

# Evaluating the effectiveness of nurse enabled IEC package (Information, education and communication) on ill effects of alcohol, cannabis and nicotine use in terms of knowledge among students in selected colleges, Trichy.

Mrs. X. Aron Christy\*, Dr.Sivaraman M.D\*\*

\*Professor, Mental Health Nursing, \*\* Professor cum HOD, Dept of Psychiatry

\* SRM Trichy College of Nursing, \*\* Trichy SRM Medical College Hospital & Research Centre

DOI: 10.63001/tbs.2025.v20.i02.pp207-212

## KEYWORDS

IEC package,  
Substance use disorder,  
Evaluate,  
college students

Received on:

07-04-2025

Accepted on:

09-05-2025

Published on:

15-06-2025

## ABSTRACT

**Background:** Substance use among adolescents is increasing at an astounding rate globally posing a major threat to the health system and the society. This problem can be tackled if the adolescents are equipped with knowledge and positive attitude towards substance use. **Materials and Methods:** A evaluative study was conducted at selected colleges Trichy. Data was collected using self-structured questionnaire consisting of socio-demographic information and to assess the knowledge regarding substance use disorder. Analysis of the data was done using inferential and statistical methods.

**RESULTS:** In post-test the majority had (78.6%) adequate knowledge. Table 3 shows that there was significant difference between pre-test and post-test knowledge (SD value 9.8) Table 4 shows that there is no significant association between the level of knowledge regarding the substance use disorder with their selected demographic variables.

**CONCLUSION:** In post-test majority of the students had adequate knowledge and the IEC package was effective in improving the knowledge among college students.

## INTRODUCTION

### BACKGROUND OF THE STUDY:

The World Health Organization (WHO) defines “substance use” as “The use of a substance for a purpose not consistent with legal or medical guidelines which causes sufferers to experience physical and psychological dependency.”<sup>1</sup> It is a major global concern today with nearly 284 million people aged 15 to 64 using illicit drugs annually.<sup>2</sup> In India, this problem is increasing at an alarming rate, with nearly 2.8% of Indians having used cannabis products in the past year.<sup>3</sup> The Ministry of Social Justice and Empowerment, in collaboration with NDDTC at AIIMS in New Delhi, reported that cannabis and opioids rank as the second most commonly abused substances in India, following alcohol.<sup>3</sup>

Studies have shown that the highest proportion of substance abuse is prevalent among youth who contribute to one-fifth of the population.<sup>3</sup> College life is a period of transition from the cocoon of parental vigilance and strictures of school life towards freedom. During this period, students may indulge in substance use, often to explore the boundaries and cope with new pressures of life. The stress resulting from societal changes, intense academic competition, increased financial burden on families, a decline in familial bonds, adolescent isolation, peer pressure, and curiosity collectively drive them to experiment with various drugs.<sup>4, 5</sup> Addiction gives rise to aggravation of violent crimes, reduced job productivity, and a surge in health care costs. College students who possess good knowledge and maintain a positive attitude toward substance use tend to have reduced tendency to engage in such behaviors, and they have higher levels of self-

confidence in resisting these substances.<sup>6, 7</sup>

### PROBLEM STATEMENT:

Evaluating the effectiveness of nurse enabled IEC package (Information, education and communication) on ill effects of alcohol, cannabis and nicotine use in terms of knowledge among students in SRM arts and science college & SRM TRP, Trichy.

### OBJECTIVES:

- To assess effectiveness of nurse enabled IEC package on knowledge regarding ill effects of substance abuse.
- To associate the knowledge level with their selected demographic variables.

### HYPOTHESIS:

1. H1 - There will be significant difference between the pre-test and post-test knowledge level.
2. H2 - There will be significant association between the knowledge level and their selected demographic variables.

