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Prevalence of Tobacco and Cigarette Consumption and Their Relationship between Psychological Behaviour- A Narrative Review

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Abstract:- Use of tobacco products is closely linked to a number of psychiatric disorders. Current criteria for mental health issues, such as mood disorders, anxiety disorders, and psychosis, are more likely to be met by smokers than by non-smokers. A possible explanation for why smoking rates is greater in this population is that smokers with psychiatric illnesses may find it more difficult to stop. Aim: To determine the prevalence of smoking and tobacco use, as well as how these behaviours relate to one another. Methodology: A Medline and PubMed search was used to find pertinent material. Outcomes: Information on recently developed alternative tobacco products like electronic cigarettes, hookahs, beedis, and kreteks is lacking in the scientific literature. This assessment only addresses the usage of tobacco and cigarettes as a result.

Keywords:- *Tobacco, Nicotine Abuse, Nicotine Addiction, Schizophrenia, ADHD, Mood Disorders, Anxiety, Smoking Behaviour, Psychopharmacology, Nicotinic Acetylcholine Receptors.*

I. INTRODUCTION

An estimated 70% of smokers desire to quit. Few people succeed, though, and of those who do, it typically takes them five to seven tries before they can finally kick the habit. It can be challenging to recover from nicotine dependency, which is a complex condition. One of the key elements in quitting smoking is motivation, which is influenced by a number of genetic, physiological, environmental, and psychological factors.[1]

Along with motivation, the smoker will encounter a few obstacles that make this process challenging. The severity of the withdrawal symptoms is one of the key contributing causes for maintaining the habit among these elements. The severity of the symptoms varies from person to person and often begins a short time after the interruption and worsens over the course of the first 12 hour and reaching its climax on day three.[2] The most prominent complaints are related to increased compulsivity, irritability, anxiety, difficulties concentrating, agitation, and a feeling of dullness or tiredness, as well as hostile emotions. Discomfort increases in the early hours of the morning. While these changes can be seen for at least 30 days, compulsive symptoms might last for many months or even years.

The degree of nicotine dependence is still another major barrier. A person is deemed a heavy smoker if they score six or higher on the Fagerström test (high or very high degree of dependence). The first cigarette is typically smoked by heavy smokers up to 30 minutes after waking up.[2] Additionally, they lack confidence and recognise how difficult it is to stop. One of the many ways to approach patients is that we can emphasise the necessity of boosting motivation because, without it, these patients won't be able to stop smoking. Many of them claim to want to stop smoking, but since they lack the necessary motivation, their orally expressed desire does not accurately reflect how they really feel about smoking.[3]

Another aspect that makes it challenging to break the habit is weight gain. According to clinical and epidemiological studies, smokers weigh less than non-smokers do and gain weight after quitting. The majority of research demonstrate that using nicotine causes temporary weight loss (or a delay in weight gain). Additionally, stopping the usage of the medication causes a brief period of weight gain, which is followed by a return to values that are comparable to those seen in controls. Behavioural and personality changes that typically appear as despair, abstinence, self-punishment, impatience, and hostility usually follow excessive weight increase. Increased stress and weight gain both heighten the want to eat, continuing the vicious cycle. The following are the current three most popular explanations for the connection between smoking and body weight: Smokers have higher metabolic rates, which results in more energy expenditure; they also consume different types of food and in smaller quantities; and they have nicotine-induced appetite loss.[3]

In this review article, we emphasise the smoker's personality as a key barrier to quitting and discuss the connection between smoking and personality as well as the relationship between smoking and the main psychiatric disorders.

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II. TOBACCO USE PATTERNS AND PREVALENCE IN INDIA

India is the world's second-largest tobacco consumer.[8] 10.7% of people smoke, 21.4% use SLT, and 28.6% of people use tobacco in some way, according to GATS-2.[2] At 11% and 8%, respectively, khaini (a type of SLT) and beedis are the two most popular types of tobacco used in India.[2] The amount of tobacco used in GATS 2017 was 6% less than it was in GATS 2010, and the prevalence rate in NFHS-4 was lower than it was in NFHS-3.[15] Compared to the first survey, there has been an increase in the number of people starting to use tobacco in the GATS2.[2] However, during the 7-year period between NFHS-3 and NFHS-2, all kinds of tobacco use had grown; the highest rates were observed in people between the ages of 15 and 24.[16] The annual growth rate of tobacco use ranges from 2% to 3%.14% of the population consumed it in smoked form. [17,18.]

