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A STUDY OF ANXIETY AMONG TOBACCO USERS AND NON-USERS

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ABSTRACT

Tobacco destroy mankind among the adults is reaching pandemic levels. Countries undergoing epidemiological transition of chronic diseases caused by tobacco are rapidly overtaking the more traditional causes of mortality. Tobacco addiction in large number of adults has been initiated during the adolescents and children's often get attracted to tobacco products because of such propaganda. There has been a rapid increase in trade and use of smokeless tobacco products in recent years in the country, which is a matter of serious concern to the health planners. It is important to understand various factors that influence and encourage young teenagers to start use tobacco products. The Study samples (200) were consisting of tobacco users who attend the drug de-addiction centers, located at Jaipur at least for one year. Tobacco problem is a major concern of humanity in the world the practices of tobacco consumption have been predicted to cause a rapid rise in disease burden, health care costs and other fiscal losses. The study revealed that there is higher level of anxiety among tobacco users than tobacco non users

Tobacco users, nonusers, anxiety

INTRODUCTION AND BACKGROUND

The most common cause of anxiety in those that use cigarettes to cope is withdrawal. The effects of nicotine last a very short time, especially as the person become accustomed to it, and so minor withdrawal symptoms start often throughout the day. One of those symptoms is anxiety, so while nicotine reduces anxiety after it's smoked, it then increases anxiety more than he would suffer without nicotine later, forcing him to go back and smoke again Nicotine in tobacco has been shown to have effects on anxiety. Nicotinic at tobacco acetylcholine receptors (NACHRS) can modulate the function of pathways involved in stress response, anxiety and depression in the normal brain and that tobacco can result in alterations of anxiety level and mood. The paradoxical effects of nicotine on emotionality are likely due to the broad expression of NACHRS throughout the brain, the large number of NACHRS subtypes that have been identified and the ability of nicotine treatment to both activate and desensitize NACHRS.



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Activation of NACHRS has been shown to modulate many systems associated with stress response including stress hormone pathways, monoaminergic transmission and release of classical neurotransmitters throughout the brain¹

In India, tobacco consumption is responsible for many psychiatric disorders, in addition to being a risk factor for cardiovascular diseases and chronic obstructive pulmonary diseases. India also has one of the highest rates of psychiatric disorder in the world, partly attributed to high prevalence of tobacco chewing in user. The tobacco chewing occurs in different form include pan (piper betel leaf filled with sliced areca nut, lime, catechu, and other spices chewed with or without tobacco), pan-masala or gutkha (a chewable tobacco containing areca nut), and mishri (a powdered tobacco rubbed on the gums as toothpaste).²

WHO predicts that tobacco deaths in India may exceed 1.5 million annually by 2020. However, considerable research is required to comprehend the actual trends. Nationally representative and reliable prevalence data on tobacco consumption are scarce. Similarly, the socio demographic predictors of tobacco smoking and chewing are poorly understood. The existing studies on prevalence of tobacco use are based on representative sample surveys which have been conducted locally from most urban geographical areas. WHO estimated a prevalence of tobacco consumption of all forms at 65% and 33%, among men and women respectively, based on small scale study.³

Tobacco Dependence Treatment Guideline 2011, suggested that in India, khaini or tobacco-lime mixture (12%) is the most commonly used smokeless tobacco product, followed by gutkha (8%), betel quid with tobacco (6%) and tobacco dentifrice (5%). Bidi (9%) is most commonly used smoking product, followed by cigarette (6%) and hukkah(1%). Among both males and females, the prevalence of cigarette smoking is higher in urban areas but the prevalence of all other smoking products is higher in rural areas. The prevalence of each of the smokeless tobacco product is higher in rural than urban areas, however, gutkha is almost equally prevalent in both urban and rural areas. In the North East and southern regions of India, cigarette smoking is more prevalent than bidi smoking. There are other forms of smoking that exist in India, but the numbers are small and are not part of this estimation of attributable mortality.⁴



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GATS data also estimated that nearly 553 billion bidis and nearly 105 billion cigarettes are consumed annually in India.⁵

