

Original Research Article

Assessment of Peer Pressure and Effectiveness of an Educational Program on Knowledge Regarding Refusal Strategies Related to Substance Abuse among Adolescents

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ABSTRACT

Topic: A study 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.

Objectives: The objectives of the study were to assess the peer pressure related to substance abuse among adolescents, to develop and administer an educational program regarding refusal strategies related to substance abuse, to assess the pre test and post test knowledge regarding refusal strategies related to substance abuse and to evaluate the effectiveness of an educational program on knowledge regarding refusal strategies related to substance abuse among adolescents.

Methodology: 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: 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.

Conclusion: Drug prevention programs like teaching refusal strategies should be implemented in all schools so as to enable adolescents to deal with peer pressure which is a major contributing factor to substance abuse.

Key words: Peer pressure, Educational program, Refusal strategies, Substance abuse

INTRODUCTION

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. [1] Substance use may lead to behavioural problems, relationship

difficulties and may cause disruption in studies, and even dropping out of school. At times, anti-social behaviours 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. [2]

The most powerful of the social influences for substance use at a younger age is that of peer influence. The association with the peers who approve the use of substances or use substances themselves predisposes a child to substance use. [3] In a study conducted in India, more than 80% school-going and out-of-school children had close contact with friends who use substances. The number of substance using friends reported was somewhat more in the out-of-school children. [4]

Studies suggest that Prevention programmes should also focus on providing life skills education and teach methods to handle stress besides creating awareness as knowledge of harm. Prevention programmes should also focus on resisting peer pressure and how to say no if offered substances by friends. [4]

From the perspective of prevention, it is important to impart basic skills to children such as resisting peer pressure and being assertive to say 'no' when offered substances by peers.

Objectives of the study

1. To assess the peer pressure related to substance abuse among adolescents.
2. To develop and administer an educational program regarding refusal strategies related to substance abuse.
3. To assess the pre test and post test knowledge regarding refusal strategies related to substance abuse among adolescents.
4. To evaluate the effectiveness of an educational program on knowledge

regarding refusal strategies related to substance abuse among adolescents.

Once we ascertain the level of peer pressure, we will be able to devise comprehensive strategies in order to curb the problem. Based on the specific knowledge deficiencies, effective interventions like educational program on refusal strategies can be developed through which adolescents in schools can be taught various refusal strategies so that they do not indulge in substance abuse.

MATERIALS AND METHODS

Research Approach: Quantitative approach (pre-experimental)

Research Design: One group pre test - post test design

Variables under study

Independent variable: Educational program on refusal strategies related to substance abuse.

Dependent variable: Knowledge of refusal strategies related to substance abuse.

Setting of the study: The setting for the pilot study was S School, Delhi and for the final study was K School, Delhi.

Population: Population comprised of adolescents attending K School, Delhi.

Sample: The sample comprised of 50 adolescents belonging to the age group of 15-18 years studying in 11th and 12th class of K School, Delhi.

Sampling technique : Systematic random sampling technique was used. A total of 200 students were attending class 11th and 12th in the school (N=203). A list was prepared by assigning a roll number to each student according to the alphabetical order of their names. The desired sample size was established as 50 (n=50). Thus, K was calculated as 4 from the formula $K = N/n$. Roll number 2 was chosen as the first subject with the help of a random number table. After the first subject, every 4th sample was selected from the roll number list.

Procedure:

