Original Research Paper

Role of Profession in Psycho-Physical Health and Personality of Substance Dependent and Non-dependent Person

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ABSTRACT

Background: Addictive behavior could be defined as any activity, substances, object or behavior that has become the major focus of a person's life to the exclusion of other activities or that has begun to harm individually, physically, mentally or socially. These behaviors increase the risks of diseases associated with personal and social problems. They are often experienced subjectively as loss of control, meaning the behavior continues to occur despite volitional attempts to abstain it. *Material and Methods:* In the present study 560 representative samples out of which 280 were substance-dependent & 280 Non-dependent drawn from the general population, drug addiction institute & rehabilitation centre selected from Chhattisgarh. The study was concentrated on male substance dependent & non-dependent between, the age group ranged between 18-50 years and involved in different type of profession, individuals having history of any neurological disorder, mental disorder, physical disorder and psychological before starting the drug were excluded from the study. Conclusion: Family history of addiction plays a significant role for substance intake. Alcohol intake was more among police and Businessman whereas cannabis intake was more among Teachers and Doctors. Addiction affects psycho-physical health.

Keywords: *Alcohol, Cannabis dependent person, CAZE, DAST, CMI, SDPI*

Today's people are running after money for the gratification of his desires. But means are limited and desires are unlimited, therefore, tension is developing in each and every people sphere of life. In order to avoid the stressful burden of life situations people are indulging in a number of drug abuses. Substance use is common and popular in today's world; thinking is that is the sign of modernization. According to WHO (1994) literature is replete with information on issues, such as malfunctioning of an individual, affecting work performance, increasing absenteeism, and disrupted relationship and adjustment problems. A profession is a group of people in a learned occupation, the members of which agree to abide by specified rules of conduct when practicing the profession. There are many professions and they are controlled to varying degrees by professional, regulatory or governmental bodies. Typical

professions are medicine, dentistry, law, engineering, architecture, social work, nursing, accountancy. A profession is a disciplined group of individuals who adhere to ethical standards and uphold themselves to, and are accepted by, the public as possessing special knowledge and skills in a widely recognized body of learning derived from research, education and training at a high level, and who are prepared to exercise this knowledge and these skills in the interest of others. It is inherent in the definition of a profession that a code of ethics governs the activities of each profession. Such codes require behavior and practice beyond the personal moral obligations of an individual. They define and demand high standards of behavior in respect to the services provided to the public and in dealing with professional colleagues. Further, these codes are enforced by the profession and are acknowledged and accepted by the community.

Boone (2001) states: Professions are based on scientific and philosophical facts acquired through scholarly endeavor. Individuals who enter a profession do so for reasons that distinguish them from other work or vocations. They understand that their work renders a unique public service with a scientific or philosophical basis and/or body of knowledge that requires an extended period of academic and hands-on preparation. Professions are also based on specialized skills necessary for the professional to perform the public service.

Non- profession
1. not of, relating to, suitable for, or engaged in a profession
2. not undertaken or performed for gain or by people who are paid

Alcohol addiction has negative impacts on the health and safety of the individual and in return can result in dire consequences at work. Performance at work suffers as a result of an individual being impaired at work and this can put the individual as well as other workers at risk of being injured in some situations. Alcohol does not just cause problems if the individual drinks while at work, drinking alcohol can also result in loss of productivity and increased sick days or late arrivals to work. The negative impact that alcohol has on an individual's health has a direct correlation to work performance. An injury at work to alcohol consumption is mixed but there is proof that certain work accidents have been related to the consumption of alcohol. Especially for those who work in transportation related fields or a field in which the worker must drive from point to point to provide a service work related injuries as a result of alcohol consumption are high. Additionally, such injuries also result in increased insurance costs to the employer and additional loss of product.

Marijuana is a very common drug, readily available in most places, and widely used by all kinds of people of all ages. It is also the most frequently used illegal drug in the workplace. Three out of 10 workers who test positive for drugs at work test positive for marijuana. People use marijuana to relax and, in some states, as a legal pain reliever for certain medical conditions, such as cancer. There is much debate about whether marijuana is harmful and whether it should be legalized. But when it comes to the workplace, there is no question that

marijuana use is a serious problem. This is because marijuana users become so relaxed that their reflexes and judgment become impaired. Marijuana reduces coordination, affects concentration, and makes users forgetful. Marijuana use also affects perception of time and space. These effects can lower productivity, cause people to make mistakes, lead to poor decision making, and make it unsafe to operate machinery and other hazardous equipment or to drive a vehicle. The effects of marijuana can last for hours. So an employee who smokes on the way to work or during a lunch break could be impaired for at least a portion of the workday. On the job, the negative fallout of substance abuse includes a steady deterioration in work performance, unreliability, and recklessness that can jeopardize the safety of co-workers, the integrity of company products and services, and the company's reputation. Substance abuse in the workplace is a real and dangerous problem. Performance of complex tasks such as driving motor vehicles is impaired after smoking even small amounts of cannabis. Higher doses result in poor performance of simple manual tasks. The degree of impairment depends on the amount of cannabis consumed.

