Jordan Medical Journal, Volume 56, No.4 2022
DOI: https://doi.org/10.35516/jmj.v56i4.464

Frequency of Physical Therapy Consultation of Females after Delivery: A Cross- Sectional Study from Twin Cities in Pakistan

Foster Joseph[1], Uswa Ramzan[1], Cynthia John[1], Humera Ambreen[1], Benish Shahzadi[1], Mir Arif Hussain Talpur[2], Abdul Ghafoor Sajjad[1], Mubin Mustafa Kiyani[3,] ✉

Abstract

Background: Physical therapy intervention is a key regime in the prevention and management of postpartum complications, including both systemic and psychological illnesses.

Purpose: The aim was to determine the frequency of physical therapy referrals in Pakistan during the postpartum period, in addition to determining the frequency of mothers' attendance at physical therapy sessions and the most commonly reported complaints after delivery.

Method: This was a cross-sectional study conducted in twin cities in Pakistan. Data were collected from 384 postpartum mothers through a self-structured questionnaire, after taking verbal and written consent. We inquired whether the subject was aware of physical therapy, referred for physical therapy, or had attended physical therapy sessions, as well as asking about the most commonly reported complaints amongst postpartum mothers. The collected data were confidential.

Results: The mean age of participants was 25.76±4.09. Out of 384 women, only 138 (35.9%) reported an awareness regarding physical therapy and just 89 (23.2%) had been referred for postpartum physical therapy and attended the sessions. Back pain and urinary incontinence were amongst the most commonly reported complaints.

Conclusion: It is concluded that the rate of referral to physical therapy is very low in a developing country like Pakistan, irrespective of any complications faced by postpartum mothers. Furthermore, females who had consulted a physical therapist after referral were lost to follow-ups.

Keywords: Developing country, mothers, physical therapy, postpartum, referral.

(J Med J 2022; Vol. 56 (4):293-300)

Received	*Accepted*
July, 25, 2021	*September, 29, 2021*

1. Introduction

Pregnancy is a major milestone in the life of many women in their reproductive years [1]. The fourth phase of pregnancy after childbirth is called the postpartum period. This is the time when a mother faces many difficulties which may negatively influence her physical and psychological state, such as weight gain and even social isolation [2]. The birth of a child brings a major change in the life of every mother, due to which most postpartum women experience either physiological or psychological stress [3]. Additionally, factors such as sleep problems in

[1] Department of Rehabilitation Sciences, Shifa Tameer-e-Millat University, Islamabad, Pakistan.
[2] Begum Nusrat Bhutto Women University, Sukkhur, Pakistan.
[3] Shifa College of Medical Technology, Shifa Tameer-e-Millat University, Islamabad, Pakistan.
✉Corresponding author: mubin3us@yahoo.com
https://orcid.org/0000-0003-0953-639X

the child, marital issues, and family breakdown have been associated with maternal depressive symptoms [4]. About 90% of women experience fatigue postpartum [5], which can cause an excessive feeling of exhaustion in the mother [6], resulting in compromised physical and mental health for both mother and child [7].

The best and safest way to help the mother improve body fitness along with psychological health during this period is through exercise and rehabilitation [8]. Exercise can decrease the possibility of depression, obesity and other metabolic conditions postpartum [9]. It can help to improve health by reducing depression [10] and weight while increasing lactation and the ability to perform regular physical activity [11]. The American College of Gynecologists recommends that women in their postpartum period should start a moderate amount of exercise for around 150 minutes, distributed throughout the week, in the absence of any surgical and medical complications during delivery [12].

Evidence also suggests that physical therapy intervention is key to the prevention and management of postpartum complications, including both systemic and psychological illnesses [13]. Physical therapy techniques like pelvic floor muscle training, core strengthening, relaxation techniques, postural correction, electrotherapy, muscle re-education, and others, have proven their efficacy for women's health after delivery [14]. A holistic approach has to be considered which emphasizes improving the physical health of the women by inculcating physical therapy interventions in overall treatment [15].

