IDC INTERNATIONAL JOURNAL

International Online Peer- Reviewed, Referred, Indexed Journal *August – October 2024* Volume: 11 Issue: 4

A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING URINARY INCONTINENCE AND ITS PREVENTION AMONG ELDERLY IN A SELECTED DESTITUTE HOME, MANDYA

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DOI: http://doi.org/10.47211/idcij.2024.v11i04.006

ABSTRACT

Evaluative approach was used in the study. Quasi experimental design with one group pre test post was used in the study. The study was conducted in a selected destitute home, Mandya. The subjects comprised of 60 elderly people. Stratified random sampling technique was used to select the subjects. Data was collected using interview schedule before and after administering the Planned Teaching Programme. Data was analyzed using the descriptive and inferential statistics. The overall findings of the study revealed that majority of the subjects (73.3%) had inadequate knowledge and remaining 26.7% had moderately adequate knowledge in the pretest. The post test results had shown that all the 60 subjects (100%) gained adequate knowledge. The calculated 't' value (t 39= 46.77) is greater than the table value (t 39= 1.68) at 0.05 level of significance shows that there is significant difference between the pre-test and post- test knowledge score. Hence the null hypothesis was rejected and research hypothesis was accepted.

Key words: *Urinary incontinence; Elderly; Effectiveness; Planned Teaching Programme; Evaluative approach.*

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INTRODUCTION

Ageing of the population is an established phenomenon in the developed countries and is also seen in many developing countries. Longevity has increased significantly in the last few decades mainly due to the socio-economic and health care developments. These factors are responsible for the higher numerical presence of elderly people leading to higher dependency ratio. Demographers, researchers and responsible citizens have started to think about the aged population and its problems because of the demographic transition in many countries of the third world now taking place in a short period of time. Ageing of the population will be one of the major challenges of the near future[1].

Urinary incontinence is one of the most common, disruptive and often disabling conditions affecting frail old people living in the community and nursing homes and destitute homes[2]. Several studies have explored the prevalence of urinary incontinence in the elderly. Urinary incontinence is highly prevalent, especially among frail elderly individuals, affecting from 5–30% of elderly persons living in the community, 40–70% of acute hospital elderly inpatients and 40–50% of nursing home residents[3].

Despite the progress made in the research into and treatment of urinary incontinence, its incidence is rising among older adults. Many reasons for this disturbing finding have been posed: insufficient knowledge of urinary incontinence, the reluctance of patients to discuss it and inadequate individualized care[7]. A particularly disturbing finding in a study was that even women with urinary
incontinence were not being taught PFM (Pelvic Floor Muscle) exercises as a first line of treatment. Common misconceptions of bladder health in older adults are to be explored to address these concerns and help prepare them to prevent and get treatment for incontinence. There is an urgent need for public health programmes to address the problem of UI in the community by providing education on strategies for its prevention and treatment and to make people especially the vulnerable, more aware of it as a medical condition that can be treated[8].

OBJECTIVES OF THE STUDY

1. To assess the level of knowledge among elderly regarding urinary incontinence and its prevention.
2. To evaluate the effectiveness of planned teaching programme on the level of knowledge regarding urinary incontinence and its prevention among elderly.
3. To associate the pre test level of knowledge regarding urinary incontinence and its prevention with their selected demographic variables.
4. To associate the post test level of knowledge regarding urinary incontinence and its prevention with their selected demographic variables.

HYPOTHESES

The hypothesis will be tested at 0.05 level of significance.

H_1**:** The mean post-test knowledge score of the elderly attending the planned teaching programme on urinary incontinence and its prevention will be significantly higher than their mean pre-test knowledge score.

H_2**:** There will be significant association between the mean pre-test level of knowledge and selected demographic variables.

H_3: There will be significant association between the mean post-test level of knowledge and selected demographic variables.

RESULTS

PRESENTATION OF THE FINDINGS

Data were organized and presented under the following headings.

