



PREVALENCE OF URINARY INCONTINENCE AMONG HEALTH CARE WORKERS IN SRI LANKA.

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ABSTRACT

Introduction: Urinary incontinence can affect emotional, psychological and social life of the sufferer. This study was done to identify the incidence of urinary incontinence among health care workers of white collar jobs and blue collar jobs. **Materials and Methods:** This descriptive cross-sectional study was conducted among 124 health care workers at teaching hospital, Peradeniya, Sri Lanka. Modified questionnaire on urinary incontinence including the questions of International Consultation on Incontinence Questionnaire- Short Form was used to assess the symptoms. **Results:** The overall prevalence of urinary incontinence was 5.65% among health care workers. There was a statistically significant association of the type of job and knowledge on pelvic floor strengthening exercises ($p < 0.05$). **Conclusions:** The prevalence of urinary incontinence among health care workers is 5.65% and there was a statistically significant association of the type of job and knowledge on pelvic floor strengthening exercises among them.

KEYWORDS: Urinary Incontinence, white collar, blue collar, prevalence, quality of life

INTRODUCTION

Urinary incontinence is the involuntary passage of urine. It can affect emotional, psychological and social life of the sufferer. Many people who have urinary incontinence have difficulties in carrying out normal daily activities. It can be Stress, Urge, Mixed type or Overflow incontinence. Most people with urinary incontinence do not seek medical help due to embarrassment as well as lack of knowledge that it is treatable. So the actual burden of the problem is not always evident.^[1]

Current literature gives highly variable figures for the overall prevalence of urinary incontinence throughout the world, ranging from 2-50%.^[2] In Asian countries, the prevalence of urinary incontinence among women is 14.6%.^[3] This figure changes greatly according to variables like age, gender, type of incontinence, parity and occupation. Therefore it is valuable to find out what categories of people face this problem than others so that they can be screened and offered help.

According to literature, prevalence of incontinence in females is greater than in males.^[2,4] When overall figures are considered, women have a prevalence of 9-40% whereas in men it is 7-20%.^[5] This wide range is due to the fact that there is huge variation in prevalence in different age groups. Majority of the studies show that

prevalence and incidence of incontinence increases with age.^[2, 4, 5] This is true for both men and women. In women, the prevalence is relatively low early in life, has a peak around the time of menopause, and then rises steadily between the ages of 60 and 80 years.^[2] Incontinence in men increases with age and appears to rise more steadily than it does in women. That is, there are no spikes in prevalence similar to those that occur for women around menopause.

When the type of incontinence is considered, Stress incontinence is the most prevalent type among women, accounting for half of the incontinence in all age groups.^[6, 7, 8] 11% is Urge and 36% is mixed type as mentioned in current literature. In contrast, men usually develop Urge incontinence^[2], which tends to stay as urge or change to mixed type.^[9] Stress incontinence is rare among men unless they have undergone a urological surgery or any neurological condition.^[2]

In women, Parity is another strong factor that seems to affect the prevalence of incontinence. Most of the studies show that incontinence increases with parity.^[6] Nulliparous women are least likely to be incontinent, and grand multipara have the highest prevalence.^[7] Incontinence related to child birth is almost always of

Stress type^[7, 8] and Urge incontinence is only very rarely associated.

Occupation also plays a part in the occurrence of incontinence. It is said in literature that lifting heavy weights is associated with urinary incontinence and pelvic organ prolapse^[10], and laboring occupations are increasingly associated with incontinence. But the prevalence of urinary incontinence among the health care workers has not been studied up to now.

Increasing Body Mass Index (BMI) of the person is linked with an increasing incidence and prevalence of urinary incontinence^[11], particularly Stress type.^[12] Incontinence is also commonly associated with co morbidities such as Diabetes, Heart failure, COPD, asthma and constipation.^[13]

Our general objective was to identify the incidence of urinary incontinence among white collar and blue collar health care workers.

MATERIALS AND METHODS

Methodology

This descriptive cross-sectional study was conducted among health care workers at teaching hospital,

Peradeniya, Sri Lanka to obtain the prevalence of urinary incontinence among health care workers of white collar jobs and blue collar jobs. It was conducted over one month period. Pregnant women were excluded for the study sample and 124 subjects who had given written informed consent were asked questions of modified questionnaire on urinary incontinence including the questions of International Consultation on Incontinence Questionnaire- Short Form (ICIQ- SF) in their mother-tongue.

Statistical analysis

Multiple regression analysis was used to consider the effects of potential risk factors and chi-square test was performed to discover whether there is a relationship between categorical variables. Statistical significance at $p < 0.05$ was accepted for all analysis. Data was analyzed using Statistical Package for the Social Sciences (SPSS) version 22.

