



doi 10.5281/zenodo.10909698

Vol. 07 Issue 03 March - 2024

Manuscript ID: #1264

COMMON MUSCULOSKELETAL PROBLEMS ARISES AMONG WOMEN AFTER PARTURITION AT SELECTED AREA OF BANGLADESH

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Abstract:

Background: Pregnancy increases the susceptibility to developing musculoskeletal diseases. Postpartum musculoskeletal issues are frequently observed after childbirth, causing significant discomfort and distress for women. **Purpose:** To identify the common musculoskeletal problems that arises among women after the event of parturition at a selected area of Bangladesh. **Methods:** A cross-sectional study of Dhaka hospital postpartum mothers with musculoskeletal complaints was conducted. Study sites were Enam Medical College and Super Medical Hospital. Convenience sampling yielded 112 eligible individuals. Ethics, hospital approval, and participant anonymity were crucial. Face-to-face interviews using questionnaires and VAS were used to collect data. We obtained informed consent from participants to ensure confidentiality and withdrawal. We followed WHO and Bangladesh Medical Research Council ethical guidelines to ensure research integrity. **Results:** The Bangladeshi postpartum women study revealed common musculoskeletal disorders and their relationships. The majority of participants, 23–27 (55%) with one or two children, reported low back pain (57.1%), pelvic girdle discomfort (67.9%), and urine incontinence (38.4%). Pelvic girdle pain, diastasis recti, and urine incontinence were linked to childbirth. greater kids mean greater pain. The OREBRO scale showed varying severity (mean score: 101.64 ± 12.56). Childbirth affected musculoskeletal complaints, as shown by OMPQ ratings and participant age. This study prepares for more interventions. **Conclusion:** The study proposes that these findings can serve as fundamental information for the development of management and assessment programs in the postpartum musculoskeletal population.

Keywords:

Musculoskeletal Pain, Postpartum Conditions, Physiotherapy.



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Introduction

Pregnancy causes changes in the body, both physically and physiologically. These changes result in a shift in body weight and center of gravity, which in turn affects the way a person walks and their posture [1,2]. Musculoskeletal diseases occurring during and during pregnancy, including back discomfort, pelvic dislocation, and tendinitis, have a substantial influence on everyday activities [3]. Globally, about 1.71 billion individuals experience musculoskeletal problems, which affect the locomotor system and result in discomfort or incapacitating injuries [4]. Spinal problems, particularly in the lower back area, are prevalent and have a substantial impact on mobility and ability to work [5].

Postpartum difficulties involve a range of musculoskeletal issues, such as lumbo-pelvic pain, pelvic girdle discomfort, and pelvic floor dysfunction [6]. These disorders are influenced by factors such as hormonal changes, weight increase, and tension on the pelvic floor muscles. They have a negative impact on everyday activities and result in ongoing discomfort [7,8]. In addition, diastasis recti abdominis, which is defined as the separation of the abdominal muscles, poses difficulties both during and after pregnancy [9]. In addition, carpal tunnel syndrome and DeQuervain's tenosynovitis mostly impact the upper extremities, specifically in pregnant or postpartum women. These conditions can significantly impair everyday activities and may result in long-lasting harm if not addressed [10].

The primary objective of this study is to provide a comprehensive understanding of the common musculoskeletal disorders that occur after childbirth in Bangladesh. This will facilitate improved healthcare services, increase awareness, and potentially impact policy changes in healthcare interventions.

Methods

The study utilized a cross-sectional approach to investigate the prevailing musculoskeletal problems among postpartum women in particular medical establishments. The study was conducted at Enam Medical College Hospital and Super Medical Hospital, both located in Dhaka, Bangladesh. The target population consisted of postpartum women with musculoskeletal disorders who were attending these hospitals, with the exception of those who had pre-existing musculoskeletal or neurological conditions. The study employed convenience sampling to choose participants, which facilitated the identification of eligible individuals who met the study criteria. These criteria included postpartum women aged 18-45 who were eager to participate and were having musculoskeletal difficulties. The initial sample size estimation for this cross-sectional study was 376, based on a specific formula. However, due to restrictions in the research process, only 112 samples were ultimately gathered for academic purposes.