- Ethical permission was taken from the Institutional Ethical Committee of Jamia Hamdard, New Delhi to conduct the research study.
- Permission was obtained, to conduct the research study, from the principals of S School, Delhi and K School, Delhi.
- The technique of data collection was a structured questionnaire to collect demographic data, a standardized rating scale to assess the peer pressure (Based on Steinberg and Monahan's Resistance to Peer Influence Scale [5]) and a structured questionnaire to assess knowledge regarding refusal strategies related to substance abuse among adolescents. Paper and pencil method was used to administer the tool.
- The possible range of peer pressure scores was from 0-30. Scores between 15 and 25 were within normal range; scores below 15 suggested low levels of peer pressure and scores above 25 suggested high levels of peer pressure.
- The possible range of knowledge scores to be obtained by adolescents was from 0-40. Hence, their scores were interpreted as:
 - ≥ 32 : Excellent
 - 20 to < 32 : Good
 - < 20 : Poor
- An educational program was prepared. It was a structured teaching program aided with power-point presentation, role-plays and videos on refusal strategies related to substance abuse.
- To ensure the validity of the knowledge questionnaire and educational program on refusal strategies related to substance abuse, it was given to seven experts selected from the fields of Psychiatry and Mental Health Nursing.
- Reliability of the structured knowledge questionnaire was worked out by using Kuder-Richardson Formula 20 (KR-20) and was found to be 0.84.

- Formal administrative approval was obtained from the concerned authority to conduct the final study.
- The adolescents who met the inclusion criteria were selected using systematic random sampling technique.
- The purpose of the study was explained to the participants. After obtaining their willingness to participate in the study the data were collected from the sample subjects.
- After the administration of the pre-test, the educational program on refusal strategies was administered. The total duration of the educational program was 45 minutes. On the 7th day of the pre-test, post-test was administered. The average time taken to answer the tool was 40 to 45 minutes on the first day (day of pre-test) and 15-20 minutes on the day of post-test.

STATISTICAL ANALYSIS

- The data was analysed using descriptive and inferential statistics.
- Frequency and percentage distribution to describe the demographic characteristics of the adolescents.
- Frequency and percentage computation of adolescents according to their level of peer pressure.
- Mean, median and standard deviation of peer pressure related to substance abuse.
- Frequency and percentage computation of adolescents according to their pre-test and post-test knowledge scores.
- Range of obtained score, mean, median and standard deviation of pre-test and post-test knowledge scores of adolescents.
- Z-test computation to determine the significant difference between pre-test and post-test knowledge scores.

RESULT

Table 1: Frequency and percentage distribution of adolescents by their age, gender, class of study, religion, type of family, place of residence education and occupation of parents and monthly family income. n= 50

| S.No. | Demographic characteristics | Frequency | Percentage (%) |
|-------|-----------------------------------|-----------|----------------|
| 1. | Age (in years) | | |
| | 15 | 9 | 18 |
| | 16 | 14 | 28 |
| | 17 | 13 | 26 |
| 2. | Gender | | |
| | Male | 28 | 56 |
| | Female | 22 | 44 |
| | Religion | | |
| 3. | Christian | 19 | 38 |
| | Sikh | 0 | 0 |
| | Muslim | 6 | 12 |
| | Hindu | 25 | 50 |
| | Others | 0 | 0 |
| 4. | Class of study: | | |
| | 11th class | 24 | 48 |
| 5. | 12th class | 26 | 52 |
| | Type of family: | | |
| | Nuclear | 39 | 78 |
| 6. | Joint | 9 | 18 |
| | Extended | 2 | 4 |
| | Place of residence: | | |
| 7. | Urban | 47 | 94 |
| | Rural | 3 | 6 |
| 8. | Education of mother: | | |
| | Illiterate | 0 | 0 |
| | Primary | 1 | 2 |
| | Middle | 4 | 8 |
| | Secondary | 20 | 40 |
| 9. | Graduation and above | 25 | 50 |
| | Education of father | | |
| | Illiterate | 0 | 0 |
| | Primary | 0 | 0 |
| | Middle | 3 | 6 |
| 10. | Secondary | 14 | 28 |
| | Graduation and above | 33 | 66 |
| | Occupation of mother | | |
| | Housewife | 8 | 16 |
| 11. | Government job | 6 | 12 |
| | Private job | 23 | 46 |
| | Business/ self employed | 13 | 26 |
| | Occupation of father | | |
| 12. | Business/ Self employed | 11 | 22 |
| | Government job | 14 | 28 |
| | Private job | 25 | 50 |
| | Unemployed | 0 | 0 |
| 13. | Monthly family income (in rupees) | | |
| | ≤10,000 | 0 | 0 |
| | 10,001 – 20,000 | 1 | 2 |
| | 20,001– 30, 000 | 17 | 34 |
| 14. | 30,001 | 32 | 64 |

