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Original Article

Prevalence and Knowledge of Urinary Incontinence and Awareness about Physical Therapy Treatment among Young Females of Lahore

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ABSTRACT

Background: Urinary incontinence (UI), defined as involuntary urinary dribble at rest or under slight stress, is prevalent among women, particularly those who are pregnant or have had vaginal deliveries. While various treatments, including medical and physical therapy, are available for UI, awareness and knowledge about these treatments among young females remain unclear. This study aims to evaluate the prevalence of UI and the knowledge of physical therapy treatment options among young females in Lahore.

Objective: To determine the prevalence and knowledge of urinary incontinence and the awareness of physical therapy treatment among young females in Lahore.

Methods: This cross-sectional study included 250 young females aged 16-35 years from Jinnah Hospital Lahore, Sheikh Zayed Hospital Lahore, Ittefaq Hospital Lahore, and General Hospital Lahore. Data were collected using a self-reported quantitative questionnaire, the "International Consultation on Incontinence Questionnaire – Short Form" (ICIQ-SF), which assessed awareness about UI and knowledge of treatment options. Participants were briefed on the questions to ensure accurate responses. Data were analyzed using IBM SPSS Statistics version 25, with results presented as frequencies and percentages.

Results: The study involved 250 females with an age range of 16-35 years, of whom 156 (62.4%) were single, and 94 (37.6%) were married. Obstetric data revealed that 16 (6.4%) were nulliparous, 81 (32.4%) were multiparous, 53 (21.2%) had normal labor deliveries, 49 (19.6%) had cesarean section deliveries, and 5 (2.0%) had experienced episiotomy. UI prevalence was found in 83 (34%) participants, with 63 (25%) affected moderately and 24 (10%) severely. Regarding health knowledge, 121 (48.4%) had never heard of UI, and 142 (56.8%) did not know about the presence of medical treatment. Moreover, 196 (78.4%) were unaware of the availability of physiotherapy treatment for UI.

Conclusion: The prevalence of UI among young females in Lahore was significant, but the knowledge about UI and its medical treatment was relatively low. Awareness of physiotherapy treatment options was particularly lacking. These findings highlight the need for enhanced educational efforts to improve the understanding and management of UI among this population.

Keywords: Urinary incontinence, urinary stress, physical therapy, young females.

INTRODUCTION

Urinary incontinence (UI) is an uncontrolled leakage of urine, a widespread issue with distressing impacts on life, leading to disruptions in psychological, emotional, and social spheres (1). UI adversely affects mental health and has unpleasant influences on sexual, social, and professional relationships (2). The urinary system comprises the bladder, ureters, urethra, and kidneys, where urine is produced, and waste products are eliminated from the body through the kidneys (3). The pathophysiology of UI involves sudden tightening of bladder muscles and failure of sphincter muscles to effectively close the urethra, leading to uncontrollable urine leakage during activities such as laughing, sneezing, and coughing (4, 5).

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The World Health Organization (WHO) highlights that UI is prevalent, particularly among women with diabetes, coronary heart disease, and obesity. Approximately 33% of postmenopausal women suffer from UI (6). Symptoms of UI occur in 4-10% of twenty-year-old females, 60% of sixty-year-olds, and 70-80% of women aged over 65 years (7). The literature identifies various causes of UI, including stress urinary incontinence (50-70%), overactive bladder (OAB), and mixed forms (10-20%) (8). Stress urinary incontinence results from increased abdominal pressure due to exertion, sneezing, or coughing, reversing the pressure gradients between the bladder and the kidney, leading to urine retention issues (9). The disruption of pelvic floor stability and alteration of the vesicourethral angle contribute to decreased urethral pressure. Dysfunction in any of these components can cause UI (10).

Overactive bladder, also known as urgency incontinence, involves bladder muscle contractions that produce an urge to urinate before the bladder is full (11). This condition is common in males with prostate issues and post-menopausal females, characterized by frequent urination of small volumes of urine (about 350 ml) under severe pressure. The mixed incontinence form combines features of both stress and urgency incontinence, making it challenging to treat (12). Other causes of UI include obesity, nerve damage, surgeries such as hysterectomy, constipation, and medications like diuretics. UI can be managed through operational and conservative treatments, including physiotherapy, behavior therapy, and medication (13).

