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Original Article

Barriers in Practicing Musculoskeletal Outcome Measurement Tools among Physiotherapists: A Cross Sectional Survey

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ABSTRACT

Background: Assessment tools in clinical practice are important for determining the impact of treatment and evaluating the effectiveness of physical therapy programs. They provide accountability and help set better treatment goals. However, research has shown that there is a lack of use of measurement tools in daily practice, which hinders the implementation of guidelines.

Objectives: To evaluate the barriers in using musculoskeletal outcome measurement tools in clinical practice.

Methods: This study used a cross-sectional survey design and included 196 professional physical therapists. The survey was administered using a questionnaire containing 40 closed-ended questions and was distributed online and via email to physical therapists who work with musculoskeletal patients. Data was analysed using IBM SPSS v22, with quantitative variables reported as mean and standard deviation, and qualitative variables reported as percentages and frequencies.

Results: The study found that 48% of the sample were male and 52% were female. Additionally, 76% of participants were less than 30 years old and 24% were over 30 years old. In terms of education, 12% had a Bachelor of Science in Physiotherapy (BSPT) degree, 50% had a Doctor of Physiotherapy (DPT) degree, and 30% had a master's degree (MS). The data also revealed that 3.3% disagreed, 16.7% neither agreed nor disagreed, 66.7% agreed, and 13.3% completely agreed with the "Agreement Status" variable.

Conclusion: The study found that physical therapists have a positive understanding of the importance of using outcome measures, but there is room for improvement. The main barriers identified were related to the physical therapists themselves, such as lack of competence and difficulty adapting to change, as well as organizational issues such as lack of space and support from management. The study suggests that strategies should be implemented to overcome these barriers.

Keyboards: Barriers, Practice Patterns, Musculoskeletal Outcomes, Physiotherapists

INTRODUCTION

Physiotherapy, also known as physical therapy, is a medical specialty that aims to restore, maintain, and improve a patient's mobility, function, and overall well-being. Physiotherapists employ a variety of techniques, such as exercise, manual therapy, and modalities, to help patients recover from injuries or illnesses and improve their physical function (1). They treat a wide range of conditions, including musculoskeletal, neurological, respiratory, and sports injuries, as well as chronic diseases. Physiotherapy may be provided at a private clinic, hospital, or in the community (2, 3).

During a physiotherapy evaluation, the physiotherapist will interview the patient, conduct a physical examination, and develop a treatment plan tailored to the patient's individual needs (4, 5). Outcome measures (OMs) are an important tool for assessing the effectiveness of physiotherapy treatment (6). These measures may include pain, function, quality of life, patient satisfaction, and the ability to return to work or daily activities. Gait analysis may also be used to evaluate the patient's walking pattern (7, 8).

The use of OMs in everyday practice is low, but there is an increased demand for physiotherapists to use valid and reliable standardized outcome tools (9). This is due to the emphasis on evidence-based practice. Outcome measures evaluate the effectiveness of physiotherapy interventions and contribute to the professional development of health care providers by critically evaluating and improving their own actions (10). The practice of evaluating and quantifying qualitative symptoms through indices and standard scales is called clinometric.(11). It is a part of good professional practice and clinical guidelines recommend its use (12).

The use of musculoskeletal outcome measurement (OM) tools in physiotherapy practice is important for evaluating the effectiveness of treatment interventions and for tracking patient progress (13). However, there may be barriers to the use of these tools among physiotherapists (14). These barriers may include lack of knowledge and training on how to use the tools, lack of time to administer the tools in a busy clinical setting, lack of support from colleagues and supervisors, and lack of reimbursement for using the tools (15). Additionally, some physiotherapists may feel that the tools are not relevant to their practice or that they do not have the necessary technical skills to use them effectively (16). Understanding these barriers is important for identifying ways to promote the use of OM tools among physiotherapists and for improving patient outcomes (17).

The use of musculoskeletal outcome measurement tools in physiotherapy practice may be limited due to a variety of factors. Some studies suggest that a lack of knowledge or training in the use of these tools may be a barrier, as physiotherapists may not feel confident in their ability to properly administer and interpret the results (18). Additionally, a lack of time or resources within clinical settings may also contribute to a lack of use of these tools. Furthermore, some physiotherapists may feel that the use of these tools is not necessary for their practice or that the results do not provide any significant benefit to their patients (19).

Additionally, some studies have found that the lack of standardization and lack of validation of these tools may hinder the widespread use among physiotherapists.(20) There is also a lack of research that demonstrate the direct correlation between the use of musculoskeletal outcome measurement tools and the improvement of patient outcomes, which may also contribute to physiotherapists not implementing these tools in their practice (21).

