

Personality Traits, Self-Esteem, Self-Efficacy And Smoking Behavior Among Male Medical Students

Ahmed Bilal¹, Huma Hassan², Zahra Qureshi³

¹Department of Applied Psychology, University of Management and Technology, Lahore

²Institute of Applied Psychology, University of the Punjab, Lahore.

³Lahore University of Management Sciences

Abstract

The present study investigated the relationship among personality traits (extraversion, agreeableness, conscientiousness, neuroticism, and openness), self-esteem and self-efficacy between three types of smoking behavior (smokers, non-smokers and experimental smokers). It was hypothesized that there was likely to be a relationship and differences between personality traits, self-esteem, self-efficacy and three types of smoking behavior (smokers, non-smokers and experimental smokers) in male medical students. Correlational (cross-sectional) research design and purposive sampling were used in the present study. The sample was comprised of 452 males, (N=452) including 209 smokers (n=209), 171 non-smokers (n=171) and 72 experimental smokers (n=72) from medical universities of Lahore, with age range of 18-27 years. Smoking Behavior Assessment (SBA; World Health Organization, 1998; Kaplan, Naples- Springer, Stewart, Perez-Stable, 2001), Big Five Inventory (BFI; John & Srivastava, 1999), Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965) and General Self-Efficacy Scale (GSE; Schwarzer & Jerusalem, 1995) were used to assess the study variables. The results of Pearson product moment correlation revealed that smokers have significant negative correlation with agreeableness and conscientiousness traits of personality but have a positive correlation with self-esteem and negative correlation with self-efficacy. Experimental smokers have no correlation with any of the personality traits. Whereas, it showed negatively significant correlation with self-esteem while showed a positive association with self-efficacy. One-way ANOVA disclosed that there is a significant difference among three groups. The study has important implications in the field of health psychology and can be used in considering personality traits and improving self-esteem and self-efficacy of male medical students who smoke by taking in consideration of results for devising smoking management programs.

Keywords: Smoking, Personality traits, Self-Esteem, Self-Efficacy, medical students.

Introduction

Smoking is an age old and ever prevalent activity which despite it's known damages, is not foreseeably being forsaken. Now days the epidemiology of smoking is of substantial concern. There is a clear concern that when a person indulges in cigarette smoking it gradually turns into a habit which can create severe damages to the person's physical and mental health (Nizami, Sobani, Raza & Baloch, 2011). The studies reported that rate of smoking is increasing day by day and the domains of personality (Munaf, Zetteler & Clark, 2007), self-esteem (Mazanov & Byrne, 2002), self-efficacy (Kenney & Holahan, 2008) of a person have a predicting role in

smoking status. Hence, the present study aims to investigate the association among the personal sources such as personality traits, self-esteem and self-efficacy with smoking behavior.

Firstly, the personality is defined by Gordon Allport as "personality is the dynamic organization within the individual of those psychophysical systems that determine characteristic behavior and thought" (Allport, 1961). Personality word extracted from a Latin word that is "persona" and the meaning of this word is "mask". This concept actually came from and described in ancient history in which these ancient theater actors used to wear it in order to perform an assigned character they are playing. Personality is the collection of mental and emotional

characteristics, the structured natural processes inside the human being which have long lasting effects on their interactions and adjustments with others, their inner world like their desires, their fantasies, their dreams and their personal and social surroundings and experiences. According to Derlega, Winstead and Jones (2005) personality is a structure of internal traits of a person which provides a long-lasting effect on the uniformity of their thinking, emotions and actions. On the other hand Feist, Feist and Roberts (2013) defined personality as a model of indefinite and distinctive traits which shapes a stable and unique behavior of a person. Personality traits are the qualities which distinguishes every person from each other. Basically personality traits describes the ways on the basis of which people differ or have similarities from one another like for example the people who have a trait of shyness share this trait of similarity on the basis of their nervousness they feel in certain social settings especially in crowded places or when they get a feeling that people are observing them and noticing them more (Larsen et al., 2014).

The concept of self-esteem is firstly explained by a psychologist William James. According to William James (1890) it is the development of sense of self-respect ones develop for the achievement of certain goals which he sets to achieve. It was basically how a person perceive his self-image like if he views it as it was appropriate to his beliefs and values or not. The altogether assessment of feelings of importance and value a person experience about his or her self is what self-esteem is. It was basically the opinions about the self a person forms and on the basis of it make judgments about himself (Smith, Mackie & Claypool, 2014).

