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

Foster Joseph¹, Uswa Ramzan¹, Cynthia John¹, Humera Ambreen¹, Benish Shahzadi¹, Mir Arif Hussain Talpur², Abdul Ghafoor Sajjad¹, Mubin Mustafa Kiyani³, ⁴

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.

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, Sukkur, Pakistan.
³ Shifa College of Medical Technology, Shifa Tameer-e-Millat University, Islamabad, Pakistan.
⁴ Corresponding author: mubin3us@yahoo.com
https://orcid.org/0000-0003-0953-639X

© 2022 DSR Publishers / The University of Jordan. All Rights Reserved.
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>
<thead>
<tr>
<th>Variables</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of physical therapy</td>
<td>YES 138 (35.9%)</td>
</tr>
<tr>
<td></td>
<td>NO 246 (64.1%)</td>
</tr>
<tr>
<td>Referral to physical therapy</td>
<td>YES 89 (23.2%)</td>
</tr>
<tr>
<td></td>
<td>NO 295 (76.8%)</td>
</tr>
<tr>
<td>Attendance at physical therapy</td>
<td>YES 89 (23.2%)</td>
</tr>
<tr>
<td></td>
<td>NO 295 (76.8%)</td>
</tr>
</tbody>
</table>

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>
<thead>
<tr>
<th>Problems after delivery</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Back Pain</td>
<td>78 (20.3)</td>
</tr>
<tr>
<td>Perineal Pain</td>
<td>38 (9.9)</td>
</tr>
<tr>
<td>Fecal Incontinence</td>
<td>22 (5.7)</td>
</tr>
<tr>
<td>Urine Incontinence</td>
<td>36 (9.4)</td>
</tr>
<tr>
<td>Low Back Pain and Urine Incontinence</td>
<td>88 (22.9)</td>
</tr>
<tr>
<td>Perineal Pain and Urine Incontinence</td>
<td>45(11.7)</td>
</tr>
<tr>
<td>Perineal Pain and Low Back Pain</td>
<td>54 (14.1)</td>
</tr>
<tr>
<td>Other</td>
<td>23 (6.0)</td>
</tr>
</tbody>
</table>

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
12. Syed H, Slayman T, Thoma KD. ACOG Committee Opinion No. 804: Physical Activity and Exercise During Pregnancy and the


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

فوستر جوزيف 1, أسوية رمضان 1, ساينتهيا جان 1, حميرا عنبرين 1, بينش شهزادي 1, مير عارف حسين تالبور 2
عبد الطفور سجاد 1, مبين مصطفى كياني 3

1 قسم علوم التأهيل، جامعة شفاء تعليم ملت، إسلام آباد، باكستان
2 جامعة بيهوتون النسائية، سكهر، باكستان
3 كلية شفاء للتكنولوجيا الطبية، جامعة شفاء تعليم ملت، إسلام آباد، باكستان

الملخص
الخلفية: يعد التدخل في العلاج الطبيعي نظامًا أساسيًا في الوقاية من مضاعفات ما بعد الولادة، بالإضافة إلى التأثير الجماهري والنفسية.

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

الطريقة: أجريت هذه الدراسة المقطعية في المدن التوأم (روبندي، إسلام آباد) في باكستان، حيث تم جمع البيانات من (483) أمًا في فترة ما بعد الولادة من خلال استبيان، وتم الاستفسار عن تقديم التدخلات، وكذلك الكشف عن رأي الأمهات في الجلسات العلاج الطبيعي، بالإضافة إلى الشكاوى الأكثر شيوعًا خلال فترة ما بعد الولادة.

نتائج: كان متوسط عمر الأمهات (67.52 ± 3.4) من بين (483) أمًا، وقد أفادت (848) منهن (47.4%) أن لديهن وعي فيما يتعلق بالعلاج الطبيعي، وتم إيحاء (89) (23.2%) منهن بالفعل إلى العلاج الطبيعي في فترة ما بعد الولادة. وحضرن جلسات العلاج، 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 باكستان، وعذر النظر عن أية مضاعفات تواجه الأمهات في فترة ما بعد الولادة، علاوة على ذلك، فإن النساء اللواتي استطمن معالجة طبيعية بعد الإحالة فقدن للمتابعة.

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