

ORIGINAL ARTICLE

Preliminary Findings on Urinary Incontinence Screening Among Childbearing Women Attending Maternal and Child Health Clinic in Kuantan

Siti Mariam Muda², Umi Maisarah Sutaji¹, Muzaitul Akma Mustapa Kamal Basha², Haliza Hasan², Zalina Nusee³

¹ Kulliyah of Nursing, International Islamic University Malaysia

² Department of Special Care Nursing, Kulliyah of Nursing, International Islamic University Malaysia (IIUM), Indera Mahkota Campus, 2500 Kuantan, Pahang Darul Makmur, Malaysia.

³ Department of Obstetric & Gynecology, Kulliyah of Medicine, International Islamic University Malaysia (IIUM), Indera Mahkota Campus, 2500 Kuantan, Pahang Darul Makmur, Malaysia.

ABSTRACT

Introduction: Urinary incontinence is common among childbearing women that affect quality of life and the screening should be performed as early as possible to prevent further complication in later life. Thus, this study was conducted to assess the level of knowledge and practice of UI screening and its associated factors among childbearing women. **Methods:** A cross-sectional study using convenience sampling method was carried out among 113 childbearing women attending selected Maternal and Child Health Clinic in Kuantan. A self-administered questionnaire was distributed to participants from February 2020 to April 2020. A structured validated Malay version questions towards urinary incontinence screening were used consisting of 20 items on knowledge, 11 items on attitude and 12 items on practices. **Results:** The response rate for this study was 71% and 93.8% of participants were Malay. Majority of childbearing women, 92%, showed lack of knowledge on urinary incontinence and 91.1% of them never do the screening. Only 39.8% of childbearing women have positive attitude towards the urinary incontinence screening. One Way Anova test shows no association between education level and knowledge ($p=0.074$) and no association between parity and severity ($p=0.843$). However, Independent t-test shows a statistical difference between severity of urinary incontinence and screening practice ($p=0.036$). **Conclusion:** The knowledge, attitude and practice of urinary incontinence screening need to be enhanced among childbearing women. Health education and awareness campaign should be done regularly to encourage childbearing women to do the screening and discuss the consequence of urinary incontinence in future with health care providers.

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Corresponding Author:

Siti Mariam Muda, PhD

Email: sitimariam@iium.edu.my

socioeconomic expenses but also lead to low individual self-confidence (2). Pathological of urinary incontinence is mainly due to the weaknesses of pelvic floor muscle (3).

INTRODUCTION

Urinary incontinence (UI) is a silent health problem and seems neglected global public health issue as it considered not life threatening (1). Nevertheless, urinary incontinence has been found significantly exposed to other morbidity, loss of quality of life, increased

The urinary incontinence has been reported prevalent among pregnant women (with a range of 9 - 84%) due to the physiological changes of pregnancy course in which may lead to the weaknesses of pelvic floor muscle (1, 4). A study conducted among pregnant women attending an antenatal clinic in North-East Malaysia revealed that most of the pregnant women who had experience

urinary incontinence kept the problem silently as they believed it is embarrassing and normal due to pregnancy and not seek medical attention though after delivering (2).

Urinary incontinence is categorized into three types involving stress urinary incontinence, urge incontinence and mixed incontinence and the most common is stress urinary incontinence (5-7). However, in pregnancy course, stress urinary incontinence and mixed urinary incontinence are been found to be the common type during pregnancy, range between 40% to 59% respectively (10). Meanwhile, the stress urinary incontinence (SUI) is a common clinical postpartum complication and has been documented increasing in nullipara during pregnancy about 32% (11).

It is critical to recognize UI early in order to avoid further complications later in life. Thus, UI screening should be considered a first-line assessment during the first visit to the antenatal clinic for individuals who are at risk of experiencing this problem during the postnatal period (1). Michigan Incontinence Symptom Index (M-ISI) is a one of self-screening tool for UI that reliable and valid to use in research and clinical practice (12). M-ISI is a validated instrument to assess severity and bother related to UI. Despite the fact that efficient UI management has been created, such as the screening program, but the cooperation from the pregnant women is important.

