

To Assess the Effectiveness of Self Instructional Module on Knowledge Regarding Urinary Tract Infection among Adolescent Girls in Selected Schools

Priyanka V. Shikhare¹, Vaishali Taksande²

¹M.Sc. Nursing, Department of Obstetric and Gynaecological Nursing, Smt. Radhikabai Meghe Memorial College of Nursing, Sawangi (Meghe), Wardha, Maharashtra, India

²Professor and Head of the Department, Obstetric & Gynecological Nursing, Smt. Radhikabai Meghe Memorial College of Nursing, Sawangi (Meghe) Wardha, Maharashtra, India

Abstract: Background: Urinary tract infection (UTI) is the common of all in affecting humans throughout their lifespan. It occurs in all populations-from neonates to geriatric patients. But it has a particular impact on females of all ages (especially during adolescent period).¹ Objectives: To assess the existing knowledge regarding urinary tract infection among adolescent girls in selected schools. To find out the association between knowledge score with selected demographic variables among adolescent girls in selected schools. Methods and Materials: The study was a one group pre test and post test design (Quasi experimental research design) Population for the study was adolescent girls in selected school. The sample consists of 100 adolescent girls. Inclusion criteria adolescent girls, who are from age 12 to 16 year; who are willing to participate in the study. Exclusion criteria were those girls who had diagnosed urinary tract infection; those who have attended similar type of programme within 6 months. . In this study, the sampling technique used was non-probability convenient sampling. Framed the item and same were incorporated into the tool and self instructional module. The reliability of questionnaire was done by Guttman Split Half Coefficient. Results: In Pre-test the 1(1%) of adolescent girls were having poor level of knowledge score, 56(56%) of adolescent girls were having average level of knowledge score, 40(40%) of adolescent girls were having good level of knowledge score, only 3(3%) had very good level of knowledge score. The minimum score was 5 and the maximum score was 16, the mean score was 10.39 ± 2.428 with a mean percentage score of 41.56. In Post- test the 3(3%) of adolescent girls were having good level of knowledge score, 78(78%) of adolescent girls were having very good level of knowledge score. And 19(19%) of them had excellent level of knowledge score. The minimum score was 12 and the maximum score was 22, the mean score was 18.91 ± 1.897 with a mean percentage score of 75.64.

Keywords: urinary tract infection, self instructional module

1. Introduction

Urinary tract infection is the common of all in affecting humans throughout their lifespan. It occurs in all populations-from neonates to geriatric patients. But it has a particular impact on females of all ages (especially during adolescent period) Urinary tract infections are much more common in adults than in children, but about 1%-2% of children do get urinary tract infections. Urinary tract infections in children are more likely to be serious than those in adults and should not be ignored (especially in younger children). The reason for this is not well understood, but anatomic differences between the genders (a shorter urethra in women) might be partially responsible. About 40% of women and 12% of men have a urinary tract infection at some time in their life.¹

Adolescents belong to a very vital age group because they are the "entrant population" to parenthood. Adolescence is an extremely enthusiastic, energetic, joyous and fun-loving period.² But the beauty of this phase is marked by emotions, myths, insecurities, apprehensions, misbeliefs etc which are the direct result of lack of information and knowledge.³

This is a crucial period in the adolescent life because alteration in the physical and physiological functions takes place in the body. In this stage of their life the adolescents should take care of themselves in various aspects like personal hygiene, nutrition, exercise and periodic health check-ups.⁴ In order to develop a healthy society it is important that we have healthy adolescents; their health is a key element for the development of our nation. The nation expects many things from the younger generation for its development.²

2. Problem Statement

To assess the effectiveness of self instructional module on knowledge regarding urinary tract infection among adolescent girls in selected schools.

3. Objectives

- 1) To assess the existing knowledge regarding urinary tract infection among adolescent girls in selected schools.
- 2) To assess the effectiveness of self instructional module regarding urinary tract infection among adolescent girls in selected schools.

3) To find out the association between knowledge score with selected demographic variables among adolescent girls in selected schools.