Drugs are considered to be any substance that alters or interferes with an individual's health, personal life, or work (Coshan, 1992). Employee drug and alcohol abuse is a problem for many, if not all, businesses. No one is immune to it; people of all ages, incomes, and professions consume drugs and alcohol, and contrary to popular belief, approximately 70%-75% of all substance abusers are employed (Substance Abuse and Mental Health Services Administration, 1996). Much discussion has occurred about the nation's drug problem in organizations. Some research has reported that substance abuse in the workforce has a negative impact on society, suggesting that there is a link between substance abuse and dangerous, dysfunctional behaviors (e.g., workplace accidents and injuries; Bass et al., 1996; Hoffman & Larison, 1999). Other researchers found no such relationship (Buchanan, 1988; Macdonald, 1995). Despite the conflicting research, one thing is clear-substance abuse is a societal problem and a legitimate workplace issue.

Numbers of researchers has been found that in Chandigarh alcohol is cheap and easily available and highly used by Truck-Drivers and in farming sector high use of drugs. Very close relation between different occupation sectors associated with different drugs.

In workplace today require alertness, and accurate and quick reflexes. An impairment these qualities can cause serious accidents, and interfere with the accuracy and efficiency of work. It cause by substance abuse. The effects of substance use affecting job performance absenteeism, illness and reduced productivity. Preoccupation with obtaining and using substance is while at work, interfering with attention and concentration. Illegal activities at work including selling illicit drugs to other employees, psychological or stress-related effects due to substance abuse by a family member, friend or co-worker that affects another person's job performance.

Maximum numbers of drug abusers were skilled, laborers, rickshaw pullers, government & sector servants, business, student, farming and unemployed. Occupation is statistically significant variable of drug abusers, (Rajput, 2006). Talbott & Teague (1969) described 12 soldiers in Vietnam who, after their first admitted use of cannabis, showed dis-orientation, impaired memory, and confusion, reduced attention span and disordered thinking with labile effect and hallucinations. From Calcutta, Chopra & Smith (1974) retrospectively identified 200 workers who showed psychiatric symptom after taking cannabis. Substance abuse problems may affect the workplace, possible costs to a business.

The effects of various types of substances, as studied by Blume (1998)

Category	Examples	Examples of general effects
Alcohol	Beer, wine, spirits	Impaired judgment, slowed reflexes, impaired motor function, sleepiness or drowsiness, coma, overdose may be fatal;
Cannabis	Marijuana, hashish	Distorted sense of time, impaired memory, impaired coordination

Most of the patients coming to NDDTC are from Delhi. Majority of the drug abusers were drivers who are most of the times away from home and the laborers. Studies show that musculoskeletal problems, diseases of the respiratory system and eye, accidents, injuries, skin diseases, stress, insomnia, etc. are all common among the workers. The ill health is compounded by various socioeconomic factors such as poverty, poor diet and addiction of substance.

Many studies were carried out to find whether there is any relation between personality and performance in terms of accident rates. Accident proneness starts from birth or at a young age. Accident-prone aircrew shares certain personality traits, which make them vulnerable to accidents. They fail at stress coping, may internalize their feelings and become self destructive or externalize their feelings and blame others. These traits may cause personality conflicts. If a pilot is highly accident prone, he or she may commit errors either by an act of commission or omission. The five hazardous thought patterns namely Anti-authority, Impulsivity, Invulnerability, Macho attitudes and Resignation which increases the accident risk have been identified to have correlation with certain personality dimensions.

Need For Study
Studies reveal that bring a great social significance in bringing a social, personality, health of psychological & physical problems, occupation change by way of raising their present condition of life. But due to addiction, people using alcohol or cannabis is more likely to develop depression and anxiety in later life. Council of Alcohol & Drug Abuse (2010), reported that long term use of alcohol can week a person's health there by damaging eye & skin, Heart disease & stroke, Patkar et al. (2005) findings reveal that Marijuana is associated with increased that alcohol use have an adverse effect on Physical health increasing the risk of developing cardiovascular disease, liver disease and cancer and damaging the central

nervous system. The present study will be suggests for a management of great human health significance in the building of nation and consequently has a great relevance in the present age of health & personality construction and national awaking.

Statements of the Problems

The problem under study is as follows: Role of Profession in Psycho-Physical health and Personality in Substance dependent and Non- dependent person

Objectives and Hypotheses of the Study

Objective 1: To identify the percentage of substance intake i.e. (Alcohol & Cannabis) taken by various age groups.

Objective 2: To identify the starting age of substance intake i.e. (Alcohol & Cannabis) by the substance dependents.

Objective 3: To see differences in the family history of Alcohol-dependent, Cannabis - dependent & Non-dependent persons.

Hypothesis 3: Substance dependent persons i.e. (Alcohol & Cannabis) & Non-dependent person would differ on family history of Addiction.

Professionals

Objective 4: To see whether professionals i.e. Police man, Doctors, Teachers & Businessmen differ in type of substance intake (Alcohol & Cannabis).

Hypothesis 4: Professionals i.e. Doctors, Police, Teachers & Businessmen would differ in type of substance (Alcohol & Cannabis) intake.

Non- Professionals

Objective 5: To see whether Non-Professional i.e. Peon, labor, farmer and vegetable-seller differ in type of substance intake (Alcohol & Cannabis).

Hypothesis 5: Non-professionals i.e. Peon, labor, farmer, vegetable-seller would differ in type of substance intake (Alcohol & Cannabis).