Section I: Description of the demographic data in frequency and percentage.

Section II: Pre-test level of knowledge of the elderly.

Section III: Effectiveness of PTP regarding urinary incontinence and its prevention among the elderly in terms of gain in post-test knowledge score.

Section IV: Association between the pre-test and post-test knowledge scores and selected demographic variables.

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SECTION I: DESCRIPTION OF DEMOGRAPHIC DATA

This section deals with the characteristics of the 60 elderly in terms of frequency and percentage and are depicted in Table 1.

Table 1: Frequency and percentage distribution of subjects on selected demographic variables. N=60

S. No.	Variables	Frequency (f)	Percentage (%)
1.	**Age in years**		
	60-62	16	26.7
	63-65	19	31.7
	66-68	12	20.0
	69-70	13	21.6
2.	**Gender**		
	Male	30	50.0
	Female	30	50.0
3.	**Religion**		
	Hindu	31	51.7
	Christian	26	43.3
	Muslim	3	5.0
4.	**Educational status**		
	No formal schooling	10	16.7
	Primary school	25	41.7
	High school	14	23.3
	PUC/diploma	6	10.0
	Graduate	2	3.3
	Post graduate and above	3	5.0
	Others	0	0.0
5.	**Marital status**		
	Married	21	35.0
	Unmarried	5	08.3
	Divorced/separated	34	56.7
6.	**Previous occupation**		
	Unemployed	12	20.0
	Unskilled worker	33	55.0
	Skilled worker	15	25.0
	Others	0	0.0
7.	**Prior information regarding urinary incontinence**		
	Yes	8	13.3
	No	52	86.7
8.	**If yes, source of information**		
	Peer group	2	25.0
	Mass media	6	75.0
9.	**History of urinary problems**		
	Yes	39	65.0
	No	21	35.0
10.	**History of seeking help**		
	Yes	6	10.0
	No	54	90.0

Data presented in Table 1 depict the distribution of samples according to age, gender, religion, educational status, marital status, previous occupation, prior information regarding UI, history of urinary problems and

history of seeking help from health care providers.

The majority of the elderly 19 (31.7%) were within the age group of 63-65 years, 16 (26.7%) were within the age group of 60-62 years, 13 (21.7%) within the age group of 69-70 and 12 (20%) were in the age group of 66-68 with equal number of men 30 (50%) and women 30 (50%) in the study. Most of the respondents 31 (51.7%) belonged to the Hindu community, 26 (43.3%) were from the Christian community whereas only 3 (5%) belonged to the Muslim community.

Majority of the samples 25 (41.7%) had only primary education, 14 (23.3%) of the samples were reported to be with high school education, 10 (16.7%) were illiterate, 6 (10%) had PUC/diploma, 3 (5%) of the respondents were post graduates while 2 (3.3%) of them were graduates. Majority of the respondents 34 (56.7%) were divorced/separated, 21 (35%) of the respondents were married whereas only 5 (8.3%) of the respondents were unmarried. Most of the elderly people 33 (55%) in the study were reported to be unskilled workers, 15 (25%) of them reported that they were skilled workers while 12 (20%) of them were unemployed.

Majority of the respondents 52 (86.7%) did not have any prior information regarding urinary incontinence. While 8 (13.3%) of them reported to be informed regarding the same, of which 6 (75%) got information from mass media while 2 (25%) were informed by their peer groups. Majority of the elderly 39 (65%) had urinary problems and 21 (35%) reported to have no urinary problems. Most of the elderly 54 (90%) reported that they had not sought any help from the health care providers for urinary problems while 6 (10%) of them reported history of seeking help.

SECTION II: PRE-TEST LEVEL OF KNOWLEDGE OF THE ELDERLY.

This section deals with the analysis and interpretation of data to find out the pre-test level of knowledge of elderly. Data regarding pre-test knowledge scores were analyzed using frequency and percentage and are presented in Table 2.

