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Original Research Paper

Mental Health Nursing

A QUASI-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF A STRUCTURED TEACHING PROGRAMME ON THE LEVEL OF KNOWLEDGE REGARDING ALCOHOL DEPENDENCE AMONG ADOLESCENTS IN A SELECTED VILLAGE AT VIJAYAWADA, ANDHRA PRADESH.

Mr. V N Siva Kumar Kolluri Ph.D. Scholar, Asso.Professor, Dept. of Medical Surgical Nursing, ASRAM College of Nursing, Eluru, AP.

Ms. M. Shanmukha Devi Asst. Professor, Dept. of Mental Health Nursing, ASRAM College of Nursing, Eluru, A.P.

ABSTRACT

Background: Alcohol use among adolescents is a growing public health concern, especially in semi-urban and rural regions of India. Early initiation of alcohol consumption is associated with poor academic performance, unsafe behaviors, and long-term health complications. Despite this, awareness and preventive education among adolescents remain inadequate. Structured Teaching Programmes (STPs) are emerging as effective tools to improve knowledge and promote healthy behaviors among youth. **Objectives:** The study aimed to assess the knowledge level of adolescents regarding alcohol dependence before and after an STP, evaluate the effectiveness of the intervention, compare knowledge scores between experimental and control groups, and examine the association between post-test knowledge and selected demographic variables. **Methods:** A quasi-experimental pre-test–post-test control group design was used among 60 adolescents aged 15–19 years in a selected village near Vijayawada, Andhra Pradesh. Participants were assigned to experimental(n=30) and control(n=30) groups using purposive sampling. A structured questionnaire assessed knowledge before and after the intervention. Data were analyzed using paired and unpaired t-tests and chi-square tests. **Results:** The mean knowledge score in the experimental group significantly increased from 19.01(pre-test) to 29.61(post-test), with a t-value of 14.49($p<0.05$). No significant associations were found between post-test scores and demographic variables. **Conclusion:** The Structured Teaching Programme effectively improved knowledge regarding alcohol dependence among adolescents. These findings support the integration of STPs into school and community health programs to raise awareness and prevent early alcohol use.

KEYWORDS : Adolescents, Alcohol Dependence, Structured Teaching Programme, Health Education, Knowledge, Prevention

INTRODUCTION

Adolescence is a crucial period of physical, emotional, and social development, during which individuals are more likely to engage in exploratory and risk-taking behaviors, including alcohol consumption. Early alcohol use is linked to various negative outcomes, including poor academic achievement, dependency, high-risk behaviors, and long-term health consequences.

In India, factors such as peer pressure, curiosity, lack of supervision, and media exposure contribute to the rising incidence of adolescent alcohol use. In urbanizing regions like Vijayawada, Andhra Pradesh, alcohol use is becoming normalized in communities and among peer groups. Despite this trend, structured health education addressing alcohol use is lacking in schools and local communities.

Structured Teaching Programmes(STPs) have proven to be effective in improving awareness and changing attitudes regarding health-related behaviors. This study aimed to assess the effectiveness of an STP in enhancing adolescents' knowledge about alcohol dependence in a selected village near Vijayawada.

Need For The Study

Globally, alcohol contributes to over 3 million deaths annually and is a major risk factor among adolescents(WHO, 2022). In South-East Asia, 8–21% of adolescents report alcohol use.

In India, the NFHS-5 reveals that 18.8% of males aged 15+ consume alcohol. NIMHANS studies report an average initiation age of 14–16 years and an alcohol dependence rate of 5.2%, with 13–17% of adolescents having tried alcohol.

In Andhra Pradesh, adolescent alcohol use exceeds national levels, with 22% of youth aged 15–24 reporting consumption. The Krishna district, including Vijayawada, has seen increasing cases of early initiation(as young as 13years), yet lacks structured awareness programs in schools and communities.

Despite rising prevalence, limited awareness programs highlight the need for Structured Teaching Programmes to educate adolescents on alcohol dependence and its risks.