Indians smoked, on average, 6.2 cigarettes per day, the fewest of any nation, but even though the incidence of smoking was lower among women, the mean number of cigarettes per day was still relatively high-roughly 7, compared to 6.1 for males.[19,20]

In India, beedis made up the majority of the smoked tobacco consumed [21], beedis consumption is 8–10 times higher among the lower socioeconomic category than cigarette smoking.[22] Beedis are consumed more frequently and have higher toxicity, but these factors are ignored. Beedi usage has historically increased for a number of reasons, including the boycott of imported cigarettes during the Swadeshi Movement, which gave native beedi more exposure and a shift in consumer preference away from cigarettes.[23] Due to rising affluence and improved affordability, cigarettes were replacing beedis among men, according to a study that compared trends in beedi and cigarette smoking in India from 1998 to 2015. This trend was also clearly shown among lower socioeconomic level groups.[25]

There is evidence of smokeless tobacco use in 120 nations.26 The majority of SLT users worldwide are in India. India alone has 152.4 million males and 80.8 million SLT customers out of the 346 million global consumers[7], and SLT has significantly increased across all age categories.[25] A study that compared nationally representative data from 2005 and 2009 revealed that the use of SLT among people between the ages of 15 and 49 continued to rise.[27] Men are more likely than women to use SLT (27%–37%), while women are less likely (10%–15%). Age-specific standardised prevalence of SLT use in India revealed trends showing both sexes' consumption of the drug rose over time.[11] Additionally, a study found that 34.4% of smokers switched to using SLT as a smoking cessation strategy, making it one of the most popular methods.[27]

The health and social lives of women and their unborn children can be negatively impacted by alcohol and drug use throughout the perinatal period. Women may turn to drugs or alcohol to cope with the signs of mental illness or challenging conditions in their lives. Substance abuse can impact a person's capacity to parent, reduce their chance of using services, and raise their risk of being a victim of gender-based violence (GBV). Due to the intense stigma associated with substance use during pregnancy, women are hesitant to reveal their use to support providers.[31]

The majority of recent investigations on the connection between smoking and personality traits followed the theoretical framework put forward in 1967. Smoking and its association with psychological behaviour. This theory proposes that extroversion, neuroticism, and psychoticism are the three main personality or character traits associated with smoking.

The extroversion dimension includes traits like friendliness, assertiveness, joy, vivacity, and level of activity. There has been speculation that extroversion and smoking go hand in hand. According to this interpretation, the amount of stimulation required for extroverts versus introverts to be happy varies. Extroverts will exhibit low cerebral excitation, whereas introverts will exhibit high cortical excitation at same stimulus levels. Extroverts are more likely to feel minimal stimulation at a medium level of stimulation, where most daily activities take place, whereas introverts are more likely to feel highly aroused. Extroverts may try to alter their exterior environment through increased activity or may try to alter their internal environment by eating substances, such as nicotine and other narcotics, since they function below their optimal level of cerebral excitation. Introverts will, nevertheless, make an effort to limit their exposure to stimuli. This variation in cortical excitation levels is thought to be the outcome of genetic inheritance, according to one theory.

