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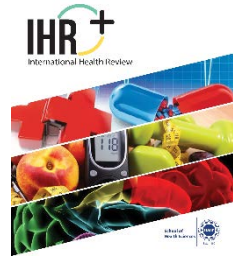
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Clinical Leadership Perspectives: Advancements in Manual Physical Therapy Practice with the Pakistani Context

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ABSTRACT

Physical therapy is a healthcare discipline that is dedicated to help individuals and patients in maintaining their health while optimizing their strength, function, and movements. Pakistan being a developing country, experiences a slower pace in the establishment of advancements in the medical professions. Whereas physical therapy is significantly improving day by day in Pakistan; additionally, this study aims to discuss the advances, in manual therapy concerning the physical therapy profession in Pakistan. This study aimed to evaluate the perception of clinical leadership and its recent advancements concerning the manual physical therapy practice in Pakistan for the preceding year. For this purpose, semi-structured interviews were conducted with 10 physical therapists from 5 different cities in Pakistan. Physical therapists with at least 10 years of clinical practice were included in the data collection. The interviews were audio/video recorded, data verbatim transcribed, and analyzed manually by open coding and in-vivo coding. Furthermore, thematic analysis was done to identify different elements of recent advancements concerning manual physical therapy by finding the appropriate patterns in the gathered data. The results showed that advancements occurred in the last decade, such as international certifications, workshops, hands-on practice and master programs. There is lack of awareness, gender barriers, and financial constraints in adopting new advancements. The focus was shifted more toward muscle energy technique and myofascial release. Modalities were preferred in the past for pain relief; however, in the recent decade, they have been replaced by manual therapy techniques. Pain management and prognosis are better with manual therapy. These advancements will be cost-effective for the patient. This study concluded that manual therapy in Pakistan has undergone a significant transformation during the last preceding years. There is still great potential for more advancement in manual therapy techniques in Pakistan.

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Keywords: clinical leadership, manual therapy, muscle energy, physiotherapy techniques, physical therapy specialty

1. INTRODUCTION

Physical therapy is a healthcare profession that aids individuals and patients in both prevention measures and the overall promotion of health. It helps individuals to re-establish, maintain, and make the best use of their strength, function, and movements [1]. The major role of physical therapy is to improve functional disabilities where specific functions and movement are affected by disability, disease, aging, and injury [2]. This profession instills confidence in patients, enabling them to remain active at work while promoting and preserving their independence for extended working hours [3]. Significantly, physical therapists perform various distinct tasks in outpatient centers, inpatient setups, research departments, schools, recovery departments, offices, fitness centers, geriatrics, pediatrics, women's health, orthopedic, and sports [4].

Physical therapy plays an essential role in the healthcare system and promotes physical, psychological, emotional, and social well-being as a whole [5, 6]. Physical therapists utilize their knowledge and skills to improve the scope of conditions related to various frameworks of the body, for example, neuromuscular, musculoskeletal, cardiovascular, and respiratory [7]. In ancient times, physical therapy treatment commonly involved massage treatment. Formal education in physical therapy commenced in different countries during the early nineties, including America, Europe, Canada, and Australia [8, 9]. However, in developing countries, particularly after the post-mid-nineties, the physiotherapy profession was introduced. This was evident in countries like Pakistan, India, and Nigeria, in which the establishment took several decades to introduce physiotherapy as a formal education discipline. Approximately 3 decades ago, physical therapy services were commenced in Nepal. During this time, a selected group of nurses from Bir Government Hospital were provided physiotherapy training, and subsequently, they continued their work as a physiotherapist [10]. Similar challenges were faced by physical therapists in the Iranian healthcare system [11]. Several Indian physiotherapists migrated to foreign countries for their study purposes and work due to less importance of the physical therapy field [12].

