



EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMM ON KNOWLEDGE REGARDING JAL JEEVAN MISSION YOJANA AMONG MIDDLE ADULTHOODS IN SELECTED RURAL AREAS: A QUASI-EXPERIMENTAL STUDY

Nursing

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ABSTRACT

The Jal Jeevan Mission Yojana (JJMY) is a Government of India initiative aimed at providing functional household tap connections, improving water accessibility, and promoting sustainable water practices in rural areas. Despite its importance, awareness and understanding of JJMY among middle adulthood populations remain limited. This study was conducted to assess the effectiveness of a Structured Teaching Programme (STP) on knowledge regarding Jal Jeevan Mission Yojana among middle-adulthood individuals in selected rural areas. **Title:** - Effectiveness of Structured Teaching Programme on Knowledge Regarding Jal Jeevan Mission Yojana Among Middle Adulthoods in Selected Rural Areas: A Quasi-Experimental Study. **Objectives:** - To evaluate the effectiveness of a structured teaching programme on knowledge regarding the Jal Jeevan Mission yojana (JJMY) among middle adulthood in selected rural areas. To determine the association between post-test knowledge score with selected demographic variables. **Methodology:** - A quasi-experimental one-group pre-test post-test design was adopted. A total of 70 middle-adulthood individuals were selected using non-probability convenient sampling. Data were collected using a structured knowledge questionnaire before and after the intervention. The STP covered key areas of JJMY including source sustainability, water conservation, household tap-connection norms, and community participation. Data were analysed using descriptive and inferential statistics. **Result:** - Findings revealed a significant improvement in post-test knowledge scores compared to pre-test scores. The calculated paired 't' value (47.66) was substantially higher than the tabulated value at 0.05 significance level, indicating that the Structured Teaching Programme was statistically effective in enhancing knowledge regarding JJMY among the participants. **Conclusion:** - The study concludes that structured educational interventions markedly improve awareness and understanding of Jal Jeevan Mission Yojana among middle-adulthood individuals. Incorporating such programmes at the community level can strengthen public participation and promote sustainable water-use practices in rural areas. **Recommendation:** - 1.A similar study can be replicated on a larger population for a generalization 2.A similar study can be conducted on all middle adulthood

KEYWORDS

Effectiveness, Structured Teaching Programm, Knowledge, Jal Jeevan Mission Yojana, Middle Adulthoods , Rural Areas.

INTRODUCTION

Access to adequate and safe drinking water is one of the most critical public health concerns in India. Over the years, several programmes and schemes have been launched to improve water availability across rural areas. Earlier schemes were rebranded as the National Rural Drinking Water Programme in 2009, focusing on sustainable water supply and community involvement. However, persistent challenges such as drought, water contamination, and poor infrastructure continued to affect rural households, creating an urgent need for a more comprehensive mission.¹

In response, the Government of India launched the Jal Jeevan Mission (JJM), aimed at providing functional household tap connections to every rural household. The programme emphasizes the design of efficient distribution networks and strengthening infrastructure at village level. It prioritizes components such as source sustainability, including recharge and reuse through grey-water management, to ensure long-term water availability. The mission seeks to provide equitable water distribution, reduce dependency on unsafe water sources, and promote improved quality of life.²

Jal Jeevan Mission focuses on empowering rural communities to understand their role in water conservation and to participate actively in planning and maintaining water-supply systems. The programme encourages public participation by involving households, women, and local governance structures, ensuring that communities take responsibility for sustained water use. The mission also highlights the importance of awareness regarding timely water usage, sanitary water storage, and proper handling practices.³

Educating middle adulthood populations is important because this age group plays a significant role in household responsibilities, water collection, storage, and decision-making regarding public schemes. Limited knowledge about Jal Jeevan Mission Yojana among middle adulthood restricts effective utilization of the scheme and reduces the impact of government initiatives. Improving awareness regarding the programme can help individuals understand their rights to clean drinking water, actively participate in scheme activities, monitor water quality, and advocate for water security.⁴

This study, therefore, aims to assess the effectiveness of a Structured

Teaching Programme in improving the knowledge of middle-adulthood individuals regarding Jal Jeevan Mission Yojana in selected rural areas. The introduction of such teaching interventions is expected to enhance understanding of programme components, responsibilities of beneficiaries, and importance of water conservation, ultimately encouraging improved community participation.

