

A FEASIBILITY STUDY INTO THE PREVALENCE OF BOWEL AND BLADDER PROBLEMS IN WOMEN PRISONERS

Hypothesis / aims of study

This study investigated the feasibility of conducting research into the prevalence of bowel and bladder problems in women prisoners.

Characteristics of the female prison population suggest that there might be a higher concentration of women experiencing problems than in a general community population. A systematic literature review revealed *no* published literature on the prevalence of urinary or faecal continence problems in women prisoners. Only one study was found that reported 26% of women prisoners experienced constipation¹.

Study design, materials and methods

Setting: a closed women's prison with an operational capacity of 532 beds in single or 4-6 bedded cells with a toilet. All women entering the prison have a medical assessment the same day. This did not include direct questions about bladder or bowel problems.

Study Design: A survey using an anonymous, English, self report questionnaire, tailored to be accessible to a sample with low literacy skills. Face and content validity was established through review by specialist continence advisors. Acceptability and accessibility was tested with prison health staff, women prisoners and the prison governor. Thirty one women prisoners piloted the questionnaire and further amendments were made.

The self report questionnaire was offered to 283 women prisoners excluding those resident in the detoxification unit, the hospital unit or who were identified by prison health staff as vulnerable.

Quantitative data were entered onto a statistical package (SPSS version 12) database and analysed using descriptive statistics. Chi-squared statistical tests were used, with a significant finding indicated by a p-value of $p < 0.05$. Replies to the open ended questions and other comments made by the respondents were entered into MS Word and thematically classified.

The study protocol was reviewed by the NHS Metropolitan Multi-centre Research Ethics Committee (designated for prison studies).

Results

246 self report questionnaires were accepted by prisoners. 8 women declined them, 16 declined as they could not read English , and 13 women were not able to accept them as they were about to move from their cell.

148 (60 %) questionnaires were returned. Of these, 80% of the women were under 40 years. 9% were pregnant, 66% had children and 22% had 3 or more children. Only 20 (14%) questionnaires were fully completed. The range of missing data to individual questions ranged between 2 - 28% (mode=5%). 11 women (7%, missing data =11) indicated that they found some questions too embarrassing to complete. 24% reported they had revealed information not previously shared with anyone else.

The self reported prevalence of symptoms is given in Table 1.

Reported symptoms	Number (%)	Missing data
Stress urinary incontinence	44 (31)	8
Urge urinary incontinence	36 (24)	9
Stress and urge incontinence	20 (14)	9
Urinary incontinence of any type	60 (43)	9
Nocturnal enuresis	8 (5)	7
Nocturia	75 (51)	6
Constipation	88 (60)	7
Incontinence of faeces	11 (8)	10

Table 1

Significantly more women aged 41 and over, reported stress incontinence (χ^2 test; 2df; $p=0.03$) and urge incontinence (χ^2 test; 2df; $p=0.028$). Significantly more women who had had three or more children reported stress incontinence than those who had no children (χ^2 test; 1df; $p=0.032$). Significantly more women who reported a tear or an episiotomy in childbirth reported stress and urge incontinence than those who had not (χ^2 test; 1df; $p=0.002$).

Interpretation of results

A self report questionnaire on bowel and bladder problems was acceptable to some but not all women prisoners. The response rate was comparable with postal surveys on incontinence problems in the general population. Responses demonstrated significant associations with known risk factors for urinary incontinence, indicating validity of the self report questionnaire.

The data provides point prevalence estimates for 148 women who match the UK prison population profile in age, pregnancy and motherhood. Rates of urinary incontinence were higher in this predominately under 40 population than that reported in the general female population². Reported nocturia is higher than the general population, but may be explained by the known sleep problems for women in prisons. 6% nocturnal enuresis in adult women is higher than the only published prevalence rate of 0.5%³.

Concluding message

It is feasible to conduct research on urinary and bowel symptoms among women prisoners. Unmet need is indicated from the current findings.

References

- ¹ Smith, C. 1998, "Assessing Health Needs in Women's Prisons", *Prison Service Journal*, vol. 118, pp. 22-24.
- ² Hunskaar, S., Burgio, K., Clarke, A., Lapitan, M. C., Nelson, R., Sillen, U., & Thom, D. 2005, "Epidemiology of Urinary (UI) and Faecal (FI) Incontinence and Pelvic Organ Prolapse (POP)," in *Incontinence; Basics and Evaluation*, 2005 edn, P. Abrams et al., eds., Health Publications Ltd, Plymouth, pp. 255-312.
- ³ Hirasing, R. A., van Leerdam, F. J. M., Bolk-Bennink, L., & Janknegt, R. A. 1997, "Enuresis nocturna in adults", *Scandinavian Journal of Urology and Nephrology*, vol. 31, no. 6, pp. 533-536.

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HUMAN SUBJECTS: This study was approved by the NHS Metropolitan Multi-centre Research Ethics Committee (designated for prison studies) and followed the Declaration of Helsinki Informed consent was obtained from the patients.