Statement of the Problem

"A quasi-experimental study to assess the effectiveness of a Structured Teaching Programme on the level of knowledge regarding alcohol dependence among adolescents in a selected village at vijayawada, Andhra Pradesh."

Objectives

1. To assess the pre and post-test knowledge levels on alcohol dependence in experimental and control groups.
2. To evaluate the effectiveness of a Structured Teaching Programme in the experimental group.
3. To determine the association between post-test knowledge and demographic variables.

Hypotheses

- **H1:** There is a significant difference in post-test knowledge scores between experimental and control groups.
- **H2:** There is a significant difference between pre- and post-test knowledge scores in the experimental group.
- **H3:** There is a significant association between post-test knowledge and selected demographic variables.

MATERIALS AND METHODS

Research Approach: A quantitative approach was used to evaluate the effectiveness of the Structured Teaching Programme.

Research Design: A quasi-experimental pre-test–post-test control group design was adopted.

Setting of the Study: The study was conducted in a selected village near Vijayawada, located in Krishna District, Andhra Pradesh.

Population: The population included adolescents aged 15–19 years residing in the selected village.

Sample: The sample consisted of 60 adolescents, with 30 in the experimental group and 30 in the control group.

Sample Size and Sampling Technique: A total of 60 adolescents were selected using non-probability purposive sampling.

Sample Selection Criteria

Inclusion Criteria:

- Adolescents aged between 15 and 19 years
- Available during data collection
- Willing to participate and understand Telugu/English

Exclusion Criteria:

- Adolescents sick during data collection
- Previously educated on alcohol dependence

Variables

- **Independent Variable:** Structured Teaching Programme (STP) on alcohol dependence
- **Dependent Variable:** Knowledge level of adolescents regarding alcohol dependence

Description of the Tool

Section A: Demographic data including age in years, gender, religion, educational status, number of children in the family, bread winner of the family, type of family, occupation of the family, family monthly income, Duration of the Alcoholism in the family members, Number of friends with alcoholism, Hobbies, Dietary Pattern, etc.

Section B: A 30-item multiple-choice questionnaire was developed to assess knowledge regarding alcohol dependence.

Scoring Interpretation:

Knowledge Level	Score Range	Percentage
Inadequate Knowledge	0–10	0–50%
Moderately Adequate	11–20	51–75%
Adequate Knowledge	21–30	76–100%

Ethical Considerations

Ethical approval was obtained from the Institutional Ethics Committee, and permission was secured from the Medical Officer of the local PHC. Informed consent was obtained from all participants and guardians. Confidentiality was maintained, and participation was voluntary with the right to withdraw at any time.

Data Collection Procedure

- **Phase I:** A structured questionnaire was administered to both experimental and control groups to assess baseline knowledge.
- **Phase II:** A Structured Teaching Programme was implemented for the experimental group using charts, posters, and interaction.
- **Phase III:** Conducted after 10 days using the same questionnaire to evaluate knowledge improvement.

Plan for Data Analysis

Descriptive Statistics: Frequency, percentage, mean, and standard deviation were used to describe demographic data and knowledge scores.

Inferential Statistics:

Paired t-test: To assess STP effectiveness.

Unpaired t-test: To compare post-test scores between groups.

Chi-square test: To assess association with demographics.

Data analysis and Interpretation:

Demographic Characteristics of Adolescents: In the experimental group, most were aged 15–16 years(30%) and male(57%), while the control group had more aged 17–18 years(43%) and females (53%). Hindus predominated in the experimental group(50%) and Muslims in the control(40%). Educationally, degree holders were higher in the experimental group(27%), while secondary education was common in the control group(33%). One-child and nuclear families were more common in the experimental group, while two-child and joint families dominated the control group. Self-employment(33%) was frequent in the experimental group, and daily wage work (37%) in the control. Family income ranged mostly between 5,000–10,000 in the experimental group and 10,000–15,000 in the control group. One alcoholic family member was more frequent in the experimental group(63%), and two in the control(47%). Alcoholism duration was mostly 2–5 years in both. Reading and chatting were common hobbies, and a mixed diet was preferred in both groups.