Need for the Study

Rural communities in India continue to face major challenges related to access to safe and adequate drinking water, despite repeated national programmes aimed at improving water availability.⁵ The Jal Jeevan Mission was launched to provide functional household tap connections and promote source sustainability through measures such as groundwater recharge, grey-water management and community participation. However, many middle-adulthood individuals in rural areas still lack adequate awareness about the components, benefits and responsibilities associated with the mission. Since this age group plays a key role in household water collection, usage, storage and decision-making, insufficient knowledge directly affects the effective implementation and utilization of the scheme. Improving awareness regarding Jal Jeevan Mission is essential for ensuring active community participation, proper maintenance of water-supply systems, and long-term sustainability.⁶ Therefore, there is a strong need to educate middle adulthood individuals through structured teaching programmes so they can understand their role, adopt safe water practices and contribute effectively to achieving the goals of the mission.

Review of Literature

A study was conducted in rural Jharkhand to evaluate the impact of the Jal Jeevan Mission (JJM), launched by the Government of India to provide safe and adequate tap water to every rural household. The study examined key performance indicators, beneficiary feedback, and infrastructure improvements to determine the mission's effectiveness in improving water accessibility, sanitation, and socioeconomic conditions in the state. Jharkhand, which has long struggled with water scarcity, poor infrastructure, and contamination of natural sources, showed varied progress across districts. The findings revealed that out of 6,249,574 rural households, 54.26% had tap water connections, with Simdega achieving the highest coverage at 92.72%, followed by Lohardaga (73.37%), Latehar (72.54%), and Giridih (71.21%).

However, significant gaps were observed in underperforming districts such as Pakur (12.75%) and Godda (19.16%), indicating the need for intensified efforts. The study concluded that the Jal Jeevan Mission was effective overall but highlighted disparities that require targeted interventions to ensure equitable access to safe drinking water across all rural households.⁷

A comprehensive analytical study was conducted to assess the potential health and economic gains from the Jal Jeevan Mission in rural Karnataka. The main aim of the researchers was to evaluate how the scheme benefits the health and economic well-being of its beneficiaries. A total of 250 individuals from rural Karnataka were selected and administered a structured questionnaire to understand the changes in routine life brought about by new water connections under the mission. The collected data were analyzed using SPSS, applying descriptive statistics along with correlation and regression techniques to examine the relationship between health outcomes and newly provided tap water connections. The study reported a positive and significant correlation between improved health and access to Jal Jeevan Mission water supply, with benefits being particularly notable in the northern parts of Karnataka. In the Kalyan Karnataka region, the introduction of new water connections showed a substantial positive impact. The researchers concluded that while the scheme demonstrates strong benefits, it should be further strengthened by incorporating more hygienic practices and a greater emphasis on sustainability.⁸

METHODOLOGY

Research Approach

A quantitative research approach was adopted to evaluate the effectiveness of the structured teaching programme.

Research Design

A quasi-experimental one-group pre-test post-test design was used to assess the effectiveness of the Structured Teaching Programme on knowledge regarding the Jal Jeevan Mission Yojana among middle-adulthood individuals in selected rural areas.

Setting of the Study

The study was conducted in selected rural areas.

Population

Target Population

Target population include middle adulthoods in selected rural areas.

Accessible Population

The accessible population selected for the study comprises the adulthoods residing in selected rural areas who were available at the time of data collection and who were fulfilling the inclusion criteria

Sample Size and Sampling Technique

A sample of 70 middle adulthoods in selected hospitals was selected using non-probability convenience sampling.

Inclusion Criteria

- Adults of middle age group between 40 -65 years of age.
- Residents of rural areas targeted by the Jal Jeevan Mission Yojana (JJMY).
- Willingness to participate in the structured teaching programme and complete pretest and post-test assessments.

Exclusion Criteria

- Individuals between the age of 18-39.
- Residents of urban areas or regions not targeted by the Jal Jeevan Mission

Tool for Data Collection

A structured questionnaire on Jal Jeevan Mission components including:

- Functional tap-connection criteria
- Water conservation methods
- Source sustainability
- Role of Village Water and Sanitation Committees
- Community participation

Development & Validation of Tool

It is a precise systematic gathering of information relevant to the research purpose or the specific objective, or hypotheses of a study. The procedure for collecting data is not a mechanical process that can be carefully planned prior to initiation. The investigator as a whole person should be totally involved, perceiving, reacting, interacting, reflecting, attaching, meaning and recording.

Reliability

Reliability was assessed using appropriate tests from pilot data, and the tool was found reliable.

