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Assess the Levels of Dependence And Severity of Psychiatric Illness Among Adolescent Boys Addicted to Marijuna

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Abstract

Marijuana refers to the dry leaves, flowers, stems, and seeds from cannabis sativa or cannabis India plant; it is a psychoactive sedative drug. Adolescent age group is more likely to use cannabis in the form of Marijuana and experience many psychiatric illness problems from use. A recent survey from partnership at drug free shows that about 10% of teens smoke cannabis at least 20 times each month. The main objective of the study is to assess the dependency and associated psychiatric illness among adolescent people at selected area. The sampling sizes of 100 were recruited in purposive sampling technique; descriptive study was used along with structured MEEQ questionnaires. In study results shows that level of dependency were 46% adolescents are short term dependent to marijuana, 36% are moderate level of dependent to marijuana, and 23% adolescents are long term dependent to marijuana. There is a significant association between the level of dependency state of marijuana and the psychiatric illness such as visual hallucination, auditory hallucination, improved memory and learning ability at ($p<0.05$) .

Keywords: *Marijuana; dependency; adolescents; psychiatric illness*

INTRODUCTION

Marijuana refers to the dried leaves, flowers, stems and seeds from cannabis sativa or cannabis India plant, it is a psychoactive sedative drug [1]. Adolescent age group is more likely to use cannabis and experience many psychiatric illness problems from use [2]. Cannabinoids are active chemicals in cannabis that cause drug like effects throughout the body, including the central nervous system and the immune system [3]. Concerns including memory and cognition problems, risk of addiction, schizophrenia in young people, and the risk of children taking it by accidents [4]. A recent survey from partnership at drug free shows that about 10 percent of teens smoke cannabis at least 20 times each month. The percent of teens who reported using cannabis within the past month rose from 19 to 27 percent between 2008 and 2015 [5]. Medical cannabis (or medical marijuana) refers to the use of cannabis and its constituent cannabinoids, to treat disease or improve symptoms. Short-term use increases both minor and major adverse effects. Common side effects include dizziness, feeling tired, vomiting, and hallucinations [6]. Long-term effects of cannabis are not clear. Concerns including memory and cognition problems, risk of addiction, schizophrenia in young people, and the risk of children taking it by accidents. Cannabinoids are under preliminary research for their potential to affect stroke or children's epilepsy [7]. Normal cognition is restored after approximately three hours for larger doses via a smoking pipe, bong or vaporizer. However, if a large amount is taken orally the effects may last much longer. After 24 hours to a few days, minuscule psychoactive effects may be felt,

depending on dosage, frequency and tolerance to the drug [8].

NEED FOR STUDY

An Australian study out of the Centre for Adolescent Health, Murdoch Children's Research Institute found that teens who smoked pot weekly were twice as likely to develop depression later in life [9]. A 2017 study in The American Journal of Psychiatry found that nearly half of 6,788 patients who experienced marijuana-induced psychosis went on to develop schizophrenia or bipolar disorder [10]. Nowadays, cannabis are widely used by young people and, as a consequence, many questions have raised about the effects of cannabis use in the etiology and course of psychiatric disorders such as psychosis or mood disorders (Medline en Psych INFO, 1985-2003) with respect to the effects of cannabis use and its impact on psychotic and mood disorders [11]. A 2017 study in the journal Schizophrenia Bulletin found that teens who use weed several times a week are more likely to develop a mild form of mania [12]. The researchers reported that early marijuana use may lead to bipolar disorder later in life [13]. Those who started smoking Marijuana as adults did not show a notable IQ decline [14]. In spite of the changes occurring in mental health services, the treatment proposals for patients with comorbid psychiatric disorders remain inconsistent and are frequently incompatible with some psychopharmacological interventions [15]. Thus the investigator was interested to conduct the study on assessment of the level of dependency state and associated psychiatric illness with marijuana among adolescent boys [16-18].

OBJECTIVES

1. To assess the demographic variables of adolescent boys who are addicted to Marijuna
2. To assess the level of dependency and severity of psychiatric illness among adolescent boys addicted to Marijuna.
3. To correlate the level of dependency with severity of psychiatric illness among adolescent boys addicted to marijuana.
4. To associate the level of dependency with their demographic variables among adolescent boys addicted to marijuana.