Majority of affected women chose to manage their UI in silence rather than seeking medical advice (13). The main reason why people don't seek treatment is because of stigma, which considers UI as an embarrassing condition that makes them fear social rejection, discrimination, or exclusion (13). Potential explanation of these phenomenon is due to lack of information regarding UI. Several studies reported that the level of knowledge for urinary incontinence among childbearing women was the highest at 46.2% (14 -17).

Meanwhile, a recent study reported that, the awareness and practice of urinary incontinence among childbearing women was considerably poor (18). Nevertheless, data regarding UI in Malaysian pregnant women is scare. Therefore, this study is necessary to offer baseline data on the level of knowledge and practice of UI screening and its associated factors among childbearing women in order to improve health education programs and interventions in managing UI.

MATERIALS AND METHODS

A cross-sectional study was conducted at two Maternal and Child Health Clinic (MCH) in Kuantan; *Klinik Kesihatan Indera Mahkota* and *Klinik Kesihatan Beserah*. The study was approved by the ethic committee from IIUM Research Ethical Committee (IREC) and Medical Research Ethical Committee (MREC). Participants were selected using a convenience sampling method. The sample size was calculated using the Raosoft calculator

by taking the population of childbearing women record for both MCH, Pahang State health Department in year of 2019 which was 268. After consideration additional 20% of possible non-response with 80% power and $\alpha = 0.05$ (for 95% CI), the required sample size was 159. Nevertheless, a total of 113 childbearing women were recruited during antenatal and postnatal follow-up, as well as during their children's scheduled immunizations. The inclusion criteria are women attending MCH for antenatal check-up, postnatal follow up and childbearing women seek for any services including counselling on family planning. The exclusion criteria involved pregnant women with mentally disturbance.

Research Tools

A self-administered validated Malay version questionnaire was used in the study, which consisted of 49 items. A pilot study was carried out to test the reliability of the study, and the Cronbach's alpha was acceptable; 0.79.

There were four main sections: Part A contained six items for socio-demographic data includes age, ethnicity, occupation status, family income per month, parity and education level. Part B contained 20 items for knowledge related to UI. The questionnaire about urinary incontinence was adopted from Yuan & William (9) study of Urinary Incontinence Knowledge Scale (UIKS). The UIKS was used to assess knowledge of childbearing women related to UI, such as knowledge of risk factors, symptoms, impact, prevention, treatment and management with the dichotomous choices, which is 1 for 'correct' and 0 for 'false' or 'do not know'. The knowledge level was divided into three categories: a correct rate of less than 12 indicated poor knowledge, between 12 to 16 indicated moderate knowledge, and a score over 16 indicated good knowledge.

Part C consisted of 11 items for attitude towards UI screening. The questionnaire for attitude towards UI screening was adopted from Kinchen (16), which assesses treatment seekers' attitudes and non-seekers toward urinary incontinence among women. Each remark was graded on a Likert scale from 1 to 5, with a higher score indicating a more favourable attitude about UI screening.

Part D consisted of 12 items related to screening practice, including Michigan Incontinence Symptom Index (12). The M-ISI is a 10-item questionnaire that recognises type, severity, and UI related. It was categorized into two types of urinary incontinence which are stress urinary incontinence and urge urinary incontinence. Stress urinary incontinence was determined by sum up the score of question 1 until question 3 and the total score must more than 3. In contrast, urge urinary incontinence was determined by sum up the score of question 4 until question 6 and if the total score is more than 5, the participant was classified as having

urge urinary incontinence. The Likert response options for all ten items range from 0 to 4, with higher values indicating more symptoms or bother.

Statistical Analysis

The data were analysed descriptively and statistically using IBM Statistical Package for Social Science (SPSS) software, version 20. Frequency, percentage, mean and standard deviation were used to determine knowledge and practice of UI screening. One-Way ANOVA test was used to identify (1) an association between education level and knowledge of UI, (2) an association between parity and severity of UI. Meanwhile, the independent t-test was used to identify an association between the severity of UI and screening practice. The significant level was set at $\alpha = 0.05$, and a 95% confidence interval (CI) were applied in this study.