Students

Objective 6: To see the type of substance intake i.e. (Alcohol &Cannabis) taken by the students.

Hypothesis 6: Students would differ in type of substance intake i.e (Alcohol & Cannabis).

Personality Dimensions

Objective 7: To identify whether substance dependent differ from Non-dependent on personality dimensions i.e. Decisiveness, Responsibility, Emotional stability, Masculinity, friendliness, heterosexuality, ego-strength, curiosity, Dominance & self - concept.

Hypothesis: 7.1: Substance dependent person would differ from Non-dependent on personality dimensions i.e. Decisiveness, Responsibility, Emotional stability,

Masculinity, friendliness, heterosexuality, ego-strength, curiosity, Dominance & self -concept.

Objective 8 To investigate whether substance dependent differ from Non-dependent on Psychological health areas are i.e. inadequacy, Depression, Anxiety, Sensitivity, Anger, Tension & Physical health areas i.e. Eye & Ears, Respiratory system, Cardiovascular, Digestive, Muscular Skeletal, skin, Nervous system, Genito-urinary, Fatigability, Frequency of illness, Miscellaneous disease, Habits.

Hypothesis: 8.1 Substance dependent persons would differ from Non-dependent on Psychological health areas i.e. inadequacy, Depression, Anxiety, Sensitivity, Anger & Tension.

Hypothesis: 8. 2 Substance dependent persons would differ from Non-dependent on Physical health areas i.e. Eye & Ears, Respiratory system, Cardiovascular, Digestive, Muscular Skeletal, skin, Nervous system, Genito-urinary, Fatigability, Frequency of illness, Miscellaneous disease, Habits.

METHODOLOGY

The sampling techniques

The sampling technique possesses two-fold questions. It presents the nature and kind of the universe or the population from which the sample has been drawn. The properties of the universe have to be reflected in the sample. It is, therefore, in the fitness or things to describe the size and technique of selecting the sample and to ensure its representativeness.

The universe

The present study conceptualizes to 'Psychological Correlates of Substance dependent and Non-dependent Persons'. The whole group from which the sample is to be selected is technically called populations. In the context of the present study the universe constitute the CIIMHANS & PGIBMS hospital, Alcohol dependents & Cannabis dependents person from were taken from these de-addiction hospitals. For non-dependent persons collected the data were collected from general populations from Raipur, Chhattisgarh.

Data- producing distribution of sample of Substance dependent and Non –dependent persons.

Total number of Sample	Substance Dependent 280		Non-dependent N = 280
N =560	Alcohol	Cannabis	
	N=150	N=130	

Screening Procedure for Substance dependency and Non-dependency

Substance Dependence: In order to identify alcohol & cannabis dependency CAGE & DAST screening test was applied. In order to see the whether they are fulfilling ICD-10 criteria or not. After that Socio-demographic, Personality Inventory & Cornell- Medical Index health questionnaire was administered.

Non-Dependence: CAGE & DAST screening test was administered. In order to identify Non-dependence, those who scored below 2 in CAGE & below % in DAST, they were considering as Non-dependent.

Sample

In the present study 560 representative samples out of which 280 were substance-dependent & 280 Non-dependent drawn from the general population, drug addiction institute & rehabilitation centre selected from Chhattisgarh. The study was concentrated on male substance dependent & non-dependent between, the age group ranged between 18-50 years and involved in different type of profession, individuals having history of any neurological disorder, mental disorder, physical disorder and psychological before starting the drug were excluded from the study.

Instrument used

A large variety of standardized scientific instruments have been developed to aid in acquisition of data. There are many instruments and they employ distinctive way of describing and quantifying the data. Each tool is particularly appropriate for certain sources of data yielding information of the effectively used. To carry out the research investigation,

Tools

The aim was to identify psychological problem, physical problems & personality of substance dependent & non-dependent for which appropriate scale have been applied.

1. **Socio-demographic sheet**

This Performa was used to see the socio-demographic and clinical details as age, sex, marital status, education, profession and treatment etc.

2. **ICD-10**

In the early 1960's, the mental health programmed of the world health organization (WHO) became actively analyzed in a programmed aiming to improve the diagnosis and classification of mental disorders. World Health Organization, 1211 Geneva 27, Switzerland ICD-10 was Published the international classification of disease. ICD- 10 is much larger than ICD -9. Numeric codes (001-999) were used in ICD-9, whereas an alphanumeric coding scheme, based on codes with a single letter followed by two members at the three- characters level (A00-Z99), has been adopted in ICD-10. This has significantly analyzed the number of categories available for the classification.

3. **Criteria of drug dependence**

A cluster of physiological, behavioral and cognitive phenomena in which the use of a substance on much higher priority for a given individuals, than other behaviors.

4. **Diagnostic Guidelines**

A definite diagnosis of dependence should usually be made only if three or more of the following have been present together at some time during the previous year.

1. A strong desire or sense of compulsion to take the substance

2. Difficulties in controlling substance-taking behavior in terms of its onset, termination or levels of use
3. A physiological withdrawal state
4. Evidence of tolerance
5. Progressive neglect of alternative pleasures
6. Persisting with substance use despite clear evidence of overtly harmful cense consequences, such as harm to the liver through excessive drinking.