The data collection process consisted of conducting in-person interviews using a modified Orebro Musculoskeletal Questionnaire (OMPQ) and Visual Analogue Scale (VAS) to assess the degree of pain. The strategies were designed to collect organized and semi-structured information in order to minimize bias. The researchers utilized a range of instruments including consent forms, questionnaires, and essential office equipment. The ethical issues were of utmost importance, as we strictly followed the criteria set by the World Health Organization (WHO) and the Bangladesh Medical Research Council (BMRC). The study obtained permission from the relevant hospital authorities and ethical committees, with a focus on ensuring participant confidentiality, informed consent, and the freedom to withdraw from the study at any point.

The participants were provided with information regarding the study's goals, their entitlements, and guarantees of secrecy, guaranteeing that their participation would not affect their responsibilities. The research began after getting the requisite approvals and licenses from the authorities of the hospitals.

Results

This study conducted an in-depth analysis of postpartum mothers in Bangladesh, examining multiple elements of musculoskeletal problems and their connections. The demographic analysis indicated that the majority of participants fell between the age ranges of 23-27 years, accounting for 55% of the sample. Furthermore, 45% of the participants had one child, while 40% had two children, thus reflecting the distribution of the sample. The economic status data revealed that 52% of individuals belonged to the middle class, while 45% were classified as lower class.

Variable	Values
Age	
(Mean±SD)	27.69(±11.50)
Median	27
Mode	18
Maximum	37
Minimum	18
Number of children among the participants	
1 Children	45%
2 Children	40%
3 Children	12%
4 Children	3%
Economic condition of the participants	
Upper class	3%
Middle class	52%
Lower class	45%
Awareness about Physiotherapy	
No	79%
Yes	21%

Table: Sociodemographic Status

Furthermore, the level of knowledge regarding physiotherapy among participants was quite limited, as only 21% were acquainted with it. The musculoskeletal problems reported were as follows: low back pain (57.1%), pelvic girdle discomfort (67.9%), urine incontinence (38.4%), diastasis recti abdominis (12%), Dequervein's tenosynovitis (18.9%), and carpal tunnel syndrome (13.5%). Patterns were observed in the associations between these symptoms and the number of children.

Association between	P-Value
Musculoskeletal pain with number of children	0.003
Diastasis recti with number of children	0.004
Urinary incontinence with number of children	0.004
Dequerveinstenosynovitis with number of children	0.001

Carpal tunnel syndrome with number of children	0.001
Intensity of pain with number of children	0.001
OMPQ score with number of children	0.001

Table: Association between

Specifically, there was a significant correlation between the number of children and an increase in pelvic girdle pain (p-value=0.003), indicating a definite association. The prevalence of diastasis recti also exhibited a same pattern (p-value=0.004), escalating with the increase in the number of children. The presence of urinary incontinence showed a complex relationship (p-value=0.004), which varied depending on the number of childbirths. Significant associations were found between Dequervein's tenosynovitis (p-value=0.001) and carpal tunnel syndrome (p-value=0.001). The pain intensity rose in direct correlation with the number of children, as indicated by the significant link between pain intensity and the number of children (p-value=0.000). In addition, the OREBRO scale was used to assess the intensity of musculoskeletal symptoms.