### METHODOLOGY:

- Study design: Pre- experimental research with one group pre-test post-test design
- Study population: College Students at Trichy
- Study setting: selected Art and science & Engineering college
- Sample Size: 300
- Study Duration: 1 Month
- Inclusion criteria:
  - Students who are willing to participate in the study.
- Exclusion criteria
  - Students who are absent at the time of

survey.

- Students with who are sick.
- Medical and allied health science students

**DESCRIPTION OF THE TOOL:**

**Section A:** Socio-demographic variables.

**Section B:** Self structured questionnaire to assess the knowledge

**IEC Package:** Teaching was given on topics like different drugs abused, causes, signs and symptoms, complications, treatment and prevention.

**SCORING PROCEDURE:** Questionnaire containing 20 multiple choice questions was used. Each correct answer was given 1 and wrong answer was given 0.

	Inadequate	Moderately adequate	Inadequate
Knowledge	0-7	8 - 14	15 - 20

**DATA COLLECTION PROCEDURE:**

After obtaining consent from each participant, pretest was conducted. Same day teaching was given without disturbing their regular classes. After one week posttest was conducted.

Data was analyzed by using mean,  $\pm$ SD, paired t test and chi square test.

**TABLE - I: Frequency and percentage distribution of sample according to the demographic variables.**

**DATA ANALYSIS PROCEDURE:**

(N=300)			
S.NO	Demographic data	Number	Frequency
1	<b>Age group</b>		
	a) 18 yrs	82	27
	b) 19 yrs	77	25.6
	c) 20yrs	69	23
	d) >20yrs	72	24
2	<b>GENDER</b>		
	a) Male	168	56
	b) Female	132	44
3.	<b>RELIGION:</b>		
	a) Hindu	227	75.6
	b) Muslim	21	7
	c) Christian	52	17.3
	d) Others	-	-
4.	<b>Types of family</b>		
	a) Joint family	54	18
	b) Nuclear family	246	82
5.	<b>PLACE OF STAY</b>		
	a) Home	195	65
	b) Hostel	54	18
	c) Others	51	17
6.	<b>RESIDENCE</b>		
	a) Urban	78	26
	b) Semi urban	124	41
	c) Rural	98	33

7.	<b>Family Income</b>		
	a) 10,000 - 20000/ month	59	19.6
	b) 20,001- 30000 / month	78	26
	c) 30,001-40000 / month	92	30.6
	d) >40,000 / month	71	23.6
8	<b>Fathers Occupation</b>		
	a) Coolie	61	20
	b) Teaching professional	38	12.6
	c) Medical professional	23	7.6
	d) Driver	36	12
	e) IT professional	54	18
	f) Agriculture	68	22.6
	g) Others (Mention)	20	6.6
9	<b>Monthly Pocket Money</b>		
	a) < Rs. 2000	118	39.3
	b) Rs. 2001 - Rs. 5000	108	36
	c) > Rs. 5000	74	24.6
10	<b>Any Drug dependents in the family</b>		
	a) Yes	246	82
	b) No	54	18

Table 1 shows that Majority of the students 82 (27%) in the age group of 18 years. Most of the students were males 168 (56%) and mostly the students 227 (75.6%) belong to Hindu religion. Most of them 246 (82%) were from nuclear family and mostly the students 195 (65%) were staying at home. Most of the students 124 (41%) residing at semi urban area and most of the student's family

