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A COMPARISON OF AGGRESSION AND IMPULSIVITY BETWEEN SMOKERS AND NON-SMOKERS

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ABSTRACT

The study aimed to investigate the role of aggression and impulsivity in smoking among male adult students. It was hypothesized that there would be significant difference between smokers and non- smokers on the traits of aggression and impulsivity. The sample of two hundred male adult students was selected from different universities of Islamabad. Two subscales of Impulsiveness and Aggression were administered to measure the personality traits of aggression and impulsivity. Descriptive statistics and t-test was calculated for analysis of data. Results showed that there is significant differences in aggression and impulsivity between smokers and non-smokers. The result can be helpful for psychologist and other professionals to plan public health therapeutic and social reengineering interventions for youth.

UDC CODE & KEYWORDS

■ UDC: 159.98-616.89 ■ Adults ■ Aggression ■ Comparison ■ Impulsivity ■ Non-smokers ■ Smokers

INTRODUCTION

"Tobacco kills approximately 6 million people and causes more than half a trillion dollars of economic damage each year" (WHO Framework Convention on Tobacco Control, 2013).

Cigarettes smoking is considered as health related threat all over the world but simultaneously it is the most popular form of tobacco usage. Diversified results were found within different cultures in smoking epidemic reports (ALA, 2011). Majority of tobacco user belong to developed counties (WHO, 2011). Various countries are taking major steps for prevention and cession of tobacco use. Unfortunately, Pakistan is deprived of cession interventions (Khan, 2012). In Pakistan, the prevalence of smoking is higher in males than females (Gilani & Leon, 2013; WHO, 2011).

Smoking is an important issue not only in Pakistan but also all around the world. There are several pharmacological, social, psychological perspectives or assumptions attached to the initiation and maintenance of smoking. It is the cause of many physical and psychological problems as well.

The effects of smoking on human health are serious and in many cases, deadly. There are approximately 6000 chemicals at the burning of cigarettes, hundreds of which are toxic (ALA, 2011). The ingredients in cigarettes affect everything from the internal functioning of organs to the efficiency of the body's immune system (Jack, 2009). Cigarette is so dangerous that one cigarette cuts at least 5 minutes of a smoker's life. Almost a quarter of deaths of heart disease are related to smoking (Martin, 2007). According to Malhotra (2005), smoking is a reason for more than 30 percent of all deaths in cancer patient. It is also the cause of 90 percent of deaths of lung cancer. Smoking has a strong link with 75 percent of deaths from chronic bronchitis and emphysema. According to Brizer (2003), smoking is a major cause of premature death because the smokers who are smoking for several years, half of them will die from excessive use of tobacco.

Nicotine the major active ingredient in tobacco is responsible to create nicotine dependency syndrome. According to Jack (2009) smoker is helpless in front of nicotine dependency. There are some quick-effects of a cigarette smoke that makes a man physically and mentally dependence on it. Strong evidence exists for a nicotine dependency syndrome which almost always beings during the adolescents years and may continue into adult life as a difficult to break and health-endangering habit (Butcher, Hooley, & Mineka, 2013). According to DSM-V (APA, 2013) the nicotine induced organic mental disorder, results from ceasing or reducing the intake of nicotine containing substances after an individual has acquired physical dependence on them. Nicotine dependence and withdrawal can develop with use of all forms of tobacco and with prescription medications (nicotine gum and patch).

There are numerous treatment programs have been developed to aid smokers in quitting. Smoking cessation programs use many different methods, including social support groups, various pharmacologic agents, self- direct change, and professional treatment using psychological producers such as behavior or cognitive behavior interventions (Butcher, Hooley, & Mineka, 2013). Smoking can be linked or lead to psychological problems like depression, anxiety, stress, aggression and anger (Yazici 2008; Nazar, 2008). In this regard, it is unavoidable to address psychological aspects of smoking for the development of effective smoking prevention and cessation programs. Different studies investigate the association of personality factors (Terraciano & Costa, 2004) and heritable temperament traits (Etter, Pélissolo, Pomerleau, & De Saint-Hilaire, 2003) with smoking.