In a developing country like Pakistan, the concept of direct access to physical therapy, especially regarding women's health, is still uncommon and as a result the overall referral rate to a physical therapist from a primary health care professional is very low [16]. Some research in Pakistan has reported an awareness of the role of physical therapy in the management of obstetric and gynecological patients amongst the obstetricians and gynecologists of Pakistan [17]; however, no substantial evidence is available regarding the referral rate of the relevant patients to a physical therapist. There is, indeed, a lack of information regarding the utilization of physical therapy services by gynecologists for postpartum women [18]. Thus, this study aimed to determine: the frequency of physical therapy referrals during postpartum in Pakistan; the frequency physical therapy attendance; subjects' adherence to the physical therapy sessions; and, the type of physical therapy interventions they practiced.

2. Methodology

2.1. Institutional review board approval

A cross-sectional survey was conducted from August 2017 to January 2018 on females regardless of mode of delivery in the government hospitals of Islamabad and Rawalpindi, Pakistan. Ethical clearance was obtained from the Institutional Ethical Committee. Written and informed consent was taken from the subjects before the data collection. The procedures followed were in accordance with the ethical standards given in the Declaration of Helsinki of 1975, as revised in 2000 [1].

2.2. Enrolment

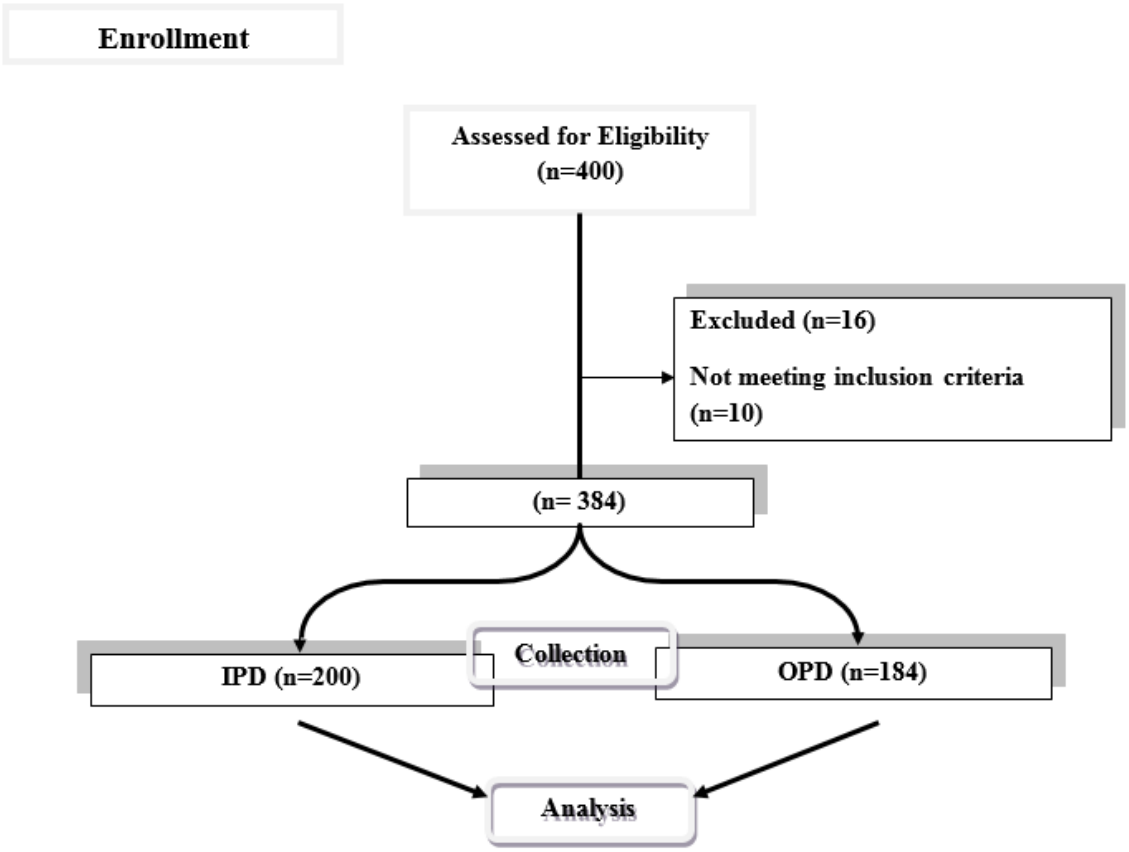
A total of 384 patients were screened via convenient sampling at four different government hospitals. The data collection was conducted in OPD and IPD of the gynecological department. The inclusion

criteria included stable vitals of the patients. Females with any complications or pathology were excluded from the study.