Table 2: Frequency and percentage distribution of adolescents by the use of addictive substances by any family member or friend and sources from which awareness of addictive substance is obtained. n=50

| S.No. | Demographic characteristics | Frequency | Percentage (%) |
|-------|---|-----------|----------------|
| 1. | Family members consuming addictive substances | | |
| | Father | 15 | 30 |
| | Mother | 0 | 0 |
| | Siblings | 9 | 18 |
| | Relatives | 21 | 42 |
| | None | 5 | 10 |
| 2. | Friends using addictive substances | | |
| | None | 15 | 30 |
| | One | 12 | 24 |
| | Two | 15 | 30 |
| | All | 8 | 16 |
| 3. | Sources from which awareness of addictive substances is obtained: | | |
| | Mass media and cinema | 18 | 36 |
| | Family and relatives | 13 | 26 |
| | Peer groups | 11 | 22 |
| | Teachers | 8 | 16 |

Table 3: Frequency and percentage distribution of the adolescents by their level of peer pressure, mean, median and standard deviation of peer pressure. n=50

| S.No. | Level of peer pressure | Frequency | Percentage (%) | Mean ± SD | Median |
|-------|---------------------------------------|-----------|----------------|---------------|--------|
| 1. | Low level of peer pressure (0-14) | 12 | 24 | 20.38 ± 5.713 | 24 |
| 2. | Normal range of peer pressure (15-25) | 29 | 58 | | |
| 3. | High level of peer pressure (26-30) | 9 | 18 | | |

Most of the adolescents, that is 29 (58%) had normal range of peer pressure. 12 (24%) adolescents had low level of peer pressure while 9 (18%) adolescents had high level of peer pressure. Mean peer pressure related to substance abuse was 20.38.

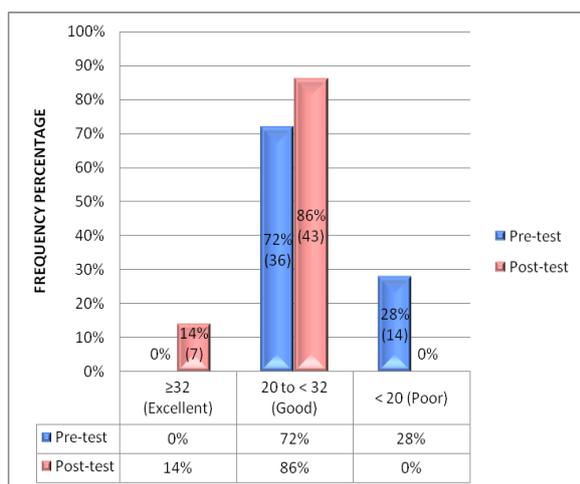


Figure1: Column diagram showing the frequency percentage distribution of adolescents by the level of knowledge based on their pre-test and post-test knowledge scores.

Before the administration of the educational program on refusal strategies related to substance abuse, 14 (28%) of the adolescents had poor knowledge regarding refusal strategies while 36 (72%) adolescents had scored good marks. After the administration of the educational program on refusal strategies, 7 (14%) adolescents showed a marked increase in their knowledge (excellent) regarding refusal strategies, a significant number of them that is 43 (86%) showed good knowledge regarding refusal strategies related to substance abuse. No adolescent scored poor marks in post-test.

Table 4: Range of score, Mean, Median, Standard Deviation, Mean difference and 'Z' value of pre-test and post-test knowledge scores of adolescents on refusal strategies related to substance abuse. n=50

| Knowledge test | Range of obtained score | Mean ± SD | Median | Mean difference | "Z" value |
|----------------|-------------------------|--------------|--------|-----------------|-----------|
| Pre-test | 14-26 | 20.88 ± 2.77 | 21 | 7.42 | 12.79* |
| Post-test | 22-35 | 28.30 ± 3.03 | 28 | | |

'Z' at 0.05 level of significance= 1.96

*- Significant at 0.05 level.

