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**ORIGINAL ARTICLE****Effectiveness of Role Play on Knowledge of Adolescents  
Regarding Substance Abuse**

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**Abstract:**

*Background:* Substance abuse and dependency are most common during adolescence. Adolescents are in a transitional phase, confusion can sometimes make them susceptible to taking up unfavourable habits. Attitude shaping by parents and knowledge of harmfulness of substance abuse can indirectly motivate the user to give up the habit. Substance abuse control programmes, focusing on youth, are essential, to reduce the burden of related diseases. *Objectives:* It was aimed to assess the level of knowledge of adolescents regarding substance abuse, to find the effectiveness of role play on knowledge regarding substance abuse among adolescents, to find out the association of knowledge scores of adolescents regarding substance abuse with selected socio demographic variables. *Material and Methods:* A quasi experimental, one group pre-test post-test design with evaluative approach was adopted for this study. The study was conducted at Krishna Charitable Trust's English Medium School and Junior College, Karad, Maharashtra, India. Simple random sampling with lottery method was used for selecting the 60 subjects from VIII<sup>th</sup>, IX<sup>th</sup> and X<sup>th</sup> class. On the 1<sup>st</sup> day a structured knowledge questionnaire was used to assess the knowledge on substance abuse and role play was conducted followed by post test on the 7<sup>th</sup>

day. Data was analyzed by using descriptive and inferential statistics. *Result:* The mean and standard deviation of the knowledge scores of the subjects in pre test was  $11.51 \pm 3.55$  which increased in post test after role play to  $17.5 \pm 2.89$ . The paired 't' test value were 15.363 ( $p < 0.0001$ ) showing a significant increase in knowledge regarding substance abuse. There was an association between type of family and general information on substance abuse, education of father with commonly abused substances and the total score on substance abuse, education of mother with commonly abused substances and prevention and management of substance abuse and number of children in the family was associated with general information on substance abuse after role play. *Conclusion:* The study showed that the role play on substance abuse was effective in improving the knowledge of adolescents and thus helps them to understand the harmful effects of substance abuse and to take necessary methods to control it.

**Keywords:** Substance, Abuse, Knowledge, Role Play, Adolescents

**Introduction:**

Adolescence is the time of change for teenagers and their families, a transition from childhood to adulthood. During this transition period dramatic physical, cognitive, psychosocial, and psychosexual changes take place that are exciting and at the same time frightening [1]. The term substance is used in reference to any drug, medication, or toxin. Substance use becomes substance abuse when a person continues to use drugs or other substances even when it leads to serious personal consequences like family problems, losing friends, getting expelled from school, losing a job, or getting into legal trouble. Some people continue to use drugs because they want to. Others become psychologically or physically dependent on them [2].

Commonly used substances for abuse are alcohol, opioids, cannabis, cocaine, amphetamines and other sympathomimetics, hallucinogens, sedatives and hypnotics, nicotine, other stimulant like caffeine [3].

The main causes for substance abuse are family history of substance use disorder, sense of inferiority, low self-esteem, pleasure seeking, and desire to experiment, poor stress management skills, peer pressure, unemployment, overcrowding, and poor social support [3].

According to the Substance Abuse and Mental Health Services Administration's (SAMHSA's) National Survey in India on Drug Use and Health, 23.5 million persons aged 12 or older needed treatment for an illicit drug or alcohol abuse problem in 2009 (9.3% of persons aged

12 or older). Of these, only 2.6 million—11.2% of those who needed treatment -received it at a specialty facility [4].

Research has shown that the key risk periods for drug abuse are during major transitions in a person's life. The first big transition for children is when they leave the security of the family and enter school. Later, when they advance from elementary school, they often experience new academic and social situations, such as learning to get along with a wider group of peers. It is at this stage – early adolescence – that children are likely to encounter drugs for the first time [5].

The social environment of the school is a key factor influencing the healthy development of young people. Research has indicated that students who feel attached to their schools are less likely to engage in anti-social behavior or drug use practices. On the other hand, a feeling of alienation or not belonging can lead to behavioral problems, substance use and anti-social activities [5].

**Material and Methods:**

In order to accomplish the main objective of evaluating the effectiveness of the role play on substance abuse, an evaluative research approach with pre-test post-test design was adopted in this study.