2.3. Procedure

Participants were informed about the aim and procedure of the study. A self-structured questionnaire was administered in the country's national language based on demographic detail, duration of postpartum, current postpartum complications, referral to physical therapy, treatment (i.e., sessions, recommended exercise plans of physical therapy), knowledge of physiotherapy and follow up to physical therapy. The confidentiality of patient data was fully secured and patients were not forced to answer every item in the questionnaire. The flow chart for the procedure is given in Figure 1.

Figure 1: Procedural flow chart for the study



2.4. Statistical analysis

IBM SPSS version 20 was used for the statistical analysis. Mean and standard deviation of baseline demographic data, such as gender, age, weight, height, and body mass index (BMI), along with duration of postpartum, current postpartum complications, referral to physical therapy, treatment, knowledge of physiotherapy and follow up to physical therapy were tabulated and presented graphically.

3. Results

The mean age of the participants was 25.76, with a minimum age of 16 and maximum of 36 (standard deviation 4.09). The percentage of individuals who responded either yes or no for having knowledge of physical therapy, being referred to physical therapy, and having attended physical therapy sessions is shown in Table 1. Of those participants who had had physical therapy, only 2% followed up for five sessions, 8% attended four sessions, 26% attended three sessions, 37% attended two sessions, and 27% showed up for a single session. Participants were prescribed a variety of exercises by the physical therapists, including Kegel's, aerobics, abdominals, relaxation, and postural correction. Kegel's was the most commonly prescribed exercise to around 37% participants, followed by a combination of Kegel's and abdominal exercises to 20% of the participants.

Table 1: Responses to post-partum physical therapy

Variables	Responses	
	YES	NO
Knowledge of physical therapy	138 (35.9%)	246 (64.1%)
Referral to physical therapy	89 (23.2%)	295 (76.8%)
Attendance at physical therapy	89 (23.2%)	295 (76.8%)

The most common problem reported by the postpartum females was urine incontinence (22.9%) along with low back pain. Over 20% of females complained of low back alone. The percentage of females with perineal pain and faecal incontinence were 9.9% and 5.7%, respectively. Of 384 female participants, 11.7% reported perineal pain with urine incontinence, 14.1% reported perineal pain with low back pain, and 9.4% reported urine incontinence alone. Additionally, 6.0% of the research participants reported other postpartum complications, as shown in Table 2.

Table 2: Common problems experienced after delivery

Problems after delivery	Frequency (%)
Low Back Pain	78 (20.3)
Perineal Pain	38 (9.9)
Fecal Incontinence	22 (5.7)
Urine Incontinence	36 (9.4)
Low Back Pain and Urine Incontinence	88 (22.9)
Perineal Pain and Urine Incontinence	45(11.7)
Perineal Pain and Low Back Pain	54 (14.1)
Other	23 (6.0)

4. Discussion

The purpose of the study was to assess the referral rate for physical therapy amongst mothers in the postpartum period. A postpartum woman is under various risks which can compromise her health greatly. During pregnancy, a woman experiences a wide range of physiological changes and postural adaptations. According to the current study, a very low percentage of women have basic knowledge about women's health physical therapy, the findings of which are parallel to a study conducted by Alanazi et al., which also reported that awareness of obstetrical and gynecological

physical therapy was considerably low amongst women [19]. A study conducted by Maqsood et al. reported that the gynecologists and obstetricians working in government and private hospitals were equally aware about physical therapy practice in the management of gynecological and obstetric conditions [17], but the current study reports the physical therapy referral to be only 23%, and thus fewer physical therapy sessions were also conducted. Sahre et al., on the other hand, reported that the referral rate by gynecologists and general physicians was less as they lacked awareness of referring patients for antenatal and postnatal physical therapy [20].