Maximum score= 40

Test used was Z-test, where the calculated 'Z' value of 12.79 was greater than the table value of 1.96 at 0.05 level of significance. This indicated that the educational program on refusal strategies related to substance abuse was effective in increasing the knowledge of adolescents.

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 behaviour focused initiatives. The present study concluded a marked improvement in the knowledge of

adolescents regarding refusal strategies related to substance abuse. This gain in knowledge might help the adolescents to implement refusal skills in their daily life so as to combat and resist drug offers, thus, in turn prevent substance abuse.

The present study concluded that more than half of the adolescents had normal range of peer pressure and almost 1/5th of them had high level of peer pressure related to substance abuse. It also showed that most of the adolescents had more than 1 friend who consumed addictive substances and majority of the adolescents had one or the other member consuming addictive substance in their family. These findings depict that the adolescents are prone to initiate substance use, as these factors are

known to be the primary causes of substance abuse as investigated by Gurung. [6] He tried to find out the impact of family and peers on both initiation and continuation of substance use among adolescent students. The study showed that family members and friends were found to have a considerable influence not only on initiation but also important sources for money for the substance. Easy availability in the neighbourhood was also an important correlate to continuation of substances. The study concluded that family environment as well as peer groups had an important bearing on initiation and continuation of substance use. Hence, it is necessary to provide health promotion programs directed toward students and their families which encourage attitude shaping among school children towards self-confidence and adequacy.

A research was conducted by Andrews, Tildesley, Hops, and Li to find the influence of peers on young adult substance use. 294 young adults, ages 19 to 25 and both a same- and an opposite-gender best friend or mate across 3 annual assessments were analyzed to examine the similarity to and influence of the peer on the young adult's substance use. Similarity was found across time between both peers and the young adult in cigarette use, alcohol use, binge drinking, and, in most cases, marijuana use. In prospective analysis, peer use predicted young adult cigarette use, binge drinking, and marijuana use by the young adults. Results were generally consistent across gender and for both same- and opposite-gender peers. Findings of the study emphasized peer influence contribution to young adult substance use and suggested that the design of intervention should involve both young adults and their peers. [7]

The present study highlighted that there was a significant improvement in the knowledge score of adolescents after the educational program, which is in agreement to a study by Bashir and Henderson, [8] to evaluate the effectiveness of the life skill

training program in which a randomized pre-test and post-test comparative design was used. The results showed that life skill training program was effective for preventing tobacco and drug use in Thai high school students. A similar study was conducted by Duggal, in Delhi, to assess the effectiveness of a Planned Teaching Program on knowledge regarding alcohol use and refusal skills. It demonstrated that there was a significant increase in knowledge and refusal skills of the subjects after the administration of PTP. [9] Further, Donaldson, Graham, Piccinin, Hansen and William found that resistance-skill training was an effective strategy for preventing the onset of alcohol use. [10]

The educational program developed by the researcher for the present study was a structured teaching program aided with power-point presentation, role-plays and videos on refusal strategies related to substance abuse. Hansen assessed the influence of program content in a review of the literature from 1980 to 1990. He suggested that social influence approaches, involving some combination of normative beliefs, personal commitment, and resistance skills training, were more effective than affective approaches (e.g., attempts to improve self-esteem) or general skills training (e.g., decision making, stress management, goal setting). [11]

Tobler and Stratton, [12] and more recently Ennett, [13] explored the influence of content and delivery on the effectiveness of substance abuse programs. They categorized content into four domains: knowledge, affect, refusal skills, and general skills. With regard to delivery, they characterized programs on a continuum according to the degree of interaction involved. They reported that programs based on knowledge (of substance effects, media, social influences, and use by peers), in combination with refusal skills (i.e., anticipating and resisting pressures, commitment to abstinence, cognitive behavioral skills, and networking with

nonusers), and/or general competency skills (i.e., decision making, communication, coping, social, and assertiveness skills), are more effective than programs focused on knowledge, alone or in combination with efforts focused on affect (i.e., self-esteem, feelings, personal insights, self-awareness, beliefs, and values).

