

DEVELOPMENT AND TESTING OF A COMMUNITY BASED EXERCISE INTERVENTION FOR URINARY INCONTINENCE IN ELDERLY VILLAGE WOMEN IN RURAL BANGLADESH

Hypothesis / aims of study

Urinary incontinence (UI) is highly prevalent in older persons and is associated with considerable morbidity and impairment of quality of life. In a recent study of disability amongst elderly villagers in Bangladesh, UI was reported as troublesome by 28% of villagers, particularly women, and UI was strongly related to reported feelings of depression in 40% compared to 15% without. Whilst there is accumulating evidence for the efficacy of multi-component exercise based interventions for urinary incontinence in developed societies [1] there is little information about such interventions in the developing world. This study assessed the feasibility, delivery and acceptability to women of an exercise based intervention delivered by locally trained community physiotherapists in a single non-governmental organisation in Bangladesh

Study design, materials and methods

Using the previously published intervention [1] as a framework, three locally trained physiotherapists worked with the research team to develop a culturally appropriate exercise regimen and to train 10 local village paramedics to instruct women. The resulting exercise intervention was comprised of twice weekly, 2 hour group sessions of 20 women involving pelvic floor muscle strengthening exercises and musculoskeletal physiotherapy aimed at improving gait speed and stamina. The exercise programme lasted three months. Following this the local village paramedic encouraged home exercises for a further three months. Between exercise classes, women were encouraged to perform their exercises at home. Data on adherence to the classes, dropout rates and necessary alterations to the schedule were collected. Post intervention interviews with physiotherapists, paramedics and participating women were held in order to assess the feasibility, delivery and acceptance of the programme.

Results

93 women of median age 65 years (range 60 – 75) in 4 villages participated in the exercise programme. Median parity was 5, (range 0 – 13). The median number of exercise classes attended was 17 out of a possible 24; at least 75% of women attended 16 or more classes. At least one episode in incontinence over 3 days was reported by 68% of women at baseline and in 56% of women at study end.

Interviews with 22 women revealed that their understanding of the purpose of the classes was good. The majority could mention the advantages of performing the exercises, although some mentioned that the exercises were intended to improve their joint pain and stiffness, and this also benefitted from participating.

Many women mentioned the social benefits of participating in group exercises, particularly when normally restricted by social or religious mores. Of the women who dropped out of the classes, family support was mentioned as a major factor preventing regular participation. Likewise, the majority of women found it impossible to exercise outside of the classes because of a lack of private space in which to perform them and because of the potential embarrassment of being known, even within the family, to have UI. There was one notable exception; in one village, women banded together to form their own group outside the formal exercise schedule.

Interviews with the village paramedics revealed specific remediable deficiencies in the training schedule in order to increase their confidence in delivery of the intervention once the physiotherapists had handed over responsibility for the classes.

Interpretation of results

This study has led to the successful development and field testing of an acceptable community delivered exercise programme to treat UI in older, rural Bangladeshi women. The programme can successfully be delivered within local health care resources. A fully powered cluster randomised trial of the intervention is ongoing.

Concluding message

A simple community delivered exercise based intervention for older rural women with UI in rural Bangladesh has potential to reduce UI associated burden.

References

1. J American Geriatr Soc 2007; 55: 1932 – 39

Disclosures

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