


Awareness Regarding the Role of Physiotherapy Among Gynecologists

Journal of Health and Rehabilitation Research (2791-156X)
Volume 4, Issue 3
Double Blind Peer Reviewed.
<https://jhrrmc.com/>
DOI: <https://doi.org/10.61919/jhrr.v4i3.1728>
www.lmi.education/

SECP Corporate Unique Identification No. 0257154

Azaz Ullah Shah¹, Nazish Rafique², Anum Rafique³, Sardar Ahmer Khan⁴, Safeer Ahmed⁵

Correspondence

Nazish Rafique
nazish2312@gmail.com

Affiliations

- 1 Orthopedic Physical Therapist, The Health Professional Medical & Rehabilitation Centre, Rawalpindi, Pakistan.
- 2 Assistant Professor, Memon College of Physical & Rehabilitative Medicine, Karachi, Pakistan,
- 3 Senior Lecturer, Abasyn University, Islamabad, Pakistan
- 4 Orthopedic Physical Therapist, The Health Professional Medical & Rehabilitation Centre, Rawalpindi, Pakistan
- 5 Physiotherapist, Institute of Health & Management Sciences, Islamabad, Pakistan

Keywords

Physiotherapy, Obstetrics, Gynecology, Interdisciplinary Collaboration, Stress Urinary Incontinence, Pregnancy-Related Back Pain, Pelvic Floor Dysfunction.

Disclaimers

Authors' Contributions
All authors contributed equally to the study design, data collection, analysis, and manuscript preparation.

Conflict of Interest
None declared

Data/supplements
Available on request.

Funding
None

Ethical Approval
Respective Ethical Review Board

Study Registration
N/A

Acknowledgments
N/A



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ABSTRACT

Background: Obstetric and gynecological physical therapy addresses musculoskeletal, neurological, and postural challenges during pregnancy, childbirth, and the postpartum period. Awareness among gynecologists is crucial for interdisciplinary collaboration and optimal patient care.

Objective: To determine the level of awareness among gynecologists regarding the role of physiotherapy and assess differences across cities and hospital types.

Methods: A cross-sectional study was conducted from January to June 2022 in Karachi, Rawalpindi, and Islamabad using a non-probability convenience sampling technique. A total of 377 gynecologists were surveyed using a validated, self-structured questionnaire comprising demographic data and 37 questions assessing awareness and referral practices. Participants were selected based on having cleared FCPS Part I, an FCPS degree, and at least one year of experience. Data were analyzed using SPSS version 25, with chi-square tests for associations and a significance threshold of $p < 0.05$.

Results: Out of 377 gynecologists, 83% ($n=313$) were aware of physiotherapy, while 67.9% ($n=256$) recommended it. Awareness was significantly higher in Karachi (55.3%) compared to Rawalpindi/Islamabad (44.7%) ($p < 0.001$). Only 11.1% ($n=42$) reported physiotherapy as a topic during medical education. Private hospital gynecologists demonstrated higher awareness ($p < 0.001$).

Conclusion: Despite high awareness levels, referral practices remain suboptimal. Increased training and interdisciplinary collaboration are essential to bridge the gap in care.

INTRODUCTION

Physical therapy is a specialized field of healthcare aimed at optimizing physical function and quality of life through prevention, treatment, and rehabilitation. Within the domain of obstetrics and gynecology, physical therapy plays a pivotal role in addressing health challenges specific to the childbearing period and its associated physical and psychological alterations. This subspecialty provides solutions for issues arising during pregnancy, postpartum, and other gynecological phases, emphasizing conditions such as gestational low back pain, pelvic floor dysfunction, and stress urinary incontinence (1,2). Physical therapy interventions, including posture education, core stability exercises, and pelvic floor muscle strengthening, have been shown to alleviate pain, enhance mobility, and prevent complications associated with musculoskeletal changes during pregnancy and the postpartum period (3).

Despite the documented benefits of physiotherapy in women's health, there remains limited awareness among gynecologists regarding its applications, particularly in regions with under-resourced healthcare systems. In countries like Pakistan, where healthcare access is variable, the role of physiotherapy in addressing postpartum musculoskeletal disorders, pelvic floor dysfunction, and stress urinary incontinence is often underutilized (4,5). The lack of integration of physiotherapy services into routine

obstetric and gynecological care is partially attributed to insufficient knowledge among gynecologists, inadequate interprofessional collaboration, and the absence of specialized physiotherapy departments in many hospitals (6). These gaps hinder comprehensive patient management, leading to suboptimal outcomes for women experiencing conditions that are amenable to physiotherapy interventions.