7. The Drug abuse screening test: Skinner (1982)

DAST was designed to provide a brief instrument of clinical and treatment evaluation research. There are 28 self –report items top various consequences that are combined in a total DAST score to yield a quantitative index of problems related to drug misuse. The internal consistency reliability estimate was substantial at .92, and a factor analysis of item inter correlations suggested an un-dimensional scale. With respect to response style base, the DAST was only moderately correlated with background variables, frequency of drug use during the past 12 months and indices of psychopathology.

8. CAGE: Ewing, john (1984)

The CAGE is a four-item screening questionnaire designed to identify and assess potential alcohol abuse and dependence, it is not a diagnostic instrument. Each letter reflects the core concept of each of the items.

The CAGE consists of the following four items
1. Have you ever felt you ought to cut down on your drinking?
2. Have people annoyed you by consisting your drinking?
3. Have you ever felt bad or guilty about your drinking?
4. Have you ever had a drink first thin g in the morning to steady your nerves or get rid of a hangover?

Administration and Scoring

Administration takes less than one minute. It is scored by adding the number of yes answers. A score of 2 or more should be taken as an indication that the individual may be drinking at harmful or hazardous levels and that further assessment or referral is warranted.

9. Hindi adaptation of CMI: Cornell Medical index health questionnaire. (To see the Psycho-Physical health) N.N.Wig & S.k.vrema, Dwarka Prasad : (1971)

The Cornell Medical index known as C.M.I is a four –page sheet. The term 'Health questionnaire' explains the nature and purpose of the form to the persons. It contains 195 questions in informal language. So worded as to be the understood by persons with a reading knowledge. After each question a 'yes' and a 'NO' appear the person answers the question by circling one. In every instance a 'yes' answer indicates that the person claims to have the symptom. Questions are grouped in sections as shown below. A to L section is indicates physical distress and M-R indicates. The translated version was correlated against original English form. Correlation between score on English and Hindi ranged (.077 to 0.87).

Physical Questions of Cornell medical index		
Sections	Questions referring to	No of Questions
A	Eyes and ears	9

Physical Questions of Cornell medical index		
Sections	**Questions referring to**	**No of Questions**
B	Respiratory System	18
C	Cardiovascular System	13
D	Digestive tract	23
E	Musculoskeletal System	8
F	Skin	7
G	Nervous System	18
H	Genitourinary System	11
I	Fatigability	7
J	Frequency of illness	9
K	Miscellaneous disease	15
L	Habits	6

Psychological Question of Cornell Medical Index		
Section	**Question referring to**	**No of Questions**
M	Inadequacy	12
N	Depression	6
O	Anxiety	9
P	Sensitivity	6
Q	Anger	9
R	Tension	9

Administration and Scoring

CMI-Hindi form has been used as a test or as an objective interview technique. Since the language is simple, unambiguous and self explanatory it can be used in any form of administration. Each 'yes' answered item is counted and considered as score.

10. **SDPI: Singh's Differential Personality inventory: Arun kumar Singh, Ashish Kumar Singh (1998):**

Classifieds under ten major dimensions with meaning in brief & number of items.

Name of Dimensions	Number of items	Description
Decisiveness	15	Quick decisions in controversial issues etc
Responsibility	15	Finishing a task in time, attending meeting in time etc
Emotional Stability	15	Control over his emotion, talk Confidently with others etc
Masculinity	15	Accepting a job in police or military, taking interest in mountaineering etc
Friendliness	15	Helps others in time of trouble and show proper love & affection to even juniors
Heterosexuality	15	Normal relationship with opposite sex
Ego-Strength	15	Adequate control impulses and tend to show high coordination between thoughts and actions

Name of Dimensions	Number of items	Description
Curiosity	15	Tend to explore details of objects or things
Dominance	15	Tend to be leader of the group
Self-concept	15	Self-concept, namely, knowledge, expectation and evaluation of the self

Administration and scoring

Each item in the test has two answers – True and False. The testee is required to read the item and decide whether the meaning of item is true or false for him accordingly.

The scoring is done with the help of the scoring prepared separately for all the ten personality areas on ten scoring key. When a responses of an item given by the testee tallies with the responses of item given a score of 1. In case, the responses given by the testee does not tally with the responses given in the scoring. Key, a score of zero is awarded. In the way, every tested would earn ten separate total scores. Higher score on dimension indicates greater passiveness of the concerned trait. Likewise lower score on the dimensions indicates poor passiveness of the concerned trait. The test-retest reliability coefficient ranges from .73 to .86, whereas, it has been validated against a number of criteria, and yielded highly satisfactory validity.

Procedure

Before the collection of data, first of all the Directors of the Drug addiction centre were acquainted with purpose and significance of the study and were requested to grant permission for data collection from their Drug addiction ward. Both Alcohol & Cannabis dependent person were admitted in hospital. They were already diagnosed by ICD-10 criteria of Alcohol & cannabis dependence. Both dependent persons were first of all by CAZE & DAST screening test for identifying. After screening the sample then administered the Socio-demographic, personality inventory and Cornel-medical index health questionnaires. Other side for collecting the data of non-dependent person's from general population. Firstly screening the all person's by both test CAZE & DAST. In screening test they got below cut of mark, than all test were administered, firstly socio-demographic sheet after CMI & Personality Inventory.