A study by Petraitis, Flay and Miller, [14] suggests that drug prevention programs should include evidence-based strategies in refusing various substances as increased knowledge of such strategies have resulted in decreased use of substances. In the present study, there has been a significant increase in the knowledge of refusal strategies, which in turn can result in prevention of substance abuse by the adolescents.

Wynn, Schulenberg, Kloska, and Laetz conducted a study on the mediating influence of refusal skills in preventing adolescent drug misuse and stated that alcohol is the most frequently used psychoactive substance during adolescence. Adolescents who misuse or overindulge in substances are at risk for serious social and psychological consequences. Teaching refusal skills can help adolescents deal with peer pressure that contributes to drug use experimentation and escalation. [15]

A cross sectional study conducted by Costa, Alves, Santos, Carvalho, Souza and Sousa to analyze the use of alcoholic beverages, cigarettes, other psychoactive substances, among adolescents of public school of Feira de Santana, Bahia/ Brazil. The research analysed that consumption of alcohol, cigarettes and other psychoactive substance use was significantly higher among 17-19 years males. Interestingly, the main motivation for drug use was the company of friends and parents. The study concluded implementation of drug prevention programs at schools. [16]

The findings of present study revealed that mass media and cinema played the most important role in providing the knowledge related to substance abuse. Findings are supported by a study conducted

by Syed, Rana, Choudary, Mills and Benett, which investigated that mass media played an important role in providing knowledge related to substance abuse. [17]

Limitations

- The study was conducted on a small sample and in the selected school of Delhi which limits the generalization of the findings of the study.
- The study determined the knowledge of refusal strategies solely, it did not observe the practice of the refusal skills by the adolescents.
- 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

- 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.
- A similar study can be conducted to assess the causes of substance abuse and knowledge of refusal strategies related to substance abuse among street children.
- A similar study can be conducted to assess the knowledge and practice of refusal strategies related to substance abuse among adolescents.
- A similar study can be conducted to assess the effectiveness of an educational program on knowledge and practice of refusal strategies related to substance abuse among adolescents.
- 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 and are able to practice refusal strategies.
- 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.

CONCLUSIONS

- ✓ With regard to age wise distribution of the adolescents, most of them were of the age group of 16-18 years.
- ✓ Out of 50 adolescents, there were almost equal number of males and females.
- ✓ Most of the adolescents belonged to nuclear family.
- ✓ Majority of the adolescents were residing in urban area.
- ✓ As per consumption of addictive substances by the family members of the adolescents, majority of the adolescents had one or the other member consuming addictive substance in their family, only 1/10th of the adolescents had none of their family members consuming any addictive substances.
- ✓ As far as the number of friends using addictive substances was concerned, more than half of the adolescents had more than 1 friend who consumes addictive substances. Only 15 (30%) adolescents had none of their friends abusing substances.
- ✓ Most students procured information about substance abuse from mass media and cinema.
- ✓ 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.

Implications of the study

- Substance abuse has escalated dramatically among the adolescents in recent years, thus, school curriculum should include drug education and drug abuse prevention programs to bring awareness among the youth, who are citizens of tomorrow.
- The educational program on substance abuse and its refusal strategies 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 on the refusal strategies to prevent substance abuse in them.

- 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.
- The nurse administrators should arrange awareness campaigns on substance abuse for the community people and should also assess the effectiveness of such programmes thereafter.
- Findings of the study will act as catalyst to carry out more extensive research on a large population sample in various schools. This will help to identify the various causes of substance abuse among the adolescents. Based on the causes, effective preventive actions can be planned.
- 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.
- Educational programmes should be conducted for school students to improve their knowledge regarding various aspects of substance abuse- its causes, its ill effects and refusal strategies to prevent substance abuse.

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