Global research indicates varying levels of awareness regarding physiotherapy among healthcare professionals. Studies from Nigeria reveal that while physicians generally recognize the importance of physiotherapy, their referral practices remain inconsistent, particularly for obstetric and gynecological conditions (7). Similar findings have been observed in other developing countries, where limited training and exposure to physiotherapy during medical education contribute to low referral rates and underutilization of services (8). This issue is compounded by misconceptions about the scope of physiotherapy, with many physicians perceiving its role as limited to exercise prescription, rather than recognizing its broader applications in neuromusculoskeletal and women's health care (9).

In the Pakistani context, the prevalence of pregnancy-related musculoskeletal conditions, such as low back pain and pelvic girdle pain, is notably high. Studies report that nearly 80% of women experience back pain at some point

during their lives, with a significant proportion attributing this to pregnancy-related biomechanical and hormonal changes (10,11). Physical therapy, through targeted interventions such as pelvic floor muscle training, Kegel exercises, and bladder retraining, has demonstrated efficacy in managing stress urinary incontinence, a common postpartum complication (12,13). However, the awareness and integration of these therapeutic approaches into routine obstetric care remain limited, particularly in public sector hospitals where resource constraints and heavy patient loads often take precedence over comprehensive multidisciplinary care.

This study aims to evaluate the awareness of gynecologists regarding the role of physiotherapy in managing obstetric and gynecological conditions, with a focus on comparing awareness levels between practitioners in Karachi and Rawalpindi/Islamabad. By identifying gaps in knowledge and referral practices, this research seeks to inform strategies for enhancing collaboration between gynecologists and physiotherapists, thereby promoting a holistic approach to women's health care. It also underscores the need for greater emphasis on physiotherapy education within medical curricula and professional training programs, ultimately fostering an integrated healthcare model that benefits patients across diverse settings (14).

MATERIAL AND METHODS

This cross-sectional study was conducted in hospitals and clinics across Karachi, Rawalpindi, and Islamabad over six months, from January to June 2022, after obtaining approval from the Ethical Board of the Isra Institute of Rehabilitative Sciences, Islamabad, Pakistan. The study followed the ethical guidelines outlined in the Declaration of Helsinki to ensure the protection and rights of participants were respected. Written informed consent was obtained from all participants, and confidentiality and privacy were maintained throughout the research process.

The sample size was calculated using RAO software, employing a 95% confidence interval, 50% response distribution, and a 5% margin of error, yielding a required sample size of 377 gynecologists. A non-probability convenience sampling technique was employed to recruit participants. Inclusion criteria encompassed male and female gynecologists who had cleared FCPS Part I, held an FCPS degree, and possessed more than one year of professional experience. Postgraduate students and those not actively practicing in any clinical setting were excluded from the study. Data were collected using a self-structured

questionnaire administered during face-to-face interviews with the participants.

The questionnaire was designed to assess demographic details, awareness of physiotherapy, and specific knowledge regarding physiotherapy interventions in obstetrics and gynecology. It comprised a demographic section, 17 questions on general awareness of physiotherapy, and 20 questions related to the management of specific disorders. All questions were in a dichotomous format, facilitating clear responses without ambiguity. The questionnaire items were adapted from previously validated studies to ensure relevance and reliability (1,2).

The data collection process involved providing participants with detailed information about the study's purpose, potential benefits, and the confidentiality of their responses. Gynecologists were surveyed in various public and private sector hospitals and clinics across Karachi, Rawalpindi, and Islamabad. The research team, including trained physiotherapists, ensured that data collection was consistent and thorough.

Statistical analysis was conducted using SPSS version 25. Descriptive statistics were calculated, including mean, standard deviation, and percentages, to summarize demographic and awareness-related data. The chi-square test was employed to assess associations between categorical variables, such as awareness levels across cities and hospitals. A p-value of less than 0.05 was considered statistically significant.

The study adhered to ethical standards, emphasizing voluntary participation and informed consent. Participants were assured that their responses would be used solely for research purposes and that they could withdraw at any stage without any repercussions. By maintaining transparency and ethical rigor, the study ensured that its findings accurately reflected the awareness levels of gynecologists regarding physiotherapy in obstetrics and gynecology while fostering trust and collaboration with the participants.

RESULTS

A total of 377 gynecologists participated in the study, with a mean age of 43.8 ± 11.5 years and an average professional experience of 11.1 ± 8.13 years. Of these, 190 (50.4%) were from Karachi, while 187 (49.6%) were from Rawalpindi/Islamabad. The distribution of qualifications indicated that 104 (27.6%) held FCPS Part I, 177 (49.9%) had completed FCPS, and smaller proportions held dual qualifications, including FCPS/MCPS (8.2%) and FCPS/FRCOG (3.2%).