After administration of the test person's supporters and Directors were thanked for their cooperation.

Statistical analysis

Preliminary analysis of the data was done by computing means and frequency.

RESULT AND DISCUSSION

Identification

Objective 1 To identify the percentage of substance intake i.e. (Alcohol & Cannabis) taken by various age groups.

Table: 1.1 Indicates The N & Percentage Of Substance Intake By Various Age Groups

AGE	ALCOHOL N=150	PERCENTAG	CANNABIS N=130	PERCENTAGE
18yrs-20yrs	14	9.3%	15	11.5%
21yrs-30yrs	40	26.6%	39	30.1%
31yrs-40yrs	53	35.3%	36	27.7%
41yrs-50yrs	43	28.6%	40	30.8%

Table 1.1 clearly indicates the percentage of alcohol and Cannabis taken by various age group, results reveals that percentage of alcohol intake was more between the age of 31 to 40 yrs(35.3%) and 41 to 50(28.6%) whereas Cannabis intake was more between the age group of 21yrs to 30 yrs(30.1%) and 41 to 50 yrs(30.8%). **Anderson (1990), Gupta & Gupta (1995), Grant et al (1997), Sidney (1997)** lend support to the findings of the present study. Above studies explored that the prevalence of cannabis and alcohol use was found more below age of (>50yrs). Studies indicate that alcohol dependency was found to be in their late 30s. & cannabis users were found to be more in the age of mid 30s to 40s. **Singh (2006)** interviewed the substance dependent person and found that they were more than 30s years of age. **Patton (2000)** highlighted prevalence age for cannabis and alcohol intake, which was between 25 years and early 30s. **UNODC (2012)** reported the annual prevalence age for cannabis intake and found to be between 34-54 age groups.

Objective 2 To identify the starting age of substance intake i.e. (Alcohol & Cannabis) by the substance dependents.

Table: 2.1 Indicates The N & Percentage Of Starting Age Of Substance Intake

AGE	ALCOHOL N=150	PERCENTAGE	CANNABIS N=130	PERCENTAGE
18yrs-20yrs	36	24.0%	31	23.8%
21yrs-30yrs	82	54.7%%	61	46.9%
31yrs-40yrs	32	21.3%	38	29.2%
41yrs-50yrs	0	0	0	0

Table 2.1 reveals the starting age of substance intake. The result clearly indicates that the starting age for alcohol & Cannabis intake was found more between age of 21yrs to 30 yrs i.e. (54.7%) & (46.9%) respectively.

Age and alcohol abuse are closely related to risk factor for starting in young people. The reason for starting intake in early age can be due to many reasons, **Menninger (1938)** oral frustration in infancy, **Channabasavanna et al (1982)** dysfunction in interaction pattern among family members in alcoholic homes and psychological problem faced by children, **Mayer (1988) & Newcomb (1988)** indicate parental influence, peer influence, lack of sense

of purpose in life, emotional distress, **Rao, et al (2001) & Langdana, Forrokh (2009)** neglected and physical abuse in child hood, leads to damage in emotional development.

Gulam (1979) & Thomas (1993) found in their study that cannabis abuse has greatest affinity with the age group of 21yrs-30yrs. **Grant, (1997) & Person (2000)** reported that heavy cannabis use started in age of 20 to mid 30s. **Kedia & Bhagyalaxmi (2003)** reported that staring habit was earlier (< 20 years) in those who were having positive family history of addiction.

EMDCA (2004) result indicated that both alcohol and cannabis use in young adult was found to be between the age 20s-30s. **Allianz (2005)** highlighted the risk age of starting the drug for first time and it was found to be below 30yrs. **Fried (2002), Pradeep (2007)** & **Wittchen (2007)** indicated that first use of cannabis usually occur in adolescent and has negative impact on academic and social functioning as well as mental health.

Objective 3 *To see differences in the family history of Alcohol-dependent, Cannabis -dependent & Non-dependent persons.*

Hypothesis 3 *Substance dependent persons i.e. (Alcohol & Cannabis) & Non-dependent person would differ on family history of Addiction.*

Table: 3.1 Indicates The N & Percentage Of Family History Of Substance Intake

FAMILY HISTORY	SUBSTANCE DEPENDENT				NON-DEPENDENT N=280	
	ALCOHOL N=150		CANNABIS N=130			
Family History of Addiction Present	100	66.7%	80	61%	93	33.2%
Family History of Addiction Absent	50	33.3%	50	38.5%	187	66.8%

Table No 3.1 clearly indicates that family history of addiction (66.7%) of Alcohol & (61%) of Cannabis are present respectively. Further result also reveals that (66.8%) family histories of addiction are present of Non-dependent persons. **Cotton (1979), Merkangers (1990)** reported that well controlled family studies of alcoholism generally have shown a three- to nine fold increased risk of alcoholism among parents and sibling of alcoholic subjects as compared with relatives of non-alcoholic subjects. **Cawl et al (1990)** study of self-reported alcohol & drug abuse by male college more students were found as a function of the extent of alcoholism in students' families. **Benett (1992), Sliva (1997)** analyzed that risk of addiction in persons are found those son's of male alcohol dependent. **Houghton & Reche (2000)** proposed parental drinking evidence indicated that parental consumption plays a significant role in the drinking behavior of offspring. **Soyibo (1999)** observed that substance abuse was maximum among students with fathers in professional occupations, business or in service. **Rao et al (2001)** children of parents with alcohol dependence syndrome are particularly at high risk for substance as well as other emotional and behavioural problems. **Haber (2005)**