Similar to how neuroticism might make someone more sensitive to nicotine's effects. Due to the stress-relieving properties of cigarettes, those who score well on personality tests that assess this dimension may experience stronger reinforcement in stressful circumstances. The neuroticism dimension is associated to depressive and anxiety disorders and includes personality subdimensions such anxiety, despair, psychological fragility, hostility, and anger. Due to an ineffective self-regulating mechanism for affection and excitation regulation, the neurotic person exhibits high frequency and intensity of negative affection. As a result, they smoke to promote internal balance. The idea is that smoking helps these people experience less unfavourable affection.[24]

Character traits including impulsivity, cynicism, coldness, antisocial tendencies, decreased agreeableness/conformity, decreased constraint/inhibition, the desire for stimulating or exciting sensations, and low conscientiousness are all included in the psychoticism dimension.[6]

Most studies from earlier decades showed that smokers typically score higher on extroversion than non-smokers. However, this link was not supported by several investigations.[25]

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The relationship between smoking and extroversion has weakened recently, presumably as a result of smoking's social unacceptability in many nations. Smokers may have been penalised in social settings, reversing the propensity to associate this personality feature with smoking.[10]

Regarding the neuroticism element, the data in the literature are also erratic. Numerous research that was published in earlier decades revealed a connection between neuroticism and smoking. Some research, however, did not find this link. Though less stable than the extroversion factor, the link between neuroticism and smoking appears to have gotten stronger over the past few decades. People who are more "neurotic" seem less likely to give up smoking, even when faced with the current social pressure, and they can experience nicotine's reinforcing effects more strongly than people who are more emotionally stable.

The results on the association between smoking and traits like extroversion and neuroticism continue to be controversial, most likely as a result of the heterogeneity of the smoking population. People smoke for a variety of reasons, thus both personal characteristics and environmental factors may have an impact. The impulse to smoke seems to be triggered by two categories of events. One of them consists of monotonous circumstances that necessitate increasing cerebral stimulation. The second appears to be brought on by stress. Some people (such those with high extroversion levels) could find smoking more appealing in boring settings in order to stimulate their cortices. However, due to the stress-relieving properties of smoking, highly neurotic individuals would experience stronger reinforcement through smoking in stressful situations.[22]

As a result, there is disagreement on the nature of the relationship between smoking and the two personality traits (extroversion and neuroticism). However, the connection between smoking and psychoticism is more robust and has been supported by multiple researches.

In 1969, the sensation seeking factor theory was developed. This dimension includes characteristics like a lack of inhibition, a desire for emotions (enthusiasm), a sense of adventure, an appetite for novelty, and a propensity for boredom. Biological results support the existence of the sensation seeking dimension as well. High performers in this factor exhibit modest cortical stimulation levels. People that exhibit strong manifestations of this attribute are thought to be chronically under stimulated, which makes them more susceptible to the effects of nicotine.[27]

According to theory, the desire for sensation makes someone more likely to engage in risky behaviour. hazardous activities, violent sports, criminal activity, career decisions, hazardous sexual behaviour, smoking, drunkenness, the use and misuse of illegal drugs, and gambling have all been linked to this personality trait. As a result, the theory is that, in comparison to those with low scores, those with high sensation seeking scores tend to underestimate or underappreciate hazards. When compared to people with low scores, these people have less anticipatory anxiety when facing these activities.[30]

- *Conclusion*

In conclusion, there are many research in the literature that have emphasised alternative strategies. There is compelling evidence linking tobacco use to a personality trait known as the drive to engage in arousing sensations (sensation seeking). The search for novel, varied, complicated, and powerful sensations and experiences, as well as the propensity to take risks in one's physical, social, legal, and financial well-being in order to enjoy such experiences, are all examples of the sensation seeking dimension.

