gap is crucial for optimizing patient care and fully leveraging the potential of physiotherapy within the healthcare system. The uncertainty about innovative physiotherapy methods, as indicated by 27.8% strongly agreed out of 125 respondents, 57% just agreed while 14.3% respondents are uncertain about the attributes of the rapid advancements and innovations in physiotherapy. This gap in knowledge may affect their perception of the field's effectiveness and scope.(24)

The study's limitations include sampling constraints due to the use of convenience sampling, which may not represent all orthopedic surgeons in South Punjab, and potential response biases from self-selection. Future research could overcome these limitations by using random or stratified sampling to ensure a more representative sample and by incorporating anonymous surveys to reduce social desirability biases. Additionally, increasing sample size and diversity across different regions would improve generalizability.

Conclusion

The study highlights a generally positive perception of physiotherapy among orthopedic surgeons but also identifies

areas of skepticism, particularly concerning the scope and autonomy of physiotherapists. To address these challenges, it is crucial to foster clearer communication and mutual understanding between the two professions. Actionable steps include joint training sessions, regular collaborative meetings, and the development of shared protocols for patient care, which would strengthen interdisciplinary relationships and optimize treatment outcomes.

REFERENCES

1. Justice C, Sullivan MB, Van Demark CB, Davis CM, Erb MJPT. Guiding Principles for the Practice of Integrative Physical Therapy. 2023;103(12):pzad138.
2. Kubińska Z, Zaworski K, Shpakou AJHPoC. PHYSIOPROPHALAXIS IN PHYSIOTHERAPY AND HEALTH PROMOTION. 2020;14(2):100-6.
3. Kesavayuth D, Shangkhum P, Zikos VJJoHS. Well-being and physical health: A mediation analysis. 2022;23(6):2849-79.
4. McClure P, Tevald M, Zarzycki R, Kantak S, Malloy P, Day K, et al. The 4-element movement system model to guide physical therapist education, practice, and movement-related research. 2021;101(3):pzab024.
5. Ogundunmade BGJJoP, Print- OT, Electronic-. The Imperatives of Critical Care Physiotherapy. 2022;16(1):63-7.
6. Abrandt Dahlgren M, Valeskog K, Johansson K, Edelbring SJPT, Practice. Understanding clinical reasoning: A phenomenographic study with entry-level physiotherapy students. 2022;38(13):2817-26.
7. Sadineni HS. Orthopedic Applications: Advancing Physiotherapy in Musculoskeletal Health. 2024.
8. Olson KA. Manual Physical Therapy of the Spine-E-Book: Elsevier Health Sciences; 2021.
9. Daley D, Payne LP, Galper J, Cheung A, Deal L, Despres M, et al. Clinical Guidance to Optimize Work Participation After Injury or Illness: The Role of Physical Therapists: Clinical Practice Guidelines Linked to the International Classification of Functioning, Disability and Health From the Academy of Orthopaedic Physical Therapy of the American Physical Therapy Association. 2021;51(8):CPG1-CPG102.
10. Kakegawa K, Matsuda TJS. Challenges and Prospects of Sensing Technology for the Promotion of Tele-Physiotherapy: A Narrative Review. 2024;25(1):16.
11. Keramat KU, Ahmad R, Darain H, Sajjad AGJRMJ. Evaluation of physicians' and surgeon's knowledge regarding physiotherapy in KPK Pakistan. 2020;45(4):850-.
12. Ahmad Z, Shah ZJRJoHS. Awareness of physical therapy among medical doctors in Swabi. 2021;3(1):43-7.
13. Alnajjar OO, Abo Musabeh AM, Hussain KI, Al Qedra IK, Hamdona A. Awareness, Perceptions and Beliefs About Physiotherapy Profession Among Orthopedists and Neurosurgeons Working in the Main Hospitals of the Ministry of Health in Gaza Strip. 2020.
14. Aimen I, Nawaz A, Qayyum Z, Maqsood M, Sultana RJPJoHS. Awareness, Belief, Attitude and Utilization of Physiotherapy Services Among Doctors: Awareness, Belief, Attitude and Utilization of Physiotherapy Services. 2022:91-5.



15. Irfan K, Amjad F, Arslan SAU, Ahmad A, Javaid F, Muhammad AS, et al. Perception Of Medical Practitioners Regarding Patient Referral to Physiotherapy: Perception Regarding Patient Referral to Physiotherapy. 2022;72-6.
16. DIN ST, SHAKEEL N. Factors Affecting the Extent of Utilization of Physiotherapy Services Among Orthopedic Consultants in Lahore, Pakistan. 2021.
17. Al-Eisa ES, Al-Hoqail H, Al-Rushud AS, Al-Harhi A, Al-Mass B, Al-Harbi BM, et al. Awareness, perceptions and beliefs about physiotherapy held by physicians working in Saudi Arabia: a cross-sectional study. 2016;28(12):3435-9.
18. Alshehri MA, Alhasan H, Alayat M, Al-Subahi M, Yaseen K, Ismail A, et al. Factors affecting the extent of utilization of physiotherapy services by physicians in Saudi Arabia. 2018;30(2):216-22.
19. Shah R, Ijaz S, Ali M, Saeed S, Sultan SJJOWM, College D. Awareness of Physiotherapy among Medical Professionals: A Cross Sectional Survey. 2023;1(4).
20. Fatima A, Murtaza FJPJoPT. AWARENESS, PRECEPTION AND BELIEFS ABOUT PHYSICAL THERAPY AMONG PAKISTANI PHYSICIANS. 2022.
21. O Mir M, Blake C, Cunningham C, Fennelly O, O'Sullivan CJMC. Orthopaedic consultant surgeons perceptions of an advanced practice physiotherapy service in paediatrics: A qualitative study. 2021;19(2):149-57.
22. Volkmer B, Sadler E, Lambe K, Martin FC, Ayis S, Beaupre L, et al. Orthopaedic physiotherapists' perceptions of mechanisms for observed variation in the implementation of physiotherapy practices in the early postoperative phase after hip fracture: a UK qualitative study. 2021;50(6):1961-70.
23. Samsson KS, Bernhardsson S, Larsson MEJBmd. Perceived quality of physiotherapist-led orthopaedic triage compared with standard practice in primary care: a randomised controlled trial. 2016;17(1):1-10.
24. Grevnerts HT, Krevers B, Kvist JJBMD. Treatment decision-making process after an anterior cruciate ligament injury: patients', orthopaedic surgeons' and physiotherapists' perspectives. 2022;23(1):1-12.



CONFLICT OF INTEREST

Authors declared no conflict of interest, whether financial or otherwise, that could influence the integrity, objectivity, or validity of their research work.

GRANT SUPPORT AND FINANCIAL DISCLOSURE

Authors declared no specific grant for this research from any funding agency in the public, commercial or non-profit sectors

DATA SHARING STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request



This is an Open Access article distributed under the terms of the Creative Commons License Online Research Publications by authors is licensed under a Creative Commons Attribution-Non-commercial, No Derivatives 4.0 International License.

SJPTR web address: www.sjptr.pk
Email address: sjptr@superior.edu.pk