Personality traits are among many of the of other influential variables that play strong role in smoking. Personality is a person's unique behavioral and cognitive patterns or a person's unique consistent pattern of thinking, feeling, and acting (APA, 2013). Personality is based on the individual's distinct and consistent outlooks and actions or overall style of behavior. Inherited or biological traits are not personality traits except in as much as they influence behavior (Ritberger, 2007). There are many traits of personality related to smoking but two of them found to be directly interlinked with smoking in many individuals. Among these traits are aggression (Kenneth et al., 2002 ; Carolyn & Ryan, 1977) and impulsivity (Grano,

Virtanen, Vahter, Elovaini, & Kivimäk, 2004; Sarramon, Verdoux, Schmitt, & Bourgeois, 1999 ; MacAndrew, 1983). These two above mentioned personality traits are found in three basic dimensions of personality described by Eysenck (1967, 1990), that he labeled as introversion-extroversion, neuroticism (emotionally stable-unstable) and psychoticism. He found some relationship of smoking with extroversion and psychoticism.

Aggression refers to any behavior that is hostile, destructive, and/or violent. Aggression is defined as behaviors such as temperaments, fighting, violent, arguments and sarcasm (Eysenck & Wilson, 1975). Generally, aggressive behavior has the potential to inflict injury or damage to the target person or object. Examples of aggressive behavior include physical assault, throwing objects, property destruction, self-harming behaviors, and verbal threats (Pedneault, 2009). There are two broad categories of aggression. These include hostile, affective, or retaliatory aggression and another is instrumental, predatory, or goal-oriented aggression. Empirical research indicates that there is a critical difference between the two, both psychologically and physiologically. A survey was conducted on the population of New York city students found the factor of aggression as a predictor of smoking (Kenneth et al., 2002). Philip Morris Tobacco Company studied (Carolyn & Ryan, 1977) the relationship between smoking and personality, aggression, frustration, hyperkinesis, smoking and learned helplessness, and variations in smoking behavior when subjects smoke low nicotine cigarettes.

Impulsivity is defined as to act on the spur of the moment, make hurried, often premature, decisions and is usually carefree, changeable and unpredictable (Eysenck & Wilson, 1975). Impulsive people inclined to act on impulse rather than thought. People, who are overly impulsive, seem unable to curb their immediate reactions or think before they act (APA, 2013). Grano et al. (2004), examined that impulsivity contributes to increasing health risk behaviors. Study of Sarramon, Verdoux, Schmitt, and Bourgeois (1999), presented the evaluation of three-dimensional traits of personality named as sensation seeking, anhedonia and impulsivity. They found a significant relationship between three personality traits and addictive behavior. The trait of impulsivity was measured on the MacAndrew Scale, a group of items from the Minnesota Multiphasic Personality Inventory tapping antisocial acting out and impulsiveness. Group high on this scale (more men than women, but both men and women) much more commonly resort to drugs and alcohol for opportunities of impulsive and destructive self-expression (MacAndrew, 1983).

Objectives

The aim is the study to investigate the role of aggression and impulsivity in smoking among male adult students. This research investigates that how these two personality traits influence on the smoking patterns of smokers and non-smokers. After reviewing literature it was hypothesized that “there would be significant difference between smokers and non- smokers on the traits of aggression and impulsivity”.

Data and Methodology

Comparative research design was used to investigate the difference of aggression and impulsivity between smokers and non-smokers. Participants (N=200, age range from 18 to 30, *M* = 21.96, *SD* = 1.91) completed questionnaires (N= 100 smokers, N= 100 non-smokers). Participation was on a voluntary basis. Group was matched on the bases of age. A brief demographic form was administered for socio-demographic variables. Purposive sampling was use for this research. Further those who smoke, drug or any substance anything earlier in their life were excluded. Those who were diagnosed by any psychiatrist/psychologist were also excluded.

Two subscales of Impulsiveness and Aggression (Eysenck & Wilson, 1975) were administered to measure the personality traits of aggression and impulsivity. These scales were self-administered and consist of 30 items each. Items were forced choice. Both of the scales are based on Eysenck personality questionnaire and scales were standardized over 12, 000 males and females, adults and children, normal, neurotics, criminals and psychotics as well as 2, 000 pairs of twins (Eysenck & Wilson, 1975).

Consent of the participant’s was sought before the administration of procedure. Participants were requested to fill up the demographic form before administering the scales, participants were provided necessary directions about assessment in order to reduce their anxious feelings. Participants were required to make choice on Aggressiveness and Impulsivity scales according to their personality. SPSS 17.0 was used for analyzing, organizing, and interpreting the data. Descriptive and inferential statistics was used. Mean, frequency, percentages and standard deviation was calculated. To determine the significance of difference between personality traits in smokers and non-smokers t-test was apply.