found that highest risk for developing alcoholism exists for individuals who start using alcohol as young, have family loading for substance problems. **Singh (2006)** family history of addiction to be an important predisposition factors for substance dependence. In recent studies by **Shadullah & Nath (2007) & Agrawal (2009)** supported our study that the major addiction in people are due to this first degree relatives of addiction dependence syndromes cases. Also risk of alcohol dependence is 3 to 4 times in close relatives of people with alcohol dependence. **Johnson, et al (2007)** emphasized that family history of alcoholism is set to have impact on severity of alcoholism, **Vijaya, et al (2010)** observed that children of people with alcohol dependence are at high risk for behavioral and cognitive problems.

Differential Hypotheses
Objective 4 *To see whether Professionals i.e. Police man, Doctors, Teachers & Businessmen differ in type of substance intake (Alcohol & Cannabis).*
Hypothesis 4 *Professionals i.e. Doctors, Police, Teachers & Businessmen would differ in type of substance (Alcohol & Cannabis) intake.*

Table 4.1 Indicate The Number Of Alcohol And Cannabis Dependent Professional Wise And Percentage Showing Type Of Substance Intake.

PROFESSIONALS	ALCOHOL N=150	PERCENTAGE	CANNABIS N=130	PERCENTAGE
POLICE	20	13.3%	10	7.7%
BUSINESSMEN	20	13.3%	10	7.7%%
TEACHERS	10	6.7%	20	15.4%
DOCTORS	10	6.7%	20	15.4%

Table No 4.1 Results indicate the percentage of substance intake taken by person having different Profession, percentage of Alcohol. Intake was more among police (13.3%) and Business men (13.3%), whereas Cannabis intake was found to be more among Teachers (15.4%) and Doctors (15.4%). **Gossop (2001) highlighted** that the health care professionals who were referred for treatment of alcohol & drug problems, the common reason for referral was poor work performance or absenteeism. **Tennant (1998)** reported that professionals are more addicted to cannabis. Also found in our study that Businessman is more addicted to Alcohol; this result is supported by **Soyibo (1999), & Gulam (2002)**. **Conard (1991), (2000)** proposed that drug problems with their professions due high levels of stress. **Head (2004)** investigated that for govt. servants, showed a stressful psychological work environment levels for to drug dependence.

Objective 5 *To see whether Non-Professional i.e. Peon, labor, farmer and vegetable-seller differ in type of substance intake (Alcohol & Cannabis).*
Hypothesis 5 *Non-professionals i.e. Peon, labor, farmer, vegetable-seller would differ in type of substance intake (Alcohol & Cannabis).*

Table: 5.1 Indicates The Number And Percentage Of Alcohol & Cannabis Dependent Of Non-Professionals:

NON-PROFESSIONAL	ALCOHOL N=150	PERCENTAGE	CANNABIS N=130	PERCENTAGE
PEON	18	12.O%	12	9.2%
VEGETABLE-SELLER	23	15.3%	7	5.4%
FARMER	12	8.0 %	18	13.8%
LABOUR	19	12.7 %	11	8.5%

Table No 5.1 Clearly indicates the percentage of substance intake taken by different Non-professional person i.e. Peon, Vegetable Seller, Farmers and Labour. Results indicate that Alcohol intake was more among Peon (12.0%), vegetable - seller (15.3%) and labour (12.7%) whereas Cannabis intake was more among farmers (13.8%). According to **Rajput (2006)** maximum number of drug abusers was followed by unskilled, laborers & farming.

Gulam,R et al (2002) according to him maximum numbers of drug abusers were businessman, followed by govt. servants, unskilled labour and lowest were farmers. **Maegoob (2008)** found that ganja smoking is widespread in the Uttar Pradesh & Bihar among the cultivators and unskilled labourers. **Sidney (1997)** found in his study that 65171 members of the Kaiser Permanente medical care program at least 20% were farmer's who used cannabis. **Vasantha (2003)** studied in unskilled workers result found that peon used alcohol to some extent. **Ruben (1972)** also indicated heavy cannabis use during cultivation in farming situation. **Head et al (2004)** investigated the psycho-social work environment and alcohol dependency; results revealed that civil servants showed that a stressful psychological work environment in term of effort, reward imbalance is a risk factor for alcohol dependency in men.

Objective 6 *To see the type of substance intake i.e. (Alcohol & Cannabis) taken by the students.*
Hypothesis 6 *Students would differ in type of substance intake i.e. (Alcohol & Cannabis)*

Table-6.1 Indicates The Number And Percentage Of Substance Intake by Students

Students	Alcohol N- 40	Percentage	Cannabis N-40	Percentage
	18	**12.0%**	**22**	**16.9%**

Table 6.1 reveals that Cannabis intake was more among students (16.9%) in comparison to alcohol intake (12.0%). **Soyibo (1999)** reveled that substance use maximum among students with father in professional occupation, addicted to drugs. **Patton (2000)** highlighted a longitudinal study of cannabis use in adolescence at early adulthood. Findings indicates that students were addicted to drugs due to poor study performance. **Han & Hope (2003)** alcohol related problems among college students those are suffering ranging & extreme problems

behavior. **Slutske (2005)** college students' intake more those parents are addicted to drugs. **Rajput (2006)** conducted analysis of socio demographic factors related to drug abuse were students of graduate & post graduate. All above mention studies were supported our students. **Sinclair (1997)** found excessive alcohol consumption of medical students in London. **Piclcard et al (2000)** studied on alcohol and drug use in medical students and reported that cannabis was the most commonly used drug of men than women.