RESULT

Socio-demographic characteristic

A total of 113 childbearing women participated in the study, yielding a response rate of 71%. Table I shows the socio-demographic characteristics of childbearing women. The majority of the participants were Malay 93.8% and the of mean age is 21.01 (± 5.133). Most of them were employed (63.7%) and in the B40 group with salaries less than RM3,860 (57.5%) per month. Participants mostly had tertiary level of education (66.4%), which graduated from colleges or universities.

Table I: Socio-demographic characteristics

Variables	Mean (SD)	Frequency (%)
Age	21.01 (± 5.133)	
Ethnic		106 (93.8)
Malay		4 (3.5)
Chinese		2 (1.8)
Indian		1 (0.9)
Other		
Occupation		
Employed		72 (63.7)
Housewife		40 (35.4)
Student		1 (0.9)
Salary		
B40 (less than RM3, 860)		65 (57.5)
M40 (RM3, 860- RM8, 319)		41 (36.3)
T20 (RM 8, 319 and above)		7 (6.2)
Parity		
Nullipara		33 (29.2)
Primipara		29 (25.7)
Multipara		51 (45.1)
Education level		
Primary education		1 (0.9)
Secondary education		37 (32.7)
Tertiary education		75 (66.4)

Knowledge of Urinary Incontinence

Figure 1 shows the majority of the participants, 56 childbearing women, 49.56% have poor knowledge and moderate with 42.48% related to UI. Altogether, 92% of participants were considered to lack knowledge (poor and moderate) compared with only 8% with good knowledge regarding urinary incontinence screening.

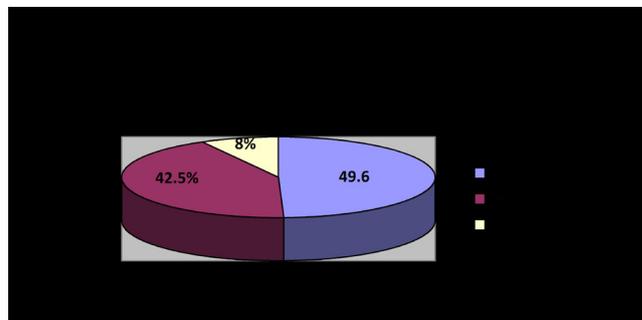


Figure 1: Knowledge of UI

Practice of Urinary Incontinence Screening

Table II shows that most of the participants, 91.1%, have never done the screening for UI, while 86.7% are not interested in discussing with health professionals and ignored this screening. Meanwhile, just a small number of the participants, 8.9%, have done UI screening, and out of them, only 6.2% were discussed in detail with health professionals.

Table II: Practice of UI screening vs discuss UI with a health professional

Practice of UI screening	Discuss UI with a health professional		Total n(%)
	No n(%)	Yes n(%)	
No	98(86.7%)	5(4.4%)	103(91.1%)
Yes	3(2.7%)	7(6.2%)	10(8.9%)

Association between education level and knowledge of Urinary Incontinence

The finding indicates that the mean total score for knowledge among childbearing women who have tertiary education is higher 11.49 (± 3.40) than those who have primary 5.00 (± 0.00) and secondary education 10.16 (± 4.70). However, it was not statistically significant ($p=0.07$).

Association between parity and severity of Urinary Incontinence

The finding shows that the severity of UI had most experienced by nullipara with a mean total score 8.15 (± 6.03). Followed by primipara and multipara (mean total score; 8.15 (± 6.03), 7.72 (± 7.13) and 7.33 (± 5.90)). However, parity was not statistically different among the nulliparous (p -value = 0.843).

Association between severity of Urinary Incontinence and screening practice

Based on the result in Table II, the mean total score for severity of urinary incontinence among childbearing women who practice UI screening is 11.9 (± 5.62), which is significantly ($p=0.036$) higher than those who do not practice screening (7.29 (± 6.17)). This revealed that childbearing women did a screening test when UI had incontinence and severe.