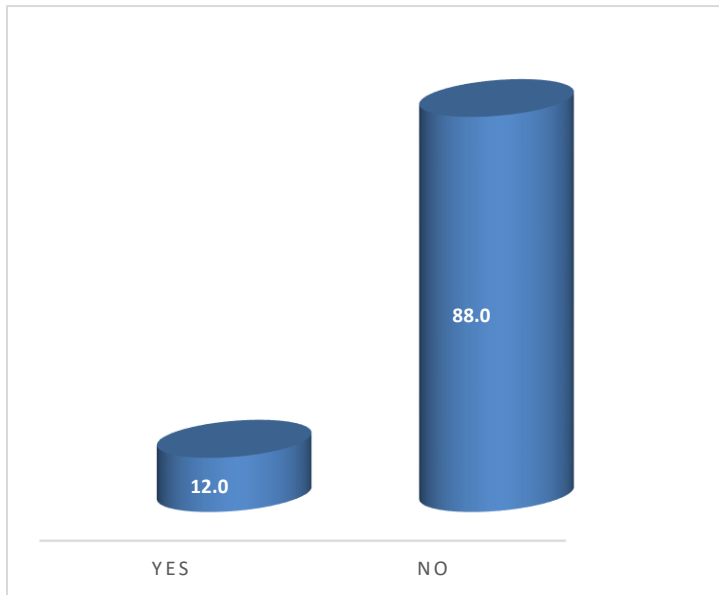


Figure :1 Diastasis recti abdominis

The results showed a mean severity score of 101.64 (± 12.56), indicating the different levels of severity observed among the participants. The OMPQ scores were distributed as follows: 32.7% of individuals had scores ranging from 84 to 103, while 16.3% and 4.8% had values ranging from 104 to 123 and from 124 to 143, respectively. The study revealed significant associations between OMPQ scores and the number of children (p-value=0.013) as well as between OMPQ scores and participants' ages (p-value=0.043). These findings highlight the influence of childbirth and age on musculoskeletal symptomatology in this postpartum group. In summary, this comprehensive study offered important and detailed information about the frequency, connections, and seriousness of musculoskeletal problems in postpartum women in Bangladesh. It serves as a great foundation for future research and therapies.

Discussion

The objective of the study was to ascertain the prevailing musculoskeletal problems in women after childbirth, with the participation of 112 individuals. The results indicated that 55% of the participants fell between the age range of 23-27 years, with an average age of 35.5 years [11,12]. Moreover, a significant proportion of individuals, specifically 67.1%, experienced pelvic girdle pain (PGP) as reported in multiple studies [13, 14, 15]. Urinary incontinence was observed in 33% of the participants according to studies conducted [16]. Diastasis recti abdominis (DRA) was experienced by 12% of the participants as reported. 12.5% of women were found to have Carpal tunnel syndrome (CTS) according to studies conducted. Additionally, de Quervain's tenosynovitis affected 17.9% of women as reported [7, 13]. The Orebro Musculoskeletal Questionnaire (OMPQ) was employed to assess the likelihood of developing chronic musculoskeletal conditions. OMQP assessment results showed that those with scores above 130 had a higher probability of experiencing long-term conditions and a lower possibility of returning to work within six months. Conversely, individuals with scores below 105 had a lower risk of long-term troubles and a better chance of resuming work after six months [4, 12]. The prevalence rates observed in this study were compared to results from many international studies, demonstrating varying rates of musculoskeletal problems in women after childbirth in different geographical areas. These findings emphasize the importance of evaluating and controlling these musculoskeletal problems to promote postpartum healthcare and enhance the well-being of women after giving birth. The study was limited to 112 Dhaka participants, making it difficult to generalize to Bangladesh's postpartum population. Data collection was limited by postpartum physiotherapy unit shortages among hospitals. Limited earlier research also affected evidentiary support. Obtaining extensive Bangladeshi context information was tough. Since this was the researcher's first effort, poor interview and survey skills limited participant insights.

Conclusion

Several Bangladeshi hospitals were studied to determine postpartum commonalities. The researcher employed a quantitative prospective survey model for this investigation. For convenience, 112 postpartum hospital patients were selected for follow-up. An investigator used a questionnaire. Each participant received a questionnaire to determine frequent musculoskeletal issues in Bangladeshi women after selected hospitals. The researcher creates a data base for the study sample from patient documentation. For better generalizability, research should include diverse Bangladeshi hospitals, explore prenatal musculoskeletal complaints, and advocate for generalized physiotherapy treatments in prenatal and postnatal care to prevent and treat them.

Author Contributions:

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GROUP 1: Conception of the work, Acquisition and Analysis of data

GROUP 2: Revising the work critically for important intellectual content

GROUP 3: Final approval of the version to be published

GROUP 4: Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

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Funding: No funding source.

Institutional Review Board Statement: (Ref no: CRP-R&E-0401).

Conflicts of Interest: No conflict of interest

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