

Prevalence of Urinary Incontinence in Women Living in Delhi

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Abstract: ***Introduction:** Urinary incontinence is a common and distressing medical condition, severely affecting quality of life. The condition is usually under reported as many women hesitate to seek help or report symptoms to medical practitioners due to the embarrassing and culturally sensitive nature of this condition. The objective of the study is identification and estimation of women suffering from this underreported, disabling condition. This information can be further used for providing relevant rehabilitation and improving their quality of life. **Method:** 400 Women, living in and around Delhi, 18 years and older were asked to complete a self-administered questionnaire. **Results:** Of the 400 women subjects recruited for the study, 53% of women sampled were incontinent, 72% were at risk of developing incontinence, a larger percentage of women reported mild to moderate symptoms of incontinence and over 89% women underreported the condition and were unaware of the treatment options available. **Conclusion:** As we are in 21st century and Indian women is taking a step towards economic independence. Still there are certain medical conditions like Urinary incontinence being taken as a social stigma. The study concludes a high prevalence rate of urinary incontinence and its lack of awareness.*

Keywords: Prevalence, Urinary incontinence, Urban slums, Urban areas

1. Introduction

Urinary incontinence or the involuntary leakage of urine, progressively leads to a reduction in the quality of life in women of all ages.¹ It is a distressing and disabling condition that affects the social, psychological, occupational, domestic, physical, and sexual lives of 15% to 30% of women across their life span.² Accordingly there is a constant need to draw attention of all stakeholders towards this ever increasing, distressing, and debilitating condition. Interestingly, despite the immense work that has been done on this subject and the availability of some easy solutions, women, particularly in India are reluctant to take advantage of this information and implement these solutions. Thus, a major disadvantage in India is the under reporting of the problem, a reluctance by women to seek help, and interestingly, the reticence of healthcare workers to discuss issues related to the problem.³

Traditionally, women regardless of socio-economic strata have never prioritized let alone addressed their health problems. In India this problem gets exponentially compounded as the healthcare services available to the general public is at best limited. Accordingly, the greatest impact of this limitation has been felt by women particularly with regard to their own health. Also, Urinary incontinence is a subject that women in general refrain from speaking about and even seek less intervention.

In recent years there have been an increase number of urban slums in and around major metropolitan cities, such as Delhi. Women living in slums are even more disadvantaged with regards to receiving healthcare and taking care of their own bodies. Furthermore, there is a lot of variation in the socio-economic status and educational level, which has a direct and indirect effect on the awareness of conditions,

such as urinary incontinence. However, regardless of socioeconomic status it is considered a social stigma and Indian women feel uncomfortable and shy to report it to the medical practitioner. Interestingly, even medical practitioner routinely do not emphasise on this problem during history taking.

As women take a step towards economic independence, taking charge of their bodies assumes greater importance. Urinary incontinence impacts upon their independence as it is physically, psychologically, economically, and socially distressing.² In addition to risk factors, such as parity, age, obesity, mode of delivery, obesity, etc. that are associated with urinary incontinence.^{4,5,6} It appears that women regardless of where they live do not actively seek medical intervention for this problem.

A review of the literature revealed that there was a paucity of published studies in the India. Thus, as a first step the purpose of this study was to collect information from Indian women with regards to the prevalence of incontinence, the risk factors associated with it, the severity of the problem, and if women that were afflicted were seeking intervention from women living in and around Delhi.

2. Method

Participants

Women, living in and around Delhi, 18 years and older were asked to complete a self-administered questionnaire. The sample was a convenience sample. Women residing in the urban slums were recruited as volunteers via community based centers run by a local NGO, while women residing in urban areas were recruited from memberships of resident welfare associations and women's clubs.

Women who were pregnant, suffered from neurological conditions were excluded from the sample.

A sample size of 400 was calculated a priori using the Slovin's formulae (1961).

Survey Instrument

A 27 question questionnaire (refer to Appendix I) was developed. Each question was scored on a nominal scale – Yes (1) and No (0). The following sub-scores were derived:

Prevalence:

Prevalence of urinary incontinence was determined by calculating the number of 'yes' on questions 1, 2, 3, 4, 5, 6, 7.

Severity:

Severity of incontinence was measured using questions 8, 9, 10, 11. A score of one (1) was categorised as mild, a score of two (2) as moderate, and 3-4 as severe.

