



RESEARCH ARTICLE

A STUDY TO ASSESS THE EFFECTIVENESS OF AN EDUCATIONAL PROGRAM ON KNOWLEDGE ON SUBSTANCE ABUSE AMONG STUDENT NURSES STUDYING IN A SELECTED COLLEGE OF NURSING, DELHI

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Abstract

A pre-experimental study was conducted to assess the effectiveness of an educational program on knowledge on substance abuse among student nurses. A sample of 50 nursing students, who fulfilled the inclusion criteria, were selected using systematic random sampling method. A self-administered questionnaire was used to assess the knowledge on substance abuse among student nurses. Data was collected from first year nursing students attending a selected College of Nursing, Delhi. An educational program was developed and administered to first year nursing students about substance abuse. The data analysis and interpretation was done using descriptive and inferential statistics. The mean post-test knowledge scores were higher than the mean pre-test knowledge scores indicating that the educational program on substance abuse was effective in increasing the knowledge of student nurses.

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Introduction:-

Drugs are a pervasive part of our society. Certain mood-altering substances are quite acceptable by society like alcohol, caffeine and nicotine. A wide variety of substances are produced for medical purposes as well. Substance abuse is a maladaptive pattern of drug use leading to impairment or distress in social and occupational functioning. Disorders due to psychoactive substance use refers to conditions arising from the abuse of alcohols, psychoactive drugs and other chemicals such as volatile solvents. Substance related disorders are composed of two groups-the substance use disorders (addiction) and the substance induced disorders (intoxication, withdrawal, delirium, psychosis, etc).

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Recent times have witnessed a gradual increase in substance use among younger population, with more people initiating substance use from an early age. While rave parties have increasingly come to attention, the use of various licit and illicit substances among the school students, out-of-school children and street or homeless population is also on the rise. Further, the problem is seen across all socioeconomic groups, from metropolitan cities to small towns and rural areas, with newer substances and multiple substance use also being documented. Early initiation of substance use is usually associated with a poor prognosis and more serious impact on health, education, familial or social relationships.

Substance use may lead to behavioral problems, relationship difficulties and may cause disruption in studies, and even dropping out of school. At times, anti-social behaviors e.g. lying, stealing, pick pocketing etc. may occur in association with early-onset substance use. Further, adolescents using substances may tend to engage in several sexual (e.g. unprotected sex) and other high risk behaviors (e.g. driving under influence, violence), predisposing them further to the negative consequences of substance use.

Thus, substance abuse prevention programs are essential in steering people in the right direction. It will teach students not to indulge in substance abuse which will further prevent and protect the family, society and community as a whole, besides creating awareness as knowledge of harm.

Objectives:-

1. To assess the pre- test knowledge on substance abuse among student nurses.
2. To develop and administer an educational program on substance abuse.
3. To assess the post-test knowledge on substance abuse among student nurses.
4. To assess the effectiveness of an educational program on substance abuse among student nurses.

Assumption:

The student nurses will have some knowledge regarding substance abuse.

Delimitation:

The size of the sample was limited to 50 student nurses of a selected College of Nursing, Delhi.

Materials and Methods: -**Research design:**

A Pre experimental research design was selected for assessing the effectiveness of an educational programme on knowledge on substance abuse among student nurses studying in a selected College of Nursing, Delhi.

Variables under study:

1. Demographic variables: Demographic variables were age, place of residence, educational status of father and mother, occupational status of father and mother, habit of using substance, previous knowledge and sources of knowledge.
2. Independent variables: The independent variable in the present study was the educational program.
3. Dependent variables: In the present study, dependent variable was knowledge on substance abuse among student nurses studying in a selected College of Nursing, Delhi.

Setting of the study:

The present study was conducted in B.Sc. (H) Nursing first year classroom in a selected College of Nursing, Delhi.

Population:

The target population of the study consisted of first year nursing students studying in a selected College of Nursing, Delhi.

Sample and sampling technique:

A sample of 50 nursing students who fulfilled the inclusion criteria were selected using systematic random sampling method.

Criteria for sample selection:**Inclusion criteria:**

All first-year nursing students studying in a selected College of Nursing, Delhi.

All students above the age of 17 years.

Exclusion criteria:

All students below the age of 17 years.

All students who were not willing to participate.

Development of the tool:

A self-administered questionnaire was used to assess the knowledge on substance abuse among student nurses studying in a selected College of Nursing, Delhi.

