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THERAPEUTIC ALLIANCE IN PHYSIOTHERAPY DEPARTMENT OF HOSPITALS OF ISLAMABAD USING WORKING ALLIANCE INVENTORY AND HELPING ALLIANCE QUESTIONNAIRE (A CROSS-SECTIONAL STUDY)

Original Research

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ABSTRACT

Background: In Pakistan, physiotherapy is often underutilized as a primary treatment modality due to limited public awareness and delayed patient engagement. Typically, patients seek physiotherapy only after medical referral and often exhibit uncertainty or mistrust toward their physiotherapists. Given the growing recognition of therapeutic alliance (TA) as a determinant of treatment success, this study aimed to explore the nature and strength of the therapeutic relationship within physiotherapy departments in hospitals based in Islamabad.

Objectives: To assess the perceived level of helping alliance among patients using the Helping Alliance Questionnaire-II (HAQ-II); to evaluate the correlation between patient and therapist responses on the HAQ-II; to determine the therapeutic working alliance using the Working Alliance Inventory–Short Revised (WAI-SR); and to explore the relationship between HAQ-II and WAI-SR scores.

Methods: This was a descriptive cross-sectional study involving 200 participants, including 150 patients and 50 physiotherapists, recruited through convenience sampling from hospitals in Islamabad. Inclusion criteria involved adults aged 18 years and above currently receiving physiotherapy care. Data were collected using two validated tools: the HAQ-II and WAI-SR. Descriptive statistics, Pearson and Spearman correlations, chi-square tests, and confidence interval analyses were used for statistical evaluation.

Results: The mean HAQ-II score for patients was 5.24 (SD = 0.564) and for therapists was 4.84 (SD = 0.548). Pearson correlation between versions was 0.090 ($p = 0.535$) and Spearman's rho was 0.128 ($p = 0.374$), both indicating weak, non-significant relationships. Chi-square values were significant for both patient ($\chi^2 = 71.040$, $df = 2$, $p < 0.001$) and therapist versions ($\chi^2 = 81.520$, $df = 3$, $p < 0.001$), showing differing perceptions. No significant distributional relationship was found between HAQ-II and WAI-SR ($p = 0.981$).

Conclusion: The study highlights the perceptual differences between patients and therapists regarding the therapeutic alliance, emphasizing the importance of integrating both perspectives to foster trust and improve physiotherapy outcomes.

Keywords: Helping Alliance, Patient-Therapist Relationship, Physiotherapist, Therapeutic Alliance, WAI-SR, Working Alliance Inventory, HAQ-II.

INTRODUCTION

Physiotherapy, long regarded as a supplementary healthcare modality, is now gaining recognition as a vital component of modern medicine. From alleviating chronic pain to improving functional mobility in individuals with physical disabilities, physiotherapy offers a broad spectrum of therapeutic interventions. Central to its effectiveness is the concept of the therapeutic alliance (TA), a dynamic and collaborative relationship between the patient and therapist that significantly influences treatment outcomes. Over the past decade, this alliance has garnered increasing attention within physiotherapy research, emerging as a pivotal factor in clinical success. Studies have consistently shown that a strong TA correlates with improved patient outcomes, enhanced compliance, and greater satisfaction with care (1–3). Despite this growing interest, there remains limited conceptual clarity and empirical understanding of what constitutes a therapeutic alliance in physiotherapy settings, especially when compared to its origins in psychotherapy (4,5). The theoretical foundation of the therapeutic alliance is rooted in psychoanalytic traditions, particularly Freud's constructs of transference and countertransference. However, Carl Rogers was among the first to underscore the importance of the patient's subjective experience within the therapeutic relationship, emphasizing empathy, congruence, and unconditional positive regard as critical components (6). Building on these early insights, Bordin later introduced the tripartite model of the Working Alliance (WA), delineating three core elements: agreement on goals, assignment of tasks, and development of a personal bond (7). While Bordin's model has been widely adopted in psychotherapeutic contexts, its applicability in physiotherapy may be constrained due to the distinct nature of physiotherapeutic care—characterized by manual interventions, therapeutic touch, exercise prescription, and physical rehabilitation techniques. These elements introduce complexities into the therapeutic relationship that extend beyond verbal interaction and emotional rapport, highlighting a need for a more tailored framework within physical therapy (8).