Pilot Study

A pilot study was conducted to assess feasibility. It is a smaller version of a larger study that is conducted to prepare for that study. A pilot study can involve pre testing a research tool, like a new data collection method. It can also be used to test an ideas or hypothesis.

Data Collection Procedure

Data were collected in three steps. First, a pre-test was administered using a structured questionnaire to assess baseline knowledge of middle-adulthood participants regarding the Jal Jeevan Mission Yojana. This was followed by the Structured Teaching Programme, delivered through charts, demonstrations, and audiovisual aids. After seven days, a post-test using the same tool was conducted to measure knowledge improvement. Ethical approval was obtained, and informed consent was taken from all participants prior to data collection. Data were analyzed using SPSS.

Ethical Considerations

The study was approved by the institutional ethical committee and the study was conducted in middle adulthood with the ethical guidelines prescribed by central ethics committee on human research.

RESULT

The demographic findings showed that the majority of middle-adulthood participants were distributed across the age groups of 18–22 years (14.30%), 22–26 years (28.60%), 26–30 years (35.70%), and above 30 years (21.40%). Most were males (71.40%), followed by females (18.60%) and transgender participants (10%). Regarding education, 7.30% were illiterate, 38.60% had completed SSC, 35.70% had completed HSC, and 21.40% were graduates and above.

Pre-test findings revealed that 94.29% of participants had inadequate knowledge regarding Jal Jeevan Mission Yojana, while only 5.71% had moderately adequate knowledge. The pre-test scores ranged from 6 to 15, with a mean score of 10.75 ± 2.44 and a mean percentage score of 35.85 ± 8.15 .

Post-test results showed substantial improvement, with 37.14% of participants having moderately adequate knowledge and 62.86% achieving adequate knowledge. Post-test scores ranged from 16 to 27, with a mean score of 22.01 ± 3.02 and a mean percentage score of 73.38 ± 10.08 .

Paired t-test analysis demonstrated a calculated value of 47.66, far exceeding the tabulated value of 2.00 at the 0.05 significance level, confirming a statistically significant difference between pre-test and post-test knowledge scores. This indicates that the Structured Teaching Programme was highly effective, and the research hypothesis (H_1) was accepted.

The study also found a significant association between post-test knowledge scores and selected demographic variables, specifically age, educational status, occupation, and monthly family income, while the remaining demographic variables showed no association.

Table No. I: Effectiveness of Structured Teaching Programme on Knowledge Score (Pre-test vs Post-test) Regarding Jal Jeevan Mission

Test	Mean	SD	Mean Difference	t-value / p-value
Pre-test	10.75	2.44	11.25 ± 1.97	
Post-test	22.01	3.02		t = 47.66 p = 0.0001 (S, p<0.05)

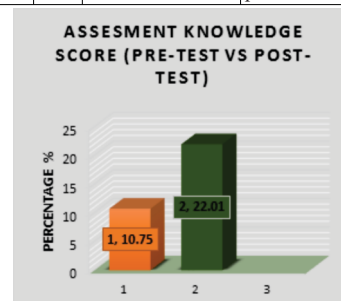


Figure No. 1: Effectiveness of Structured Teaching Programme on Knowledge Score (Pre-test vs Post-test) Regarding Jal Jeevan Mission**DISCUSSION**

The findings clearly indicate that middle adulthood participants showed marked improvement in post-test scores, demonstrating that the Structured Teaching Programme was effective in increasing awareness and understanding of Jal Jeevan Mission Yojana.

The high t-value signifies a statistically significant difference between pre-test and post-test knowledge levels. This confirms that the teaching programme successfully improved knowledge regarding water conservation practices, tap connection norms, community participation, and sustainability components of the scheme.

CONCLUSION

Based on the findings of the study, it was concluded that the Structured Teaching Programme was effective in improving knowledge regarding the Jal Jeevan Mission among middle-adulthood individuals in the selected rural area. The mean pre-test knowledge score of 10.75 increased to a mean post-test score of 22.01, indicating a substantial improvement. The calculated t value of 47.66 was much higher than the tabulated value of 2.00 at the 5% level of significance, confirming a statistically significant difference between pre-test and post-test scores. Therefore, the research hypothesis (H_1) was accepted and the null hypothesis (H_0) was rejected. The analysis further showed that post-test knowledge scores were significantly associated with selected demographic variables such as age and educational status, while the remaining variables did not show any association.

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