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## RESEARCH ARTICLE

### CATCH THEM YOUNG: A STUDY ON KNOWLEDGE REGARDING ALCOHOL USE AND REFUSAL SKILLS AMONG ADOLESCENTS IN SELECTED SCHOOLS OF DELHI

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#### ABSTRACT

Alcoholism is a chronic illness with an insidious onset which may occur at any age and adolescent's drinking behaviour has been the vital social issues in several countries. A pre experimental one group pre-test post-test design was undertaken to evaluate the effectiveness of planned teaching program on knowledge regarding alcohol use and refusal skills among adolescents. Total 98 adolescents from selected schools of Delhi were enrolled. Planned teaching program (PTP) on knowledge regarding alcohol use and refusal skills was developed by focused group discussion. PTP was administered during pre-test and knowledge and refusal skills were assessed after one month of intervention. Data was collected from adolescents by using knowledge questionnaire and standardized drug refusal self efficacy-revised adolescent questionnaire. Data analysis was done using STATA 11.1 with the level of significance at  $p < 0.05$ . There was significant improvement in mean knowledge score of adolescents before (13.26) and after (20.58) administration of PTP and significant increase in mean refusal skill score was found before (96.83) and after (104.73) administration of PTP. Inverse correlation was found between age and subjects first learnt about alcohol with knowledge score. Knowledge level was significantly high in females, subjects studying in 11th standard, who denied any friend taking alcohol and who reported any neighbor taking alcohol. The refusal skills were significantly high in females, subjects who did not have any friend taking alcohol, who received information about alcohol through newspaper, radio or television. Study concluded that PTP on knowledge regarding alcohol use and refusal skills was very effective and viable method for improving adolescents' knowledge on alcohol use and refusal skills.

#### INTRODUCTION

Alcohol is the most widely used drug by adolescents regardless of ethnicity, gender or race (Van Der Vorst *et al.*, 2006). Alcoholism is a popular term for alcohol use disorders including alcohol dependence. It is a condition characterized by a pathologic pattern of alcohol use causing serious impairment in physical, emotional, social or occupational functioning (Kubetin, 2004). Adolescence is a critical stage of development and many people begin to experiment with alcohol (Perkins, 2002). The alcohol-related issues among adolescence who consume alcohol are drop out, academic failures, involvement in legal issues, using obscene words and disciplinary actions (The National Centre on Addiction and Substance Abuse (CASA)). Health related problems like poor nutrition, memory disorders, liver disease, high blood pressure, muscle weakness, heart rhythm disturbances, anaemia, low blood sugar and weakened bones (Walling and Anne, 2004). Many study findings demonstrated the inverse association between drinking refusal skill efficacy and drinking behavior

and relatively less is known about the attributes that may influence drinking refusal skill efficacy (Baldwin *et al.*, 1993; Oei and Jardim, 2007). It has been identified that parental and peer influences may be related to adolescents' tendency to use alcohol (Hwang and Akers, 2006). Adolescents who think that they could resist drinking alcohol would be more likely to refuse to drink when compared with adolescents who perceive a lack of such efficacy (Oei and Baldwin, 1994; Watkins *et al.*, 2005). Educating adolescents on how to refuse drinking alcohol may be one approach that could decrease their alcohol use because individuals' perceived ability to resist drinking alcohol, namely drinking refusal self-efficacy has a vast impact on their drinking behavior. Prevention programs embedded within curriculums that aim to influence skills development in addition to improving substance use knowledge are likely to be more effective than drug use education alone (Botvin *et al.*, 1995; Botvin *et al.*, 2000; Shope *et al.*, 2006). The objective of the study was to evaluate the effectiveness of planned teaching program (PTP) on knowledge regarding alcohol use and refusal skills among adolescents.

## MATERIALS AND METHODS

**Design and setting:** A quantitative pre - experimental (one group pre-test post-test) study design was selected to assess the effectiveness of planned teaching program (PTP) on knowledge regarding alcohol use and alcohol refusal skills in adolescents. Study was conducted in three government higher secondary schools of south zone of Delhi and 98 adolescents who met the inclusion criteria were enrolled. Ethical clearance for the study was obtained from Institute Ethics Committee. Data was collected from June to November 2013.

**Participants:** Convenience sampling technique was used for the study and all the subjects were assessed for their eligibility. Total 104 subjects were screened and six were excluded as they were not present during posttest. Therefore, total 98 subjects were included in this study. Students studying in 9<sup>th</sup> to 11<sup>th</sup> standard, present at the time of study and able to communicate in English were enrolled.

**Intervention:** A blue print of PTP on knowledge regarding alcohol use and refusal skills was developed based on literature review and focus group discussion (FGD) with five adolescents. The content of PTP included general information about alcohol, alcohol content in different beverages, legal age of drinking and purchasing alcohol, how does alcohol affect a person, the legal limit for driving under influence, alcohol use & harmful use of alcohol, alcohol dependence, misconceptions regarding alcohol, why are teenagers at a higher risk of developing alcohol use problems, immediate effects of alcohol on body, effect of alcohol on day to day functioning, building drink refusal skills. Five experts had performed the face and content validity of PTP and there was 100 percent agreement on the content of the PTP.

**Procedure for data collection:** Principals of the selected schools were approached and different dates, time and venue were arranged for the schools according to their convenience to conduct the study. A letter explaining the purpose of the study was given to the education department of Delhi and to the subjects. Signed informed consent was taken from the subjects. Demographic data was collected using questionnaire.