The patient-therapist relationship in physiotherapy is inherently multifaceted, involving shared decision-making, mutual trust, and interpersonal sensitivity. Literature suggests that a robust therapeutic alliance contributes not only to better clinical outcomes but also to increased patient autonomy and motivation (9). Physiotherapists are uniquely positioned to activate their patients' internal resources by integrating psychological strategies into their clinical practice, thereby enhancing self-efficacy and promoting active engagement in care (10). Furthermore, physiotherapists must balance their communication approaches to avoid reinforcing maladaptive behaviors, particularly in patients with chronic pain conditions, while fostering a sense of agency and control (11). Research from diverse branches of physiotherapy supports the assertion that therapeutic alliance is more than a relational concept—it is a therapeutic tool in its own right (12,13). Despite this, little is known about the status and quality of therapeutic alliances in physiotherapy departments in Pakistani healthcare settings, particularly in tertiary hospitals in Islamabad. Given the cultural, systemic, and interpersonal factors that may influence patient-practitioner interactions in this context, a deeper understanding is both timely and necessary. Employing validated tools such as the Working Alliance Inventory-Short Revised (WAI-SR) and the Revised Helping Alliance Questionnaire (HAq-II), this study aims to evaluate the therapeutic alliance within the physiotherapy departments of hospitals in Islamabad. The findings will not only inform healthcare providers and policymakers about the importance of cultivating a strong therapeutic alliance but may also guide the development of clinical protocols and professional standards that foster alliance-based practices across various medical disciplines. Therefore, the objective of this study is to assess the nature and strength of the therapeutic alliance in physiotherapy departments using standardized tools, with the aim of promoting evidence-based strategies to enhance patient care outcomes in Islamabad and beyond.

METHODS

This descriptive cross-sectional study was conducted in the physiotherapy departments of various hospitals in Islamabad with the aim of assessing the therapeutic alliance between physiotherapists and their patients. The study included a total of 200 participants, consisting of 50 physiotherapists and 150 patients, selected through a convenience sampling technique. Participants were adults aged 18 years and above, of either gender, who were currently receiving physiotherapy treatment within hospital settings in Islamabad. All participants were required to provide written informed consent, and only those who could understand the language of the assessment tools—or had access to reliable translation assistance—were eligible for inclusion. Exclusion criteria included individuals under 18 years of age, patients not undergoing physiotherapy at the time of the study, residents from outside Islamabad, those who were unable or unwilling to

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provide consent, and individuals with cognitive impairments or significant communication barriers that could interfere with accurate completion of the questionnaires (14). These criteria ensured that only relevant and reliable data were captured for analysis.

Two validated tools were used for data collection: the Revised Helping Alliance Questionnaire (HAQ-II) and the Working Alliance Inventory—Short Revised (WAI-SR). The HAQ-II focused on evaluating patients' perceptions of the therapeutic relationship, emphasizing trust, collaboration, and empathy. The WAI-SR was employed to assess the strength of the alliance based on three core dimensions—bond, goal agreement, and task collaboration—between the therapist and the patient. Both instruments are well-established in clinical research and have demonstrated reliability in assessing therapeutic alliance across healthcare contexts. Ethical approval for this study was obtained from the relevant institutional review board (IRB). All procedures adhered to the ethical principles outlined in the Declaration of Helsinki and national regulatory standards. Prior to participation, all individuals were informed about the nature and objectives of the study, assured of confidentiality, and advised of their right to withdraw at any point without penalty. Written informed consent was obtained from each participant to ensure voluntary participation and ethical compliance.

RESULTS

The descriptive analysis revealed that the mean HAQ-II score reported by physiotherapists was 4.84 with a standard deviation of 0.548, based on responses from 50 therapists. In contrast, the mean score reported by patients was 5.24 with a standard deviation of 0.564, derived from 150 patient responses. These results indicated that patients perceived a comparatively higher quality of the helping alliance than therapists. To assess the relationship between the therapist and patient versions of the HAQ-II, Pearson's correlation coefficient was calculated and yielded a value of 0.090 ($p = 0.535$), suggesting a weak positive correlation that was not statistically significant. Similarly, Spearman's rho was computed to validate this relationship, resulting in a coefficient of 0.128 ($p = 0.374$), which also indicated a weak, non-significant association. The 95% confidence intervals for these correlation coefficients were also examined. For Pearson's correlation, the interval ranged from -0.193 to 0.359, and for Spearman's rho, it ranged from -0.164 to 0.400. These wide intervals reinforced the weak nature of the observed correlations and the absence of a robust linear or rank-based relationship between therapist and patient perspectives. Chi-square tests were conducted to assess the distribution of responses within both versions of the HAQ-II. The chi-square statistic for the therapist group was 81.520 with 3 degrees of freedom ($p < 0.001$), and for the patient group, the value was 71.040 with 2 degrees of freedom ($p < 0.001$). These findings indicated statistically significant variation in how scores were distributed across response categories for both therapists and patients.