4. Methodology

- 1) **Research approach:** Interventional approach
- 2) **Research design:** The research design is One Group Pre test Post test Design
- 3) **Setting of the study:** This study was conducted in school.
- 4) **Sample:** Adolescent girls.
- 5) **Sampling technique:** Non-probability convenient sampling technique.
- 6) **Sample size:** Sample size for this study is 100.
- 7) **Tool:** Structured knowledge questionnaire including demographic variables and self instructional module was used for the study.

Sampling criteria

Inclusion criteria:

- Adolescent girls,
- Who are from age 12 to 16 year.
 - Who are willing to participate in the study.

Exclusion criteria:

- Those girls who had diagnosed urinary tract infection.
- Those who have attended similar type of programme within 6 months.

5. Result

The present study has been taken up to assess the Effectiveness of self instructional module on knowledge regarding urinary tract infection among adolescent girls in selected schools. Analysis and interpretation is based on the objectives of the study. A structured questionnaire to collect knowledge was used for data collection. The analysis was done with the help of inferential and descriptive statistics.

Table 1: Percentage wise distribution of Effectiveness of self instructional module on knowledge regarding urinary tract infection among adolescent girls in selected schools, n = 100

Level of knowledge score	Score range	Percentage score	Knowledge Score	
			Pre Test	Post Test
Poor	1-5	0-20 %	1	0
Average	6-10	21-40 %	56	0
Good	11-15	41-60%	40	3
Very good	16-20	61-80%	3	78
Excellent	21-25	81-100%	0	19
Minimum score			5	12
Maximum score			16	22
Mean score			10.39 ± 2.428	18.91 ± 1.897
Mean %			41.56	75.64

The above table and below graph shows that in **Pre-test** 1 (1%) of adolescent girls were having poor level of knowledge score, 56(56%) of adolescent girls were having average level of knowledge score, 40(40%) of adolescent girls were having good level of knowledge score, only 3(3%) had very good level of knowledge score. The minimum score

was 5 and the maximum score was 16, the mean score was 10.39 ± 2.428 with a mean percentage score of 41.56.

The above table and below graph shows that in **Post- test** 3(3%) of adolescent girls were having good level of knowledge score, 78(78%) of adolescent girls were having very good level of knowledge score. And 19(19%) of them had excellent level of knowledge score. The minimum score was 12 and the maximum score was 22, the mean score was 18.91 ± 1.897 with a mean percentage score of 75.64.

To assess the effectiveness of self instructional module on knowledge regarding urinary tract infection among adolescent girls in selected schools.

This section deals with the effectiveness of self instructional module on knowledge regarding urinary tract infection among adolescent girls in selected schools. The hypothesis is tested statistically with distribution of pre test and post test mean and standard deviation and mean difference. The levels of knowledge during the pre test and post test are compared to prove the effectiveness of self instructional module 't' test and tabulated 't' value is compared with calculated 't' value. Also the calculated 'p' values are compared with acceptable 'p' value i.e. 0.05. Hence, H1 hypothesis is accepted for the present study

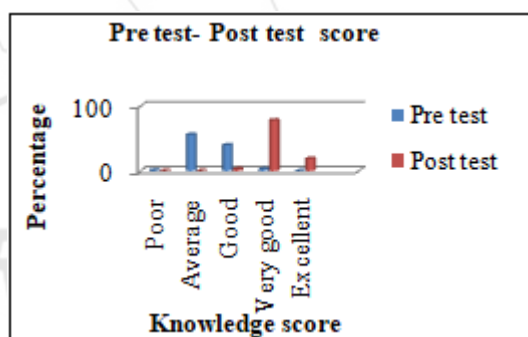


Figure 1: Effectiveness of self instructional module on knowledge regarding urinary tract infection among adolescent girls in selected schools.