Gupta P.C *ET. Al.* reported current tobacco use in 69% men (smokers 23.6%) and 57% women. George *ET. al.* studied 146 children in Kerala and reported tobacco use in 29% and smoking in 2%, while Venkatnarayan *et. Al.* reported smoking prevalence of 45% in men and 7% in women in Delhi.⁶

Intra Uterine Growth Retardation, spontaneous miscarriages and low birth weight babies are known outcomes of smoking during pregnancy. Many studies have shown that in the poorest households in some low-income countries as much as 10% of total household expenditure is on tobacco. In addition to its direct health effects, tobacco leads to malnutrition, increased health care costs and premature death. It has also been shown that non-smokers exposed to second hand smoke have a 25 to 35% increased risk of suffering acute coronary diseases, and increased frequency of chronic respiratory condition. The World Bank estimates that in high-income nations, smoking-related healthcare accounts for between 6 and 15 percent of all annual health-care cost. Understandings of the previous papers examined the biological basis of this behavior and seek to integrate this insight into a rational approach to the problem in practice. Smoking is reexamined within the framework of an irrational compulsion to seek nicotine, despite a rational desire to stop. Control over the compulsion to smoke is established as an important clinical outcome, and the rationale for treating tobacco dependence as a chronic illness is examined. Finally, practical insights into managing ambivalence, including an aggressive pharmacotherapeutic approach based on the neurobiology, are presented.⁷

RESEARCH METHODOLOGY

Objective of Study

Test reliability was studied in the subjects who were given the STAI on two occasions. It was discovered that the change in STAI scores tended to parallel changes in the clinical reading of the depth of anxiety indicating a consistent relationship between STAI scores and the patient's clinical state.

**Validity**

The STAI provides operational measure of state and trait anxiety. In the construction of the STAI, an individual item was required to meet prescribed, A-State and A-Trait validity criteria at each state of the test development process in order to be retained for further evaluation and validation. Differences in the ability of individual STAI A-State items to discriminate between conditions characterizes different degrees and kinds of stress reflect a new test theory concept that needs to be considered in the measurement of psychological states which vary in intensity. These concepts which will identify as item intensity refers to the fact that individual items used to measure the intensity of a personality state and more effective at some level of intensity dimension than at others.

Scoring

The range of possible score for form y1 & y2 to the STAI varies from minimum score 20 to a maximum score of 80 on both the A state and A trait subscales. Subjects respond to each STAI items by rating themselves on a four point scale, the four categories are obtained.

The categories for A-State scale are as follow:

- Not at all
- Somewhat
- Moderately so
- Very much so

The categories for A-Trait scale are as follow:

- Almost never
- Some times
- Often
- Almost always

Some of the STAI items (example- I am tense) are recorded in such a manner that a rating of four indicates a high level of anxiety. While other items (I feel pleasant) are recorded such that high rating indicates low anxiety. The scoring weights for items on which high rating indicates high anxiety are the same as the number blackened out for those items on the test form, for items on which high rating indicates low anxiety, the scoring of weighted 1 reversed the weighted score of responses marked 1, 2, 3, and 4 for the reversed items 4, 3, 2, and 1 respectively.



To reduce potential influence of an acquiescence set of STAI responses, it would be desirable to have balanced A-State and A-Trait scales, with equal number of items for which rating indicates low anxiety. The STAI A-Trait State scale is balanced for an acquiescence set with ten directly scores and ten reversed items, it was not possible to develop a balance. A-Trait scale from the original item pooled.

STATE TRAIT ANXIETY INVENTORY (STAI)

Test construction of STAI was begin in 1964 with the goal of developing a single scale that would provide objective of self report measures of both state and trait anxiety. In developing the STAI, it was assumed that the items with a

Demonstrated relationship to other measures of anxiety would be most useful in an inventor y designed to measure both A-State and A-Trait since most of the existing anxiety scale measure trait anxiety. A Large number of items embodying content of proven relationship to the most widely used A trait scale were rewritten in a manner that would permit each items to be as measure of both A-State and A-Trait. The result was a single scale STAI (Form y1) that could be administered with different instruction to measure either A-State or A-Trait.

