



A QUASI EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE AND PRACTICES REGARDING PREVENTION OF URINARY TRACT INFECTION AMONG ADULT WOMEN IN SELECTED RURAL AREA, AGARTALA, TRIPURA.

Nursing

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ABSTRACT

Urinary tract infection (UTI) is a common health problem among women and can be prevented through appropriate knowledge and healthy practices. The present study aimed to assess the effectiveness of a planned teaching programme on knowledge and practices regarding prevention of urinary tract infection among adult women in a selected rural area of Agartala, Tripura. The conceptual framework was based on the modified General System Theory of Ludwig von Bertalanffy (1968). A quantitative research approach and quasi-experimental research design were adopted. The study was conducted at Paschim Noabadi, Agartala, West Tripura. A total of 80 adult women aged 20–40 years were selected by convenience sampling and equally allocated to experimental and control groups, with 40 participants in each group. Data were collected using a self-structured knowledge questionnaire and practice checklist. A pre-test was conducted in both groups, followed by administration of the planned teaching programme regarding prevention of UTI to the experimental group. After seven days, a post-test was conducted using the same tools. Data were analyzed using descriptive and inferential statistics, including frequency, percentage, mean, standard deviation, chi-square test, and t-test. The experimental group showed a marked improvement in knowledge, with the mean score increasing from 6.85 ± 2.64 in the pre-test to 15.27 ± 2.35 in the post-test. Similarly, the mean practice score increased from 6.25 ± 1.59 to 8.85 ± 1.29 . In the control group, knowledge scores changed minimally from 6.70 ± 3.28 to 7.40 ± 2.49 , while practice scores changed from 6.83 ± 2.12 to 6.92 ± 1.86 . The findings indicated that the planned teaching programme was effective in improving knowledge and practices regarding UTI prevention among adult women. The study highlights the importance of structured health education in community settings for promoting preventive practices and reducing the risk of UTI among women.

KEYWORDS

Urinary Tract Infection, Planned Teaching Programme, Knowledge, Practices, Adult Women.

INTRODUCTION

Urinary Tract Infection (UTI) is one of the most common bacterial infections affecting women and remains an important public health concern. Adult women are particularly vulnerable to UTI due to anatomical and physiological factors. Recurrent and untreated infections may lead to discomfort, reduced quality of life, and other health complications. Prevention therefore requires adequate knowledge and appropriate personal and health-related practices.

The burden of UTI may be greater in rural communities where limited access to healthcare services, inadequate health literacy, and socio-cultural barriers can affect timely prevention and management. In such settings, community-based health education can play an important role in improving awareness and promoting healthy preventive practices. A structured planned teaching programme can provide women with essential information regarding risk factors, symptoms, personal hygiene, fluid intake, and other preventive measures.

Therefore, the present study was undertaken to assess the effectiveness of a planned teaching programme on knowledge and practices regarding prevention of UTI among adult women in a selected rural area of Agartala, Tripura.

Objectives of the Study:

1. To assess the Pretest-Posttest level of knowledge and practice of adult women regarding prevention of urinary tract infection in experimental and control groups.
2. To assess the effectiveness of planned teaching programme on knowledge and practices regarding prevention of urinary tract infection among adult women in experimental group.
3. To find the association between knowledge and practices regarding prevention of urinary tract infection among adult women in experimental and control groups with their selected demographic variables.

4. HYPOTHESIS:

H1: There is a significant difference in mean pretest and posttest practices regarding prevention of urinary tract infection among adult women in experimental and control group.

H2: There is a significant association between knowledge and practices regarding prevention of urinary tract infection among adult women in the experimental and control groups with their selected demographic variables.

Research Methodology:

Research Approach: A quantitative research approach was adopted.

Research Design: A quasi-experimental, non-randomized control group research design was used.

Setting of the Study: The study was conducted at Paschim Noabadi, Agartala, West Tripura.

Population and Sampling

- **Target Population:** Adult women aged 20–40 years residing in Paschim Noabadi.
- **Accessible Population:** Adult women aged 20–40 years available in the selected study area.
- **Sample Size:** 80 adult women, with 40 each in the experimental and control groups.
- **Sampling Technique:** Convenience sampling technique.

Inclusion & Exclusion Criteria

Inclusion Criteria:

- Women aged 20–40 years.
- Women residing in the selected study area.
- Women willing to participate in the study.

Exclusion Criteria:

- Women who were unwilling to participate in the study.
- Women who were unavailable during data collection.

Data Collection Instruments

The study used a structured tool with three sections:

1. **Section A:** Proforma for selected demographic variables.
2. **Section B:** Self-structured knowledge questionnaire regarding prevention of urinary tract infection.
3. **Section C:** Checklist to assess practices regarding prevention of urinary tract infection.

Validity & Reliability

- **Validity:** The tools were validated by experts in the relevant field.
- **Reliability:** Reliability of the tools was established before the main study.

Ethical Considerations

- Approval was obtained from Tripura Institute of Paramedical Sciences and concerned authorities.
- Informed consent was obtained from the participants.
- Confidentiality of the participants was maintained.

Data Collection Procedure

A pre-test was conducted in both groups. The planned teaching programme was administered to the experimental group, while the control group received no intervention. A post-test was conducted after 7 days using the same knowledge questionnaire and practice checklist.

Data Analysis Plan

- **Descriptive Statistics:** Frequency, percentage, mean and standard deviation.
- **Inferential Statistics:** *t*-test and chi-square test were used to compare groups and assess associations.