Physical therapist specialization is the after-effect of in-depth information, abilities, and skills accomplished by a physical advisor who is often qualified in a particular region, inside the scope of practice perceived as physical therapy. This typically results from defined training and educational pathways, related to a formal procedure for testing and recognizing the higher level acquired; however, it might also be shown because of the casual learning and experience [13]. Manual therapy reduces pain and improves joint mobility, it's easy for a patient to regain movement patterns and restore functions after the therapy. Previous research has confirmed that when manual treatment is joined with therapeutic exercise, it doubles the positive results for patients. Hence, manual therapy is a method to be utilized in combination with exercise during the episode of caregiving [14]. Manual therapy treatment is different for different patients' physical conditions. Physical therapy practitioners are specialized as manual therapists, respiratory therapists, chiropractic, and osteopathic physicians [15].

In this study, the recent advancements in manual physical therapy practice that took place during the last decade in Pakistan were identified. Some advancement in manual therapy has been made in Pakistan but there is still a need for more progress. Manual Physical Therapists (MPT) in Pakistan know their weaknesses in resources and they understand it is more challenging to apply evidence-based practice in daily routine. This study will be helpful for the researchers and clinicians of developing countries to compare their manual physical therapy advancements. Skilled physiotherapists from different countries may use this information for comparison and can give suggestions to implement new techniques in developing countries.

2. METHOD

A qualitative study design was used and followed as per the guidelines of the Standard for Reporting Qualitative Research (SRQR). A purposive sampling technique was used for the data collection and the sample consisted of 10 participants based on the data required for qualitative studies (in-depth semi-structured interviews) [16–18]. The purpose was to evaluate the perception of clinical leaders on recent advancements concerning the manual physical therapy practice for the last preceding years in the Pakistani context. The study was conducted in 5 big cities of Pakistan, to explore the perceptions and experiences of senior

physiotherapists working in different cities and facing the challenges in promoting the advanced methods in the physical therapy field. Participants who were confronting challenges for the growth of this emerging field were taken from the Lahore (Pakistan Society for Rehabilitation of the Disabled, PSRD), Multan (Nishter Hospital), Islamabad (Shifa International Hospital), Faisalabad (Allied Hospital), and Jhang (Civil Hospital). The study initially began after the approval from Riphah International University with reference no. of REC/RCRS/20/1020.

Physiotherapists with clinical experience in manual therapy of more than 10 years were included (age>35 and male participants) who had done their post-graduation in musculoskeletal/manual therapy and had experience as clinical leaders. However, those physiotherapists were excluded from the study who worked in academics (neurologists). Furthermore, interviews were conducted based on a semi-structured questionnaire. Audio-recorded interviews were verbatim transcribed and analyzed manually by utilizing open coding and in-vivo coding [18, 19]. Each interview session lasted for 30-45 minutes and involved an interviewer equipped with an audio recorder. Manual data analysis was performed by using a thematic analysis in which various themes were identified according to their responses [20].

3. RESULTS

Table 1. Demographic Characteristics of the Participants

Sr.No.	Age	Gender	Experience (Years)	City
1	45	Male	16	Lahore
2	37	Male	14	Lahore
3	42	Male	15	Multan
4	41	Male	16	Multan
5	38	Male	13	Faisalabad
6	38	Male	16	Jhang
7	45	Male	18	Jhang
8	46	Male	18	Islamabad
9	43	Male	15	Islamabad
10	44	Male	17	Lahore

The characteristics of the participants are shown in Table 1. Thematic analysis was done manually and important elements are listed in Tables.

Based on these themes and sub-categories, results were compiled shown in Table 2-4.

Table 2. Current Status, Advancements and Positive factors

Perception about the current status of manual physical therapy practice in Pakistan (Themes)
1. Good current status
2. Lack of evidence and certification
3. Essential assessment and treatment
4. Lack of practice
5. Key of Musculoskeletal problems
6. Difficult for female PT
7. Bookish knowledge is more in student life
The manual physical therapy practice a decade before (Themes)
1. Not common
2. Stretching and Mobilization techniques
3. Unknown Profession
Advancements in manual physical therapy practice during last decade in Pakistani context (Themes)
1. International Certification
2. Workshops and Hands-on practice
3. Master Programs
4. Focus shifted to METS and Myofascial Release
5. More Manual Therapists than a decade
6. Modalities to Manual Physical therapy practice
Perceptions what were the positive factors that contributed to these advancements in manual physical therapy (Themes)
1. Decrease no. of visits
2. Patient pain free
3. International certification
4. Treating Musculoskeletal problems
5. Enhances interest of people
6. Breaking status of old modality practice