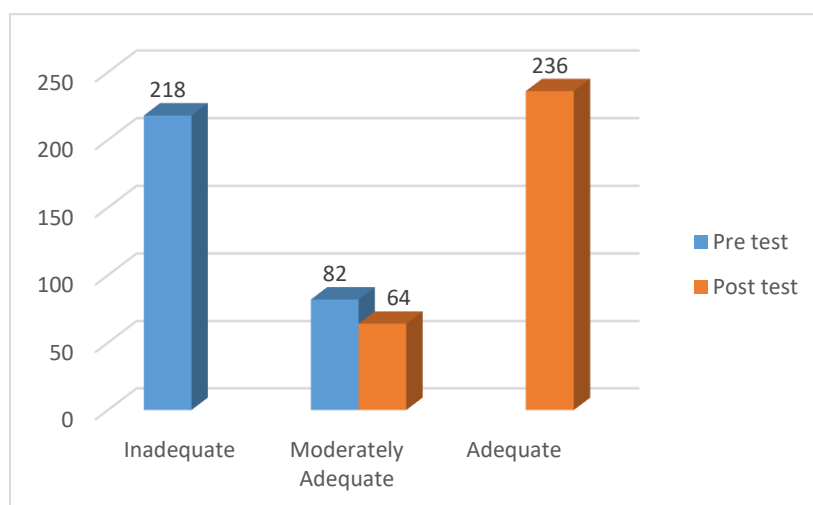
income 92 (30.6) was belong to Rs. 30,000- 40000 / month. Most of their father's occupation 68 (22.6%) was Agriculture, most of the students 108 (36%) are getting pocket money between Rs. 2000 - Rs. 5000. and most of the students 246 (82 %) had drug dependents in their family.

**Table II: Effectiveness of IEC package on knowledge**

Variable	Pretest		Posttest		't' value
	Mean	S.D	Mean	S.D	Paired 't' test
Knowledge score	8.2	2.8	18.5	1.32	9.8

Table 2 showed that the calculated value is greater than table value the research hypothesis  $H_1$  was accepted. Hence

the IEC package was effective in improving the knowledge.



**Figure1: Effectiveness of level of knowledge after administration of IEC Package**

Figure 1 showed that in pre-test the majority (72.6%) had inadequate knowledge. In post-test majority (78.6%) had adequate knowledge.

**Table III: Association between demographic variable and pre-test knowledge level (N=300)**

Table III. Association between demographic variable and pre-test knowledge level (N=300)									
S.NO	Demographic value	Level of Knowledge						Chi square test	P value
		Inadequate		Moderately adequate		Adequate			
		No	f%	No	f%	No	f%		
1	Age group							0.574958	1.987
	a) 18 yrs								
	b) 19 yrs	56		26					
	c) 20yrs	60		17					
	d) >20yrs	49		20					
		53		19					
2	GENDER							0.008522	6.920401
	a) Male								
	b) Female	112		56					
		106		26					
3.	RELIGION:							0.31443	2.313986
	a) Hindu								
	b) Muslim	175		52.					
	c) Christian	15		6					
		35		17					

4.	<b>Types of family</b>								
	a) Joint family	43		11				0.204849	1.60746
	b) Nuclear family	175		71					
5.	<b>PLACE OF STAY</b>								
	a) Home	152		43				0.013908	8.550642
	b) Hostel	32		22					
	c) Others	34		17					
6.	<b>RESIDENCE</b>								
	a) Urban	52		26				0.048198	6.064866
	b) Semi urban	86		38					
	c) Rural	80		18					
7.	<b>Family Income</b>								
	a) 10,000 - 20000/ month	47		12				0.00183899	14.97400685
	b) 20,001- 30000 / month	65		13				7	
	c) 30,001-40000 / month	54		38					
	d) >40,000 / month	52		19					
8.	<b>Fathers Occupation</b>								
	a) Coolie	48		13				0.071183	11.61291
	b) Teaching professional	31		7					
	c) Medical professional	15		8					
	d) Driver	19		17					
	e) IT professional	38		16					
	f) Agriculture	53		15					
	g) Others (Mention)	14		6					
9.	<b>Monthly Pocket Money</b>								
	a) < Rs. 2000	81		37				0.450525	1.594685412

	b) Rs. 2001 - Rs. 5000	81		27					
	c) > Rs. 5000	56		18					
10.	Any Drug dependents in the family								
	a) Yes	181		65				0.450058	0.570506488
	b) No	37		17					

Table 3 shows that there is no association between demographic variables and knowledge regarding substance use disorder among college students and the hypothesis 2 was rejected.