The STAI is comprised of separate self report scales for measuring two distinct anxiety concepts state anxiety (A-State) and trait anxiety (A-Trait), although originally developed as a research in treatment for investigating anxiety phenomenon is "NORMAL" (non-psychiatrically disturbed) adults. The STAI has also been found to be useful in the measurement of anxiety in Junior and Senior high school student and neuropsychiatry, medical and surgical patients. The STAI A- Trait scale consists of 20 statements that ask people to desirable how they generally feel. The A-State scale also consists of 20 statements but instructions require subject to indicate how they feel at a particular moment of time these scales are printed on the side of a single test form. The A Trait scale may be used as a research tool for selecting subjects who vary in disposition to respond psychological stress with different level of A-State. Researchers can use the A State intensity induced by successful experiment or as index of drive level (D).

RELIABILITY

The test-retest reliability stability of the STAI A-Trait scale is relatively high but stability coefficient of STAI A-State scale tend to be low as would be expected for a measurable design to be influenced by situational factors, both A-State and A-Trait scale have a degree of internal consistency.



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HYPOTHESIS

Variables:

Independent Variable: - Tobacco

Dependent variable: - Anxiety

Selected socio-demographic variables-

Age

Marital status

Education

Employment Status

Current Living arrangement

Tobacco use

Population- Tobacco users and Tabaco (non user group).

Setting of study- De-addiction Centers, located at Jaipur.

Selection of setting- The selected samples were consisting of tobacco users who attend the drug de-addiction centers, located at Jaipur at least for one year.

Sample- The tobacco users and non-users –

The tobacco user is used to mean a person who habitually takes tobacco on daily basis and non-user who have never take.

Sample Size- A total number of 200 tobacco users and non- users-

The total sample were divided into two groups as tobacco users (n=100) and non- users (n=100) male adults between age range of 20-40 Years. The groups were matched in terms of sex, age, socio economic status and domicile. Equal number of tobacco users and normal subjects (non- user group) will be randomly.

Varying degree of tobacco user factor limited the inclusion of only male tobacco users.

Subjects who indulged in regular intake of tobacco at least for one year in the form of bidi, cigarette, chutta, choor ut, hukkan, dhumti, chilam, cigar, chunna, supari with paan, dantmanjan and massahari to clean teeth, snuffing of naswar. The non - users group will consistent of subject between the same age ranges of 20-40 years. Subjects were mentally and physically healthy adults.



The test was administered individually as it requires rapport and time for interrogation. The selected samples were consisting of tobacco users who attend the drug deaddiction centers, located at Jaipur at least for one year.

Sampling Technique- Random sampling

Data Collection Tools and Techniques

Paper and pencil method for collecting data.

Tools Used:

Following psychological tools is used to achieve the objective:

Anxiety (STAI)

DATA ANALYSIS AND RESULTS

Scoring was done as per the given procedure. Mean, standard deviation, coefficient of correlation and t-test were computed

CONCLUSION.

1. There will be no difference between the level of anxiety of tobacco users and non- users at the Level of 0.05 of significance.
2. There will be no association between the levels of anxiety with their selected socio-Demographic variables of tobacco users at the level of 0.05 of significance.
3. There will be no association between the levels of anxiety with their selected socio-demographic variables of tobacco non users at the level of 0.05 of significance.

Table-4.1. Statistical Comparison on Anxiety among non- user and user Tobacco in Rajasthan

Group	N	Mean	Standard Deviation	standard error	t-test
Non Users	100	37.44	17.39	1.74	3.19
User	100	45.47	18.15	1.81	

* $p < .05$ ** $p < .01$



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The table 4.1 reveals that mean, standard deviation & standard error of anxiety among non-user and user respondent in tobacco used, i.e. non- user group was 34.44 ± 17.39 , 1.74 respectively and user group was 45.47 ± 18.15 , 1.81 respectively. the 't' value found was 19 which has been found significant at .05 level. Our hypothesis is accepted.

Tobacco problem is a major concern of humanity in the world. The practices of tobacco consumption have been predicted to cause a rapid rise in disease burden, health care costs and other fiscal losses.

The study revealed that there is higher level of among tobacco users than tobacco non users. There is no association between the levels of anxiety with their selected socio-demographic variables of tobacco users.

There is no association between the levels of anxiety with tobacco users by age, marital status, education and current living arrangement.

There is association between the levels of anxiety with employment status of tobacco non users.

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