Additionally, a hypothesis test was conducted to explore the distributional relationship between HAQ-II and WAI-SR scores. The resulting p-value was 0.981, exceeding the 0.05 threshold. As a result, the null hypothesis was retained, indicating no statistically significant difference in distribution patterns between the HAQ-II patient scores and WAI-SR categories. The cross-tabulation and stratified correlation analysis between the WAI-SR subscales (Bond, Task, and Goal) and the HAQ-II patient scores revealed weak associations across all dimensions. The Spearman correlation coefficient between the Bond subscale and HAQ-II was -0.029 ($p = 0.729$), indicating no meaningful relationship. Similarly, the correlation for the Task subscale was -0.078 ($p = 0.345$), and for the Goal subscale, it was 0.078 ($p = 0.346$). These findings suggest that individual elements of the working alliance—while theoretically central to the therapeutic relationship—did not show significant direct associations with patients' perceptions of the helping alliance in this cohort. This highlights a potential divergence between structured alliance components and the subjective relational experiences captured by the HAQ-II, warranting further investigation into additional mediating factors such as communication style, empathy, or treatment context.

Table 1: Descriptive Statistics for HAQ-II

	Mean	Std. Deviation	N
Therapist	4.84	0.548	50
Patient	5.24	0.564	150

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Table 2: Correlations between Therapist Version and Patient Version of HAQ-II

	Therapist Version	Patient Version
Pearson Corr.	1.000	0.090
Sig. (2-tailed)		0.535
Spearman's rho	1.000	0.128
Sig. (2-tailed)		0.374

Table 3: Confidence Intervals for Correlation Coefficients

	Lower	Upper
Pearson Correlation	-0.193	0.359
Spearman's rho	-0.164	0.400

Table 4: Chi-Square Test for HAQ-II Versions

	Chi-Square	df	Asymp. Sig.
Therapist	81.520	3	< 0.001
Patient	71.040	2	< 0.001

Table 5: Hypothesis Test Summary for Relationship between HAQ-II & WAI-SR

Null Hypothesis	Test	Sig.
1	Distribution of Patient Version is the same across categories of WAI-SR	0.981

Table 6: WAI-SR Subscales vs HAQ-II Correlation

WAI-SR Subscale	Spearman rho	p-value
Bond	-0.029	0.729
Task	-0.078	0.346
Goal	0.078	0.346

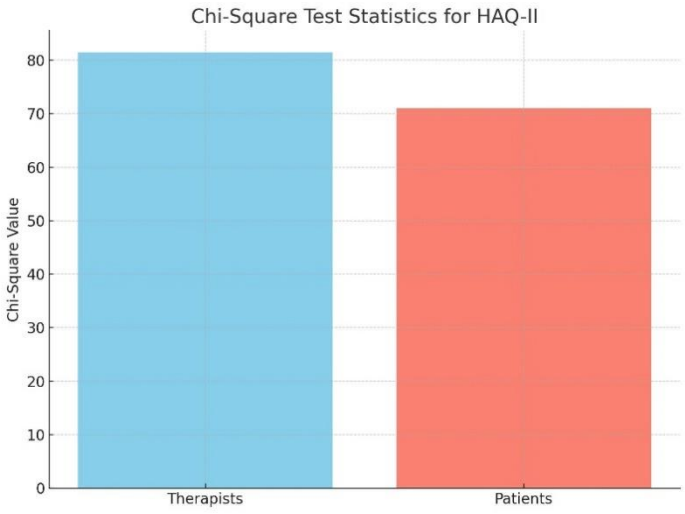

Figure 1Chi-square Test Statistics for HAQ-II

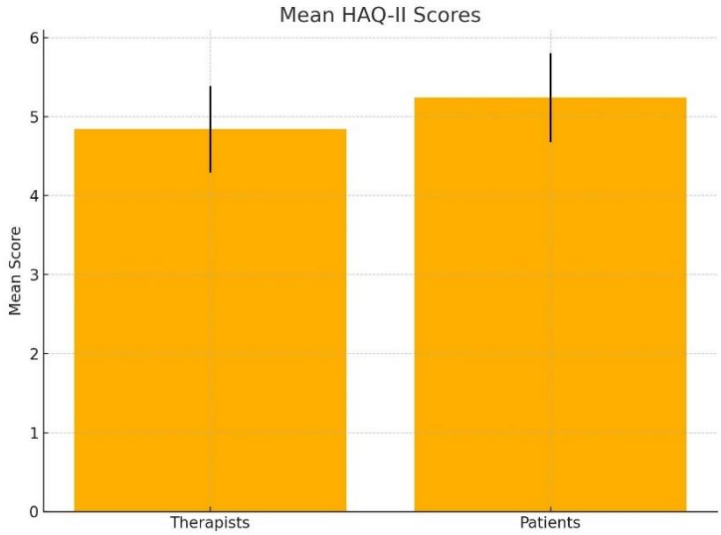

Figure 2 Mean HAQ-II Scores

DISCUSSION

The present study demonstrated a positive therapeutic alliance (TA) between physiotherapists and their patients, with patients reporting slightly higher perceptions of alliance compared to therapists. This finding aligns with previous evidence suggesting that patients often