METHODOLOGY

The descriptive cross sectional study was chosen to assess the level of dependency and severity of psychiatric illness adolescent boys addicted to Marijuna. The study was conducted in Thandalam, Chennai. The target population of the study comprises of adolescent boys residing in 10 private Hostels. There are 584 boys residing in the hostel. In the total adolescent boys, 116 boys are accessible to the study. The sample size is about 60. The Purposive Sampling technique was used to select the samples and who met the inclusion criteria (Adolescent willing to participate in the study and use marijuana in their life; Adolescent who understand English and Tamil, Adolescent available at the time of data collection; Adolescents who has an experience and knowledge about marijuana) were selected for the study. The data collection instruments were developed through an extensive review of literature of tool in consultation with the opinion of the experts and with the opinion of the faculty members [19-23]. The data were collected by using questionnaires on the demographic variables, standard MEEQ Questionnaires to assess the expectancy effect and the level of dependency among adolescents. The study period point was about one week from 08.07.2018 to 11.07.2018. The collected data were analyzed by using descriptive and inferential statistics. The association between the demographic variable and level of dependency state to Marijuana among Adolescents were analyzed using Chi-Square (x^2) tests. All statistical tests with P-value less than 0.05 were considered as significant [24].

SCORING INTERPRETATION STRUCTURED SCALE:

- 18-24 - High level of dependency
- 8-17-Moderate level of dependency
- 1-7 - Low level of dependency

DATA COLLECTION PROCEDURE

The main study was conducted after getting approval from the Institutional Review Board of Saveetha Medical College and Hospital. Permission was obtained to conduct the study from the residential homes, Thandalam, Chennai from 08.07.18 to 11.07.18. Informed consent and assent forms were translated into Tamil. Written informed consent was obtained from the participants for their willingness to participate in the study. Ethical principles were followed and adhered to protect the rights of the participants. Confidentiality of the data was ensured throughout the study. Data was collected using structured multiple choice questionnaire and scale. The Respondent was made comfortable and data were collected using multiple choice questionnaires and scale. The Investigator was able to complete data collection within the stipulated period of seven days.

RESULTS AND DISCUSSION

The demographic variables shows that 8 % of adolescents belong to 12-14years, and 46% of adolescents belong to 17-19 years of age; 32% of boys are educated up to primary school, 29% of boys are educated up to secondary school, 45% are degree holders, 24% of adolescents are single child, 49% boys are born with siblings, 3% of boys are orphan, 24% boys belong to disputed family; 10% are under below poverty line, 47% boys belong to middle class family, 31% of boys belong to high class family; 22% of boys has family income ranging from 6000-8000, 24% of boys has family income ranging from 9000-15000, 33% boys has family income of above 21000.

Table 1 shows that 46% adolescents are short term dependent to marijuana, 36% are moderate level of dependent to marijuana, and 23% adolescents are long term dependent to marijuana, among those short term users, 8% of boys are 12-14 years of age, 12% of boys are 15-17 years of age, 10 % of boys are 18-21 years of age, 16% of boys belong to above the age of 21; among the moderate users of marijuana 9% of boys are 15-17 years of age, 14% of boys belong to the age of 18-21 years among 23% of long term users, 4% of boys are 12-14 years of age, 2% of boys are 15-17 years of age, 12% of boys belong to above the age of 21, 14% of boys are educated at primary level, 29% of boys are educated up to secondary level, 45% of boys are graduated, 12% of boys are uneducated, 18% of boys are single child, 55% of boys are born with siblings, 18% boys are orphans, 17% of boys families are disputed. 10% of boys are below the poverty line, 12% of boys are low class family, 47% of boys are middle class family, 31% of boys are high class family; 21% boys family has monthly income of 5000, 22% of the boy's family has monthly income of 6000-8000, 24% of boys family has 9000-15000, 33% of boy's family has >21000 of family income per month.

Figure 1 shows that among 12-14 year age group, 8% of boys are under short term usage of marijuana, 6% of boys are under moderate usage, 4% of boys are under long term usage; among 15-17 year age group, 12% of boys are under short term usage, 9% of boys are moderate users, 2% of boys are long term users; among 18-21 year age group, 10% of boys are short term users, 14% of boys are moderate users, 5% of boys are long term users, among above the age of 21 group, 16% of boys are short term users, 2% of boys are moderate users, 12% of boys are long term users.