RESULTS AND DISCUSSION

The distribution of participants ($n = 124$) in this study are presented in Figure 01. The mean age of participants in this study was 49.9 years (standard deviation [SD], 8.4; range, 22–59 years). Among participants, 54.83% were white collar jobs and 45.16% were blue collar jobs.

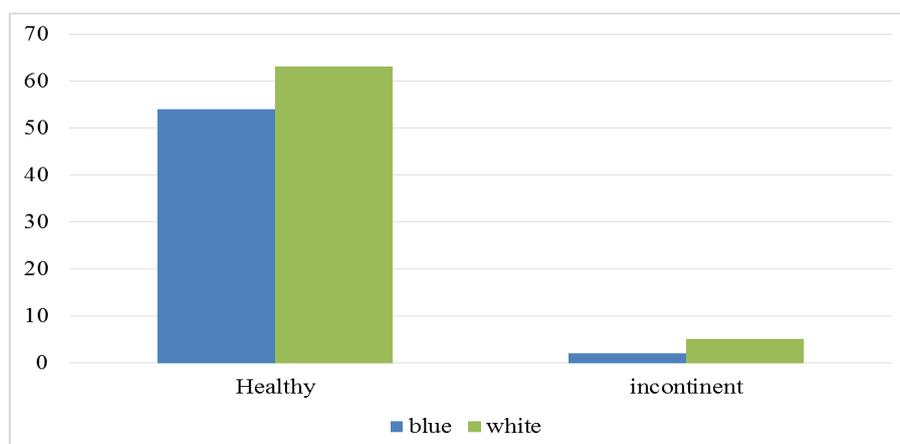


Figure 01: incidence of urinary incontinence among white and blue collar jobs.

A total of 5.65% participants reported that they are experiencing urinary leakage. Of them 2 were from blue collar job group and 05 were white collar job group.

Table 1: Independent t test to compare BMI in healthy and incontinent women.

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% CI	
							Lower	Upper
BMI	Equal variances assumed	.157	114	.875	.28598	1.81834	-3.31614	3.88811
	Equal variances not assumed	.177	7.051	.864	.28598	1.61221	-3.52066	4.09263

There was no significant difference in body mass index between the two groups. The body mass index of healthy subjects and subjects with urinary incontinence were 24.5189 ± 4.69297 and 24.8049 ± 4.09635 respectively.

Based on table 02 and 03, parity and birth weight of their children were not positively associated with incidence of urinary incontinence.

Table 02: Association between parity and urinary incontinence.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.421 ^a	4	.659
Likelihood Ratio	1.581	4	.812
Linear-by-Linear Association	.486	1	.486

Table 03: Relationship between birth weight and urinary incontinence.

Model	Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
				Beta	Lower Bound
1	Constant	-1.486	.141	-.611	.088
	BW	1.835	.070	-.009	.217

According to the results, there was a statistically significant association of the type of job (blue collar jobs and white collar jobs) and knowledge on pelvic floor

strengthening exercises. Majority of women who had knowledge on that belong to the white collar group (85.18%).

Table 04: Association of the type of job and knowledge on pelvic floor strengthening exercises.

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	12.834 ^a	1	.000		
Continuity Correction ^b	11.316	1	.001		
Likelihood Ratio	14.120	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	12.731	1	.000		
N of Valid Cases	124				

It was found that quality of life of women with incontinence was not affected. Only one white collar subject has reported her professional life was affected with urine leakage.

Previous studies done among nurses and nursing assistants in long-term facilities such as nursing homes; stated that there was no differences in knowledge between nurses and certified caregivers who are not health professionals. Almost 50% of participants in this study reported that nurses were involved in managing urological conditions; therefore, knowledge in nurses would be better than the others. Another study reported that the overall practice behaviors of nurses was good compared to those of other healthcare providers.^[15] A previous study reported that staffs in long-term care facilities more concerned about documentation, but urinary incontinence care is often not consistent with current clinical practice guidelines.^[16]

Most women with urinary incontinence do not report the complaint as they believe that urinary incontinence should be hidden from other people which prevents the search for treatments especially in Asian countries. Because of shame, they prefer to keep silent instead of seeking a treatment.

CONCLUSIONS

The prevalence of urinary incontinence among health care workers is 5.65% and there was a statistically

significant association of the type of job and knowledge on pelvic floor strengthening exercises among them. Sri Lankan nurses compared to the other health care workers who are considered to be blue collar workers have minimal or no training in urological conditions. That may explain why there were more nurses who considered urinary incontinence to be something to be reported to a doctor.

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