The investigators carried out the study in Krishna Charitable Trust's English Medium School and Junior College at Malkapur, in Karad city. The school was selected using convenient sampling technique. The study was conducted during the

academic year 2014 to 2015. The study subjects for the study consisted of 60 adolescents both boys and girls of VIII<sup>th</sup>, IX<sup>th</sup> and X<sup>th</sup> standards. A structured knowledge questionnaire was used to assess the knowledge of adolescents regarding substance abuse along with selected socio demographic variables such as age, sex, type of family, place of residence, income of family, education level of parents, number of children in the family and exposure to mass media.

After obtaining ethical clearance from ethics committee and after securing the permission from the concerned authority of the school the study subjects were selected from population of high school students. The adolescents who met the study criteria were requested to participate in the study. The purpose of the study, potential benefits, right to confidentiality and right to withdrawal were explained to each adolescent in their mother tongue and additional doubts asked by them were cleared with appropriate explanation. Those adolescents who were willing to be a part of study were requested to sign an informed consent about their willingness to participate in the study. Each study subject was given an identification number to maintain confidentiality.

Based on the predetermined plan of action, the investigator conducted pre test by administering

a structured self administered knowledge questionnaire to the 60 adolescents selected by random sampling technique. Those who fulfilled inclusion criteria like adolescents who are in the age group of 13-15 years and studying in English Medium School at Karad city who are willing to participate in the study were present at the time of data collection, were considered eligible for the study. On the same day role play was conducted for the sample. The post test was conducted by using the same structured knowledge questionnaire after 7<sup>th</sup> day of administration of role play. The data obtained were analyzed in terms of objectives of the study using descriptive and inferential statistics. Score of '1' was awarded to each correct response and a score of '0' was awarded to every incorrect response. There were the scores were arbitrarily classified as good (%), average (%) and poor (%). The knowledge of adolescents regarding substance abuse before and after role play was analyzed in terms of mean and standard deviation. The significance of the difference between pre test and post test knowledge score was determined by paired 't' test. The association between level of knowledge and demographic variables was determined by using 'ANOVA'.

**Results:****Table 1: Distribution of Frequency and Percentage of Adolescents according to Socio – demographic Variables (n = 60)**

Sr. No.	Characteristics	Category	Frequency (N)	Percentage
1	<b>Age (Years)</b>	13	15	25
		14	27	45
		15	18	30
2	<b>Gender</b>	Male	30	50
		Female	30	50
3	<b>Type of family</b>	Nuclear	17	28.33
		Joint	32	53.33
		Single parent family	8	13.33
		Broken family	3	5
4	<b>Place of residence</b>	Hostel	0	0
		Home	60	100
		Paying guest	0	0
		Relatives house	0	0
5	<b>Monthly Family Income Rs.</b>	≤ 1600	0	0
		1601 – 4809	4	6.67
		4810 – 8009	5	8.33
		8010 – 12019	2	3.33
		12020 – 16019	7	11.67
		16020 – 32049	22	36.67
		≥32050	20	33.33
6	<b>Education of Father</b>	Primary	0	0
		High school	5	8.33
		Higher secondary	6	10
		Graduate and above	49	81.67
		Illiterate	0	0
7	<b>Education of Mother</b>	Primary	0	0
		High school	6	10
		Higher secondary	13	21.67
		Graduate and above	40	66.67
		Illiterate	0	0

8	<b>Number of children in the family</b>	One	5	8.33
		Two	41	68.33
		Three	8	13.33
		Four and above	6	10
9	<b>Source of information on substance abuse</b>	Newspaper	31	51.67
		Television	26	43.33
		Radio	0	0
		Magazine	2	3.33
		Friends	0	0
		Health personnel	1	1.67

Maximum number of (45%) belonged to the age group of 14 years. The subjects consisted of equal number of male and female students. Majority (53.33%) were living in joint family. All the subjects were residing at their homes. The parents of maximum number of the respondents (36.67%) were in the income group of Rs.16020 - 32049.

A majority of their fathers (81.67%) and mothers (66.67%) were educated up to graduate level and above. With regard to number of children in the family, (68.33%) of families had two children.

Majority (51.67%) of them had newspaper as their source of information.

In the pre test majority of adolescents 31 (51.66%) had average, 15 (25%) had good and 14 (23.33%) had poor knowledge scores whereas in the post test 20 (33.33%) had good, 36 (60%) had average and 4 (6.66%) had poor knowledge scores about substance abuse before and after role play. Table 2 shows the summarized calculations.