Objective 7.1 *To identify whether substance dependent differ from Non-dependent on personality dimensions i.e. Decisiveness, Responsibility, Emotional stability, Masculinity, friendliness, heterosexuality, ego-strength, curiosity, Dominance & self -concept.*

Hypothesis: 7.1 *Substance dependent person would differ from Non-dependent on personality dimensions i.e. Decisiveness, Responsibility, Emotional stability, Masculinity, friendliness, heterosexuality, ego-strength, curiosity, Dominance & self –concept*

Table No7.1 Statistical differential indicating differences between N, Mean, SD &'t' of Substance dependent & Non-dependent on personality dimensions

PERSONALITY DIMENSIONS	SUBSTANCE-DEPENDENT N-280		NON-DEPENDENT N-280		t	Significance
	MEAN	SD	MEAN	SD		
Decisiveness	8.396	1.66	13.14	1.08	39.95	.000
Responsibility	8.47	1.66	13.02	1.13	37.95	
Emotional Stability	8.93	2.00	13.04	1.09	30.12	
Masculiniy	8.55	1.99	12.48	1.67	25.22	
Friendliness	8.88	1.92	13.16	1.04	32.27	
Hetrosexuality	8.64	1.64	13.00	1.07	37.09	
Ego-Strength	8.10	1.67	12.95	1.04	41.17	
Curiosity	8.15	1.93	12.89	1.05	36.06	
Dominance	8.15	1.64	13.01	1.06	41.43	
Self-Concept	8.39	1.66	13.24	1.00	41.69	

Table No. 7.1 Clearly indicate that Non-Dependent have scored significantly higher mean on Decisiveness, Responsibility, Emotional stability, Masculinity, friendliness, heterosexuality, ego-strength, curiosity, Dominance & self –concept than the substance dependent. Further 't' has also shown significant result 't' = 39.95, 37.95, 30.12, 25.22, 32.27, 37.09, 41.17, 36.06, 41.43, 41.69, p<.01 level. High mean indicates possessing the above personality trait, Low mean indicate poor possessiveness of the above personality traits. Familial values, disinterest, effects of the substances, moral values, responsibility and being a role model were the commonly attributed reasons for substance non-use. **Brauder (1981)** reported substance abusers have no any judgment & value about self than control group, this observation is

supported by our studies that low mean scored in self concept dimension of substance dependent persons. Substance dependent persons have low emotional stability due to their low self concept, reported by **Kristberg (1988). New Comb & Bentter (1988)** study also supported our findings that substance dependent persons have strong relationship with emotional distress, lack of sense of purpose of life, low masculinity and unable to dominant than non-dependent persons. **Costa & Widger (1993)** substance abusers scored lower in agreeableness (positive interpersonal qualities) as compared to non-abusers. Above mention findings are supported **Curtis (1993); Baumeiston (1993), Davidson (1998)** emotional stability as factors related to avoidance and withdrawal and flight behavior**. Khantzians (2000), Graber & Pope (2002)**, those substance dependent persons exacerbate emotional as poor impulse control than non-dependent, having a positive sense of self and are more confident in taking right decision during a negative event. **Buckner (2006)** substance abusers are unable to talk responsibility similar findings indicated to our study. The result is less mean score on decisiveness of substance abusers, this result is accordance with the findings of **Flory (2002).** Study of **Dubey (2010)** supported to our result that substance abusers are not more open to new actions, ideas & intellectual curiosity.

Objective 8.1 *To investigate whether substance dependent differ from Non-dependent on Psychological health areas are i.e. inadequacy, Depression, Anxiety, Sensitivity, Anger, Tension.*
Hypothesis: 8.1 *Substance dependent persons would differ from Non-dependent on Psychological health areas i.e. inadequacy, Depression, Anxiety, Sensitivity, Anger & Tension.*

Table: 8.1 Shows The Differential Mean & Sd Of Substance Dependent & Non-Dependent Persons On Psychological Health Areas

Psychological Areas	Substance Dependent N - 280		Non Dependent N - 280		t	Significance
	MEAN	SD	MEAN	SD		
Inadequacy	5.066	2.08	3.592	2.111	8.47	
Depression	3.985	1.28	2.867	.968	15.56	
Sensitivity	3.721	1.28	2.867	1.238	8.01	
Anger	4.464	2.02	1.517	1.292	20.51	**.000**
Tension	5.567	1.87	1.339	1.186	31.86	
Anxiety	5.392	2.18	2.732	1.410	17.13	

Table No 8.1 reveals that Substance dependent (Alcoho & Cannabis both) has scored significantly higher Mean on all the Psychological Health areas i.e. inadequacy, Depression, Anxiety, Sensitivity, Anger & Tension than the Non-dependent.

