Original Research Article

Knowledge on Urinary Tract Infection among Primigravida Women

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ABSTRACT

Background: Urinary tract infection (UTI) is the most common complications of pregnancy together with many complications like hypertension, anemia, and pyelonephritis. It occurs approximately 5 to 10 % of all pregnancy. Educating the pregnant women about the urinary tract infection during pregnancy helps to prevent from UTI and preventive measures for development of complication.

Methodology: A descriptive research design was employed for the study and data was collected through direct face to face interview schedule. Non probability purposive sampling technique was used to select the sample of the study. Two hundred and forty six primigravida women were interviewed between May to June 2015.

Results: Most of the respondents 102 (41.46%) were in between the age group of 22 - 25 years and the mean age was 23.5 years. Most of respondents 174 (70.73%) were lived in urban region. Majority of respondents 201(81.70%) follows the Hindu religion. Majority of respondents 221(89.84%) had got formal education .One hundred and fifty nine (64.63%) of women had no information about Urinary tract infection. Regarding knowledge on urinary tract infection 60 (24.39%) had poor knowledge, 160 (65.05%) had average knowledge and 26 (10.56%) of respondents had good level of knowledge. Statistically significant relationship was found on level of knowledge with age of women (χ^2= 8.53).

Conclusion: The study shows that most knowledgeable area was management and treatment of urinary tract infection and least knowledgeable area was on the area of incidence and causes of the urinary tract infection. Awareness program is required to improve the knowledge on UTI.

Keywords: Knowledge, Urinary tract infection, Primigravida women, Bacteriurea.

INTRODUCTION

Pregnancy is one of the most special and most critical phases in women life. This brings physiological and psychological changes in women. [1] Women are often tries to learn more about changes occur during pregnancy. These changes cause the progress in pregnancy due to that continuously anatomical and physiological changes occur in women gradually. [2]

Urinary tract consists of the ureter, bladder, vagina, kidney, etc. Urinary tract infection is the group of infection caused by pathogenic microorganism. The organism infects the bladder [cystitis], urethra [urethritis], or kidney [nephritis/ pyelonephritis] during pregnancy

characterized by the inflammation of the renal parenchyma and the collecting system within the kidney. [1] It is generally seen in 1 to 2% of the pregnancies and mostly occurs around the 20th weeks of pregnancy. Urinary tract infection is more commonly seen in primigravida than multiparous. [3]

During pregnancy, there is a striking anatomical change seen in the urinary system, it is mainly due to the increased progesterone level as it relaxes the wall of the ureters and allows its dilatation and kinking, and also by the pressure from the enlarging uterus. [4] Due to several anatomical and hormonal changes, pregnant women are more susceptible to develop urinary tract infection, which are the most common causes of admission in the obstetrical ward that accounts 20% of the pregnant women. [5]

UTI is a common problem around 8.3million pregnant women reported the cases of urinary tract infection per year globally which is due to increase in size and weight of the uterus that directly disturbs the normal mechanism of the bladder and that causes the symptoms like; incomplete voiding, dribbling of urine, frequent micturition. The common microorganism for urinary tract infection is the E. coli that reported in 80% cases and other causes like streptococcus, staphylococcus and urinary catheterization are also the main cause of UTI. [6]

This study aims to assess the existing level of knowledge among primigravida women on Urinary tract infection and to find-out the association of level of knowledge on urinary tract infection of primigravida women with their selected demographic variables.

MATERIALS AND METHODS

The descriptive research design was employed to assess the knowledge of primigravida women on urinary tract infection. The study was conducted in maternity Ward and antenatal outpatient department of Western Regional Hospital, Pokhara Nepal. The study population comprises of Primigravida women. The study was carried out during May –June 2015. Non- Probability Purposive sampling technique was used to select the sample of the study. The sample size of the study was 246primigravida women.