It showed that the role play was effective in improving knowledge score of the adolescents regarding substance abuse.

**Table 2: Distribution of Frequency and Percentage of Knowledge Score of Adolescents Regarding Substance Abuse (n = 60)**

Sr No	Knowledge Score	Pre-Test		Post-Test	
		Frequency (F)	Percentage	Frequency (F)	Percentage
1.	Good (Mean + SD)	15	25	20	33.33
2.	Average (Mean + SD to Mean – SD)	31	51.66	36	60
3.	Poor (Mean – SD)	14	23.33	4	6.66

**Table 3: Mean, Standard Deviation And Paired t Value of Adolescents Regarding Total Score on Substance Abuse (n = 60)**

Parameters	Pre-Test	Post-Test	Difference	t value	p value
Mean	11.516	17.5	- 5.983	15.363	< 0.0001
Standard deviation	3.553	2.891	3.017		

**Table 4: Association between Pre-Test Knowledge on Substance Abuse with Selected Socio Demographic Variables**

Demographic variables	F Value	P Value
Type of family and knowledge related to general information on substance abuse	4.971	0.0040
Education of father and knowledge related to commonly abused substances	5.923	0.0046
Education of father and total knowledge score on substance abuse knowledge related to management and prevention of substance abuse	3.499	0.0369
Education of mother and knowledge related to commonly abused substances	5.746	0.0053
Education of mother and knowledge related to management and prevention of substance abuse	4.583	0.0143
Number of children in the family and knowledge related to general information on substance abuse	3.290	0.0271

Table 4 shows that there was association between type of family and general information on substance abuse ( $F = 4.971$ ), education of father with commonly abused substances ( $F = 5.923$ ) and the total score on substance abuse ( $F = 3.499$ ), education of mother with commonly abused substances ( $F = 5.746$ ) and prevention and management of substance abuse ( $F = 4.583$ ) and number of children in the family was associated with general information on substance abuse ( $F = 3.290$ ).

#### **Discussion:**

Substance abuse in childhood and especially in adolescence is far more common than has been imagined. With the increase of alcoholism and drug dependence world over, in man's quest to obtain oblivion, against the perils of a restless, anxiety provoking world, substance abuse has not been unknown during childhood and adolescence, and is likely to increase. Though a full-fledged dependence may not have had enough time to make its appearance, substance abuse is still an

alarming problem, particularly when it occurs so early in, life [6].

The present study shows that in pre test the knowledge of adolescents regarding substance abuse was inadequate. These findings are supported by a descriptive study conducted to assess the knowledge related to substance abuse among adolescents 16 to 19 years old in selected colleges of south Bangalore, Karnataka. Majority of the respondents have shown inadequate knowledge regarding substance abuse. Mean knowledge score on substance abuse has been found to be 41.28% for boys and 39.46% for girls [7].

In the current study there exists a significant difference between the knowledge scores of adolescents in the pre test and post test. Hence the role play was effective in improving the knowledge of the adolescents. Similar findings have been obtained by a study done on 70 adolescents to assess the effectiveness of video assisted teaching module on effects of substance abuse on health and its preventive measures among adolescents in Jhiri, Burhanpur, Madhya Pradesh. In pre test the mean score  $12.06 \pm 1.92$  which is 40% of the total score revealing that the adolescents have had very poor knowledge whereas in post test the mean score has been  $22.63 \pm 1.90$  which is 75% revealing 35% of

difference in mean score. (df =69, table value = 3.435,  $p < 0.001$  highly significant) [8].

Typically, the relationships in the school and the family are most influential for drug use and abuse. Parents and teachers need to be aware of the power they have to influence the development of the adolescent throughout the teenage years. Parents shall not be afraid to talk directly to their kids about drug use, even if they have had problems with drugs or alcohol themselves. Parents are encouraged to give clear, no-use messages about smoking, drugs, and alcohol. It is important for kids and teens to understand that the rules and expectations set by parents are based on parental love and concern for their well being.

### **Conclusion**

From this study it can be inferred that the role play is an effective method to improve the knowledge of adolescents regarding substance abuse. There should be such kind of educational activities for the students, teachers and parents to prevent adolescents from substance abuse. Typically, school and relationships, notably family relationships, are among the life areas that are most influenced by drug use and abuse.

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