

The Impact of Overactive Bladder on Quality of Life Affecting Physical Life, Social Life and Psychological Health among Women

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Abstract

Original Research Article

Introduction: Overactive bladder (OAB) has profound impacts on the quality of life (QoL) in women, affecting their physical, social, and psychological well-being. However, comprehensive studies on the impacts of OAB among women in Bangladesh, a low-middle income country with unique cultural, social, and economic contexts, remain scarce. **Methods:** This prospective observational study, conducted at the Department of Obstetrics and Gynecology, Holy Family Red Crescent Medical College Hospital, Dhaka, Bangladesh, from January 2021 to December 2022, included 120 women visiting the study hospital with complaints of urinary leakage. Participants were surveyed on the prevalence and severity of OAB symptoms and their impact on physical life, social life, and psychological health. The Overactive Bladder Symptom Score (OABSS) and the King's Health Questionnaire (KHQ) were used to assess symptom severity and impact on quality of life, respectively. **Result:** The study found that OAB symptoms were prevalent among the participants, with 50.00% reporting urinary urgency, 40.00% reporting frequency of urination, 30.00% reporting nocturia, and 20.00% reporting incontinence. The severity of OAB symptoms varied, with 40.00% having a mild OABSS score, 50.00% having a moderate OABSS score, and 10.00% having a severe OABSS score. **Conclusion:** OAB significantly impacts the QoL of women in Bangladesh. This study underscores the need for comprehensive, multi-dimensional approaches to manage OAB, emphasizing the necessity for mental health support. It contributes to the limited literature on OAB's impact in low and middle-income countries, highlighting the need for further research and public health initiatives to improve the management and treatment of OAB in these contexts.

Keywords: Bladder, Incontinence, Nocturia, Leakage, Urinary.

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INTRODUCTION

Overactive bladder (OAB), a prevalent urological condition, is characterized by urgency, with or without urgency incontinence, increased daytime frequency, and nocturia [1]. This condition affects women profoundly, imposing a substantial burden on various facets of their lives, including physical well-being, social interactions, and psychological health [2]. Despite this, there is a lack of comprehensive research exploring these multifaceted impacts, particularly in low- and middle-income countries. Bangladesh, a lower-middle-income country in South Asia, has a population of over 170 million, with women constituting nearly half. In Bangladesh and other developing countries of Asia, 11.4% of women suffer from OAB, as per a study conducted by Lapitan *et al.*, (2018) [3]. This high prevalence, coupled with socio-

cultural factors unique to the region, amplifies the necessity of understanding the consequences of OAB on women's QoL in this context. Physical life, one of the most prominent areas affected by OAB, revolves around the daily activities that require physical effort. OAB, with its symptoms of urgency and frequency, can disrupt a woman's ability to perform routine tasks, create a fear of incontinence during physical activity, and lead to sleep disturbances due to nocturia [4]. The impairment of these fundamental aspects can significantly diminish QoL, thus necessitating a meticulous exploration of these effects within the Bangladeshi context. Social life, an essential aspect of human existence, can be severely disrupted by overactive bladder (OAB) [5]. The condition often prompts women to limit their participation in social events and professional activities due to the fear of potential embarrassment from sudden urges of urinary

incontinence or the frequent need to visit the restroom [6]. This self-enforced solitude can lead to the disintegration of their social circles, thereby diminishing their quality of life. Given the societal norms and expectations in Bangladesh, this impact on social life might be even more intense. Moreover, OAB has considerable repercussions on the psychological health of women. It has been observed that women with OAB tend to exhibit increased instances of anxiety and depression, which are commonly attributed to their condition [7]. The persistent concern about unexpected urinary incidents, coupled with the decrease in social interactions, can profoundly impact their mental well-being. In Bangladesh, where resources for mental health services are scarce and mental health issues carry a significant societal stigma, studying the psychological effects of OAB becomes even more crucial. In summation, OAB considerably affects women's quality of life, influencing their physical activities, social relationships, and mental health. While there is abundant research on this subject in high-income nations, there is a need to investigate these impacts in countries like Bangladesh, where the cultural, societal, and economic contexts differ significantly. The goal of this prospective observational study is to fill this gap in the existing literature, thereby facilitating a more holistic understanding of the impact of OAB on the quality of life of women in Bangladesh.