Tool for Data Collection had 2 parts:

Part 1 - Socio-demographic data.

Part 2 - A self administered questionnaire to assess the knowledge on substance abuse.

Part 1: - Socio-demographic data:

This part consisted of 9 variables for obtaining personal information of the research samples i.e. age, place of residence, educational status of father and mother, occupational status of father and mother, habit of using substances, previous knowledge and source of knowledge.

Part 2: -A structured questionnaire to assess the knowledge on substance abuse:

A multiple-choice questionnaire was prepared to assess the knowledge on substance abuse among student nurses of a selected College of Nursing, Delhi. It consisted of 30 questions and each question had 4 options. For each correct answer, 1 mark was awarded.

The possible range of knowledge scores to be obtained by student nurses was from 0-30. Hence, their scores were interpreted as:

≥21: Good

11 to < 21: Average

≤ 10: Poor

Content validity and reliability of the tool:

Content validity of the tool was confirmed by experts' opinions for the relevance of the questionnaire. The experts were asked to give opinion on the relevance of items content and clarity of language. Some items were modified based on the suggestions given by the experts.

The reliability of the tool was established at 0.75, using Kuder Richardson formula 20 (KR-20).

Pilot study:

Pilot study was conducted on 11/12/2018 and 17/12/2018 on 5 students of B.Sc. (H) nursing 2nd year in a selected College of Nursing, Delhi. The sample selection was done by systematic random sampling. The pilot study was conducted to find the feasibility of conducting the study and to decide the plan of analysis. It was found feasible.

Procedure for data collection:

1. For data collection, the purpose and objectives were discussed with the Principal of a selected College of Nursing, Delhi and formal written permission was obtained to collect the data. 50 sample subjects were selected using systematic random sampling technique.
2. The investigators introduced themselves to the respondents and the purpose of study was explained to students before giving the questionnaire. They were told that the data would be kept confidential and will be used only for research purpose. They were also informed about the right to refuse their participation in the study.
3. Data was collected from first year nursing students studying in a selected College of Nursing, Delhi by conducting pre- test on 18/2/19 at 10.30 am and educational program was given from 12.30 pm - 1.30 pm.
4. The post test was conducted on 24/2/19 at 6 pm.
5. A good rapport was established with the respondents.
6. The queries of the respondents were clarified.

7. Each student was thanked for their cooperation by the investigators, after collecting the data.

Data analysis and interpretation:

1. The data was analyzed using descriptive and inferential statistics.
2. Frequency and percentage distribution to describe the demographic characteristics of the student nurses.
3. Frequency and percentage computation of student nurses according to their pre-test and post-test knowledge scores.
4. Range of obtained score, mean, median and standard deviation of pre-test and post-test knowledge scores of student nurses.
5. Paired t -test computation to determine the significant difference between pre-test and post-test knowledge scores.

Results:-

The data revealed that the mean post-test knowledge score of first year nursing students regarding substance abuse was higher than their mean pre-test knowledge score with a mean difference of 11.52. This indicated the gain in knowledge by the student nurses after the implementation of educational program. Standard deviation of pre-test and post-test knowledge score was 3.06 and 1.48 respectively. The difference in standard deviation was slight but direction indicates that the group was more homogenous in the post-test. The obtained t-test (6.31) was found to be statistically significant at 0.05 level of significance. This indicated that the educational program on substance abuse was effective in increasing the knowledge of student nurses.

Discussion:-

Drug abuse has become a subject of global concern. Drugs are the appropriate weapons for fighting ailments, but their improper use may lead to innumerable drug induced illnesses and dependence.

Improvement in knowledge is a direct precursor to behavior focused initiatives. The present study concluded a marked improvement in the knowledge of student nurses regarding substance abuse. This gain in knowledge might help the student nurses to prevent substance abuse.

