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UNRAVELLING THE RELATIONSHIP BETWEEN PERCEPTIONS OF INCONTINENCE, QUALITY OF LIFE AND TREATMENT-SEEKING AMONG OLDER WOMEN WITH URINARY INCONTINENCE.

Hypotheses / aims of study

The overall *aim* of this study was to understand the relationships between perceptions of incontinence, quality of life, and treatment-seeking among older women with urinary incontinence (UI). Specifically, we sought to explain the relative contributions of perceptions of UI, overall health status and UI attributes on the propensity to seek treatment for UI.
The following three *hypotheses* were tested:

1. Perceiving UI as a normal part of aging is more common among women who experience UI versus those who do not.
2. Perceiving UI as a normal part of aging is a coping style that is negatively associated with the propensity to seek treatment for UI among older women with UI.
3. There are direct and indirect effects of perceiving UI as a normal part of aging on treatment-seeking for UI. The indirect effects are mediated through the perceived impact of UI and overall health-related quality of life.

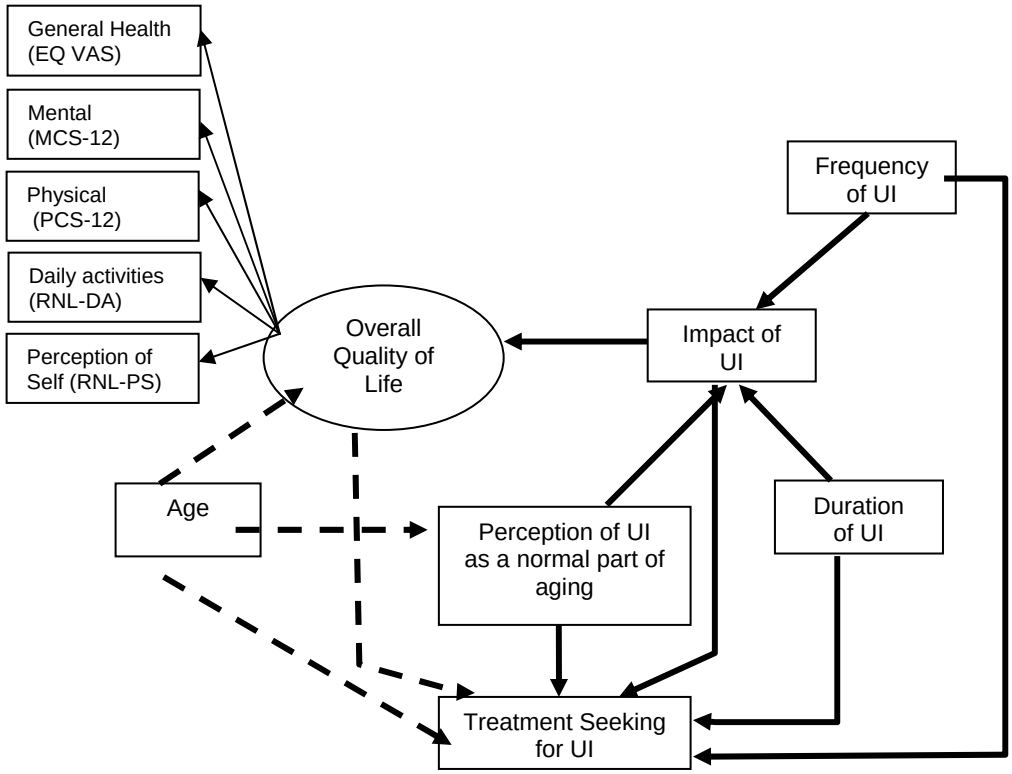
Study design, materials and methods

Study design: A cross-sectional postal survey of 5,000 women aged 55 years and older from across Canada.
Materials: The survey instrument comprised UI measures and measures of health status/health-related quality of life. The International Consultation on Incontinence Questionnaire Short-Form (ICIQ-SF) was used as a measure of UI symptoms and impact, and was supplemented with questions on duration of UI, treatment seeking for UI, and perceptions of UI being a normal part of aging. The Euroqol visual analogue scale (EQ-VAS), the Physical Component Subscale (PCS12) and Mental Component Subscale (MCS-12) of the Measuring Outcomes Short-Form 12 (SF-12), and the Reintegration to Normal Living (RNL) index were used as indicators of general health, physical health, mental health and social health respectively.
Methods: The study population consisted of all women aged 55 years and older residing in households across Canada whose addresses were registered with Canada Post in January 2003, and who had previously responded to a mailed survey. The questionnaire was distributed to five thousand subjects who were randomly selected according to pre-specified age strata. Data from the returned surveys were entered on the computer and basic socio-demographic characteristics of the respondents were calculated using descriptive statistics. Continent women were compared with incontinent women to determine whether perceiving that UI is a normal part of aging was associated with continence status (chi-square tests of significance for proportions and regression analyses). We developed a theoretical model of treatment-seeking for UI based on Shaw (2001), and tested the hypothesized relationships in this model between perceptions of UI, attributes of UI, quality of life and treatment seeking among women with UI using structural equation modelling (Figure 1). A latent variable for health-related quality of life that captured multidimensional aspects of physical, functional, psychological and social health was constructed. The effect of perceiving that UI is a normal part of aging on the propensity to seek treatment for UI was estimated in the model, and the role of health-related quality of life and UI impact were examined as possible mediators of this relationship. Goodness of fit statistics were used to determine the accuracy of the models. SAS version 8.2 and EQS version 6.1 statistical software were used for all analyses.