Results and Discussion

Table 1: Descriptive Statistics of impulsivity in smokers and nonsmokers

Groups	N	M	Std. deviation
Non-Smoker	100	18.80	4.340
Smokers	100	17.92	4.443

Source: Author

Table 2: Independent sample t-test of smokers and nonsmokers on the variable of impulsivity

Groups	t	df	Std. deviation	Sig.
Non-Smoker	1.260	198	4.189	.031
Smokers				
Results are significant since $p < .05$.				

Source: Author

Research hypothesis that there will be a significant difference in aggression between smokers and nonsmokers is supported, t (198) = 1.260, *P*< *.05*.

Table 3: Descriptive Statistics of aggression in smokers and nonsmokers

Groups	N	M	Std. deviation
Non-Smoker	100	16.14	5.307
Smokers	100	17.39	3.904

Source: Author

Table 4: Independent sample t-test of smokers and nonsmokers on the variable of aggression

Groups	t	df	Std. deviation	Sig.
Non-Smoker	1.619	198	5.043	.033
Smokers				
Results are significant since $p < .05$.				

Source: Author

Research hypothesis that there will be a significant difference in aggression between smokers and nonsmokers is supported, t (198) = 1.619, *P< .05*.

Present research found significant difference in both of the hypothesis of aggression [*t = 1.619, df = 198, p = .033*] and impulsivity [*t = 1.260, df = 198, p = .316*] that was significantly high in smokers.

According to DSM-V (APA, 2013) there are also some personal features that led a person to aggression for example hormonal changes in adolescences. Society frustration is also a factor for aggression in adolescents. Engagement in destructive activities is an example of society frustration. There is also research evidence (Kenneth et al., 2002) that aggression play an important role in smoking or its continuation.

Present research found statistically significant difference in impulsivity among smokers and non- smokers. The mean for impulsivity in smokers was (*M* = 17.92) and that for the nonsmokers was (*M* = 18.80). Smokers had a slightly high standard deviation (*SD* = 4.443) as compared to the nonsmokers (*SD* = 4.340). These results are incorporating the previous studies (Grano et al., 2004).

Personality trait are found to have strong bond to formulate or initiate various habits (Carver & Scheier, 2012). A research was conducted by (MacAndrew, 1983) which also indicates that there are many psychosocial factors found that play an important role in smoking. Tyas & Pederson (1998) conducted a research on the adolescent smoking was associated with age, family structure parental socioeconomic status, parental smoking, sibling smoking, peer smoking, peer attitude and norms and attachment to family and friends, stress, depression and health concerns.

There are some other factors found more stronger associations with smoking as compare to personality. One of the influential factor is learning. Giannakopoulos et al. (2010), attempted to assess the association between adolescents' smoking status and their emotional/behavioral problems after controlling for a number of possible confounders (i.e. age, gender, parental smoking status, exposure to family smoking, family socioeconomic status, adolescents' leisure time) in a Greek nation-wide school-based sample. They found emotional symptoms, conduct problems and hyperactivity/inattention were all significantly associated with adolescents' current smoking.

Wills, Ainette, Stoolmiller, Gibbons, & Shinar (2008), tested the sample of public school students (N = 1,767) who were surveyed at 4 yearly intervals between 6th grade and 9th grade. He examined the prediction that self-control would have buffering effects for adolescent substance use (tobacco, alcohol, and marijuana) with regard to family life events, adolescent life events, and peer substance use risk factors. Participants were a Good self-control was assessed with multiple indicators (e.g., planning and problem solving). He found that the impact of all risk factors on substance use was reduced among persons with higher scores on good self-control. It is also evident in current research that non-smoker student scored low on impulsivity.

Limitations and Suggestions

This research based on the data of 200 male students. The sample size for future study could be enhanced to get generalization of the findings. Though researcher matched the data on the basis of age, but more comprehensive results cannot be yield through probability sampling technique. Brief structured interview can be helpful to reveal more better understanding of the problem. For youth healthy activities e.g., sports, arts, and community social work must be provided to channelize energies in positive direction. So, to educate people about the hazards involved in smoking, mass media can play an important role in this respect.

Conclusion

Impulsivity and aggression are the personality traits strongly associated with smoking. These traits may interfere even in cession of smoking programs. Psychologist and other professionals involved in planning of public health, therapeutic and social reengineering interventions for youth can get benefit by the results of study.

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Groups of patients	Severity (number of patients and %)		
	UD easy severity level	UD - moderate severity	UD severe severity
Patients with the H. pylori association	19 26.4%	43 59.7%	10 13.9%
Patients without H. pylori association	16 61.5%	10 38.5%	–

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