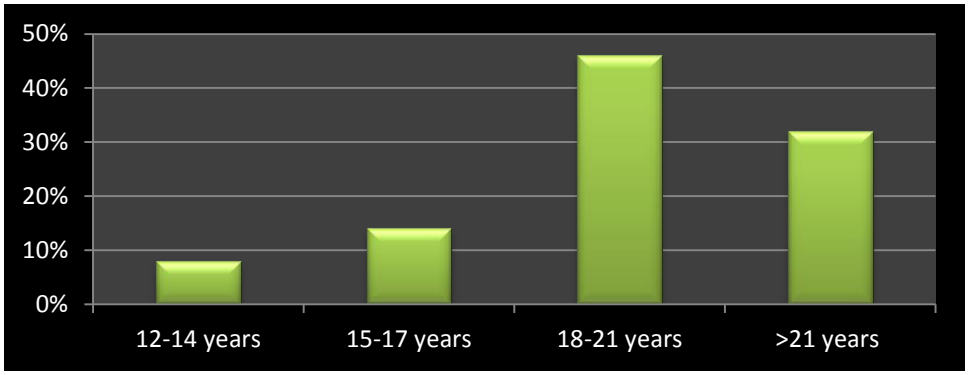

Figure 1: *Percentage Distribution Of Age Group of Adolescent Boys (n=100)*

Table1: *Frequency And Percentage Distribution Of Level Of Dependency To Marijuana Among Adolscent Boys (n=100)*

Demographic variables	No. of samples	Short term usage		Moderate usage		Long term usage	
1) Age							
a) 12-14 yrs	18	8	8%	6	6%	4	4%
b) 15-17 yrs	23	12	12%	9	9%	2	2%
c) 18-21	29	10	10%	14	14%	5	5%
d) >21	30	16	16%	2	2%	12	12%
2) Education							
a) Primary	14	9	9%	3	3%	2	2%
b) Secondary	29	14	14%	5	5%	10	10%
c) Degree holder	45	6	6%	23	23%	16	16%
d) Uneducated	12	3	3%	4	4%	5	5%
3) Family status							
a) Single child	24	9	9%	9	9%	2	2%
b) With siblings	49	24	24%	19	19%	10	10%
c) Orphan	03	1	1%	1	1%	1	1%
d) Disputed family	24	3	3%	9	9%	5	5%
4) Socioeconomic							
a) Below poverty line	10	5	5%	3	3%	6	6%
b) Low class	12	3	3%	7	7%	6	6%
c) Middle class	47	9	9%	24	24%	1	1%
d) High class	31	4	4%	8	8%	12	12%
5) Monthly income							
a) 5000	21	3	3%	12	12%	2	2%
b) 6000-8000	22	2	2%	13	13%	2	2%
c) 9000-15000	24	3	3%	9	9%	14	14%
d) >21000	33	7	7%	18	18%	19	19%

In this table, there is a significant association between the demographic variables such as education, family status and there is a significant association between the demographic variables such as age, socioeconomic status, and the monthly income. Table 2 shows that out of 100 samples, 35% of boys say that constipation is the complication of addictive marijuana; 39% of boys say that they see unreal images as complications related to ecstasy state; 28% of boys complain, sleep disorder a short term complication on using marijuana; 42% of boys say that there is improvement in memory and learning ability as long term complications of marijuana abuse. Figure 2 shows that among 100 samples, 35% of boys say that constipation is the complication of addictive marijuana, in which 14% of boys says that it is short term complication, 12% of boys says that it is due to moderate usage, 9% of boys says that it is long term complication; 39% of boys say that they see unreal images as complication related to ecstasy state, in that 9% of boys says that it is short term complications, 13% of boys says that it is

moderate complication, 17% of boys says that it is long term complication; 28% of boys complain sleep disorder as short term complication on using marijuana; 42% of boys say that there is improvement in memory and learning ability as long term complications of marijuana abuse.Table 3 shows that there is a significant association between the level of dependency state for marijuana and the psychiatric illness such as visual hallucination, auditory hallucination, improved memory and learning ability at p>0.05 level. It was suppoted by the Journal of Clinical Psychiatry(2015) found that long-term use of marijuana by war veterans with PTSD was associated with an increase in PTSD symptoms, violent behavior and alcohol use.