It is important to note that these are only potential barriers and more research is needed to fully understand the reasons why physiotherapists may not be using musculoskeletal outcome measurement tools in their practice (22). It is important to note that the use of these tools is not mandatory in physiotherapy practice, and some physiotherapists may have their own methods for evaluating and measuring patient outcomes that they find effective (23).

MATERIAL AND METHODS

A cross-sectional survey was used, utilizing a questionnaire developed through a literature review and semi-structured interviews. This study aimed to explore the potential barriers that physiotherapists may face when providing musculoskeletal care in clinical settings in the Punjab region. A total of 196 physiotherapists with at least one year of experience treating musculoskeletal cases in

both public and private sectors were recruited for the study. The questionnaire included seven categories of barriers, as previously identified by Cochrane in a previous research study, and Cronbach's alpha test was used to assess the internal consistency reliability of the questionnaire. After revisions, a final version of the questionnaire was finalized. The outcome measures for the study included the seven categories of barriers, including organizational supports (e.g. financial resources, time), intellectual (e.g. knowledge, perception, competence), professional (e.g. caliber, capability, practice experience, coworkers influence), management system (e.g. workload, framework, referral process), analytical (e.g. self-perception of capabilities, outcome expectancy, authorization), clinical practice guidelines (e.g. utilization, access at workplace, local application), and patient-based factors (e.g. characteristics, compliance with treatment). These outcome measures were used to gain insight into the potential barriers physiotherapists may face in their practice and may help inform strategies for overcoming these barriers.

RESULTS

The results regarding Gender, showed that out of the total sample size of 196 participants, 96 (48%) were male and 104 (52%) were female. The results regarding Age, showed that 152 (76%) were less than 30 years old, and 48 (24%) were greater than 30 years old. The results regarding, Highest earned degree, showed that, 25 (12%) had a Bachelor of Science in Physiotherapy (BSPT) degree, 99 (50%) had a Doctor of Physiotherapy (DPT) degree, and 76 (30%) had a master's degree (MS). The results regarding, Years since graduation, showed, 145 (72%) had graduated less than 5 years ago, and 55 (28%) had graduated more than 5 years ago. The results regarding, Student clinical education, shows that out of the total sample size of 196 participants, 124 (62%) had no student clinical education, and 76 (38%) had student clinical education.

Table 1: Biographic Information

Variable		Frequency	Percentage
Gender	Male	96	48
	Female	104	52
Age	Less than 30	152	76
	Greater than 30	48	24
Highest earned degree	BSPT	25	12
	DPT	99	50
	MS	76	30
Years since graduation	Less than 5	145	72
	Greater than 5	55	28
Student clinical education	No	124	62
	Yes	76	38
Item	Mean	Std deviation	
Total Score	71	11.45	

Table 1 regarding Gender, showed that out of the total sample size of 196 participants, 96 (48%) were male and 104 (52%) were female. The results regarding Age, showed that 152 (76%) were less than 30 years old, and 48 (24 %) were greater than 30 years old. The results regarding, Highest earned degree, showed that, 25 (12%) had a Bachelor of Science in Physiotherapy (BSPT) degree, 99 (50%) had a Doctor of Physiotherapy (DPT) degree, and 76 (30%) had a master's degree (MS). The results regarding, Years since graduation, showed, 145 (72%) had graduated less than 5 years ago, and 55 (28%) had graduated

more than 5 years ago. The results regarding, Student clinical education, shows that out of the total sample size of 196 participants, 124 (62%) had no student clinical education, and 76 (38%) had student clinical education. The results regarding total scoring of item wise agreement showed that the mean and std deviation found to be 71 ± 11.45.