According to the findings of the present study, the most commonly reported problem amongst women in the postpartum period was back pain and urinary incontinence. Munawar et al. reported that pelvic and back pain were amongst the most documented problems, affecting various women during pregnancy. Over two-thirds of women experienced back pain and one-fifth experienced pelvic pain in their first pregnancy [18]. The current study suggests that fecal incontinence and perineal pain were also found in women postpartum. Von Bargen et al. suggested that pelvic floor muscle strengthening exercises will have beneficial results postpartum and can also improve symptoms of pelvic floor muscle weakness [21].

Yount et al. reported that one in five females experienced urinary incontinence before pregnancy. During pregnancy, around two-third of females experience urinary incontinence and approximately 10% who followed up reported having experienced urinary incontinence at the third and sixth month post-delivery [22].

According to Dong et al., most women frequently experience uncontrolled dripping of urine while coughing, laughing and performing any vigorous activity post-partum. One of the main causes of urinary incontinence is weakness of the pelvic floor muscles. It is reported that physical therapy plays a significant role in the strengthening of pelvic floor muscles. The exercise protocol applied focused specifically on pelvic floor strengthening through Kegel contractions, which is considered the best exercise for strengthening the pelvic floor muscles group [23]. According to the current study, the majority of physical therapists were prescribing either Kegel's exercise alone or in combination with one or two exercises such as abdominal muscle exercises and relaxation exercises. Their effectiveness in this specific scenario is uncertain because the frequency of women's attendance at physical therapy sessions is very low, as reported previously. Atuhaire also reported on the knowledge of postnatal physical therapy exercises, concluding that the majority of the sampled women did not perform the exercises because they lacked basic knowledge of how to perform them [24]. Amongst the mothers who were referred to physical therapy sessions, most attended only one or two sessions under supervision. This fact must alert health care providers, mothers, family members, and other concerned persons regarding the need for increased referral to physical therapists to treat the problems faced by postpartum women who need urgent rehabilitation services. Pakistan, being a developing country, is still far behind in the field of gynecological physiotherapy. Therefore, further research is needed to support a hypothesis of the benefits of physical rehabilitation for patients in either the antenatal or postnatal period.

5. Conclusion

This study concluded that the referral rate for post-delivery females to physical therapy by the primary healthcare physician is very low, even in hospitals which have a well-defined rehabilitation department. However, the females who did consult a physical therapist after referral also did not adhere to the treatment protocol and were lost to follow-ups.

Conflicts of Interest

All authors have none to declare.

Funding Sources

All authors have none to declare.

Acknowledgments

We would like to express our gratitude to Riphah International University Islamabad, Pakistan and Shifa Tameer-e-Millat University Islamabad, Pakistan, who provided facilities for this research.