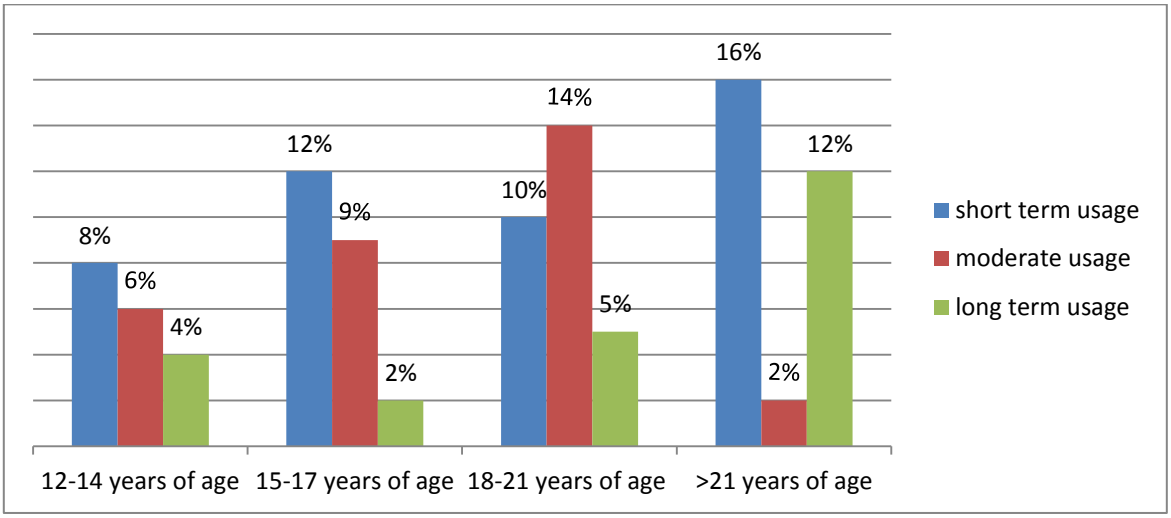

Figure 2: *Frequency And Percentage Of Level Of Dependency Of Adolescents Boys To Their Age Group (n=100)*

Table 2: *Association Between The Demographic Variables And The Level Of Dependency State(n=100)*

Demographic variables	Short term usage		Moderate usage		Long term usage		Chi square
Age							
a) 12-14 yrs	8	8%	6	6%	4	4%	X^2 =4.075
b) 15-17 yrs	12	12%	9	9%	2	2%	df= 6
c) 18-21	10	10%	14	14%	5	5%	P= 12.59
d) >21	16	16%	2	2%	12	12%	*S
Education							
a) Primary	9	9%	3	3%	2	2%	X^2 = 13. 314
b) Secondary	14	14%	5	5%	10	10%	df=6
c) Degree holder	6	6%	23	23%	16	16%	P= 12.59
d) Uneducated	3	3%	4	4%	5	5%	NS
Family status							
a) Single child	9	9%	9	9%	2	2%	X^2 = 13.406
b) With siblings	24	24%	19	19%	10	10%	df= 6
c) Orphan	1	1%	1	1%	16	16%	P= 12.59
d) Disputed family	3	3%	9	9%	5	5%	NS
Socioeconomic							
a) Below poverty line	5	5%	3	3%	6	6%	X^2 =4.096
b) Low class	3	3%	7	7%	6	6%	df=6
c) Middle class	9	9%	24	24%	1	1%	P=12.59
d) High class	4	4%	8	8%	12	12%	*S
Monthly income							
a) 5000	3	3%	12	12%	2	2%	X^2 = 6.557
b) 6000-8000	2	2%	13	13%	2	2%	df=6
c) 9000-15000	3	3%	9	9%	14	14%	P=12.59
d) >21000	7	7%	18	18%	19	19%	*S