## DISCUSSION

The first objective of the study was to assess the existing level of knowledge on Substance use disorder among college students. The Investigators found out the level of knowledge in pretest most of them were inadequate and in posttest most of them were adequate. Before IEC package most of them had inadequate knowledge about Substance use disorder. After IEC package majority of them had adequate knowledge. Through these IEC package the students were able to understand and gained knowledge about Muscular Dystrophy. After IEC package, the under-five mothers' posttest assessment score was increased. This study results were supported by a study conducted by. (7)

The second objective was to assess the effectiveness of IEC package on Substance use disorder among college students. The investigators concluded that all students received IEC package which results posttest knowledge score was higher than the pretest knowledge score. The paired "t" - test value is 9.8 with degree of freedom 30. As there was significant difference on level of knowledge the first Hypothesis is ( $H_1$ ) was accepted. This study results were supported by a study conducted by Dr Lela Sturua, et.al. Results showed that an adequate education regarding substance use will improve the knowledge and attitude among students. (8)

The Third objective was to determine the association of pretest knowledge of Substance use disorder among college students with selected Demographic variables. The investigators concluded that there is no association of pretest level of knowledge on Substance use disorder with selected Demographic Variables Hence the second Hypothesis ( $H_2$ ) was rejected.

## CONCLUSION

In pre-test majority of the students had inadequate and moderately adequate knowledge regarding muscular dystrophy and in post-test majority of the students had adequate knowledge and the IEC package was effective in improving the knowledge among college students

## REFERENCES

- National Institutes of Health. Drug misuse and addiction. <https://nida.nih.gov/publications/drugs-brains-behavior-science-addiction/drug-misuse-addiction> (2020, accessed 25 November 2022)
- United Nations: Office on Drugs and Crime. UNODC World Drug Report 2022 highlights trends on cannabis post-legalization, environmental impacts of illicit drugs, and drug use among women and youth. <https://www.unodc.org/unodc/press/releases/2022/June/unodc-world-drug-report-2022-highlights-trends-on-cannabis-post-legalization--environmental-impacts-of-illicit-drugs--and-drug-use-among-women-and-youth.html> (accessed 25 November 2022).
- Amberkar A, Chaddha RK, Khandelwal SK, et al. Magnitude of substance use in India 2019: executive summary. [cited 2022 Nov 25]. <https://socialjustice.gov.in/writereaddata/UploadFile/Survey%20Report636935330086452652>.
- Arora M. Substance abuse: Impact on Adolescents in India. *Project Udaya: Population Council*.

<https://www.projectudaya.in/substance-abuse-impact-on-adolescents-in-india/>

(accessed 14 December 2022)

- Remesh Kumar R. Substance use: focus on adolescent health. *Indian Pediatr*, 2022; 59(2): 103-104
- Shalaby SF, and Soliman MA. Knowledge, attitude, and practice of medical students regarding smoking and substance abuse, Cairo University, Egypt. *J Egypt Public Health Assoc*, 2019; 94(1): 1
- Chueh KH, Ding GY, Yao KW, et al. Relationships among risk knowledge, attitudes and ability to resist substance abuse in adolescents. *Hu li za zhi*, 2013; 60(1): 60-68.
- Substance Use Primary Prevention Campaign Effectiveness Measurement Survey Report
- Psychoactive Substance Use Primary Prevention Campaign Project
- Molinaro S, Benedetti E, Cerrai S, et al. *ESPAD 2019 methodology: methodology of the 2019 European School Survey Project on Alcohol and other Drugs*. Publications Office of the European Union; 2021.
- Bashar MA. Modified BG prasad socioeconomic status scale: updated for the year 2022. *Indian Pediatr*, 2022; 59(10): 816-816.
- Hansadah T, and Sonalika S. Health awareness programme on knowledge regarding substance abuse and its consequences among adolescents. *Int J Nurs Med Invest*, 2018; 3(4): 116-118.