References

1. Loewen B, Collum C, Ryan GA. Exercise Benefits and Recommendations for the 6-Week Postpartum Period. Strength & Conditioning Journal. 2020;42[4]:12-21.
2. Bergmeier H, Hill B, Haycraft E, Blewitt C, Lim S, Meyer C, et al. Maternal body dissatisfaction in pregnancy, postpartum and early parenting: An overlooked factor implicated in maternal and childhood obesity risk. Appetite. 2020;147:104525.
3. Edie R, Lacewell A, Streisel C, Wheeler L, George E, Wrigley J, et al. Barriers to exercise in postpartum women: A mixed-methods systematic review. Journal of Women's Health Physical Therapy. 2021;45[2]:83-92.
4. Dagla M, Dagla C, Mrvoljak-Theodoropoulou I, Kavakou A-T, Rigoutsou E, Antoniou E. Infant Sleep Difficulties at the 6th Week and the 12th Month Postpartum: What Is their Relationship with Maternal Mental Health and Other Perinatal Factors? Materia Socio-Medica. 2021;33[1]:21.
5. Liu N, Wang J, Chen D-d, Sun W-j, Li P, Zhang W. Effects of exercise on pregnancy and postpartum fatigue: A systematic review and meta-analysis. European Journal of Obstetrics & Gynecology and Reproductive Biology. 2020.
6. Banker T. An Evaluation of Rate of Fatigue and Sleep Quality in Pregnant Women: A Cross Sectional Study.
7. Peltonen H, Paavonen EJ, Saarenpää-Heikkilä O, Vahlberg T, Paunio T, Polo-Kantola P. Sleep disturbances and depressive and anxiety symptoms during pregnancy: Associations with delivery and new-born health. 2020.
8. Rajah AS, Bayero UB, Hussein ZM, Lawal AK, Tashi TF, Tukuntawa AS, et al. Perceived Benefits and Barriers to Prenatal and Postpartum Exercises among Child Bearing Women in Kano, Nigeria. International Journal of Childbirth. 2021;11[2]:37-46.
9. Navas A, Carrascosa MdC, Artigues C, Ortas S, Portells E, Soler A, et al. Effectiveness of Moderate-Intensity Aerobic Water Exercise during Pregnancy on Quality of Life and Postpartum Depression: A Multi-Center, Randomized Controlled Trial. Journal of Clinical Medicine. 2021;10[11]:2432.
10. Chow R, Huang E, Li A, Li S, Fu SY, Son JS, et al. Appraisal of systematic reviews on interventions for postpartum depression: systematic review. BMC Pregnancy and Childbirth. 2021;21[1]:1-11.
11. Battle CL, Scott BL, Fritzson AE, Howard M, Abrantes AM. Acceptability and perceived benefits of exercise among pregnant and postpartum women seeking psychiatric care. Women's Health Reports. 2020;1[1]:212-7.
12. Syed H, Slayman T, Thoma KD. ACOG Committee Opinion No. 804: Physical Activity and Exercise During Pregnancy and the

Postpartum Period. Obstetrics & Gynecology. 2021;137[2]:375-6.

13. Hill B, Skouteris H, Boyle JA, Bailey C, Walker R, Thangaratinam S, et al. Health in preconception, pregnancy and postpartum global alliance: international network pregnancy priorities for the prevention of maternal obesity and related pregnancy and long-term complications. Journal of clinical medicine. 2020;9[3]:822.
14. Delshad B, Zarean E, Yeowell G, Sadeghi-Demneh E. The immediate effects of pelvic compression belt with a textured sacral pad on the sacroiliac function in pregnant women with lumbopelvic pain: A cross-over study. Musculoskeletal Science and Practice. 2020;48:102170.
15. Søndenå P, Dalusio-King G, Hebron C. Conceptualisation of the therapeutic alliance in physiotherapy: is it adequate? Musculoskeletal Science and Practice. 2020;46:102131.
16. Gilani SA. Patient Referral to Physical Therapy Department. Asian Journal of Allied Health Sciences [AJAHS]. 2021.
17. Maqsood U, Tahir A, Arshad HS. Awareness of Obstetricians and Gynecologist Regarding Role of Physical Therapy in Managing Obstetric and Gynecological Patients in Private and Government Hospital. Journal of the Society of Obstetrics and Gynaecologists of Pakistan. 2017;7[3]:144-8.
18. Munawar H, Tasadduq A, Zehra N. Awareness of Obstetricians/Gynecologists Regarding the Role of Physiotherapy Services in Managing Obstetric Patients. Pakistan Journal of Medicine and Dentistry. 2013;2[01]:17-23.
19. Alanazi F. Awareness and knowledge of physical therapy practice in Saudi Arabia: a cross-sectional study. Journal of allied health. 2020;49[1]:33E-7E.
20. Sahre W, Feroze J, Shah SFA, Shaikh MA, Riaz MS. Awareness of Antenatal and Postnatal Physical Therapy Care in Hyderabad. Journal of Peoples University of Medical & Health Sciences. 2016;6[2]:65-9.
21. Von Bargen E, Haviland MJ, Chang OH, McKinney J, Hacker MR, Elkadry E. Evaluation of Postpartum Pelvic Floor Physical Therapy on Obstetrical Anal Sphincter Injury: A Randomized Controlled Trial. Female pelvic medicine & reconstructive surgery. 2021;27[5]:315-21.
22. Yount SM, Fay RA, Kissler KJ. Prenatal and postpartum experience, knowledge and engagement with Kegels: a longitudinal, prospective, multisite study. Journal of Women's Health. 2021;30[6]:891-901.
23. Dong Y, Obmerga F, Garcia R. COMPARATIVE STUDY ON THE QUALITY OF LIFE OF POSTPARTUM MOTHERS WITH URINARY INCONTINENCE UNDERGOING BIOFEEDBACK THERAPY AND KEGEL EXERCISE. 2021.
24. Atuhaire S. Knowledge and Practices of Post Cesarean Section Mothers Towards Self-Care After Delivery at Mbarara Regional Referral Hospital. Student's Journal of Health Research Africa. 2021;2[3]:13-.