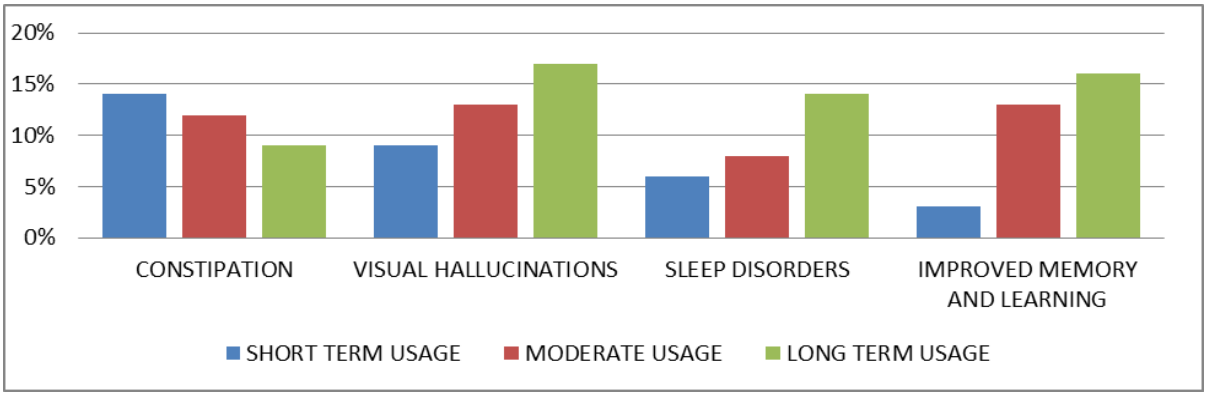

Figure 3: *Frequency And Percentage Distribution Of Associated Psychiatric Illness Among Marijuana Using Adolescents (n=100)*

Table 3: *Association Between The Level Of Dependency Towards Psychiatric Illnesses Among Marijuana Using Adolescents* ***(n=100)***

PART C	SHORT TIME USAGE	MODERATE USAGE	LONG TERM USAGE	TOTAL	CHI SQUARE
1) Complications of addictive state					
a) Dry mouth	3	7	13	23	X^2=4.779
b) Constipation	14	14	9	35	df=6
c) Seeing unreal images	5	9	2	16	Significant
d) Hearing unreal sounds	9	3	14	26	P=12.59
TOTAL	**31**	**31**	**38**	**100**	
2) A Complication related to ecstasy					
a) Brain damage	4	11	2	17	X^2=3.310
b) Unreal images	9	13	17	39	df=6
c) Unreal sounds	15	9	9	33	P =12.59
d) Renal damage	2	6	3	11	Significant
TOTAL	**30**	**39**	**31**	**100**	
3) Short term complications					
a) Aggressiveness	**13**	**9**	**4**	**26**	X^2=15·
b) Sleep disorders	**6**	**8**	**14**	**28**	df=6
c) Raised self confidence	**9**	**7**	**5**	**21**	p=12.59
d) Personality disorder	**8**	**14**	**3**	**25**	Significant
TOTAL	**36**	**38**	**26**	**100**	
4) Long term complications					
a) Anxiety and depression	**9**	**3**	**2**	**14**	X^2=5.24
b) Memory and learning ability	**3**	**23**	**16**	**42**	df=6
c) Dependence on drugs	**7**	**11**	**12**	**31**	p=12.59
d) Others	**2**	**10**	**1**	**13**	Significant
TOTAL	**21**	**47**	**32**	**100**	

CONCLUSION

Adolescents who experience an early puberty, engaging in risk behaviors, who have special vulnerabilities, (e.g.: chronic conditions,) and who are in conflict with the family, school, friends, police or the community are the person for confidential substance use which can be obtained by

detailed history [24]. To have an impact on individual patients, the nurses or other physician may benefit by partnering with school counselors, community agencies and community workers who are familiar with the substance use [25]. As a part of nursing in our community, we can promote awareness on the issues and help to focus the debate on the risk that possess it in early adolescents and the question of what to do on preventing it among adolescent age groups. It would seem that during the past several decades the emphasis on tobacco or alcohol use has enabled the emergence of marijuana as a safe, socially accepted substitute [26]. The available evidence does not support such a conclusion. Marijuana is not a safe product [27]. Early adolescents are not protected from its negative outcomes. We cannot afford to continue to ignore the important shifts in marijuana use among the adolescent age group [28-30].

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CONFLICT OF INTEREST
The authors declare no conflict of interest.

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