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perceive the therapeutic relationship more favorably than their healthcare providers, possibly due to differing interpretations of alliance-related interactions and priorities. Patients may place greater emphasis on relational aspects such as empathy and support, whereas therapists may focus more on clinical tasks and adherence to treatment goals (15). The marked differences in response patterns between the therapist and patient versions of the HAQ-II underscore the need to evaluate alliance from both perspectives. The observed divergence in perception illustrates the complexity of clinical communication and the variability in how therapeutic interactions are experienced. While both parties may be aligned in their commitment to therapeutic goals, the emotional and interpersonal experiences within the alliance may not be fully reciprocal. This discrepancy highlights the importance of continuous dialogue and mutual feedback throughout the treatment process to ensure alignment and strengthen collaboration (16,17). Further analysis of the WAI-SR results revealed moderate therapeutic alliance levels across its subscales—bond, task, and goal—which supports the notion that alliance is a multidimensional construct. The internal consistency of the WAI-SR reinforces its utility as a psychometric tool in physiotherapy contexts, where collaboration, trust, and goal orientation form the foundation of patient-centered care (18). However, despite the theoretical overlaps between HAQ-II and WAI-SR, no significant statistical correlation was observed between the two instruments in this study. This unexpected lack of association suggests that while both tools aim to assess alliance, they may capture distinct relational dynamics. The HAQ-II emphasizes the quality of interpersonal connection and perceived support, whereas the WAI-SR incorporates broader constructs including task collaboration and goal agreement (19,20).

The disconnect between these tools may reflect the inherent complexities of therapeutic relationships in physiotherapy, where both technical interventions and emotional rapport play a role. It is plausible that patients' feelings of being understood and supported do not always align with structured goal-oriented measures, especially in settings where treatment plans are standardized and time-constrained. This divergence challenges the assumption of a unified alliance construct and calls for a more granular understanding of how alliance is formed and maintained in physical rehabilitation settings (21,22). Strengths of this study include the use of validated tools, a relatively large sample size, and the dual perspective design encompassing both patients and therapists. These elements enhanced the robustness of the findings and allowed for meaningful cross-comparison. However, several limitations must be acknowledged. The study employed a convenience sampling method, which may limit the generalizability of the findings beyond the urban healthcare facilities of Islamabad. Moreover, the cross-sectional design precludes causal interpretations, and cultural or language nuances could have influenced participant responses despite efforts to ensure comprehension. Future research should aim to incorporate longitudinal designs to assess changes in therapeutic alliance over the course of treatment and its influence on clinical outcomes. Stratifying data by patient demographics, diagnosis, treatment duration, or therapist experience could offer deeper insights into factors influencing alliance formation. It is also recommended that future investigations explore integrative models that combine both relational and task-based dimensions to more accurately reflect the multifactorial nature of therapeutic alliance in physiotherapy. Overall, the findings contribute to a growing body of evidence supporting the clinical importance of therapeutic alliance, while also pointing to conceptual distinctions between different alliance measures. By acknowledging the layered and evolving nature of these relationships, clinicians and researchers can work toward more personalized, communicative, and effective physiotherapy care.

CONCLUSION

This study concluded that the therapeutic alliance in physiotherapy is a multifaceted construct shaped by both patient and therapist perspectives. The identified discrepancies in perception emphasize the relational complexity within clinical interactions and suggest that aligning these views can significantly enhance therapeutic engagement. By acknowledging and addressing these differences, physiotherapists can cultivate a more empathetic, collaborative, and goal-oriented environment that strengthens trust and optimizes patient outcomes. These insights underscore the value of integrating alliance assessments into routine physiotherapy practice, ultimately contributing to more patient-centered and effective care delivery.

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AUTHOR CONTRIBUTION

Author	Contribution
Urooj Fatima	Substantial Contribution to study design, analysis, acquisition of Data Manuscript Writing Has given Final Approval of the version to be published
Noor ul Hudda Saleem	Substantial Contribution to study design, acquisition and interpretation of Data Critical Review and Manuscript Writing Has given Final Approval of the version to be published
Muhammad Osama Malik	Substantial Contribution to acquisition and interpretation of Data Has given Final Approval of the version to be published
Hira Waqar	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Iqra Taj	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Inayat Ullah*	Substantial Contribution to study design and Data Analysis Has given Final Approval of the version to be published

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