RESEARCH PAPER

A STUDY TO ASSESS THE KNOWLEDGE AND MANAGEMENT OF URINARY INCONTINENCE AMONG ELDERLY WOMEN RESIDING AT OLDAGE HOME IN SOUTH INDIA(MULLODAI)

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:ABSTRACT

Background: Urinary incontinence is a prevalent but underreported health issue that has a substantial impact on the physical comfort, psychological health, and quality of life of older women. Treatment delays and problems are sometimes caused by a lack of awareness and insufficient understanding about its administration. Interventions in education like video-assisted instruction

Methodology: A pre-experimental one group pre-test and post-test research design was adopted for the study. A total of 30 elderly women were selected using a convenient sampling technique. Both verbal and written informed consent were obtained from participants. Demographic data were collected using an interview schedule, and knowledge was assessed using a structured questionnaire. A video-assisted teaching programme on urinary incontinence and its management, including Kegel exercises, was administered. The post-test was conducted after seven days using the same tool. Data were analyzed using SPSS version 25, employing descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics (paired t-test and chi-square test)

Results: The findings revealed that in the pre-test, the majority of participants had inadequate knowledge 21 (70.0%), while 9 (30.0%) had moderately adequate knowledge. In the post-test, a significant improvement was observed, with 26 (86.7%) participants achieving adequate knowledge and 4 (13.3%) showing moderately adequate knowledge, with none remaining in the inadequate .category. The mean pre-test score was 4.70 ± 1.705, which increased to 11.47± 1.383 in the post-test The mean difference was 6.767. The calculated t-value was 18.423 with df 29 and $p < 0.001$ indicating .a highly significant improvement

Conclusion: The study concluded that video-assisted teaching was highly effective in improving the .knowledge and management of urinary incontinence among elderly women residing in old age homes

,Keywords: Urinary incontinence, elderly women, knowledge, management, video-assisted teaching .Kegel exercise

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INTRODUCTION

Elderly women constitute a vulnerable group in the population, typically defined as women aged 60 years and above. Physiological, psychological, and social changes that impact general health and quality of life are linked to aging. After menopause, decreased estrogen levels in older women cause a .number of health problems, especially those related to the reproductive and urinary systems

Urinary to the reproductive and urinary systems. Urinary incontinence is one of the chronic illnesses ,that these alterations raise the risk of. The involuntary flow of urine is known as urinary incontinence and it can seriously affect day-to-day activity and mental health. It is very common among older women but is not a typical aspect of aging. Because of shame and ignorance, it is frequently underreported .despite its high frequency (1)

There are several reasons why older women experience urinary incontinence, one of which is a weak pelvic floor. muscles, hormonal fluctuations, UTIs, neurological conditions, and long-term illnesses

including diabetes. Stress, urge, overflow, and functional incontinence are common forms. Involuntary urination when coughing or sneezing, an unexpected urge to urinate, frequent urination, nocturia, and ,an inability to regulate bladder function are some of the symptoms. Social isolation, low self-esteem and a lower quality of life might result from these symptoms. To avoid problems and enhance health outcomes, early detection and treatment are crucial. Elderly people can benefit from raising awareness .and offering suitable solutions

,Management of urinary incontinence among elderly women is essential to improve their quality of life especially for those residing in old age homes. Non-pharmacological management plays a key role and .includes lifestyle modifications such as fluid management, weight reduction, and dietary changes Pelvic floor muscle training (Kegel exercises) is considered one of the most effective first-line .interventions. Bladder training techniques help in improving bladder control and reducing urgency Scheduled toileting and habit training are particularly beneficial in institutionalized elderly populations. These therapies are inexpensive, safe, and simple to use in assisted living facilities. The .efficacy of these tactics is increased with appropriate direction and consistent monitoring (3)

METHODS

For the study, a pre-experimental one-group pre-test and post-test research design was used. A suitable sampling strategy was used to pick thirty elderly ladies in total.Participants provided both written and verbal informed permission. An interview schedule was used to gather demographic information, and a structured questionnaire was used to gauge knowledge. Kegel exercises were part of a video-assisted educational program on managing urine incontinence. After seven days, the same tool was used for the post-test. Using descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics (paired t-test and chi-square test), data were examined using SPSS version 25

RESULT

According to the results, 21 participants (70.0%) had inadequate knowledge on the pre-test, whereas 9 ,participants (30.0%) had fairly adequate knowledge. In the post-test, a significant improvement was observed with 26 (86.7%) participants achieving adequate knowledge and 4 (13.3%) showing moderately adequate knowledge, with none remaining in the inadequate category. The mean pre-test score was 4.70 ± 1.705, which increased to 11.47 ± 1.383 in the post-test. The mean difference was 6.767. The calculated t-value was 18.423 .with $df = 29$ and $p < 0.001$, indicating a highly significant improvement

Table 4.1: Frequency and Percentage Distribution of Demographic Variables among Elderly Women