Risk factors and degree of risk:

Questions 14, 15, 16, 17, 18, 19, 20, 21, 22, 25 & 26 documented the Risk factors associated with incontinence. In addition, the degree of risk is determined by adding the no of subjects who answered the above questions related to risk factors in the affirmative.

Awareness:

Awareness was measured using question 27. This was an indirect measure of awareness to interventions and their use.

3. Procedure

The questionnaire was administered by volunteers who were recruited from the community. They were trained in its administration by one of the principal investigators (PS) in the procedures on how to administer the questionnaire.

The trained workers went to their assigned urban slum area and had a one to one interaction with the women of the community at their respective homes. They explained the women about the survey and instructed the method to fill the questionnaire. In urban areas the Investigator themselves went to administer the questionnaire at various resident welfare areas and societies. The investigator instructed the women in the same way as the trained workers did in urban slums.

4. Results

1) Demographic Data

400 women subjects including 200 from urban slums and 200 from urban areas participated in the study with age range 18-75 years, mean age 36 years, mean 1.54mts, mean weight 54 kg. and mean BMI 22.95 kg/mt².

2) Prevalence

It was observed that 53% of women sampled were incontinent of which 51% of incontinent women were living in urban areas, while 49% in urban slums (figure. 1).

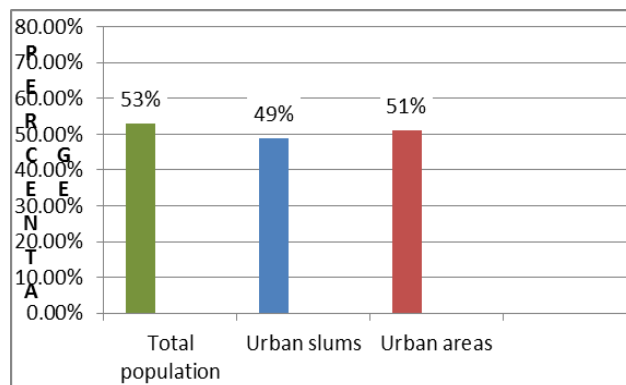


Figure 1: Prevalence of Urinary Incontinence in the total sample of women living in urban slums and urban areas

3) Risk For Incontinence

As seen in figure.2 it was observed that 72% of women were at risk of developing incontinence. Additionally, 52% of women at risk lived in urban areas and 48% in urban areas. Incontinence increases in women that had multiple child births. 75% of incontinent women living in the urban areas and 65% in urban slums were multiparous. Interestingly 74% (urban areas) and 68% (urban slums) of women had normal delivery.

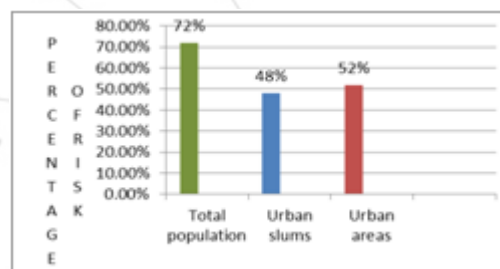


Figure 2: Percentage of women at risk for the total sample, women living in urban slums and urban areas

4) Severity Of Urinary Incontinence

Severity of urinary incontinence was calculated and categorised as mild, moderate and severe using a severity index. Overall, a larger percentage of women reported mild and moderate symptoms of incontinence, 42% of the women suffered from mild symptoms, 51% from moderate symptoms and 7% from severe symptoms.

5) Seeking Medical Intervention/Treatment

Overall, the data suggests that women were reluctant to seek medical intervention for their problem or were unaware of the medical options available. As seen in figure 3 89% of incontinent women were not being treated for incontinence with women living in urban areas (47%) and urban slums (53%) did not seek any intervention.

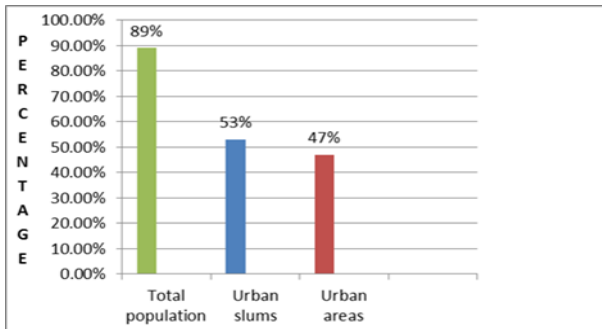


Figure 3: Percentage of incontinent women unaware of treatment approaches for urinary incontinence

5. Discussion

This study is first of its kind to establish prevalence rates of urinary incontinence in a population with divisional subgroups of urban slums and urban areas. Study provides an opportunity to analyze the prevalence and determinants of different types of urinary incontinence separately in the subjects using a self reported questionnaire.

