

## THE PREVALENCE OF STRESS URINARY INCONTINENCE IN WOMEN, SEVERITY, ASSOCIATED FACTORS AND IMPACT ON LIFE: A POPULATION BASED STUDY IN RURAL PAKISTAN

### Hypothesis / aims of study:

To report a population-based study of the prevalence of Stress Urinary Incontinence in women and associated factors, severity and impact on daily life of women in rural Pakistan

### Study design, materials and methods:

Population-based, cross-sectional study conducted in a rural community Pakistan in which women aged 15 years or older were selected randomly. Study participants were accessed through the public healthcare centres in the communities. A three-level random sampling strategy was used to select women: a random sample of health centres, a random sample of Lady Health Workers (LHWs) from each health centre; and a random sample of women in the LHWs catchment areas. The LHWs used an interview-based structured questionnaire to collect data from women at their homes. The questionnaire was pretested in a pilot study with the aim to make the language clear, understandable and to ensure that the questions culturally acceptable. The main outcome measure was stress urinary incontinence reported by women. On the basis of answers about the circumstances of urine leakage the stress incontinence was considered if associated with a sudden cough, a sneeze, running, jumping, playing, exercise, straining or heavy work.

### Results:

Among the 5064 women interviewed (96% response rate), 283 women found with stress urinary incontinence sharing a prevalence of 4.7% (95% CI 4.1-5.3%). Older age, higher parity and marriage at an early age were independently associated with stress incontinence. We found that 51.2% of women with stress incontinence reported leakage at least daily, and 38% reported a great or moderate impact on their daily life. Only 7.4% of women with stress incontinence had consulted a doctor for the condition.

### Interpretation of results:

The prevalence of stress incontinence in this study was lower than of most of studies conducted in the developed world. It may be due to different frequencies of risk factors and a different symptom reporting threshold in developing world. It may also be due to that our study had far fewer older women which is a typical of the age 'pyramid' in Pakistan with only 5.6 % of the sample being aged over 50 years. It is possible that social context may affect both women's reporting and their perception of symptom or they may be more embarrassed to report incontinence if they have it because there is shame or stigma attached it or simply they embarrassed by it. However, prevalence of stress incontinence increased with increasing parity and age and early age at marriage are consistent with other studies. Women who reported for great or moderate impacts on their daily life also had the impact on their hygiene, home life and social life. Only 7.4% of the affected women consulted a doctor for the condition when in the developed world more than 25% of affected women consult a doctor.

Concluding message: The prevalence of stress incontinence reported by women in rural Pakistan was lower than generally found in studies from the developed world, but among the women affected it commonly occurred on a daily basis and impacted on their everyday lives, yet few had obtained medical advice.

### Disclosures

**Funding:** Funding for this study was provided by the 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