S. No	Demographic Variables	Category	Frequency (n)	(%) Percentage
1	Age (years)	yrs 65–56	8	%26.7
		yrs 70–66	22	%73.3
2	Education Status	PG and UG	4	%13.3
		Diploma	5	%16.7
		Higher secondary school	6	%20.0
		Middle secondary school	7	%23.3
		Primary secondary school	8	%26.7
3	Marital Status	Married	30	%100.0
4	Occupation	Profession	3	%10.0
		Semi-profession	5	%16.7
		Skilled worker	22	%73.3
5	Monthly Income	5000>	18	%60.0
		10000–5000	12	%40.0
6	Unhealthy Habits	Yes	12	%40.0
		No	18	%60.0
7	Presence of Chronic Disease	Yes	10	%33.3
		No	20	%66.7
8	Number of Deliveries	1	4	%13.3
		2	11	%36.7
		or more 3	15	%50.0

= Table 4.1 shows the frequency and percentage distribution of demographic variables among elderly women (N With regard to age, the majority of participants belonged to 66–70 years 22 (73.3%), followed by 56–65 .(30 years 8 (26.7%). In terms of education status, most of the participants had primary secondary school education 8 ,followed by middle secondary school 7 (23.3%), higher secondary school 6 (20.0%), diploma 5 (16.7%) ,(%26.7) .and PG and UG 4 (13.3%)

Regarding marital status, all participants were married 30 (100%). With respect to occupation, the majority were skilled workers 22 (73.3%), followed by semi-profession 5 (16.7%) and profession 3 (10.0%). In terms of monthly income, most of the participants earned less than 5000 18 (60.0%), while the remaining earned between .(%40.0) 12 10000–5000

Concerning unhealthy habits, more than half of the participants reported no unhealthy habits 18 (60.0%), whereas had unhealthy habits. Regarding the presence of chronic disease, the majority did not have any chronic (%40.0) 12 ,disease 20 (66.7%), while 10 (33.3%) reported having a chronic condition. With regard to number of deliveries half of the participants had three or more deliveries 15 (50.0%), followed by two deliveries 11 (36.7%) and one .delivery 4 (13.3%)

Table 4.2 : Frequency and percentage distribution of pre-test and post-test level of knowledge and management of urinary incontinence among elderly women Residing at oldage home in south india

Knowledge Level	Pre-Test	Pre-Test	Post-Test	Post-Test
	Frequency (n)	(%) Percentage	Frequency (n)	Percentage (%)
Inadequate Knowledge	21	%70.0	0	%0.0
Moderately Adequate Knowledge	9	%30.0	4	%13.3
Adequate Knowledge	0	%0.0	26	%86.7
Total	30	%100	30	%100

Table 4.2 shows the frequency and percentage distribution of pre-test and post-test knowledge level and management of urinary incontinence among elderly women (N = 30). In the pre-test, the majority of participants had inadequate knowledge 21 (70.0%), while 9 (30.0%) had moderately adequate knowledge, and none had .adequate knowledge

In the post-test, a marked improvement was observed, with the majority of participants having adequate knowledge 26 (86.7%), followed by moderately adequate knowledge 4 (13.3%), and none remaining in the .inadequate category

Table 4.3: Mean and Standard Deviation of Pre-test and Post test level of knowledge and management of urinary incontinence among elderly women Residing at oldage home in south india

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Variable	Mean	Standard Deviation
Pre-test Knowledge Score	4.70	1.705
Post-test Knowledge Score	11.47	1.383

Table 4.3 depicts the mean and standard deviation of pre-test and post-test knowledge scores among elderly women (N = 30). The mean pre-test knowledge score was 4.70 with a standard deviation of 1.705, indicating a .low level of knowledge before the intervention

In contrast, the mean post-test knowledge score increased to 11.47 with a standard deviation of 1.383, showing .a significant improvement in knowledge after the intervention

Table 4.5: Association between Knowledge and Management of Urinary Incontinence among Elderly Women Residing at Old age Home in South India with their selected demographic variables

(N = 30)