6. Discussion

The major findings of this study shows that the pre test score of adolescent girls is 1(1%) of adolescent girls were having poor level of knowledge score, 56(56%) of adolescent girls were having average level of knowledge score, 40(40%) of adolescent girls were having good level of knowledge score, only 3(3%) had very good level of knowledge score and 1(1%) of adolescent girls were having poor level of knowledge score. The post test score is 3(3%) of adolescent girls were having good level of knowledge score, 78(78%) of adolescent girls were having very good level of knowledge score and 19(19%) of them had excellent level of knowledge score after administering self instructional module. The statistical analysis was done by 't' test where the overall calculated 't' value was 54.79 when compared to the tabulated 't' value with degree of freedom at the level of 0.05 significance was higher showing high level of significance making the conclusion that self instructional module is effective in improving the knowledge of adolescent girls on urinary tract infection.

Similar findings were found in the study conducted by A study was conducted to assess the effectiveness of prevention of UTI, a pre experimental -one group pre-test – post-test design and convenient sampling technique was followed which included 30 samples were used. Data was collected using structured questionnaire. The result revealed that pre-test shows that with regard to prevention of urinary tract infections among 30 adolescents girls 26 (86.6%) had inadequate knowledge 4(13.4%) had moderately adequate knowledge and post- test 6(20%) had inadequate knowledge 22(73.3%) had moderately adequate knowledge and 2(6.7%) had adequate knowledge. The study concluded that self instructional module is effective in enhancing the knowledge among adolescent girls.⁴

In the present study the association of knowledge score of adolescent girls with selected demographic variables. There is no significant association of knowledge regarding urinary tract infection among adolescent girls with age in year, residence of adolescent girls, education of adolescent girls, education of father, occupation of the father, education of mother, occupation of the mother and family income.

In similar study there is association in there demographic variables, Mrs. Jisha in Mysore on effectiveness of instructional module on adolescent girls regarding urinary tract infection. Learning need of the adolescent girls showed that post test knowledge score was significantly higher than the pre test score where 't' was 16.39 greater than calculated 't' value at 0.05 level of significance. Thus it was evident that self instructional module is effective in increasing the knowledge. Hence it was concluded that self instructional module is very effective in improving the knowledge of adolescent girls.

The study done by Ms. Anu in Tumkur district where Hindu was 38 and Muslims were 22 which also showed association. Thus revealing that religion makes a association with knowledge score on urinary tract infection

Demographic variables of the sample

Distribution of the respondent according to the age revealed that 12 (20%) of them were in the range of 15-16 years, maximum that is 27 (45%) of them were in the range 16year 1 day to 17 years and rest 21 (35%) were in the range of 17 years 1day to 18 years. The tabulated 'F' values was 3.15(df=2,59) which is less than the calculated 'F' i.e. 7.20 at 5% level of significance. Also the calculated 'p'=0.002 which was less than the acceptable level of significance i.e. 'p'=0. This was compared to other similar study conducted by Fatima N et al, Isabel N et al 138 and Jayalakshmi et al. The highest age specific prevalence in the current study was found in age group of 16-18 years and lowest in more than 30 years. This is probably because this comes under adolescent age group. Thus the finding revealed that there is a significant association of age with knowledge on urinary tract infections. Distribution of the adolescent girls as per religion shows that 35 were Hindu and 25 were Buddhist where the tabulated 't' values was 2.00(df=58) which is less than the calculated 't' i.e. 2.05 at 5% level of significance. Also the calculated 'p'=0.045 which was less than the acceptable level of significance i.e. 'p'=0.05 showing association between religion and knowledge score.

7. Conclusion

In this study from detail analysis it shows that of post test mean score is 18.91 and pre test mean score is 10.39. The hypothesis is tested statistically with distribution of pre test and post test mean, standard deviation and mean difference. There were no significant associations between knowledge score with age, residential area, education of adolescent girls, education of father, occupation of father, education of mother, occupation of father, family income, respectively.

8. Recommendations

Recommendations for further study based on the findings of the study the following recommendations could be made-

- To assess the effectiveness of planned teaching program on knowledge regarding urinary tract infection among adolescent girls in selected schools.
- Comparative study can be conducted in urban and rural areas.
- A study to assess the knowledge regarding prevention of urinary tract infection among adolescent girls in selected school.
- To assess knowledge and attitude regarding urinary tract infection among adolescent girls.

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