Table-2: Distribution of subjects according to their pre-test knowledge score. N=60

S. No.	Level of knowledge.	Frequency (f)	Percentage (%)
1.	Inadequate	44	73.3
2.	Moderately adequate.	16	26.7
3.	Adequate	-	-

The data in table-2 shows that the majority of the respondents 44 (73.3%) had inadequate knowledge regarding urinary incontinence and its prevention in the pre- test. 16 (26.7%) of them had moderately adequate knowledge while none of them had adequate knowledge.

Table 3: Area wise mean, standard deviation and mean percentage of the pre- test. N=60

S. No.	Areas	Mean	SD	Mean%
1.	Urinary system and general information regarding urinary incontinence	3.10	0.79	62.0
2.	Etiology and types of urinary incontinence	3.85	1.16	42.8
3.	Prevention of urinary incontinence	1.90	0.82	31.7
4.	Management of urinary incontinence	2.78	0.92	46.4
	Overall knowledge	**11.63**	**1.80**	**44.7**

Data in table-3 shows that in area of general information regarding urinary incontinence, the pre-test mean percentage was 62% with a mean and standard deviation of 3.1± 0.79. In area of management of urinary incontinence, mean percentage was 46.39% with a mean and standard deviation of 2.78±0.92**.** The pre-test mean percentage, mean and standard deviation of area II were 42.8%, 3.85±1.16 respectively. In area III (prevention of urinary incontinence), the pre-test mean percentage, mean and standard deviation were 31.7%, 1.9±0.82 respectively. The overall pre-test mean percentage is 44.7%, with a mean and standard deviation of 11.63±1.8.

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SECTION III: EFFECTIVENESS OF PTP REGARDING URINARY INCONTINENCE AND ITS PREVENTION

This section deals with analysis and interpretation of data collected from 60 elderly people to evaluate the effectiveness of PTP on knowledge.

The pre-test and post-test level of knowledge of the subjects are analysed, compared and depicted in table 4.

Table 4: Distribution of subjects according to their pre-test and post-test knowledge score N=60

		Pre-test		Post-test	
S. No.	**Level of knowledge**	**Frequency (f)**	**Percentage (%)**	**Frequency (f)**	**Percentage (%)**
1.	Inadequate	44	73.3	-	-
2.	Moderately adequate	16	26.7	-	-
3.	Adequate	-	-	60	100.0

The data in table-4 shows that the majority of the respondents 44 (73.3%) had inadequate knowledge regarding urinary incontinence and its prevention in the pre- test. 16 (26.7%) of them had moderately adequate knowledge while none of them had adequate knowledge. But in the post-test all of the respondents 60 (100%) demonstrated adequate knowledge regarding urinary incontinence and its prevention.

In order to find out the significance of difference between the pre-test and post-test knowledge scores, a null hypothesis was formulated and paired 't' test was computed.

H_{01}: There is no significant difference between the pre-test and post-test knowledge scores of the elderly at 0.05 level of significance.

Data regarding mean, mean %, SD and 't' value that showed the difference between mean pre- test and post-test knowledge score are presented in Table-5.

Table 5: Mean, Mean%, SD and 't' value showing the difference between mean pre-test and post-test knowledge scores. N=60

	Mean ±SD		Mean percentage		
Variable	**Pre-test**	**Post-test**	**Pre-test**	**Post-test**	**t value**
Overall knowledge score.	11.63±1.8	24.02±1.2	44.7%	92.4%	46.77*

$t_{59=}$1.68, p<0.05 * Significant

Data in table 5 shows that mean post-test score (24.02) is higher than the pre- test knowledge score (11.63). The calculated 't' value (t 59= 46.77) is greater than the table value (t 59= 1.68) at 0.05 level of significance shows that there is significant difference between the pre-test and post- test knowledge score. Hence the null hypothesis is rejected and research hypothesis is accepted.