Demographic Variable	Category	Inadequate Knowledge	Moderately Adequate Knowledge	χ^2 value	df	p-value
		(%) n	(%) n			
Age (years)	yrs 65–56	(%38.1) 8	(%0.0) 0	4.675	1	SS *0.031
	yrs 70–66	(%61.9) 13	(%100.0) 9			
Education status	PG & UG	(%0.0) 0	(%44.4) 4	19.569	4	SS *0.001
	Diploma	(%23.8) 5	(%0.0) 0			
	Higher secondary	(%9.5) 2	(%44.4) 4			
	Middle secondary	(%28.6) 6	(%11.1) 1			
	Primary	(%38.1) 8	(%0.0) 0			
Marital status	Married	(%100.0) 21	(%100.0) 9	—	—	Constant
Occupation	Profession	(%14.3) 3	(%0.0) 0	1.948	2	NS 0.378
	Semi-profession	(%19.0) 4	(%11.1) 1			
	Skilled worker	(%66.7) 14	(%88.9) 8			
Income	5000>	(%52.4) 11	(%77.8) 7	1.693	1	NS 0.193
	10000–5000	(%47.6) 10	(%22.2) 2			
Unhealthy habits	Yes	(%47.6) 10	(%22.2) 2	1.693	1	NS 0.193
	No	(%52.4) 11	(%77.8) 7			
Chronic disease	Yes	(%38.1) 8	(%22.2) 2	0.714	1	NS 0.398
	No	(%61.9) 13	(%77.8) 7			
Number of deliveries	1	(%14.3) 3	(%11.1) 1	0.166	2	NS 0.920
	2	(%38.1) 8	(%33.3) 3			
	3≤	(%47.6) 10	(%55.6) 5			

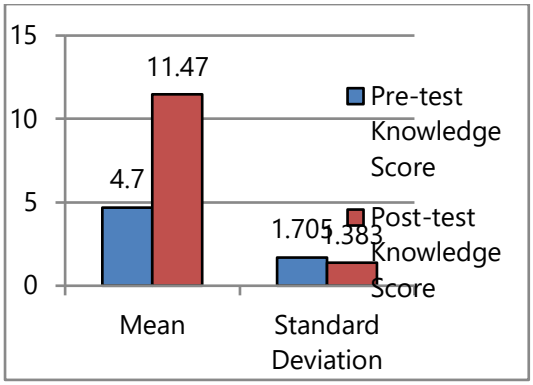
Significant at $p < 0.05$ *

Table 4.5 shows the association between pre-test knowledge level and selected demographic variables among elderly women (N = 30). Regarding age, the majority of elderly women aged 66–70 years had inadequate knowledge 13 (61.9%) and all participants with moderately adequate knowledge 9 (100.0%), with a statistically significant association ($\chi^2 = 4.675$, $p = 0.031$). In terms of education status, most participants with inadequate knowledge were from primary education 8 (38.1%) and middle secondary education 6 (28.6%), whereas moderately adequate knowledge was higher among PG & UG 4 (44.4%) and higher secondary education 4 .showing a highly significant association ($\chi^2 = 19.569$, $p = 0.001$) ,(%44.4)

With respect to occupation, the majority of participants with inadequate knowledge were skilled workers 14 and similarly, moderately adequate knowledge was also higher among skilled workers 8 (88.9%), but ,(%66.7) the association was not statistically significant ($\chi^2 = 1.948$, $p = 0.378$). Regarding income, most participants ,earning less than ₹5000 had inadequate knowledge 11 (52.4%) and moderately adequate knowledge 7 (77.8%) .with no significant association ($\chi^2 = 1.693$, $p = 0.193$)

In relation to unhealthy habits, participants without unhealthy habits had higher moderately adequate knowledge whereas those with unhealthy habits showed more inadequate knowledge 10 (47.6%), though the ,(%77.8) 7 association was not significant ($\chi^2 = 1.693$, $p = 0.193$). Similarly, the presence of chronic disease and number of deliveries did not show significant association with knowledge level ($p > 0.05$). Overall, age and education status showed statistically significant association with pre-test knowledge level, while other variables did not .demonstrate significant relationships

Figure no : 4.6 Mean and Standard Deviation of Pre-test and Post test level of knowledge and management of urinary incontinence among elderly women Residing at oldage home in south india



DISCUSSION

,This chapter deals with the discussion of the study findings and comparing with appropriate review of literature statistical analysis based on the objective of study. The aim of present study was to assess the Knowledge and Management of Urinary Incontinence among Elderly Women Residing at Old age Home in South India. A Pre-experimental-One group Pre and Post-test research design, a total of 30 Elderly Women selected by convenient .sampling technique. Individual consent both verbal and written was obtained from Elderly Women

.The participant information sheet was provided and written consent was obtained from Elderly Women Demographic variables were collected using Interview schedule. Pretest Assessment of the level of Knowledge and Management of Urinary Incontinence among Elderly Women Residing at Old age Home in South India by using structured Knowledge Questionnaire. A video assisted teaching programme was administered on urinary incontinence and its management, including Kegel exercises. The session covered meaning, causes, types, risk .factors, symptoms, prevention, and management, using audiovisual aids

.After a period of seven days, a post-test using the same questionnaire will be administered to the participants This post-test will help to evaluate effectiveness of video assisted teaching on knowledge and management of urinary incontinence among elderly women by comparing the participants' knowledge scores before and after the intervention. The collected data were computerized and analyzed using SPSS version 25. The data was analyzed using descriptive statistics (distribution, mean, standard deviation) and inferential statistics (paired t test, chi-square value test). The discussion of the present study is based on the findings obtained from the statistical .analysis of assessment based on the objectives of the study

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