The baseline data regarding alcohol use and refusal skills was collected using the knowledge questionnaire and standardized drug refusal self efficacy-revised adolescent questionnaire on day one followed by planned teaching program on the same day. PTP session was provided to the adolescents in the class room which was around 40 minutes. To maintain the uniformity of teaching program, lesson plan was followed strictly. Lecture cum discussion method was used for teaching. Post test was conducted after one month by using the same questionnaires.

### Measures

1. A structured tool including the demographic and some selected variables was prepared to collect data from subjects using interview technique. The tool had total 14 items.
2. General knowledge of adolescents was measured through a structured tool to assess the knowledge of adolescents regarding alcohol use. The tool had 30 items under five domains which included general information, sign and symptoms, risk factors,

complications due to alcohol use and management. Reliability was established by test retest method and Cronbach's alpha score was found to be 0.86.

3. The refusal skills of the adolescents were measured by Drug Refusal Self Efficacy Questionnaire-Revised Adolescent (DRSEQ-RA). It is a standardized tool developed by Young et. al. in 2007. This tool has total 19 items and designed to assess an adolescent's belief in their ability to resist drinking alcohol. It was self-administered tool and items are scored on 6 point scale from 1 ("I am very sure I could not resist drinking") to 6 ("I am very sure I could resist drinking"). The overall reliability coefficient for the total subscales was 0.96.

## RESULTS

**Demographic Characteristics:** The mean age of the subjects was  $14.86 \pm 0.96$  years, 51% was males and 49% were females. Approximately 33.67% adolescents were studying in standard 9, 28.57% in standard 10 and 37% studied in standard 11. More than half of the subjects (56.12%) belonged to middle income group. About 49% of fathers and 39% of mothers' of adolescents had education level of graduation. More than a quarter (25.5%) of the subjects reported having a parent or sibling who drinks alcohol and 15% reported having a friend who consumes alcohol. However, 62.2% of the subjects had reported having a neighbor who drinks alcohol. The mean age at which subjects learnt about alcohol was  $11.39 \pm 2.20$ . Majority of adolescents learnt about alcohol through movies.

**Comparison of knowledge and refusal skill score before and after PTP:** As shown in Figure 1, the mean pretest knowledge score was  $13.26 \pm 3.5$ , whereas the posttest knowledge score was  $20.58 \pm 5.01$ . The pretest refusal skill score was  $96.83 \pm 20.07$  and the posttest refusal skill score was  $104.73 \pm 16.35$  after administration of PTP. Knowledge regarding alcohol use and refusal skill score was significantly higher among adolescents after administration of PTP with p value 0.001.

Knowledge regarding alcohol use was significantly high in females, subjects studying in 11<sup>th</sup> standard and whose father' were graduates. Subjects who denied having any friend who consumes alcohol and reported having any neighbor taking alcohol had significantly high level of knowledge ( $p < 0.05$ ). Refusal skill were comparatively higher among females, subjects studying in 10<sup>th</sup> standard and subjects who did not have any friend taking alcohol with  $p < 0.05$ .

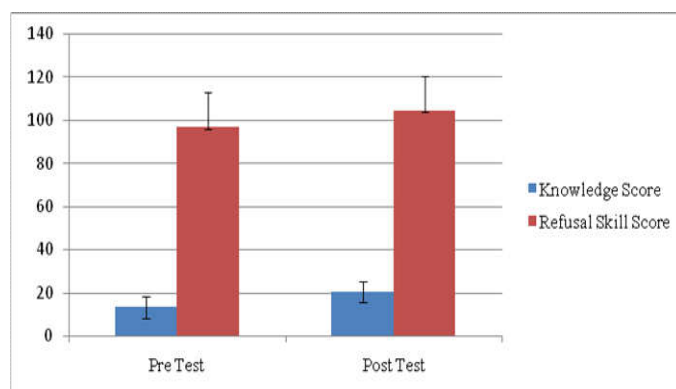


Figure 1. Knowledge and refusal skill score (Mean ± SD) before and after PTP

## DISCUSSION

Post test knowledge and refusal skill scores were significantly higher compared to pre test at  $p = 0.001$ . The above findings were similar to the study conducted by Shope, (1996) reported that there were desirable program effects on alcohol misuse prevention knowledge ( $p < 0.001$ ), alcohol misuse ( $p < 0.02$ ), and refusal skills ( $p < 0.09$ ). Gender differences were found on alcohol use, alcohol misuse, and driving after drinking with boys' rates increasing more than those of girls. This findings also supported by Hardoff (2013) reported that an experiential educational program regarding negative outcomes of alcohol consumption resulted in alcohol-related behavior change in a proportion of high school students.

In relation to the program type, the present study involved an interactive session with the adolescents. Nancy Tobler, Michael (2000) reported a meta-analysis of 207 universal school-based drug prevention programs. The program type and size are found to be significant predictors of effectiveness. Interactive programs that foster development of interpersonal skills show significantly greater effects that decrease with large-scale implementations.

## Conclusion

Adolescents had limited knowledge on alcohol use and had fairly enough alcohol refusal skills. This study has concluded that adolescents do benefit from participating in arbitrary school substance use prevention programs. Structured teaching program on knowledge regarding alcohol use and refusal skills was very effective and viable method for improving adolescents' knowledge on alcohol use and refusal skills.

## Recommendations

Similar study can be done in different demographic and geographical area to test or increase the validity of hypothesis. Impact studies can be done in the study settings after a couple of months or years. Structured teaching program on knowledge regarding alcohol use and refusal skills can be made available to teachers of all schools.

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