H_{02}: There is no significant difference between the pre-test and post-test knowledge scores in all the four areas at 0.05 level of significance.

Data regarding mean, mean %, SD and 't' value in all the four areas that showed the difference between mean pre- test and post- test knowledge score are presented in Table-6.

Table 6: Area wise mean, mean%, SD and 't' value showing the difference between the mean pre-test and post-test knowledge scores. N=60

	Mean %		Mean ±SD		
Areas	**Pre-test**	**Post-test**	**Pre-test**	**Post-test**	**t value**
Urinary system and general information regarding urinary incontinence	62.0	93.7	3.1±0.79	4.68±0.47	13.80*
Etiology and types of urinary incontinence	42.8	95.4	3.85±1.16	8.58±0.62	24.54*
Prevention of urinary incontinence	31.7	83.9	1.9±0.82	5.03±0.80	22.14*
Management of urinary incontinence	46.4	95.3	2.78±0.92	5.72±0.55	20.61*

$t_{59=}$1.68, p<0.05 * Significant

The calculated 't' value in area I (t59= 13.8), area II (t59= 24.54), area III (t59=22.14) and area IV (t59=20.61) is greater than the table value t59= 1.68 at 0.05 level of significance shows that there is significant difference between the pre-test and post- test knowledge scores in all the four areas. The null hypothesis is rejected and research hypothesis is accepted in all the four areas. This shows that PTP was effective in all the areas in improving the knowledge among the elderly.

SECTION IV: ASSOCIATION BETWEEN THE PRE-TEST POST-TEST LEVEL OF KNOWLEDGE SCORE AND SELECTED DEMOGRAPHIC VARIABLES

To find out association between the pre-test and post-test level of knowledge score and selected demographic variables, a null hypothesis were formulated. Chi- square test was used to find the association.

H_{03}: There is no significant association between the pre-test level of knowledge score and selected demographic variables at 0.05 level of significance.

H_{04}: There is no significant association between the post-test level of knowledge score and selected demographic variables at 0.05 level of significance.

Table 7: Association between the pre-interventional level of knowledge score and selected demographic variables. N =60

S. No.	Demographic variables	Total score		χ^2 value			Level of significance
		<Median	≥Median	Table	Calc.	df	
1.	**Age in years**						
	60-62	8	8	5.99	3.318	2	p>0.05 Not significant
	63-65	10	9				
	66-70	7	18				
2.	**Gender**						
	Male	17	13	3.84	5.554	1	P<0.05 Significant
	Female	8	22				
4.	**Educational status**						
	No formal schooling & primary education.	14	21	3.84	0.096	1	p>0.05 Not significant
	High school and above	11	14				
5.	**Previous occupation**						
	Unemployed.	7	5	5.99	2.469	2	p>0.05 Not significant
	Unskilled worker.	11	22				
	Skilled worker.	7	8				
6.	**Previous information**						p>0.05 Not significant
	Yes	2	6	3.84	0.412	1	
	No	23	29				
7.	**History of seeking help.**						
	Yes	2	4	3.84	000	1	p>0.05 Not significant
	No	23	31				

The data represented in table 7 reveals that there is a significant association between the gender ($\chi 2$ =5.554, P<0.05) and the pre-test level of knowledge. Hence, null hypothesis was rejected and research hypothesis was accepted i.e. there is a significant association between the pre-test level of knowledge score and demographic variables (gender) of the elderly.