Table 1: Awareness and Referral Practices of Physiotherapy

Question	Yes n (%)	No n (%)
Are you aware about physiotherapy?	313 (83%)	64 (17%)
Was physical therapy presented as a topic during graduation?	42 (11.1%)	271 (71.9%)
Do you recommend physiotherapy services?	256 (67.9%)	121 (32.1%)
Referred orthopedic cases	101 (26.8%)	212 (56.2%)
Referred neurological cases	68 (18%)	245 (65%)
Referred cardiopulmonary cases	7 (1.9%)	306 (81.2%)
Referred geriatric cases	0 (0%)	313 (83%)

Question	Yes n (%)	No n (%)
Referred fitness cases	33 (8.8%)	280 (74.3%)
Referred pediatric cases	1 (0.3%)	312 (82.8%)
Referred women's health cases	162 (43%)	151 (40.1%)
Referred sports injury cases	0 (0%)	313 (83%)

Out of 377 gynecologists, 313 (83%) were aware of physiotherapy. However, only 42 (11.1%) reported having been introduced to physiotherapy as a topic during medical education. The majority, 256 (67.9%), recommended physiotherapy services, particularly for women's health cases (43%), while significantly fewer recommended referrals for orthopedic (26.8%) and neurological cases (18%). Gynecologists displayed high awareness levels of the role of physiotherapy in managing stress urinary incontinence (83%). A total of 309 (82%) were aware of the importance of pelvic floor muscle training, while 302 (80.1%) acknowledged the utility of Kegel exercises. However, fewer participants were aware of advanced therapeutic interventions such as biofeedback (40.3%) and interferential therapy (42.7%). A chi-square test was performed to assess differences in awareness and referral practices across cities and hospital types. Results showed significant differences in awareness levels between gynecologists in Karachi and Rawalpindi/Islamabad, with those in Karachi demonstrating higher awareness ($p < 0.001$).

Similarly, private sector gynecologists were significantly more aware of physiotherapy than those in the public sector ($p < 0.001$).

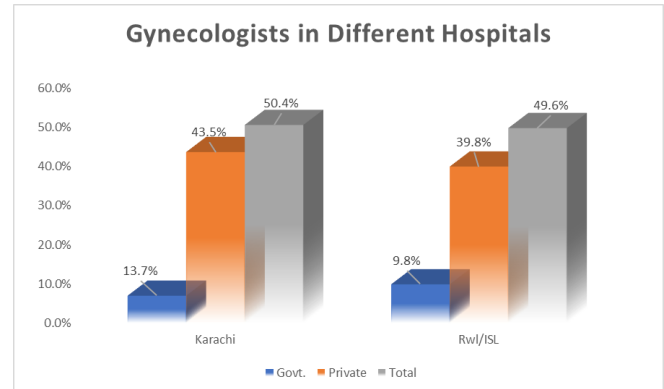


Figure 1 Gynecologists in Different Hospitals

Geographical Variation: Gynecologists in Karachi exhibited significantly higher awareness of physiotherapy and referral practices compared to those in Rawalpindi/Islamabad.

Disparity in Hospital Types: Private hospital gynecologists were significantly more aware of physiotherapy applications than their counterparts in government hospitals ($p < 0.001$).

Referral Gaps: Despite high awareness levels for conditions like stress urinary incontinence (83%), actual referral rates remained low, with only 46.9% of gynecologists referring cases to physiotherapy.

Table 2: Awareness of Physiotherapy for Specific Disorders

Condition	Yes n (%)	No n (%)
Role in stress urinary incontinence	313 (83%)	0 (0%)
Referred cases of stress urinary incontinence	177 (46.9%)	136 (36.1%)
Importance of pelvic floor muscle training	309 (82%)	4 (1.1%)
Importance of Kegel exercises	302 (80.1%)	11 (2.9%)
Importance of interferential therapy	161 (42.7%)	152 (40.3%)
Importance of biofeedback	152 (40.3%)	161 (42.7%)
Awareness of bladder training	286 (75.9%)	27 (7.2%)
Awareness of ball exercises	267 (70.8%)	46 (12.2%)

Table 3: Association Between Awareness and Cities

Variable	Karachi n (%)	Rwl/Isb n (%)	df	χ^2	p-value
Aware about physiotherapy	173 (55.3%)	140 (44.7%)	1	17.52	0.000**
Physiotherapy introduced during graduation	35 (83.3%)	7 (16.7%)	2	32.80	0.000**
Role in stress urinary incontinence	173 (55.3%)	140 (44.7%)	1	17.52	0.000**
Referred stress urinary incontinence cases	110 (62.1%)	67 (37.9%)	2	25.22	0.000**

The results demonstrate high awareness levels of physiotherapy's role among gynecologists, particularly for managing stress urinary incontinence and pregnancy-related musculoskeletal disorders. However, significant gaps in referral practices and advanced therapeutic knowledge persist, particularly in public sector hospitals and among gynecologists in Rawalpindi/Islamabad. These findings highlight the need for targeted educational programs to bridge knowledge gaps and promote interdisciplinary collaboration.