| Demographic variables | Frequency | Percentage |
|---------------------------------|-----------|------------|
| 1.Age | | |
| • 16-18 Years | 29 | 58% |
| • 19-21 years | 21 | 42% |
| • 22-23 years | 0 | 0% |
| 2.Place of residence | | |
| • Rural | 12 | 24% |
| • Urban | 38 | 76% |
| 3.Educational status of father | | |
| • Primary education | 15 | 30% |
| • Diploma | 8 | 16% |
| • Graduate | 27 | 54% |
| 4.Educational status of mother | | |
| • Primary education | 23 | 46% |
| • Diploma | 5 | 10% |
| • Graduate | 22 | 44% |
| 5.Occupational status of father | | |
| • Private sector | 30 | 60% |
| • Government | 12 | 24% |
| • Laborer | 4 | 8% |
| • Unemployed | 4 | 8% |

| | | |
|--------------------------------------|----|------|
| 6.Occupational status of mother | | |
| • Private sector | 9 | 18% |
| • Government | 8 | 16% |
| • Laborer | 2 | 4% |
| • Unemployed | 31 | 62% |
| 7.Habit of using substance in family | | |
| • Yes | 11 | 22% |
| • No | 39 | 78% |
| 8.Previous knowledge | | |
| • Yes | 50 | 100% |
| • No | 0 | 0% |
| 9.Source of knowledge | | |
| • Mass media | 35 | 70% |
| • Peer group | 15 | 30% |

Table 1:- Frequency and percentage distribution of student nurses by their age, place of residence, educational status of father and mother, occupational status of father and mother, habit of using substance in the family, previous knowledge and sources of knowledge about substance abuse. n=50

Table 2:- Frequency and percentage distribution of student nurses by their pre-test level of knowledge. n=50

| Level of knowledge | Frequency | Percentage |
|--------------------|-----------|------------|
| Poor (0-10) | 32 | 64% |
| Average (11-20) | 18 | 36% |
| Good (21-30) | 0 | 0% |

Maximum score=30, Minimum score=0

Table 3:- Frequency and percentage distribution of student nurses by their post-test level of knowledge. n=50

| Level of knowledge | Frequency | Percentage |
|--------------------|-----------|------------|
| Poor (0-10) | 0 | 0% |
| Average (11-20) | 13 | 26% |
| Good (21-30) | 37 | 74% |

Maximum score =30, Minimum score=0

Table 4:- Mean, Mean percentage, Median, Standard deviation and Mean difference of pre-test and post-test knowledge score of student nurses regarding substance abuse. n=50

| Knowledge test | Mean | Mean percentage | Median | Standard deviation | Mean difference |
|----------------|------|-----------------|--------|--------------------|-----------------|
| Pre-test | 9.98 | 33.2 | 11 | 3.06 | 11.52 |
| Post-test | 21.5 | 71.6 | 24.2 | 1.48 | |

Observations of contemporary and past annotations on the topic:

The results of the present study are similar to a study conducted by Krishnan K. in 2016 to assess the peer pressure and effectiveness of an educational program on knowledge regarding refusal strategies related to substance abuse among adolescents studying in a selected school of Delhi. A quantitative research approach (pre-experimental) with one group pre test -post test design was used. Systematic random sampling technique was adopted to select 50 adolescents of 15-18 years studying in 11th and 12th class of K School, Delhi. Data was collected using a standardised rating scale and a structured knowledge questionnaire. The tool was validated and the reliability of the tool was established as 0.84 using KR-20. Results showed that more than half of the adolescents had normal range of peer pressure. Almost 1/5th of them had high level of peer pressure. The mean post-test knowledge scores were

higher than the mean pre-test knowledge scores indicating that the educational program on refusal strategies related to substance abuse was effective in increasing the knowledge of adolescents. The study concluded that drug prevention programs like teaching about substance abuse, its causes, its ill effects and refusal strategies should be implemented in all schools and colleges so as to enable adolescents to deal with peer pressure which is a major contributing factor to substance abuse.

The results of the present study are similar to a study which was conducted in 2012 by Bindu H. A to evaluate the effectiveness of a structured teaching program on knowledge regarding alcohol abuse and its consequences among 100 male students in selected colleges of Guntur. An evaluative research approach with pre experimental, one group pre and post-test design was used. Non probability sampling technique was used. The data was analyzed using descriptive and inferential statistics. The results of the study showed that there was a significant increase in the mean knowledge score from 9 to 27.06.

A study was conducted in 2012 by Avudaiselvi.T to assess the prevalence of factors influencing and knowledge of substance abuse among adolescent school boys studying in St. Ignatius Higher Secondary School, Tuticorin. A structured questionnaire was used as a tool or data collection. The research design selected for the study was descriptive in nature. Sample size was 170. The findings of the study revealed that 35.6% students started to smoke at the age of 16 years, the influence of friends 32 (91.4%) and the easy availability of drugs 25 (71.4%) were the most important factors influencing the rate of substance abuse.