Further 't' has also shown highly significant result Inadequacy ('t'=8.47), Depression ('t'=15.56), Sensitivity ('t'= 8.01), Anger ('t'= 20.51), Tension ('t' 31.85) and Anxiety

('t'=17.13). All significant at p <01 level High mean on the above dimensions indicates Problem in Psychological Health areas.

Substance abuse problems are also at increased risk for mental health problems & adverse outcomes. Several alcohol intoxications also contribute to dish inhibition and feeling of sadness and irritability. Substance abusers have depressive disorders. The majority of substance dependence patients suffered from co morbid mental disorders.

Carlin (1978) study supports our study that higher sensitivity & tension related to substance users. **According to Robin (1984)** prevalence of co-morbid mental health complications are one third of the substance dependent population over the life span. Above findings are supported by **Moja (1990) and Khantizan (1992)** that substance dependent individuals generally experienced more psychological-distress than non-dependent individuals.

Turner (1990), Davidson (1995), Conwell (1996), Acton (2003), Donough (2007) and Davis (2008) are supported our findings that substance dependent persons (alcohol & cannabis) have high psychological distress than non-dependent persons.

Objective 8.2 To investigate whether substance dependent differ from Non-dependent on Physical health areas i.e. Eye & Ears, Respiratory system, Cardiovascular, Digestive, Muscular Skeletal, skin, Nervous system, Genito-urinary, Fatigability, Frequency of illness, Miscellaneous disease, Habits.

Hypothesis: 8. 2 Substance dependent persons would differ from Non-dependent on Physical health areas i.e. Eye & Ears, Respiratory system, Cardiovascular, Digestive, Muscular Skeletal, skin, Nervous system, Genito-urinary, Fatigability, Frequency of illness, Miscellaneous disease, Habits.

Table 8.2 Statistical Differential Indicating Mean, Sd & T Of Substance Dependent & Non-Dependent On Physical Health Areas

Physical Areas	Substance-Dependent N-280		Non-Dependent N-280		t	Significance
	MEAN	SD	MEAN	SD		
Eye-Ers	4.096	1.577	3.792	1.597	2.26	.024
Respiratery	6.389	3.103	3.757	2.983	10.23	.000
Cardiology	5.032	3.449	3.403	2.674	6.24	.000
Digestive	6.078	2.857	4.414	2.733	7.04	.000
Mascular	1.617	.6395	2.035	.8024	6.81	.000
Skin	1.717	.720	1.750	.4337	.640	.523
Nervous-Systems	7.339	3.303	5.025	3.494	8.05	.000
Genio-Urinary	6.014	2.44	4.403	3.186	6.914	.000
Fatigue	5.257	1.558	3.500	1.989	11.86	.000

Physical Areas	Substance-Dependent N-280		Non-Dependent N-280		t	Significance
	MEAN	SD	MEAN	SD		
Frequency	4.332	1.759	3.414	1.739	6.20	.000
Micellion	3.432	1.301	3.167	1.465	2.256	.024
Habits	4.453	.498	.000	.000	120.0	.000

A close inspection of Table 8.2 clearly indicates that the Substance-dependent has scored significantly higher Mean than the Non-dependent on the following health areas i.e. Respiratory, Cardiology, Digestive, Nervous-System, Genito-urinary, Fatigue, Frequency & Habits & Non-dependent have scored higher mean on Muscular & Skin.

Further 't' has also shown significant result on the following Health areas i.e. Respiratory (t=10.23), Cardiology ('t'= 6.24), Digestive ('t'=7.024), Mascular ('t'=6.81), Nervous system ('t'=8.05), Gentio-urinary('t'= 6.91), Fatigue ('t'=11.86), Frequency ('t'-6.20) & Habits('t'=120). High mean indicate problem in that particular Physical health areas.

Substance abuse is revealed that 3.4% of the global burden of disease & third leading cause of death following heart disease.

Above results are supported by **Weisner (1993), Gasngrade (1994) & WHO (1994)** their studies indicates that high risk factor of health problems is more found in substance dependent persons than non-substance dependence.

Also results revealed that many people have medical complication due to substance use, such as respiratory, heart disease and other medical condition. **WHO (1994)** highlighted the substance is considered to be responsible for 35% of the global burden of disease and third leading cause of death following heart disease. Above findings corroborates our observations.

CONCLUSION

1. Alcohol intake was more between the age of 31-40 and 41-50 years, whereas cannabis make was more between the age group 21-30 and 41-50 years.
2. Starting age for Alcohol and Cannabis intake was found more between 21yrs to 30yrs.
3. Family history of addiction plays a significant role for substance intake.
4. Alcohol intake was more among police and Businessman whereas cannabis intake was more among Teachers and Doctors.
5. Alcohol intake was more among peon, vegetable seller and labour, whereas cannabis, intake was more among farmer.
6. Cannabis intake was more among students
7. Substance dependent, have scored higher mean on all the personality dimension i.e. Decisiveness, Responsibility, Emotional Stability, Masculinity, Friendliness, Ego-Strength, Curiosity, Dominance and self concept than Non dependent.

8. Substance dependent have scored higher mean on all the physical health area than Non dependent.
9. Substance dependent have scored higher mean on all the psychological health area than non - dependent.

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