DISCUSSION

The findings of this study revealed that the majority of gynecologists were aware of the role of physiotherapy in managing obstetric and gynecological conditions, with significant variations in awareness across cities and hospital types. These results align with previous studies that emphasized the essential contribution of physiotherapy in addressing women's health-related issues, including pregnancy-induced musculoskeletal disorders and pelvic

floor dysfunction (1,2). The high level of awareness about stress urinary incontinence management, including pelvic floor muscle training and Kegel exercises, demonstrated that gynecologists acknowledged the value of non-invasive, evidence-based physiotherapy interventions in managing these conditions (3,4). However, the relatively low referral rates highlighted a disconnect between awareness and actual clinical practice, a trend that has been reported in other similar studies conducted in developing countries (5). The geographic variation observed in this study, with gynecologists in Karachi showing higher awareness levels than those in Rawalpindi/Islamabad, is consistent with findings from other regions where urban centers typically have greater access to continuing medical education and interdisciplinary collaboration (6). The disparity between private and government hospitals in terms of physiotherapy awareness and referrals further underscores systemic challenges in public healthcare infrastructure, including limited resources, lack of physiotherapy departments, and insufficient integration of multidisciplinary teams (7,8). Similar gaps have been reported in studies from Nigeria and India, where physiotherapy services were found to be underutilized due to insufficient training and knowledge among healthcare providers (9,10).

The results also revealed gaps in awareness of advanced physiotherapy techniques such as biofeedback and interferential therapy, which are effective modalities in managing conditions like stress urinary incontinence. These findings highlight a need for structured educational programs and workshops to familiarize gynecologists with the full spectrum of physiotherapy services available for obstetric and gynecological care. Additionally, the absence of physiotherapy as a formal topic during medical education for most participants suggests an underlying deficiency in the medical curriculum that warrants urgent attention. Previous research has emphasized the importance of introducing physiotherapy concepts in medical training to promote interdisciplinary collaboration and improve patient outcomes (11,12).

This study has several strengths, including its relatively large sample size and focus on diverse clinical settings across major cities. The use of validated questionnaires ensured the reliability of the data collected, while the inclusion of both private and government hospitals provided a comprehensive view of current practices. However, certain limitations must be acknowledged. The study was restricted to three cities, which may limit the generalizability of the findings to other regions of Pakistan. Additionally, the non-probability sampling technique may have introduced selection bias, and the reliance on self-reported data could have led to overestimation of awareness levels. The lack of detailed exploration into the reasons behind low referral rates and barriers to collaboration between gynecologists and physiotherapists represents another limitation.

Future research should focus on exploring these barriers in greater detail, including systemic issues such as the availability of physiotherapy services, training opportunities for gynecologists, and institutional policies that impact interdisciplinary care. Expanding the study to include

smaller cities and rural areas could provide a more comprehensive understanding of regional disparities in physiotherapy awareness. Additionally, qualitative studies involving focus groups or interviews with gynecologists and physiotherapists could yield valuable insights into the practical challenges of integrating physiotherapy into obstetric and gynecological care.

This study emphasized the importance of fostering collaboration between gynecologists and physiotherapists to ensure comprehensive patient care. Structured educational initiatives, such as workshops and online courses, should be implemented to enhance knowledge and promote interdisciplinary practice. Moreover, healthcare policymakers should prioritize the establishment of physiotherapy departments in government hospitals and incentivize private hospitals to strengthen interdisciplinary teams. Such measures could bridge the existing gaps and ensure that physiotherapy is effectively integrated into the management of women's health issues, ultimately improving patient outcomes and quality of life.

CONCLUSION

This study concluded that while the majority of gynecologists were aware of the role of physiotherapy in managing obstetric and gynecological conditions, significant gaps existed in referral practices, advanced therapeutic knowledge, and interdisciplinary collaboration, particularly in public hospitals and certain geographic regions. These findings highlight the critical need for targeted educational programs and systemic reforms to enhance the integration of physiotherapy into obstetric and gynecological care. Improved awareness and collaboration between gynecologists and physiotherapists can significantly enhance the quality of care, addressing critical issues such as stress urinary incontinence and pregnancy-related musculoskeletal disorders, ultimately improving patient outcomes and advancing women's healthcare.

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