The observed prevalence of urinary incontinence in this study was 53% with 51% in urban slum population and 49% in urban population. However, other similar studies reported prevalence rates of the entire population with no subdivisions of population. A study done on Indian population quoted incidence of incontinence as 34% which is similar to the 30% incidence found by Herzog et al⁷ while study by Brown et al⁸ and Black et al⁹ found a much higher incidence of 55% and 62% respectively.

Our study also determined age related prevalence of urinary incontinence in both the groups studied. The trends were almost similar in both the population groups with prevalence of urinary incontinence being maximum for age group 48-57 years. The results of the study do not follow what the previous researches quote. Study by Stewart (2003) reported that elderly women are the most affected, with a mean prevalence of 34%.¹⁰ Danforth et al conducted a study on females between the ages 37 to 64 years and reported incontinence in 43.0% of the women and maximum prevalence in the age group >60 years.¹¹

The different results reported by our study can be attributed to the difference in lifestyles and menopausal age.¹² The association between menopause and Overactive bladder can be explained physiologically. Lack of estrogen is the main cause of menopausal symptoms. Estrogen helps increase cellular tropism in the epithelial layer of the vagina, urethra, and bladder, as well as in the trigone and puborectalis muscles owing to the presence of hormone receptors in these regions.¹³ Therefore, estrogen can cause urinary symptoms by different mechanisms. It has also been found that menopausal symptoms and Overactive bladder have similar risk factors that involve emotional and Psychological stress. These stress levels were higher in women with overactive bladder than in healthy controls; therefore, stress levels are positively associated with the symptoms of UI.¹⁴

In relation to the association between lifestyle and urinary incontinence, it can be said that Indian women are becoming

less active physically, along with changes in responsibilities in family and society as they are approaching old age.

The study also determined the severity of urinary incontinence with results showing that maximum women suffer from mild and moderate form of urinary incontinence. Urinary incontinence was divided as mild, moderate and severe based on number of symptoms. The results were similar to other researches by Singh et al¹⁵ and Melville et al.¹⁶

The study included the risk factors for developing urinary incontinence and found that women in urban slums are at more risk for developing urinary incontinence in comparison to women of urban areas. Urinary incontinence is significantly associated with obstetric factors like increasing parity and vaginal mode of delivery. In context of parity the study revealed that as the no of childbirths increase the prevalence of urinary incontinence increases. Childbearing is an established risk factor for UI; the labour and delivery process may cause pelvic floor dysfunction as a result of nerve damage, muscular damage, and direct tissue stretching and disruption.^{17,18,19} Similar results were found by a cross-sectional study conducted by Sherburn et al²⁰ reporting that urinary incontinence patients were significantly more likely than those without incontinence to have had three or more children. The prevalence of urinary incontinence was investigated by Thomas et al which also showed that prevalence was appreciably increased in women who had four or more children.²¹

With reference to the mode of delivery our study concluded that vaginal or normal mode of delivery was a major risk factor for developing urinary incontinence this again followed the results of a comparative cross-sectional study by Guarisi et al which was performed among 30 women with urinary incontinence in 2002 and the study demonstrated that climacteric women who delivered only by the vaginal route had a significantly higher risk of urodynamic abnormalities.²²

With incontinence being a common problem with widespread human and social implications causing discomfort, shame, and loss of self-confidence. Globally, urinary incontinence affects the quality of life of at least one third of women. Many women are too embarrassed to talk about it and some believe it to be untreatable even in western countries.^{23,24} This problem is more pronounced in India where women usually do not seek treatment for their reproductive health problems and do not vocalize their symptoms.

There is a 'culture of silence' and low consultation rate among Indian women regarding such problem.^{25,26} Women in India have also been reported to have tolerance threshold for seeking treatment. Embarrassment, shyness, lack of money/time, fear of surgery and pain are usually the reasons given by women for non-consultation. The study also explored the awareness of urinary incontinence in the studied population groups and concluded that the culture of silence follows with very less women reporting or seeking the treatment for the same.²⁷

6. Conclusion

The study concludes a high prevalence rate of 53% of urinary incontinence and its lack of awareness among the community. As we are in 21st century and Indian women is taking a step towards economic independence. Still there are certain medical conditions like Urinary incontinence being taken as a social stigma.

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