III. METERIAL AND METHOD

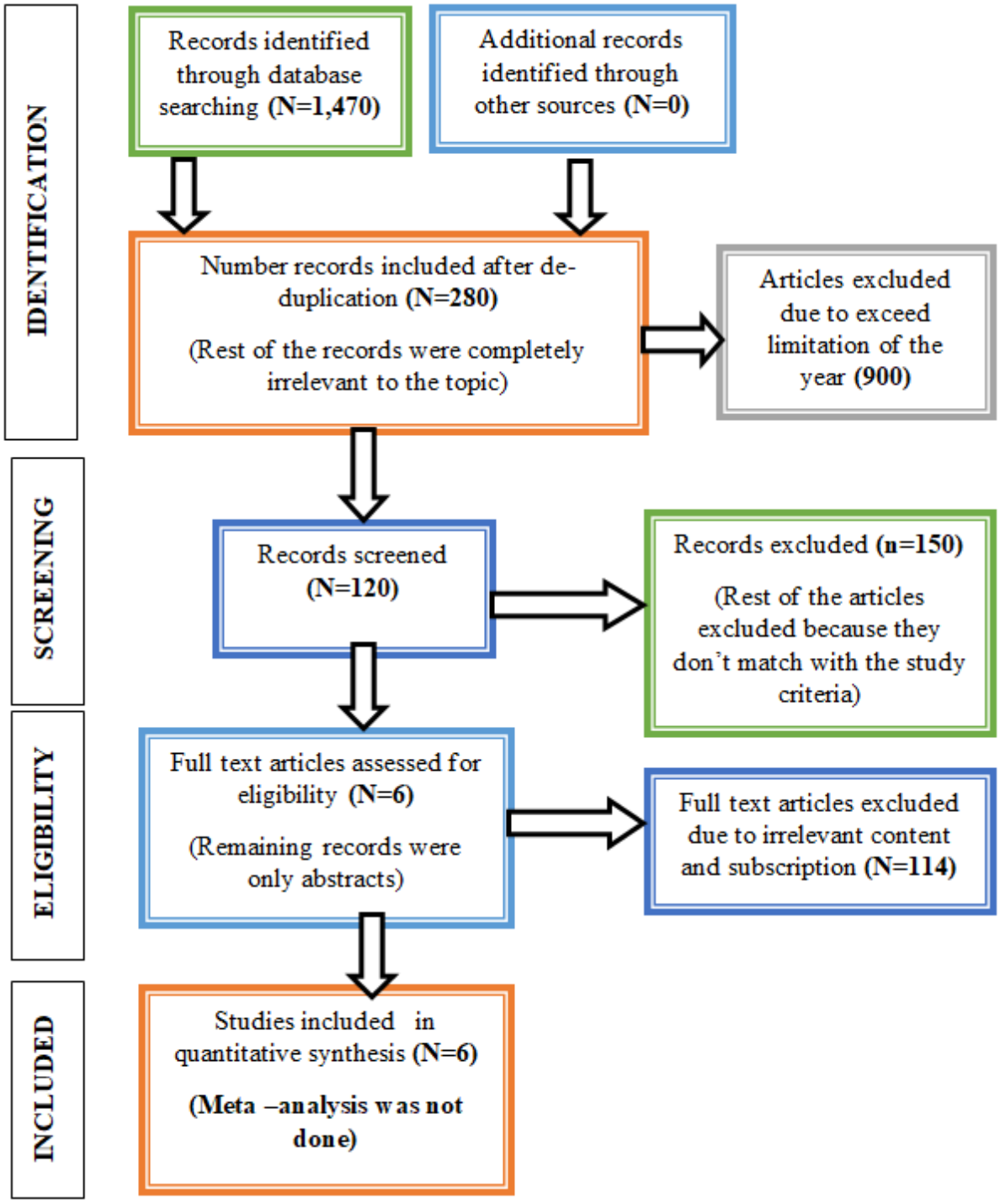

Fig 1: Prisma flow diagram of narrative review

IV. FINDINGS

The systematic search was conducted by formulating the terms separately and in integration with all synonyms, also according to the database. Likewise, a manual Google scholar search was undertaken using the keywords and search synonyms from already articles. An addition of 6 articles was found in the database. Initial search recovers 1470 articles over which 280 articles were selected manually.150 articles were rejected as a result of replication in the database. Replication was removed and reviewed 120 articles for acceptability.114 more studies were rejected because of unreachable of the full text. Hence 6 articles were screened which includes quantitative study.

V. DISCUSSION

Surveys carried out worldwide suggest that there is a lack of information about the newly emerging alternative tobacco products such as electronic cigarette, hookahs, beedis and kreteks.

VI. CONCLUSION

The findings of the study can help the adults and general population to understand the impact of tobacco consumption and their relation with psychological behaviour. Overall, it is also important for clinicians that they should not be hesitant to encourage mental health patients to quit smoking. Not only it will help to improve their physical help, but it may also improve rather that exacerbate their mental health.

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