

## PROACTIVE CONTINENCE CARE BY NURSES: A STUDY OF THEIR DECISION MAKING AND THE EVALUATION OF AN EDUCATIONAL INTERVENTION

### Hypothesis / aims of study

Urinary incontinence is a problem of global magnitude for modern society where it is estimated that 200 million people experience unwanted urinary loss worldwide (1). Previous research, demonstrates that generalist nurses place an undue reliance on the provision of pads, rather than the deployment of rehabilitative strategies that can lessen or eliminate urinary incontinence. Although nurses may lack knowledge and understanding, past studies also suggest that nurses' attitudes must be challenged in order to ameliorate the pejorative perceptions that abound; for example, that incontinence is an inevitable consequence of ageing which can only be managed by the provision of pads (2). Equally, the influence that other patient characteristics have on nurses decision-making in this arena of care, have not be subject to systematic investigation.

The principal aim of the study was to uncover if a university-validate, educational intervention (a twelve week online module) which addressed nurses' knowledge, attitudes and practice regarding incontinence, could alter the decisions that nurses make in continence care and increase their confidence that proactive rehabilitative conservative approaches could succeed. In all, 39 participants completed the module; a mix of community nurses and those working in acute hospital settings.

### Study design, materials and methods

A four-step pre and post design utilising both qualitative and quantitative methods was employed:

- Step 1 Vignette based questionnaire using a factorial design and included description of nurses' last continence case, nurse demographic information, knowledge and practice questions
- Step 2 A web-based module that took 12 weeks to complete
- Step 3 Post education vignette based questionnaire as in step one plus five repeated measures vignettes
- Step 4 Focus group (six months following intervention)

In the factorial survey, randomly generated vignettes (the unit of analysis) in which patient characteristics are systematically varied are created where the independent variables are orthogonal, thereby enabling variables such as age and type of incontinence to be independent of each other, in a way that is not possible to achieve in real-life. Each vignette included nine independent variables, presenting different patient characteristics drawn from the literature which have been shown to be related to incontinence. Moreover, each variable had a number of levels (for example age 45, 65, or 85). The vignette population that could be generated to utilise every level of each independent variable was 82,944, of which 1794 were randomly utilised in the study. The dependent variables utilised in the study measured the judgement of nurses in respect of the unique scenarios presented, and were related to their knowledge, attitudes and practice. Thus it was possible to uncover the particular patient circumstances that influenced the decision-making of nurses in relation to three aspects of continence care; namely, how likely nurses were to implement an individualised treatment strategy; how likely they believed the incontinence would be reduced and how likely they would be to prescribe pads. A power analysis was conducted using Sample Power 1.0 supported by SPSS. This analysis predicting 10% of the variance had a power of .95 when N = 220 and a power of .99 when N = 290. In the event more nurses enrolled for the module than anticipated (n=39) and each completed 15 randomly generated vignettes.

Additionally, qualitative approaches were included to both validate and elaborate the results of the factorial survey. This included information on the knowledge and practices of the nurses who undertook the module, including a report on the last person they cared for with a continence difficulty and the interventions they had used. A focus group drawn from the participants was held six months following the intervention to ascertain the sustainability of the intervention.

### Results

Prior to undertaking the module, patient characteristics explained 17.5% of the variance on nurses' ratings of implementing an individual treatment strategy ( $p = 0.001$ ). The confidence with which nurses believed the incontinence would be reduced explained 16.4% and likewise the provision of pads accounted for 21.7%. The age and mental status of the patient were consistently predictive of nurse decision-making across all three variables. The outcome of these variables on nurse ratings was further explored using a one-way ANOVA to examine the significance and explained variance of each independent variable on the chosen dependent variable.

After the educational intervention, nurses showed significant increases in their ratings on the implementation of an individualised treatment strategy and their confidence that the incontinence would be reduced. Patient characteristics as an influence on the provision of pads were reduced to 11.2% of the variance. Specifically, the impact of age and mental status as predictors of nurse decision-making were mediated following the educational intervention. The changes were further validated by the last case reports and also from focus group data.

### Interpretation of results

The pre-test results confirmed ageist perceptions of incontinence depicted in the literature where it is associated with advanced years and perceived to be inevitable. The data following the educational intervention illustrated that nurses no longer perceived age as significant in relation to whether or not an individualised treatment strategy would be implemented, or whether pads would be provided; hence education had been influential in changing negative attitudes about ageing. Furthermore the mean ratings demonstrated an increased confidence that rehabilitative conservative strategies could be effective in reducing the episodes of incontinence. The educational intervention sought to augment the nurses' knowledge regarding rehabilitative conservative techniques and challenge their attitudes and practices. Specifically nurses were introduced to attitudinal development and the role that attitudes can play in proactive continence care.

#### Concluding message

It is suggested that continence education needs to be embedded in all generalist nursing educational programmes in order that proactive continence care becomes essential nursing practice. This study addresses a reported gap in the literature where attitudinal change, following an educational intervention (inclusive of knowledge related to the development and acquisition of attitudes) is demonstrated and as such makes an important contribution to proactive continence care by nurses.

1 Nursing Research, 53, 66, S61-S67.

2 Journal of Advanced Nursing, 21 (6), 1065-1072.

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**HUMAN SUBJECTS: This study was approved by the School of Nursing ethical committee University of Ulster and followed the Declaration of Helsinki Informed consent was obtained from the patients.**