تردد استشارات العلاج الطبيعي للإناث بعد الولادة: دراسة مقطعية من المدن التوأم في باكستان

فوستر جوزيف[1]،أسوى رمضان[1]، ساينتهيا جان[1]، حميرا عنبرين[1]، بينش شهزادي[1]، مير عارف حسين تالبور[2]، عبد الغفور سجاد[1]، مبين مصطفى كياني[3]

[1] قسم علوم التأهيل، جامعة شفاء تعمير ملت، إسلام أباد، باكستان.

[2] جامعة بيغم نصرت بهوتو النسائية، سكهر، باكستان.

[3] كلية شفاء للتكنولوجيا الطبية، جامعة شفاء تعمير ملت، إسلام أباد، باكستان.

الملخص

الخلفية: يُعدُّ التدخل في العلاج الطبيعي نظامًا أساسيًا في الوقاية من مضاعفات ما بعد الولادة وإدارتها بما في ذلك الأمراض الجهازية والنفسية.

الهدف: تحديد وتيرة إحالات العلاج الطبيعي خلال فترة ما بعد الولادة في باكستان، وتكرار حضور جلسات العلاج الطبيعي للأمهات، بالإضافة إلى الشكاوى الأكثر شيوعًا التي يتم الإبلاغ عنها بعد الولادة.

الطريقة: أجريت هذه الدراسة المقطعية في المدن التوأم (رولبندي، إسلام آباد) في باكستان؛ حيث تم جمع البيانات من (384) أُمًّا في فترة ما بعد الولادة من خلال استبيان منظم ذاتيًّا بعد أخذ الموافقة الشفوية والمكتوبة، وتم الاستفسار عما إذا كانت الأمهات على على دراية موضوع العلاج الطبيعي، وتمت إحالتهنَّ إلى العلاج الطبيعي، وحَضرن في جلسات العلاج الطبيعي، إضافة إلى الشكوى الأكثر شيوعًا بين الأمهات في فترة ما بعد الولادة. وتم الحفاظ على سرية البيانات التي تم جمعها.

نتائج: كان متوسط عمر المشاركات(25.76 ± 4.09)، من بين (384) أُمًّا، وقد أفادت(138) منهن فقط (35.9٪) أنَّ لديهن وعي فيما يتعلق بالعلاج الطبيعي، وتم إحالة(89) (23.2٪) منهنَّ بالفعل إلى العلاج الطبيعي في فترة ما بعد الولادة وحضرن الجلسات، وكانت آلام الظهر وسلس البول من بين الشكاوى الأكثر شيوعًا التي تم الإبلاغ عنها في فترة ما بعد الولادة.

استنتاج: نستخلص أن معدل الإحالة إلى العلاج الطبيعي منخفض للغاية في دولة نامية مثل باكستانن وبغض النظر عن أية مضاعفات تواجهها الأمهات في فترة ما بعد الولادة، علاوة على ذلك، فإن النساء اللواتي استشرن معالجًا طبيعيًّا بعد الإحالة فقدن للمتابعة.

الكلمات الدالة: دولة نامية، أمهات، علاج طبيعي، ما بعد الولادة، إحالة.