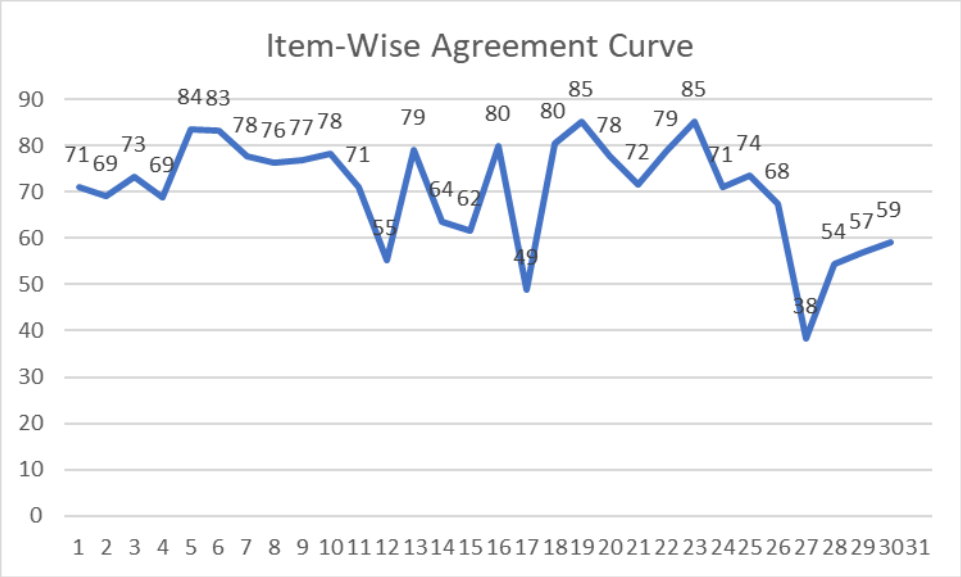

Figure 1 Item wise Agreement Curve

This graph,Figure 1, shows that there was the fluctuation in the scoring of the item wise agreement but the mostly the participants remaining in the higher value of the agreement.

Table 2: Agreement Status

Agreement Status	Frequency	Percent
Disagree	1	3.3
Disagree Nor agree	5	16.7
Agree	20	66.7
Completely agree	4	13.3

This Table 2, presents the frequency and percentage of items for a variable called "Agreement Status." The data shows that 1 out of 30 items (3.3%) disagreed, 5 out of 30 (16.7%) neither agreed nor disagreed, 20 out of 30 (66.7%) agreed, and 4 out of 30 (13.3%) completely agreed.

DISCUSSION

The study aimed to understand the barriers that therapists face while providing physiotherapy services in clinical settings of Physiotherapy in Punjab. A total of 196 qualified physical therapists with experience of more than 1 year dealing with musculoskeletal cases in public and private sectors were recruited as participants. A qualitative cross-sectional survey method was used to conduct this study.(24) The study collected data from a sample of 196 participants and analysed various demographic and educational characteristics of the participants. The results revealed that there were roughly equal numbers of male and female participants, with 48% being male and 52% being female. This suggests that the study had a relatively balanced representation of both genders. With regards to age, 76% of the participants were less than 30 years old, and 24% were greater than 30 years old. This indicates that many of the participants were relatively young. The study also looked at the highest degree earned by the

participants and found that 12% had a Bachelor of Science in Physiotherapy (BSPT) degree, 50% had a Doctor of Physiotherapy (DPT) degree, and 30% had a master's degree (MS). This suggests that most of the participants had advanced degrees in physiotherapy. The results also show that 72% of the participants had graduated less than 5 years ago, and 28% had graduated more than 5 years ago. This implies that most of the participants were relatively recent graduates. Additionally, 62% of the participants had no student clinical education, while 38% had student clinical education. This tells us that most of the participants had not had clinical education. The total scoring of item wise agreement had a mean of 71 and a standard deviation of 11.45, indicating that there was fluctuation in the scoring of the item wise agreement, but most participants had a higher value of agreement. This may indicate that participants generally agreed with the items being evaluated, but there was a range of responses. Finally, the table presents the frequency and percentage of responses for a variable called "Agreement Status." The data shows that 1 out of 30 items (3.3%) disagreed, 5 out of 30 (16.7%) neither agreed nor disagreed, 20 out of 30 (66.7%) agreed, and 4 out of 30 (13.3%) completely agreed. This suggests that most of the participants either agreed or completely agreed with the items being evaluated, with a small minority who disagreed or neither agreed nor disagreed.

The study revealed that several factors were barriers in implementing outcome measures in daily practice. The lack of confidence in their own knowledge and skills was one of the main barriers that the participants faced. Many of the therapists were not willing to change their usual routines, and they felt that they did not have the necessary physical space to implement outcome measures.(25) Additionally, many participants were not aware of the appropriate times to use outcome measures, which made it difficult for them to integrate them into their daily practice.(26) Despite these barriers, the participants generally had a positive attitude towards using SOMTs and were satisfied with their degree, training, and peer support.(27) However, to meet the needs of standard guidelines, professionals still want to invest in their knowledge and a positive sense of awareness is seen among professionals. Overall, there is a need to use outcome measures for prognostic purposes along with evaluative purposes equally to come at par with the professional development.(28) To overcome these barriers, it is essential to provide ongoing training and support to the therapists, so that they can improve their knowledge and skills, and feel more confident in implementing outcome measures in their daily practice. Additionally, it would be beneficial to create more physical space and resources to support the use of outcome measures, and to raise awareness among therapists about the appropriate times to use them.(29)

CONCLUSION

The results revealed that while physical therapists generally recognize the importance of using such tools, they face challenges in terms of competence, difficulty in changing established routines, and lack of organizational support in terms of physical space and management. To address these barriers, it is crucial to develop and implement effective strategies that can help physical therapists overcome these challenges and improve the use of outcome measurement tools in their practice. This can ultimately lead to better patient outcomes and more efficient use of resources.

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