Table 2 shows perception about the current status of manual therapy in Pakistan, the manual physical therapists responses in order of priority were; currently there is lack of evidence, certification, and clinical

practice. Manual therapy is an important key to all types of musculoskeletal problems. It seems to be more challenging for female physiotherapists to perform manual therapy techniques. Bookish knowledge is more in student life as compared to clinical practice. In response to how manual physical therapy was practiced a decade before, numerous experts responded that it was not common in the past, whereas some responded that stretching and mobilization techniques were used and some manual therapists said it was an unknown profession. Respondents noticed advancements in manual physical therapy practice in the Pakistani context over the past decade. According to their prioritization, these advancements included international certification, workshops, hands-on-practice and master's programs. The focus was shifted to muscle energy techniques (METS) and myofascial release. In the order of priority, the positive factors that contributed to these advancements in manual physical therapy were a significant decrease in number of patient's visit for therapy and make patients pain-free in short time.

Table 3. Barriers, Patient Care and Affordability

Barriers in adopting new advancements in manual physical therapy practice in Pakistan (Themes)	
1.	Lack of evidence
2.	Lack of awareness
3.	Gender barriers
4.	Financial constraints
5.	Poor Management and administration
6.	Less learning resources and practice patterns
7.	Effectiveness of old methods
8.	Psychosocial barriers
Advancements affect clinical practice or patient care for patients with musculoskeletal problems (Themes)	
1.	Improving but the process is slow
2.	Cure MSK pain and disability in patients
3.	The session has been short
4.	Treatment quality has improved
5.	Pain management is better
6.	Better know their prognosis
7.	Positively affected

Impact of these advancements on the affordability of manual physical therapy care for the patients (Themes)

1. Does not put a great impact
 2. Not cost-effective
 3. Made treatment cheap
 4. Sometimes it is affordable for patients
 5. In long term, it is cost-effective
-

Table 3, describes a continuation of the previous question regarding the barriers concerning new advancements in manual physical therapy practice in Pakistan. Several respondents in response to this question indicated that manual physical therapists set their priorities as lack of evidence, lack of awareness, gender barriers, financial constraints, poor management and administration, fewer learning resources, practice patterns, effective old traditional methods and psychosocial barriers. Advancements affect clinical practice or patient care for individuals with musculoskeletal problems. According to respondents, the order of priority is as follows; improvements are occurring, musculoskeletal (MSK) pain and disability in patients are being treated, the treatment quality has improved, pain management is getting better for their prognosis, and positive outcomes. In response to the question about the impact of these advancements on the affordability of manual physical therapy care, manual physical therapists expressed varied opinions. Some said, “It does not have a great impact”, while others mentioned “It is not cost-effective”, and a few respondents said “It made treatment cheap”, and at times “It is affordable for patients” and very few manual physical therapists indicated, “in long-term, it is cost-effective”.

The impact of these advancements on the quality of manual physical therapy care was assessed, with the maximum number of respondents indicating that it enhances the quality and a few manual physical therapists expressed that the quality is not effective, as shown in Table 4. The advancements were positively effective for the treatment outcomes of the patients. Furthermore, all manual physical therapists expressed that yes it affected significantly and positively for the patients. Moreover, manual physical therapists suggested more improvements in the current manual physical therapy care, prioritizing areas, such as using it on the proper candidate. The manual therapists suggest encouraging practice during house jobs, increasing clinical time (practice), evidence-based practice,

and enhancing better assessment and examination skills along with certifications. Additionally, it was observed that manual physical therapy practices will become more advanced in the future, reaching an excellent standard. Some manual physical therapists believe that there will be a shift towards incorporating gadgets, assistive machines, and employing soft hands with the strength to tackle bone issues.