Table 8: Association between the post-interventional level of knowledge score and selected demographic variables. N=60

S. No.	Demographic variables	Total score		χ^2 value			Level of significance
		<Median	≥Median	Table	Calc.	df	
1.	**Age in years**						
	60-62	11	5	5.99	16.63	2	p>0.05 Not significant.
	63-65	6	13				
	66-70	2	23				
2.	**Gender**						
	Male	12	18	3.84	1.92	1	P>0.05 Not significant.
	Female	7	23				
4.	**Educational status**						
	No formal schooling & primary education.	10	25	3.84	0.372	1	p>0.05 Not significant.
	High school and above	9	16				
5.	**Previous occupation**						
	Unemployed.	5	7	5.99	1.877	2	p>0.05 Not significant.
	Unskilled worker.	8	25				
	Skilled worker.	6	9				
6.	**Previous information**						p>0.05 Not significant.
	Yes	1	7	3.84	0.712	1	
	No	18	24				
7.	**History of seeking help.**						
	Yes	0	6	3.84	0.90	1	p>0.05 Not significant.
	No	19	35				

The data represented in table 8 reveals that there is no significant association between the demographic variables and post-interventional level of knowledge. Hence, null hypothesis was accepted, i.e., there is no significant association between the pre-interventional level of knowledge score and demographic variables of the elderly.

Implications

Urinary incontinence is not a disease but a symptom that needs delicate attention. People generally have some myths regarding urinary incontinence. The findings of the study have shown that PTP is effective in improving the knowledge of elderly regarding urinary incontinence. The nursing implications of this study are discussed under the following headings: Nursing education, Nursing administration, Nursing practice and Nursing research.

Nursing Education

Effective education and guidance to nursing students will have a better impact in providing knowledge regarding urinary incontinence. Active participation of the student nurses in conducting educational programs on urinary incontinence can be encouraged by institutions. Since the elderly is a growing vulnerable population, their needs are of prime importance. Nursing schools, colleges and nursing teachers should come forward and encourage the students to participate in the general awareness programme on urinary incontinence among population. Health education can be imparted through various methods like lecture, mass media, pamphlets, information booklet, self instructional module etc. Any simple teaching strategy can be adopted which will be more interesting for the study subjects.

Nursing Administration

Nurse administrator has a major role in planning the policies for imparting health information to a target population. Nurse administrators need to organize nursing education programmes for nursing personnel and to motivate them to conduct programmes on urinary incontinence which would benefit the public. Planning and organizing such work requires efficient team work, team spirit, planning for man power, money, material, method, time and good will to conduct such education programme. Nursing administrator should involve in policy making and budgeting for health programmes and also formulate policies that will include all nursing staff to be actively participate in health education programmes in their respective hospitals and communities.

Nursing Practice

The research findings imply that there is a need for education to improve the knowledge of the elderly regarding urinary incontinence. Nurses working in the community, hospitals and nursing homes have the ultimate responsibility to care for the vulnerable, growing population of the elderly. The nurses should impart knowledge regarding urinary incontinence, its preventive measures as well as possible management.

Nursing Research

Professional organizations in nursing are convinced of the importance of nursing research as a major contribution to meet the health and welfare needs of the people. One of the aims of nursing research is to expand and broaden the scope of nursing. The expanded role of a professional nurse emphasizes those activities which promote health maintenance behavior among the people.

The study helps the investigator to develop insight regarding urinary incontinence and its prevention. This study will serve as a valuable reference material for future investigators. There is a great need of research in the area of urinary incontinence, which helps in planning and conducting better educational programmes even for the nurses. This in turn helps the nurses to handle such cases in their service. The present study is just an initial attempt and it will encourage and motivate the health professionals to do many more research in other settings.

LIMITATIONS

The study was confined to 60 elderly.

The study used only one group.

The study was limited only to a few selected destitute homes.

SUGGESTIONS

1. Plan and organize health education programme to educate people on the prevention of urinary incontinence in hospital and community setting.
2. Information booklets regarding prevention of urinary incontinence may be made available in OPD, PHCs and geriatric wards for ready reference.

RECOMMENDATIONS

1. A similar study can be conducted for large samples.
2. Similar studies can be conducted among different population.
3. A similar study can be conducted using different teaching modalities.
4. A study can be conducted using two groups.
5. A study can be conducted to assess prevalence of urinary incontinence among different population using standardized tool.

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