The instruments was modified after reviewing literature, pretesting and reliability of the instruments as well as consulted with supervisor. The research was based on primary data which was collected using Structured Interview Schedule by researcher herself. Level of knowledge was classified as Poor (0-19), Average (20-38) and Good (39-57) based on the score get by the responses to structured questionnaire. The study was conducted after receiving permission from, School of health and Allied Sciences, Pokhara University and Western Regional Hospital, Pokhara. Informed written consent was obtained from the participants and the confidentiality of the received information was maintained. The collected data was tabulated and analyzed using SPSS.

RESULTS

Demographic Performa of respondents; Out of 246 participants most of the respondents 102 (41.46%) were in between the age group of 22 - 25 years, most of respondents 174 (70.73%) were lived in urban region. Majority of respondents 201(81.70%) follows the Hindu religion and 240 (97.56%) belonged to nuclear family. Seventy one (32.12%) of the respondents obtained lower secondary level of education. Most of respondents 174 (70.73%) were house worker. With regard to the income of the family (Rs/month) 74 (30.09%) of respondents monthly income ranged between 7000-14000 and most of the

respondents 159 (64.63%) had no information regarding urinary tract infection. [Table 1]

Level of knowledge of respondents

The study results shows that, most of the respondents 60 (24.39%) had poor knowledge, 160 (65.05%) had average knowledge and 26 (10.56%) of respondents had good level of knowledge regarding urinary tract infection. The total score for level of knowledge was 57. Minimum score was 19 and maximum score was 39. [Table 2]

Table.1: Demographic Performa of respondents (n = 246)

SN	Variables	Frequency(f)	Percentage (%)
1.	**Age (In years)**		
	18-21	87	35.36
	22-25	102	41.46
	26-29	46	18.69
	≥30	11	4.47
2.	**Area of living**		
	rural	72	29.27
	urban	174	70.73
3.	**Religion**		
	hindu	201	81.71
	buddhist	31	12.60
	christians	9	3.66
	muslim	5	2.03
4.	**Type of family**		
	nuclear family	240	97.56
	joint family	6	2.44
5.	**Education level of respondents**		
	literate		
	formal	221	89.84
	in formal	25	10.16
	if formal		
	primary level	38	17.19
	lower secondary level	71	32.12
	secondary level	66	29.87
	higher secondary level	40	18.11
	bachelor level and above	6	2.71
6.	**Occupation of pregnant women**		
	house worker	174	70.73
	service holder	32	13.00
	business	23	9.35
	labour	10	4.07
	Other(Agriculture)	7	2.85
7.	**Income of family(Rs/month)**		
	7000-14000	74	30.09
	14001-21000	62	25.20
	21001-28000	53	21.54
	≥28001	57	23.17
8.	**Do you have any Information regarding UTI?**		
	yes	87	35.37
	no	159	64.63
	If yes , Source of information		
8.1	newspaper/books	26	29.89
	health worker	36	41.38
	friends/family	18	20.68
	radio/ television	7	8.05

Table 2: Distribution of respondents according to the level of knowledge (n =246)

Level of knowledge	Frequency(f)	Percentage (%)
Poor	60	24.39
Average	160	65.05
Good	26	10.56

Table 3: Knowledge aspects of respondents regarding urinary tract infection. (n=246)

S.N	Knowledge aspects	Max. Score	Mean ± SD	Mean Percentage (%)
1	Concepts of urinary tract infection	6	3.00±0.99	50
2	Incidence and causes of the urinary tract infections	17	7.92±2.52	46.54
3	Sign and symptoms and diagnostic tests	8	4.93±1.75	61.62
4	Management and treatment of UTI	6	4.21±1.24	70.16
5	Complications related to UTI	8	4.64±1.92	58
6	Preventive measures on UTI	12	7.85±1.83	65.41
	Overall	**57**	**32.55±10.25**	**57.25**

Table 4: Association of level of knowledge with selected demographic variables. (n = 246)

SN	Variables	Total Score		Chi Square Value (χ^2)	DF	P value
		Median≤32	Median>32			
1	**Age(in years)**					
	≤25	108	81	8.53	1	0.03 S*
	>25	20	37			
2	**Type of family**					
	nuclear	74	64	0.32	1	0.57 NS
	joint	54	54			
3	**Educational status**					
	literate	123	117	2.41	1	0.12 NS
	in formal	5	1			
4	**Occupation**					
	house worker	97	77	3.28	1	0.07NS
	working	31	41			
5	**Area of living**					
	rural	40	32	0.51	1	47NS
	urban	88	86			

NS = non significant; S* significant, x^2=3.84 at 1 df.