Results

Among 2,573 respondents (mean age 71, range 55-95), 47% experienced UI, and over half of these reported a frequency of UI greater or equal to 2-3 times per week.

Figure 1: Model of hypothesized relationships between perceptions of UI, quality of life and treatment-seeking in older women (according to Shaw 2001).



The mean duration of UI was 2-5 years. Women with UI were older and reported worse health status as measured by the EQ-VAS and SF-12 than women who did not experience UI. Women with UI were significantly more likely to believe that UI was a normal part of aging than women who were continent (63% vs. 37% respectively, p<0.0001; age-adjusted OR 4.0, CI 3.3-4.7). Our initial model (Figure 1) was found to provide adequate fit to the observed data according to most indices except chi-square, which is often significant in large samples (chi-square (df=45 n=852)=209.3, p=0.01, GFI=.95, AGFI=0.91, standardized RMR=0.057). Perceptions of UI were found to have significant direct and indirect effects on treatment-seeking for UI. However, there was little evidence that quality-of-life mediated the indirect effects on treatment-seeking. There was no significant relationship between quality of life and treatment-seeking for UI. A trimmed structural equation model was constructed by deleting the non-significant paths (dotted lines in Figure 1) from the initial model (chi-square (df=10, n=852)=5.33, p=0.07, GFI=0.99, AGFI=0.98, RMSEA=0.044). Perceiving that UI was normal had a significant direct negative relationship on treatment-seeking, and an indirect significant negative relationship through UI impact. However, the trimmed model only explained 12% of the total variance in treatment-seeking for UI. Perceiving that UI was a normal part of aging was significantly associated with a 60% lower chance of seeking treatment for UI (50% of women who did not accept UI as a normal part of aging sought treatment vs. 31% of women who believed that UI was normal; OR 0.4, CI 0.3-0.6).

Interpretation of results

Perceiving that UI is a normal part of aging appears to be a coping style that becomes more common as women progress from continence to incontinence (potential response shift phenomenon). Women who perceive UI to be a normal part of aging are less likely to be bothered by UI and less likely to seek treatment. In this sample of older community-dwelling Canadian women, health-related quality of life did not explain any of the variance in treatment seeking for UI.

Concluding message

Efforts should be made to increase awareness that UI is NOT a normal part of aging, and that treatment should be sought early. Factors such as public awareness programs and physician screening for UI may help improve treatment-seeking for UI. Further studies are warranted.