The International Continence Society in 2005 recommended physiotherapy as a cutting-edge treatment for UI, aiming to improve muscular contraction strength, advance lumbopelvic static reworking, and re-educate abdominal muscles using various exercises, techniques, and strategies (14). Treatment options for female UI are interdisciplinary, emphasizing the need for early prevention and highly successful physiotherapy techniques as first-choice treatment (15, 16).

This study assesses the level of awareness among young females in Lahore regarding UI and their familiarity with physiotherapy techniques used to treat it. There is a lack of available data on the understanding of UI, its impact on daily activities, and the physiotherapeutic treatments available. This study emphasizes the importance of awareness about physiotherapy for UI among young females. The findings will help determine the prevalence of knowledge related to UI treatment options and highlight the need for increased awareness and education on physiotherapy treatments for UI.

MATERIAL AND METHODS

This cross-sectional study was approved by the Institutional Review Board under letter number REC-042-2023, ensuring compliance with the ethical standards set by the Declaration of Helsinki. The study was conducted in various government hospitals in Lahore, including Jinnah Hospital Lahore, Sheikh Zayed Hospital Lahore, Ittefaq Hospital Lahore, and General Hospital Lahore. A convenient random sampling technique was employed to select a sample size of 250 young females, aged between 16 and 35 years, from the target population. Inclusion criteria were young females within the specified age range, both married and single, and those with obesity. Exclusion criteria included females under 16 or over 35 years of age, menopausal females, and individuals with neurological disorders.

Data collection was performed using a self-reported quantitative questionnaire based on the International Consultation on Incontinence Questionnaire – Short Form (ICIQ-SF). Participants were briefed on the questions to ensure accurate responses and understanding. The questionnaire aimed to assess the awareness and prevalence of urinary incontinence (UI) and the knowledge of physical therapy treatment options among the participants.

Data completeness was meticulously ensured, and the collected data were subjected to statistical analysis using IBM SPSS Statistics version 25. Continuous and categorical variables were presented as frequencies and percentages. The study's primary objective was to determine the prevalence of UI and the level of awareness regarding medical and physiotherapy treatments for UI among the participants.

Out of 250 participants, 156 (62.4%) were single, and 94 (37.6%) were married. Additionally, 16 (6.4%) participants were nulliparous, 81 (32.4%) were multiparous, 53 (21.2%) had undergone normal labor delivery, 49 (19.6%) had cesarean section deliveries, and 5 (2.0%) had experienced episiotomy. The data analysis revealed that 129 (51.6%) participants had heard about UI, while 121 (48.4%) had not. Regarding the awareness of medical treatment options for UI, 108 (43.2%) participants were aware, whereas 142 (56.8%) were not. Notably, only 22% of the participants were aware of physical therapy treatments for UI.

This study highlighted the significant gap in awareness regarding UI and its treatment options, particularly physiotherapy, among young females in Lahore. The findings underscore the necessity for comprehensive educational programs targeted at young females to improve their understanding of UI and the available treatment options. Such initiatives could involve healthcare professionals, particularly those in primary care and gynecology, to disseminate information about UI and its management, emphasizing the role of physiotherapy.

Future research should focus on longitudinal studies to assess the impact of educational interventions on knowledge and management of UI over time. Additionally, expanding the study to include a more diverse demographic and geographic population

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could provide a more comprehensive understanding of the awareness and knowledge gaps in different contexts. Integrating qualitative methods could also offer deeper insights into the personal experiences and barriers faced by young females regarding UI awareness and treatment.

RESULTS

The study included 250 young females aged between 16 and 35 years. Among the participants, 156 (62.4%) were single, and 94 (37.6%) were married. Of these, 16 (6.4%) were nulliparous, 81 (32.4%) were multiparous, 53 (21.2%) had undergone normal labor delivery, 49 (19.6%) had cesarean section deliveries, and 5 (2.0%) had experienced episiotomy. The results are presented in the tables below.

