

URGENCY, STRESS AND MIXED URINARY INCONTINENCE IN WOMEN IN RURAL PAKISTAN: PREVALENCE, SEVERITY, ASSOCIATED FACTORS AND IMPACT ON QUALITY OF LIFE.

Hypothesis / aims of study

To estimate the prevalence of urgency, stress and mixed urinary incontinence (UI) in women in rural Pakistan, associated factors, their severity and impact on their quality of life.

Study design, materials and methods

Large population-based, cross-sectional study design was used in rural community setting in Sindh province, Pakistan in which women aged 15 years or above were selected randomly by using a three-level cluster random sampling strategy to identify the study population. At first level half of all the public sector primary healthcare centres were selected randomly. At second level a random sample of 20% of Lady Health Workers (LHW) selected who were attached to these selected centres. At third level a random sample of women selected from these LHWs catchment areas. An interview-based structured questionnaire was administered by LHWs to collect data from women at their homes. The questionnaire was pretested in a pilot study to make the language clear, understandable and culturally acceptable questions. The outcome measures were urgency UI, stress UI and mixed UI reported by women. On the basis of answers about circumstances of urine leakage, the incontinence considered as urgency if associated with leakage before reaching a toilet; stress if associated with a sudden cough, a sneeze, running, jumping, playing, exercise, straining or heavy work; and mixed if both urge and stress symptoms were present.

Results

Among the 5064 women interviewed (96% response rate), 161 women found with urgency incontinence sharing a prevalence of 3.2% (95% CI 2.4-3.1%), 238 women with stress incontinence a prevalence of 4.7% (95% CI 3.7-4.0 %), and 140 women with mixed incontinence a prevalence of 2.8% (95% CI 2.1-2.7 %). Older age, higher parity and marriage at an early age were independently associated with these three types of incontinence. Approximately half of the women with incontinence reported leakage at least daily, and 42.5% reported a great or moderate impact on their everyday quality of life. 27.3% of women reported having had these types of incontinence for 5 or more years. Only 81(15%) of affected women with incontinence consulted a physician for the condition.

Interpretation of results

The prevalence of these three types of urinary incontinence in this study was lower than most of the studies conducted in developed world. We know very little in the developing world about these conditions where there may be different risk factors and a different symptom reporting threshold. Social context may be possible affect both women's reporting and their perception of UI symptoms. It is possible that women may be more embarrassed to the condition because there is shame or stigma in the developing world. It may be possible because of general living conditions are much more difficult and they may be more likely to disregard lower level symptoms thus affecting the UI reporting threshold. It may also be possible that some women may not admit to the symptoms in case this information may spread among the local community, causing shame and embarrassment. This would lead to an underestimate of the prevalence of these conditions.

Stress incontinence was the most commonly reported type in this study, which consistent with other studies. The second most common type of incontinence reported was urgency and third was mixed where as most other studies reported mixed incontinence be the next most common with urgency being less common. However, prevalence of these disorders increased with increasing age, parity and early age at marriage, also consistent with previous studies.

Women, who reported for great or moderate impacts on their everyday life, also had the impact on their quality of life such as hygiene, home life, work life and social life. Only 81 (15%) of affected women consulted a physician for the condition when in the developed world more than 25% affected women consult a physician.

Concluding message

The prevalence of urgency, stress and mixed UI reported by women in a large population-based study in rural Pakistan was lower than generally found in previous studies from developed world, however in the affected women, it commonly occurred on a daily basis and impacted on their daily quality of lives, yet few had obtained medical advice.

Disclosures

Funding: Funding for this study was provided by University Grants Commission of Aga Khan University, Karachi, Pakistan
Clinical Trial: No **Subjects:** HUMAN **Ethics Committee:** Ethical Review Committee of Aga Khan University Karachi, Pakistan
Helsinki: Yes **Informed Consent:** Yes