Respondent's response to knowledge aspects of urinary tract infection

The study shows that highest knowledge was in the area of the management and treatment regarding urinary tract infection, the mean percentage was 70.16 with mean and SD of 4.21±1.24. In the area of the incidence and causes of the urinary tract infections mean percentage was 46.54 with mean and SD of 7.92±2.52 which was the lowest. In the area of the concepts on urinary tract infection mean percentage was 50 with mean and SD of 3.00± 0.99. In the area of sign and symptoms and diagnostic test mean percentage was 61.62 with mean and SD of 4.93±1.75. Mean percentage in the area of complications related to UTI was 58 with mean and SD of 4.64±1.92. Similarly in the area of preventive measures mean percentage was 65.41 and mean and SD of 7.85±1.83.The overall mean percentage of knowledge on UTI was 57.25 with mean and SD of 32.55± 10.25.[Table 3]

Association of level of knowledge with their selected demographic variables

The study result reveals that there is significant association of level of knowledge with selected demographical variables; Age of women (χ^2= 8.53).There is no association with other variables like type of family, education status, occupation and area of living. [Table 4]

DISCUSSION

The result of present study shows that most of the respondents 102 (41.46%) were in between the age group of 22 - 25 years. The mean age of respondents was 23.5 years. Most of respondents 174 (70.73%) were lived in urban region and 201 (81.71%) of respondents follows Hindu religion. With regards to the educational status majority of respondents 221(89.84%) had got formal education and only 25 (10.16%) of respondent were got in formal education. Out of 221 of respondents 71 (32.12%) of the respondents obtained lower

secondary level of education. Most of respondents 174(70.73%) were house worker. The result of this study was similar with a cross sectional study conducted at Nigeria to assess the prevalence and antimicrobial susceptibility pattern of Urinary tract infection among pregnant women in on April to August 2013. Sample size was 200 pregnant women. The study shows that 110 pregnant women had bacteriuria. Among who had bacteriuria (110); 26 (23.6%) of respondents were in age group less than 20, 82(74.5%) of respondents were in the age group 21- 38 and 2(1.8%) of respondents were in age group more than 38 years. Housewives constituted 85 (77.3%) and employed constitutes 25 (22.7%) from the studied population. Also, 50 (45.5%) of respondents had 6-12 years of level of education, 20(8.2%) of the respondents had more than 12 years level of education with 40(36.4%) had no formal level of education. [7]

In this study 26 (10.56%) of respondents had good level of knowledge regarding urinary tract infection. This is well supported by a cross sectional study which was conducted in Iran. Data was collected from 180 mothers who attend in Karaj health center by using structured questionnaire schedule, the study results shows that 6.1% of pregnant women had good knowledge about Urinary tract infection. [8]

In present study there is significant association of level of knowledge with selected demographical variables; Age of women where $x^2 = 8.53$ where p <0.005. There is no association with other variables like type of family, education status, occupation, area of living. The result of present study was supported by a retrospective at King Abdulaziz University Hospital. The sample size was 9678 pregnant women between the time period of 2004 jan 1 to 31 Dec 2007. This study shows that most of the significant growth of bacteria was occurred in the 35 to 45 age group women and 20 to 34 years women had significant urine culture result with(χ^2; 48.8 df 6 p = 0.0005) . This study shows association with the age of women found among Saudi women. [9]

CONCLUSION

The major conclusion was drawn on the basis of objectives and study findings. The study findings concluded that most of the respondents 160 (65.05%) had average knowledge on Urinary tract infection. The study shows that most knowledgeable area was management and treatment of urinary tract infection and least knowledgeable area was on the area of incidence and causes of the urinary tract infection. Statistically significant relationship was found with level of knowledge with age of women ($\chi^2 = 8.53$). The more education and information should be needed to increase level of knowledge of primigravida women on urinary tract infection.

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