Table-2: Comparison of Pre-test and Post-test Knowledge Scores Between Experimental and Control Groups

n=30+30

Group	Mean		SD		Mean Difference	t-value Significance
	Pre-test	Post-test	Pre-test	Post-test		
Experimental	19.01	29.61	6.26	2.59	10.60	14.96
Control	9.20	11.20	4.96	3.46	2.00	Significant ($p < 0.05$)

Table: 3 Pre- and Post-Test Knowledge Scores on Alcohol Dependence in Experimental Group **n=30**

Level of knowledge	Mean	SD	Mean %	Range	Mean differences	"t" value
Pre test	19.01	6.26	17.61	18.40	34.99	14.49
Post test	29.61	2.59	52.6	15.39		$p<0.05$ S

Association Between Post-Test Knowledge and Demographic Variables: The data showed no statistically significant association between post-test knowledge scores and any selected demographic variables, including age($\chi^2=1.09$), gender($\chi^2=0.96$), religion($\chi^2=3.42$), educational status($\chi^2=1.34$), number of children($\chi^2=0.05$), breadwinner($\chi^2=1.26$), type of family($\chi^2=1.56$), occupation($\chi^2=1.34$), income($\chi^2=2.44$), number of alcoholics in the family($\chi^2=1.002$), duration of alcoholism($\chi^2=1.87$), number of alcoholic friends($\chi^2=3.06$), hobbies($\chi^2=3.96$), and dietary pattern($\chi^2=1.54$). All values were non-significant at $p > 0.05$.

DISCUSSION

Objective 1: To assess the pre- and post-test knowledge levels on alcohol dependence among adolescents in experimental and control groups. In the pre-test, the experimental group had a mean score of 19.01 ± 6.26, while the control group had a mean of 9.20 ± 4.96. In the post-test, the experimental group's mean score increased significantly to 29.61 ± 2.59, whereas the control group showed only a slight improvement to 11.20 ± 3.46. H1 is accepted

Objective 2: To evaluate the effectiveness of a Structured Teaching Programme in the experimental group. The experimental group showed a substantial improvement in knowledge after the intervention. The mean score increased from 19.01 in the pre-test to 29.61 in the post-test, with a paired t-test value of 14.49, which was statistically significant at $p < 0.05$. Therefore, Hypothesis H2 is accepted.

Objective 3: To determine the association between post-test knowledge and selected demographic variables. Chi-square analysis revealed no statistically significant association between post-test knowledge scores and demographic variables such as age, gender, religion, education, occupation, family income, number of children, family type, number of alcoholics in the family, duration of alcoholism, hobbies, and dietary pattern. Thus, Hypothesis H3 is rejected.

CONCLUSION

The study demonstrated that a Structured Teaching Programme significantly improved adolescents' knowledge about alcohol dependence in the experimental group. The absence of associations with demographic variables suggests the intervention's broad applicability. These findings support the incorporation of STPs into school and community-

based health education to address early alcohol use. Given rising trends in adolescent alcohol consumption, early preventive efforts are critical to fostering informed, healthy decision-making.

Nursing Implications:

Nursing Education

- The Structured Teaching Programme (STP) can be used by nurse educators to teach adolescents about alcohol dependence effectively.
- Using structured tools like questionnaires, posters, and visual aids enhances comprehension and engagement.

Nursing Practice

- Community and school health nurses can implement STPs to raise awareness about the risks, signs, and consequences of alcohol use.
- It promotes healthy lifestyle choices and supports early identification of adolescents at risk.

Nursing Administration

- Nurse administrators can integrate STPs into adolescent health education programs at schools and community health centers.
- The structured format allows standardized delivery and evaluation of educational outcomes.

Nursing Research

- Future research can focus on the long-term effectiveness of STPs in preventing alcohol use among adolescents.
- Comparative studies can help identify the most impactful educational methods for substance abuse prevention.

Recommendations

- Replicate the study with larger and more diverse adolescent populations.
- Conduct longitudinal follow-up studies to assess knowledge retention and behavioral outcomes.
- Extend the STP to address related adolescent issues such as peer pressure, drug use, and mental health.

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