METHODS

This prospective observational study was carried out at the Department of Obstetrics and Gynecology, Holy Family Red Crescent Medical College Hospital, Dhaka, Bangladesh, over a period of two years from January 2021 to December 2022. The study's participants comprised a cohort of 120 women visiting the hospital who had visited the hospital with complaints of urinary leakage. Inclusion criteria were women aged between 18 and 45 years, who had complains o urinary leakage or frequent urination, and were willing to participate in the study. The exclusion criteria included the presence of other significant medical conditions such as diabetes mellitus, neurogenic bladder, or urinary tract abnormalities, a history of urinary surgery, and patients who were unwilling or unable to comply with the study protocol. Data were collected through structured interviews and the administration of validated questionnaires to assess the impact of OAB on the quality of life, encompassing physical life, social life, and psychological health. Standardized tools such as the Overactive Bladder Symptom Score (OABSS) and the King's Health Questionnaire (KHQ) were used [8–10]. The acquired data were then analyzed using appropriate statistical methods. This comprehensive methodological approach will ensure a robust understanding of OAB's multifaceted impact on the quality of life among women in Bangladesh.

RESULTS

Table 1: Demographic and Clinical Characteristics of the Study Participants

Variables	Number	Percentage
Age		
Age (18-29)	40	33.33%
Age (30-39)	60	50.00%
Age (40-45)	20	16.67%
Marital Status		
Married	108	90.00%
Single	12	10.00%
Employment Status		
Employed	72	60.00%
Unemployed	48	40.00%
History of UTI		
Yes	24	20.00%
No	96	80.00%

Table 1 presents the demographic and clinical characteristics of the study participants. The age distribution shows that 33.33% (40 individuals) were in the 18-29 age range, 50.00% (60 individuals) were in the 30-39 age range, and 16.67% (20 individuals) were in the 40-45 age range. In terms of marital status, the majority of participants were married, accounting for 90.00% (108 individuals), while the remaining 10.00%

(12 individuals) were single. Regarding employment status, 60.00% (72 individuals) were employed, whereas 40.00% (48 individuals) were unemployed. When considering the history of urinary tract infections (UTIs), 20.00% (24 individuals) reported having a previous UTI, while 80.00% (96 individuals) did not have a history of UTIs.

Table 2: Prevalence of Overactive Bladder Symptoms among Study Participants

Variables	Number	Percentage
Urinary urgency	60	50.00%
Frequency	48	40.00%
Nocturia	36	30.00%
Incontinence	24	20.00%

Table 2 presents the prevalence of overactive bladder symptoms among the study participants. Of the total participants, 50.00% (60 individuals) reported experiencing urinary urgency, 40.00% (48 individuals)

reported frequency of urination, 30.00% (36 individuals) reported nocturia (excessive urination at night), and 20.00% (24 individuals) reported incontinence (involuntary leakage of urine).

Table 3: Overactive Bladder Symptom Score (OABSS) Among Study Participants

Variables	Number	Percentage
Mild (1-5)	48	40.00%
Moderate (6-11)	60	50.00%
Severe (12-15)	12	10.00%

Table 3 displays the distribution of Overactive Bladder Symptom Score (OABSS) among the study participants. It indicates that 40.00% (48 individuals) had a mild OABSS score ranging from 1 to 5, 50.00% (60 individuals) had a moderate OABSS score ranging

from 6 to 11, and 10.00% (12 individuals) had a severe OABSS score ranging from 12 to 15. This scoring system is used to assess the severity of overactive bladder symptoms, with higher scores indicating more severe symptoms.

Table 4: Impact of Overactive Bladder on Physical Life: King's Health Questionnaire (KHQ) Scores

Variables	Number	Percentage
Low impact (1-3)	60	50.00%
Moderate impact (4-6)	36	30.00%
High impact (7-10)	24	20.00%

Table 4 presents the impact of overactive bladder on the physical life of the study participants, as assessed by the King's Health Questionnaire (KHQ) scores. The table indicates that 50.00% (60 individuals) reported a low impact on their physical life, with KHQ

scores ranging from 1 to 3. Additionally, 30.00% (36 individuals) reported a moderate impact, with scores ranging from 4 to 6. Finally, 20.00% (24 individuals) experienced a high impact on their physical life, as reflected by KHQ scores ranging from 7 to 10.

Table 5: Impact of Overactive Bladder on Social Life: King's Health Questionnaire (KHQ) Scores

Variables	Number	Percentage
Low impact (1-3)	72	60.00%
Moderate impact (4-6)	36	30.00%
High impact (7-10)	12	10.00%

Table 5 displays the impact of overactive bladder on the social life of the study participants, as measured by the King's Health Questionnaire (KHQ) scores. The table reveals that 60.00% (72 individuals) reported a low impact on their social life, with KHQ

scores ranging from 1 to 3. Additionally, 30.00% (36 individuals) reported a moderate impact, with scores ranging from 4 to 6. Lastly, 10.00% (12 individuals) experienced a high impact on their social life, as indicated by KHQ scores ranging from 7 to 10.