A study was conducted in 2017 by Sharma. A to evaluate the effectiveness of structured teaching program on knowledge regarding alcoholism and its hazards among the adolescents in high schools of Tumkur District. Data was collected by using self administered knowledge questionnaire. A quasi experimental research design was adopted. 100 adolescents were selected by random sampling technique. The study findings revealed that 41% subjects had inadequate knowledge on alcoholism and its hazards and 63% subjects had moderately adequate knowledge on alcoholism and its hazards.

A study was conducted in 2011 by Daniel T.L to assess the prevalence and pattern of substance use among male adolescents in Sunder Nagari, Delhi. A cross sectional survey was designed to collect sample size of 110 adolescents. A structured questionnaire was designed as a tool. The study showed that the common substance used by the subjects were any kind of tobacco (77.05%), inhalants (26.23%) and alcohol (11.47%). Most of the subjects were getting substance from their friends (85.25%) and only a few (14.75%) by themselves.

Limitations:

1. The study was conducted on a small sample and in the selected College of Nursing of Delhi which limits the generalization of the findings of the study.
2. The findings of the study were purely based on the written responses of study subjects and were subject to response set bias from the respondents.

Recommendations:-

1. A similar study can be replicated on a larger sample to help validate and generalize the findings to the entire population of a region or a part of the country.
2. Impact studies can be done in the study settings after a couple of months or years so as to analyze how many adolescents retained the information
3. A comparative study can be conducted to ascertain the prevalence, causes and effects of substance use disorder in males and females, as well as in rural and urban populations.

Implications of the study:

1. Substance abuse has escalated dramatically among the adolescents in recent years, thus, curriculum should include drug education and drug abuse prevention programs to bring awareness among the youth, who are citizens of tomorrow.
2. The educational program on substance abuse prepared by the researcher can be used by community health nurses to impart the knowledge to the adolescents about the risk factors, ill effects of substance abuse with the special emphasis to prevent substance abuse in them.
3. Nurses can educate the parents of adolescents about the ill effects of substance abuse and can teach them how to reduce the risk factors of substance abuse so as to prevent substance abuse in their children.

4. The nurse administrators should arrange awareness campaigns on substance abuse for the community people and should also assess the effectiveness of such programmes thereafter.
5. Findings of the study will act as a catalyst to carry out more extensive research on a large population sample in various colleges. This will help to identify the various causes of substance abuse among the adolescents. Based on the causes, effective preventive actions can be planned.
6. In the basic course, the syllabus should emphasize more on substance abuse. Students as well as the citizens should be educated on the prevention of substance use.
7. Educational programmes should be conducted for school and college students to improve their knowledge regarding various aspects of substance abuse- its causes, its ill effects and refusal strategies to prevent substance abuse.

References:-

1. Avudaiselvi, T. (2012): The prevalence and effects of inhalant abuse among adolescents. *Journal of Adolescent Health*. March:3-40
2. Bindu, H.A. (2016): To evaluate effectiveness of structured teaching program on knowledge regarding substance abuse among male students of Guntur. *Nightingale Nursing Times*: Vol (7);20-22
3. Bukstein, O. (2005): Practice Parameter for the Assessment and Treatment of Children and Adolescents with Substance Use Disorders. *Journal of the American Academy of Child & Adolescent Psychiatry*. 44(6):609-621.
4. Daniel, T.L. (2015): To assess the prevalence and pattern of substance abuse among male adolescents in Sunder Nagari. *Nightingale Nursing Times*, Vol (5),25-27
5. Krishnan, K., Shaiju, B., Sarkar, S. (2017): Assessment of peer pressure and effectiveness of an educational program on knowledge regarding refusal strategies related to substance abuse among adolescents. *Int J Health Sci Res*. 7(3):229-238.
6. Sharma, A. (2014): Effectiveness of structured teaching program on knowledge regarding substance abuse and its hazards among adolescents in high school of Tumkur District. *Nightingale nursing times*, Vol (8),16-18
7. Townsend M.C., *Psychiatric Mental Health Nursing*, 8 Edition, Published by JaypeeBrothers:914
8. Weinberg, N., Rahdert, E., Colliver, J., Glantz, M. (1998): Adolescent Substance Abuse: A Review of the past 10 Years. *Journal of the American Academy of Child & Adolescent Psychiatry*. 37(3):252-261.