Table 4. Impact, Effects and Suggestions of manual therapy

Impact of these advancements on the quality of manual physical therapy care (Themes)
1. Enhances the quality
2. Not effective
Do these advancements positively affect the treatment outcomes of the patients?
1. Yes
Suggestions for more improvements in the current manual physical therapy care (Themes)
1. Use it on proper candidate
2. Encourage to practice it during house job and clinical time
3. Evidence-based practice
4. Better Assessment and examination
Manual physical therapy practice a decade later (Themes)
1. Will more advance in future
2. Reach an excellent level of standard
3. Shifted towards gadgets and assistive machines
4. Soft hands with strength of tackling bone issues

4. DISCUSSION

The important elements of new advancements in manual physical therapy, in the order of priority, were identified as, international certification, workshops, hands-on practice, and a master's program. A study on recent advances in rehabilitation concluded that in Western countries 13-14% of the population have some degree of disability. The demand for therapy services is expected to increase as more people stay alive longer with substantial disabilities. Strong evidence supports the notion that planned, coordinated, multidisciplinary therapy services based on a problem-oriented approach, are also considered effective.

Rehabilitation has recently witnessed numerous practical innovations and new evidence for specific interventions in the recent times; however, it is emphasized that the major advances in rehabilitation are conceptual rather than clinical [21, 22]. Studies were conducted on the perception of patients regarding manual therapy services. The study focused on understanding the perception of Australian patients toward manual treatments, contributing to an increased understanding of techniques utilized by manual specialists [23]. Additionally, Aiken AB et al. conducted a study on the role of advanced practice in physical therapy (APP) in outpatient orthopedic clinics. The findings suggested that APP can effectively manage over 30% of the patients referred to a surgeon, as these patients require conservative management for hip or knee replacement rather than surgery [24].

Derick T Wade and Bareld A. De Jong conducted a study on recent advances in rehabilitation. The current evidence strongly supports the provision of well-planned, coordinated, multidisciplinary therapy services based on a problem-oriented approach. Rehabilitation has witnessed practical innovations and anticipates new evidence for specific interventions in the future. The scope of rehabilitation is too large to cover all major advances [22]. To enhance the use of different specialties in physical therapy, there is a suggestion to implement post-graduate residency and fellowship programs and focus on developing a new model for the future of physiotherapy and post-professional programs. The focus should be on developing a new model for the future of physiotherapy and post-professional programs [25, 26]. Biswas Amrit conducted a study on recent advancements in the field of physiotherapy. The practice of physiotherapy has evolved and improved as compared to the past. Physiotherapy has undergone significant changes since its inception. In the earlier era, electrotherapy and physiotherapy were considered the most important part of rehabilitation. However, with time, many other sectors of interest have emerged in the field of physiotherapy. The development of manual therapy has occurred through a process of clinical reasoning, which is a step toward evidence-based practice. This shift makes the practice more science-oriented than reliant on individual clinical expertise and treatment by convention [27].

Manual therapy is widely utilized in different professions, especially for managing musculoskeletal pain. Despite its intervention importance,

several systematic reviews did not support manual therapy interventions [28]. Manual therapists possess the artistry, using the best tools for the treatment. Manual therapy, when combined with conservative management, yields better results and proves to be cost-effective [29]. Manual therapy interventions should be examined at the cellular level, exploring various physiological aspects, such as fascia, fibroblastic activity, anti-inflammatory chemicals, growth factors, wound healing, and muscle repair [30]. In some editorials, the credibility of manual therapy has been questioned, pondering whether it will remain a usable technique for pain relief in the future or become an old-fashioned approach. To enhance the manual therapy concept, different models and approaches have been integrated into the concept for the enhancement of manual therapy use [31]. A multimodal approach involving manual therapy and patient education leads to better outcomes as compared to other manual therapy alone. In future, it is suggested that neurophysiological measures and genetic characteristics should also be linked with manual therapy [32]. One significant limitation of the current study was the challenge of coordinating with participants due to their physical absence,

4.1. Conclusion

Pakistan is a developing country and a decade before manual therapy was an unknown profession in Pakistan. Physical therapists have more bookish knowledge than clinical practice. Clinicians preferred to use modalities in the past than using manual treatments. New advancements, including international certification, hands-on practices, and master's programs in different specialties, were made recently. However, manual therapy will likely shift towards assistive technologies in the future. There is still considerable potential for further advancements in manual therapy techniques in Pakistan.

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