RESULTS:

The Demographic Finding.

The data presented in the table revealed that, among the 80 respondents, 52.5% (*n*=21) of the experimental group were aged ≤30 years, while 52.5% (*n*=21) of the control group were >30 years. Most respondents were Hindu (62.5% and 67.5%) and married (85% and 80%) in the experimental and control groups, respectively. Regarding education, 50% (*n*=20) in both groups had secondary education. Most respondents were homemakers (92.5% and 90%), while 67.5% of the experimental and 55% of the control group had a monthly family income of ₹5,000–10,000. Nuclear families were predominant (45% and 42.5%). Regarding UTI history, 62.5% of the experimental and 87.5% of the control group had no previous history. Most respondents were unaware of UTI (60% and 82.5%), while among those aware, health centres, phones, and television were the major sources of information.

Table 1. Level of Knowledge and Practice Regarding Prevention of UTI Among Adult Women in Experimental and Control Group.

Variable	Level	Experimental Group (<i>n</i> =40)		Control Group (<i>n</i> =40)	
		Pre-test	Post-test	Pre-test	Post-test
Knowledge	Inadequate (1–9)	32	0	30	26
	Moderate (10–15)	8	12	10	14
	Adequate (16–20)	0	28	0	0
Practices	Unfavourable (1–8)	35	17	32	30
	Favourable (9–17)	5	23	8	10

The experimental group, the mean knowledge score increased from 6.85 ± 2.64 in the pre-test to 15.27 ± 2.35 in the post-test, with a mean difference of 8.42. In the control group, the mean knowledge score increased only slightly from 6.70 ± 3.28 to 7.40 ± 2.49 , with a mean difference of 0.70. Thus, the substantial improvement in knowledge in the experimental group indicates the effectiveness of the planned teaching programme in improving knowledge regarding prevention of urinary tract infection among adult women.

The experimental group, the mean practice score increased from 6.25 ± 1.59 in the pre-test to 8.85 ± 1.29 in the post-test, with a mean difference of 2.60. In the control group, the mean practice score showed only a minimal increase from 6.83 ± 2.12 to 6.92 ± 1.86 , with a mean difference of 0.09. Thus, the marked improvement in practice scores in the experimental group indicates the effectiveness of the planned teaching programme in improving practices regarding prevention of urinary tract infection among adult women.

Table:2 Comparison of Knowledge and Practice Scores Regarding Prevention of UTI Between Experimental and Control Groups

Variable	Test	Experimental Group Mean ± SD	Control Group Mean ± SD	Unpaired <i>t</i> (df=78)	p-value
Knowledge	Pre- test	6.85 ± 2.64	6.70 ± 3.28	0.22	0.82 NS
	Post- test	15.27 ± 2.35	7.40 ± 2.49	14.54	<0.001 S
Practice	Pre- test	6.25 ± 1.59	6.83 ± 2.12	1.37	0.18 NS
	Post- test	8.85 ± 1.29	6.92 ± 1.86	5.38	<0.001 S

The experimental group showed a significant improvement in both knowledge ($t = 24.68$, $p < 0.001$) and practice ($t = 11.99$, $p < 0.001$) after the planned teaching programme. The control group showed no significant pre-test to post-test improvement in knowledge ($t = 1.04$, $p = 0.31$) or practice ($t = 0.31$, $p = 0.76$). Post-test comparison also showed significantly higher knowledge ($t = 14.54$, $p < 0.001$) and practice ($t = 5.38$, $p < 0.001$) scores in the experimental group than in the control group.

Brief Summary of Association:

In terms of association, pre-test knowledge in the experimental group

was significantly associated with religion and educational qualification ($p < 0.05$), whereas no significant association was found with age, marital status, occupation, family income, type of family, history of UTI, or awareness of UTI.

In the control group, pre-test knowledge showed no significant association with any selected demographic variable ($p > 0.05$).

Regarding pre-test practice, a significant association was found with monthly family income in the experimental group ($\chi^2 = 6.17$, $p = 0.01$). No significant association was observed with the other selected demographic variables.

In the control group, pre-test practice was not significantly associated with any selected demographic variable ($p > 0.05$).

DISCUSSION

The present study was conducted to assess the effectiveness of a planned teaching programme on knowledge and practices regarding prevention of urinary tract infection among adult women. The findings demonstrated a marked improvement in the experimental group following the intervention. The mean knowledge score increased from 6.85 ± 2.64 in the pre-test to 15.27 ± 2.35 in the post-test, with a mean difference of 8.42. Similarly, the mean practice score increased from 6.25 ± 1.59 to 8.85 ± 1.29 , with a mean difference of 2.60.

In contrast, the control group showed only minimal changes in knowledge and practices. The knowledge score increased from 6.70 ± 3.28 to 7.40 ± 2.49 , while the practice score increased from 6.83 ± 2.12 to 6.92 ± 1.86 . The findings indicate that the planned teaching programme was effective in improving knowledge and practices regarding prevention of urinary tract infection among adult women.

The findings support the importance of structured health education in improving awareness and promoting appropriate preventive practices among women, particularly in community and rural settings.

CONCLUSION

The study concluded that the planned teaching programme was effective in improving knowledge and practices regarding prevention of urinary tract infection among adult women. The experimental group demonstrated a substantial improvement in both knowledge and practice scores after the intervention, whereas only minimal changes were observed in the control group. The study highlights the importance of planned health education in promoting awareness and preventive practices related to urinary tract infection among adult women.

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