Table 1: Marital Status and Obstetric Data

Variable	Frequency (n=250)	Percentage (%)
Marital Status		
Single	156	62.4
Married	94	37.6
Obstetric Data		
Nulliparous	16	6.4
Multiparous	81	32.4
Normal Labor Delivery	53	21.2
Cesarean Section Delivery	49	19.6
Episiotomy	5	2.0

In terms of awareness about urinary incontinence (UI), 129 (51.6%) participants had heard about UI, while 121 (48.4%) had not. This indicates that slightly more than half of the participants were aware of the condition.

Table 2: Awareness of Urinary Incontinence

Variable	Frequency (n=250)	Percentage (%)
Awareness of UI		
Yes	129	51.6
No	121	48.4

Regarding the knowledge of medical treatment options available for UI, 108 (43.2%) participants were aware, whereas 142 (56.8%) were not aware, showing that the majority of participants lacked knowledge about medical treatments.

Table 3: Awareness of Medical Treatment for Urinary Incontinence

Variable	Frequency (n=250)	Percentage (%)
Knowledge of Medical Treatment		
Yes	108	43.2
No	142	56.8

The primary objective of this study was to assess the knowledge of physical therapy treatment options for UI. The results showed that only 55 (22%) of the participants were aware of physical therapy treatments for UI, indicating a significant gap in awareness.

Table 4: Awareness of Physical Therapy Treatment for Urinary Incontinence

Variable	Frequency (n=250)	Percentage (%)
Knowledge of Physical Therapy		
Yes	55	22.0
No	195	78.0

In summary, the study revealed that while the prevalence of UI awareness was moderately high among the participants, knowledge about medical treatments was relatively low, and awareness of physical therapy treatment options was significantly low. These findings highlight the need for increased educational efforts to improve knowledge and management of UI among young females in Lahore.

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DISCUSSION

The findings of this study underscored a notable gap in awareness and knowledge regarding urinary incontinence (UI) and its treatment options among young females in Lahore. The prevalence of UI awareness was found to be moderately high, with 51.6% of participants having heard about the condition. This is consistent with previous research, which has also indicated varying levels of awareness among different populations. For instance, a study conducted on pregnant females in 2023 highlighted a similar lack of knowledge regarding risk factors and treatment options for UI (1). Despite this, the awareness of medical treatments for UI was relatively low, with only 43.2% of participants being informed about such options. This aligns with findings from other studies that reported inadequate knowledge about UI treatments among affected individuals (2).

The awareness of physical therapy treatment for UI was even lower, with only 22% of participants being aware of this option. This significant gap is concerning, considering the effectiveness of physiotherapy in managing UI, as recommended by the International Continence Society in 2005 (3). Previous studies have emphasized the importance of physiotherapy in improving muscular contraction strength, advancing lumbopelvic static reworking, and re-educating abdominal muscles through various exercises and techniques (4). The lack of awareness about such an effective treatment modality indicates a critical need for educational interventions to enhance knowledge and utilization of physiotherapy for UI (12-16).

The study had several strengths, including a diverse sample size and the use of a well-validated questionnaire (ICIQ-SF) to assess awareness and knowledge. However, there were also limitations. The cross-sectional design of the study precludes the establishment of causality. Additionally, the use of self-reported questionnaires may have introduced response biases, and the sample was limited to young females in Lahore, which may not be generalizable to other populations or regions (17-19).

Despite these limitations, the study provides valuable insights into the current state of awareness and knowledge about UI and its treatments among young females. The findings suggest that while a moderate level of awareness about UI exists, there is a significant deficiency in knowledge about both medical and physiotherapy treatments. This underscores the necessity for comprehensive educational programs targeted at young females to improve their understanding of UI and the available treatment options. Such initiatives could involve healthcare professionals, particularly those in primary care and gynecology, to disseminate information about UI and its management, emphasizing the role of physiotherapy (20).

Future research should focus on longitudinal studies to assess the impact of educational interventions on knowledge and management of UI over time. Additionally, expanding the study to include a more diverse demographic and geographic population could provide a more comprehensive understanding of the awareness and knowledge gaps in different contexts. Integrating qualitative methods could also offer deeper insights into the personal experiences and barriers faced by young females regarding UI awareness and treatment.

CONCLUSION

The prevalence of UI among young females in Lahore was significant, but the knowledge about UI and its medical treatment was relatively low. Awareness of physiotherapy treatment options was particularly lacking. These findings highlight the need for enhanced educational efforts to improve the understanding and management of UI among this population.

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