DISCUSSION

The goal of this study is to assess the degree of knowledge, attitude, and practise among childbearing women who visit Kuantan's Maternal and Child Health Clinic. The majority of childbearing women are ignorant of UI, which has an impact on their understanding of why UI screening is important. More than half of them were unaware that restricting fluid consumption can lessen the frequency of urine incontinence, and that prescription drugs and surgical surgery can also be effective urinary incontinence treatments.

Urinary incontinence is considered as a normal occurrence as they are getting older. This finding was consistent with previous study shown most of the older people believed urinary incontinence are a normal part of ageing (9). They were able to recognize the signs and effects of urine incontinence on daily activities and quality of life. However, childbearing women were unaware that avoiding constipation can help to maintain urinary continence and that avoiding obesity can help to lower the chance of urine incontinence. They lacked understanding regarding urine incontinence prevention, management, and treatment, which could be due to a lack of information and educational resources accessible or inefficient health education acquired by childbearing women.

The majority of childbearing women are aware of UI screening and have a neutral view regarding it. They firmly agreed to question the doctor about another problem during a scheduled appointment, and previous studies have found that patients are more interested in asking the doctor about another condition during a scheduled session (17). When discussing potentially humiliating matters, childbearing women raised objections with discussing about urinary incontinence with someone who is not a physician, and the gender of the physician did not matter. On the other hand, the majority of them say that they are delaying going to the doctor until it is really necessary, and that they still require counselling on the importance of urinary incontinence screening.

According to this study, the majority of childbearing women suffered mixed urine incontinence, followed by urge urinary incontinence, and stress urinary incontinence. However, only a small percentage of

them completed UI screening and had discussions with health professionals regarding the condition. Despite this, the majority of studies concluded that early UI screening is critical and should be performed during the initial appointment for the purposes of UI prevention, early treatment, and detection (1, 18-19). As a result, it is critical for pregnant women to receive UI screening in order to identify symptoms early on and avoid severe complications later in life.

The findings from this study did not show any association between education level and knowledge of UI among childbearing women. UI knowledge was higher among pregnant women with university education than among those with only a high school education. As a result, we may educate the population without consideration to their educational status as a significant obstacle to providing health education. Furthermore, a study indicated that participants who attended university or higher had a higher average score than those who only attended secondary school (18).

This study did not show any association between parity and severity of UI among childbearing women. The findings found the severity of UI most by nulliparous women followed by primiparous and multiparous women and this similar with a study found multiparity has no association with UI as UI complaint was higher among nulliparous women than multiparous women (19). This may because multiparous women were exposed to UI earlier and have numerous follow up care with healthcare provider more than nulliparous women. Hence, they have knowledge regarding prevention and management of UI that result in low severity of UI among multipara.

The findings from this study shows a significant mean difference of severity of UI between two groups. The mean total score for severity of UI among childbearing women who practice UI screening is higher than who does not practice UI screening. This revealed childbearing woman did the screening when UI is severe. In the other hand, childbearing women were less likely to practice UI screening if the symptoms is not or less severe. However, screening should be performed as early as possible to rule out symptoms at early stages for example, during the first booking (18). The early symptoms such as urinary leakage more than once a month prior to pregnancy can be led to severe due to a growing foetus that pushes down on the bladder and weakened the pelvic floor muscle. Thus, appropriate treatment can be offered based on the available options in the clinic.

CONCLUSION

Early screening for UI is important to prevent UI during antenatal and postnatal period. The outcomes of this study clearly show that women who are pregnant or

planning to become pregnant should get additional health education and information about urine incontinence. Urine incontinence screening should be recommended for women who are pregnant or planning a family. This is an issue that all healthcare providers, whether in primary or tertiary care, must be aware of. They need to promote awareness about the risks of UI among childbearing women and encourage them to have included proper pelvic floor muscle exercise in their daily habits. Women who are pregnant or planning to become pregnant should get additional information and counselling regarding the need of UI screening, as well as participate in antenatal and postnatal health education.

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