

PREVALENCE AND ASSOCIATED FACTORS OF POSTNATAL URINARY INCONTINENCE IN A MALAYSIAN POPULATION

Hypothesis / aims of study

The aims of the study is to determine the prevalence of urinary incontinence (UI) among postnatal (PN) women in Kelantan, Malaysia and to identify factors associated with PNUI among participants in the study.

Study design, materials and methods

A cross-sectional non-experimental survey was performed from April to June 2008. A convenient sample of 362 PN women at three to five months postpartum from six health clinics in six comparatively districts in Kelantan who attended the Maternal and Child Health clinics for their child immunization were included in the survey. Sample size was determined based on the 30% prevalence rates of UI in PN women reported in the literature [1, 2]. A one-sample proportion formula for a prevalence study with specified absolute precision was used in this study [3, 4].

Data was obtained through a set of questionnaire with 4 parts: 1) demographic data (maternal age, age at first delivery, education level, monthly family income), 2) obstetrics, and health histories, 3) information about UI (during pregnancy and post delivery), and 4) level of engagement of TMPC. The new ICS definition [5] described as 'the complaint of any involuntary leakage of urine, regardless of severity and frequency in the last 12 to 14 months (including pregnancy period)' was used to include all women with PNUI. Questions on incontinence also comprise the severity, frequency and period of leakage of UI.

A self-developed TMPC scale was used to measure TMPC practice at three levels among PN women in this study: 1) practiced slightly, 2) practiced moderately, and practiced strictly. Twelve questions were developed for this scale based on seven key factors of the care that were believed to have some impact on woman's health recovery post delivery. This include the main sources of food eaten, cooking methods, types of drink taken, amount of drink taken per day, bodily movement and care, traditional remedies and help received from family members. Data was entered into SPSS v. 18.0 and analyzed using descriptive analysis, factor analysis, Pearson chi-square, and t-test. A *P* value of 0.05 was considered as a level of significance.

Results

An approximately equal proportion of women from each of the six districts completed the questionnaire. A sample of 362 at three to five months post delivery living in six districts in Kelantan, Malaysia, participated in the study. The women from each of the districts had similar demographic profile in relation to age, education, occupation and monthly income. The mean aged was 30.4 years with a range of 18–45 years. Each age group was represented, but more than 50 percent of the populations studied were over 30 years old. The majority of PN women in this study had moderate literacy rate. Most participants were unemployed and 'Housewives' (68%). The study population's income groups were unevenly distributed, with 64.6 percent (*n*=234) receiving a monthly income less than MYR 500. Most PN women in this study (67.6%, *n*=245) had more than three family members supported by their income.

Regarding health history, the majority of PN women in this study (63.3%) were less than 25 years old at their first pregnancy. Most participants (40.9%, *n* = 148) had more than four children (grand multiparous), with an average of three children for all participants. Numbers of women in the three postnatal periods (3 month, 4 month and 5 month) were almost equal. The majority (86.7%) had undergone spontaneous VD for their last delivery, whereas the rest (13.3%) had intervention deliveries (forceps, vacuum and caesarean). The children's birth weight, however, was similar between the two groups, with 49.7 percent less than 3 kg and 50.3 percent more than 3 kg. The mean weight was 2.1 kg. The majority (87.3%) were healthy with only 12.7 percent (*n*=46) reported they had a medical illness such as hypertension (3.3%, *n*=12) and diabetes (2.8%, *n*=10). Constipation was rare and the majority of participants (69%) used the squatting toilet. Only 15.5 percent (*n*=56) of the PN women said they had undergone obstetric/gynaecological surgery.

Three main components of TMPC care were identified using factor analysis: 1) 'body care', 2) 'nutrition-hydration' and 3) 'rest'. All participants (*n*=362) practiced the care at some point during their confinement period. The majority (73%, *n*=266) practiced it moderately. The prevalence of PNUI for women who attended six health clinics in Kelantan, Malaysia over the period of April to June 2008 was 22.1 percent (*n*=80) and the majority of women with PNUI (88.8%, *n*=71) said the onset was during pregnancy. The symptom had stopped between two days to two months after giving birth for majority of women (76%, *n*=62), while (20%, *n*=16) were still experiencing UI more than three months postpartum during the study period.

Vaginal delivery was found to be associated with PNUI (*P* < 0.03). Other variables such as maternal age, child's birth weight, BMI, family income, parity and toilet types were not associated with PNUI (*P*>0.05). The association between TMPC and PNUI was tested through a Man Whitney U test comparing those with and without PNUI. The finding revealed that women who had PNUI were more likely to engage in a higher level of 'Body care', a component of TMPC (226.99) than those without PNUI (168.60), respectively (*P*<0.000).

Interpretation of results

Postnatal UI was reported by 80 women (22.1%) which is within the global range according to the new International Continence Society (ICS). Vaginal delivery was found to be associated with PNUI which is consistence with other studies [6, 7, 8]. The traditional Malay Postpartum care (TMPC) is practice by most Malay PN women in the rural are in Malaysia as they believed the care is useful for their recovery following childbirth. This is consistent with the finding of this study that the majority of women within the study context practiced TMPC. However, it was indicated that women who had PNUI were more likely to engage in a higher level of 'Body care'. This finding is consistent with the general belief in Malay society that TMPC should help PN women recover from health issues related to childbirth. Such a belief may motivate PN women with UI to engage in "Body care" more

than those without UI. Its effect on PNUI however, could not be tested due to very small number of participants with persistent PNUI (n=16, 20%).

Concluding message

The overall findings disclosed that PNUI is prevalent in Kelantan, Malaysia. Thus, there is a need to increase women's awareness of the risk for PNUI and make information available for them that the problem is a preventable and treatable health problem. Future research is suggested to improve the TMPC scale and tested its effects on PNUI with larger sample sizes.

References

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Disclosures

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