Table 6: Impact of Overactive Bladder on Psychological Health: King's Health Questionnaire (KHQ) Scores

Variables	Number	Percentage
Low impact (1-3)	48	40.00%
Moderate impact (4-6)	60	50.00%
High impact (7-10)	12	10.00%

Table 6 illustrates the impact of overactive bladder on the psychological health of the study participants, as measured by the King's Health Questionnaire (KHQ) scores. According to the table,

40.00% (48 individuals) reported a low impact on their psychological health, with KHQ scores ranging from 1 to 3. Additionally, 50.00% (60 individuals) reported a moderate impact, with scores ranging from 4 to 6.

Finally, 10.00% (12 individuals) experienced a high impact on their psychological health, as indicated by KHQ scores ranging from 7 to 10.

DISCUSSION

The present study provides an in-depth examination of the impact of overactive bladder (OAB) on the quality of life (QoL) among women in Bangladesh, covering aspects of physical life, social life, and psychological health. The findings shed light on the pervasive implications of OAB, emphasizing the urgent need for appropriate interventions to manage the condition and improve QoL among affected individuals. It was observed that the majority of the study participants were in the 30-39 age range, with a significant representation also in the 18-29 age range. This demographic profile aligns with existing literature suggesting that OAB symptoms can affect women of all age groups, although the prevalence tends to increase with age [4]. Our study found that the vast majority of participants were married and a significant proportion were employed, highlighting the potential impact of OAB on various aspects of a woman's life, from familial to professional roles [11, 12]. The prevalence of OAB symptoms among study participants was consistent with other studies in different regions. For example, a study by Irwin *et al.*, (2006) reported similar frequencies of urinary urgency, nocturia, and incontinence among women suffering from OAB [13]. Our findings underscore the widespread nature of OAB symptoms and their potential to disrupt daily life. The Overactive Bladder Symptom Score (OABSS) distribution among participants, mirrors the findings of a study by Homma *et al.*, (2006), who found similar severity levels of OAB symptoms among women in Japan [14]. This similarity suggests that the severity of OAB symptoms may be similar across different cultural and geographic contexts, reinforcing the global relevance of OAB as a public health issue. Our investigation into the impact of OAB on physical life, as measured by the King's Health Questionnaire (KHQ) scores, showed a broad range of impact levels. The KHQ is a well-established tool for assessing the QoL in individuals with OAB and our findings align with a study by Kelleher *et al.*, (2004), which also reported a wide range of physical impact levels [15]. This underlines the variability in how OAB can affect an individual's physical life, suggesting the need for personalized approaches to manage the condition. The impact of OAB on social life was a crucial finding. A significant proportion of our participants reported low to moderate impact levels, underscoring the potential for OAB to disrupt social interactions and lead to social isolation, as reported by Coyne *et al.*, (2013) [4]. The high impact reported by some participants suggests that for a substantial subset of women, OAB can lead to severe disruption of social activities. The impact of OAB on psychological health emphasizes the need to address the psychological effects of OAB. Our findings align with studies such as those by Lai *et al.*, (2015) and

Coyne *et al.*, (2013), which highlighted the significant psychological burden associated with OAB [4, 16]. The prevalence of moderate to high impact levels on psychological health found in our study underscores the necessity for mental health support for women suffering from OAB.

Limitations of the Study

The study was conducted in a single hospital with a small sample size. So, the results may not represent the whole community.

CONCLUSION

The present study offers compelling evidence of the multifaceted impact of overactive bladder (OAB) on the quality of life among women in Bangladesh. The study found that OAB significantly affects the physical, social, and psychological aspects of life, with varying degrees of impact on each domain. The age distribution of the affected women spanned from young adults to middle-aged women, highlighting that OAB is not restricted to any specific age group. Our findings underscore the need for a comprehensive, multi-dimensional approach in managing OAB. It is essential that interventions not only address the physical symptoms but also the profound impact on social life and psychological well-being. Mental health support is particularly crucial given the high prevalence of psychological impact found in our study.

While our study aligns with global studies, it also highlights the specific nuances in the Bangladesh context. The results emphasize the need for further research and public health initiatives to improve the management and treatment of OAB in Bangladesh. Finally, this study contributes to the limited literature on the impact of OAB on women's quality of life in low and middle-income countries, thereby providing a foundation for further research and policy interventions in these contexts.

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Conflict of Interest: None declared.

Ethical Approval: The study was approved by the Institutional Ethics Committee.

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