Self-esteem is an evaluation of oneself. According to studies, higher the self-esteem lower will be the smoking behavior. This inverse relationship is justified with the fact that the people who have low self-esteem effortlessly conform to others expectations and that's why they are easily peer pressured into smoking (Zolonowski, 2012).). The concept of Self- efficacy was originally defined by albert Bandura. He conceptualizes self-efficacy as an anticipation related to pursue a particular goal followed by a belief of strong sense of certainty in one's potential required to achieve the desired

outcome. He believe that people collect information related to their capacities and then invest their efforts and perform a particular type of behavior accordingly (Bandura, 1977). It is the capability to organize a task related to a particular domain effectively (Bandura, 1995). Basically, self-efficacy is one's judgment that how much or how better a person can perform. It is the person's coping ability to manage the obstacles. People with high level of self-efficacy will show more effort hence produce positive outcomes. It is a belief of a person about his power to effect a situation. It affects both the person power to change the circumstances and the choices he made. A strong sense of acceptance and faith of a person in one's self which eventually could leads a person to behave in such a way that his approach to success became easier is basically the main core concept of self-efficacy. So, considering it's influential importance in one's decision-making process there is a very good chance that a person gets affected by and need these self-assured believes in their life to overcome a challenging obstacles and demanding situations comes in their way. Also, Self-efficacy believes can motivate or discourage a person by generating aspirational or unaspiring thinking patterns in him (Bandura & Locke, 2003). Moreover, the developmental process of goal setting is also dependent on self-efficacy. Like for example, higher the self-efficacy believes higher will be setting of challenging goals and the determination to achieve them. On the other hand, lower the self-efficacy more will be the establishment of deviant goals (Judge et al., 2002).

The literature of previous reaches also suggested that low self-efficacy believes majorly influences a person to such extend that it results in the progression and constancy of smoking behaviors (De Vries & Kuhlman, 1988; Engels). As it act as a mediator between affectivity of a person and his/her psychosocial functioning. Whereas with high level of self-efficacy a person can refuse the behavior which socially undesirable. Relating to a particular domain the person with high self believes perceive himself to be competent and feel confident to manage challenging situations. They feel that they can handle any difficult situation (Bandura, Caprara, Barbaranelli, Gerbino & Pastorelli, 2003). The researches indicated that smoking is directly

proportional to low level of self-efficacy (Engels, Hale, Noom & De, 2005). It is justified with the fact that with low level of self-efficacy, symptoms of depression and anxiety are produced in the individual where it results into smoking behaviors. As with low self-beliefs upon himself/herself makes an individual feel that they are less competent to accomplish a task. Furthermore, studies have found that observational learning has a major role in the development of smoking habits. At a young age, children started to learn and model the behaviors of their adults. Studies have verified that most of the smokers smoke because they have learned this behavior from their family members (Kegler, Cleaver & Yazzie-Valencia, 2000). Furthermore, in addiction studies it has been proved that the first drug of choice is always tobacco; from here the person started to become addictive to other drugs. It could be said that cigarettes act as a free pass to start using or experimenting other drugs (Husten, 2009).

Objectives

- To assess the relationship among personality traits, self-esteem, self-efficacy and three types of smoking behavior (smokers, non-smokers and experimental smokers) in male university students.
- To assess the difference between personality traits, self-esteem, self-efficacy and three types of smoking behavior (smokers, non-smokers and experimental smokers) in male university students.

Hypotheses

- There is likely to be a relationship between personality traits, self-esteem, self-efficacy and three types of smoking behavior (smokers, non-smokers and experimental smokers) in male university students.

- There is likely to be a difference between personality traits, self-esteem, self-efficacy and three types of smoking behavior (smokers, non-smokers and experimental smokers) in male university students.

Method

Research Design

Correlational (cross-sectional) research design was used in the present study.

Sample and Sampling Techniques

The sample comprised of 452 male medical students (N=452) with 209 smokers (n=209), 171 non-smokers (n=171) and 72 experimental smokers (n=72) from two private and two government universities of Lahore that is King Edward Medical University, Lahore Allama Iqbal Medical College Lahore, Azra Naheed Medical College and University Medicine and Dentistry College. The age range of males was 18 to 27 years. Purposive sampling technique was used to collect the data from males according to the following criteria.

Inclusion Criteria

- Age range (18-27) years was taken.
- Those male students who were pursuing medical education and studying in medical universities were selected.
- Those who use only cigarettes were included.

Exclusion Criteria

- Male medical students who use other types of drug or substance such as alcohol, cannabis, opioid, sedatives were excluded.
- Females were excluded
- Former smokers were also excluded.

Variables	f (%)	M(SD)
Institute		
KEMU	138(30.5)	-
AIMC	193(42.7)	-
UCMD	66(14.6)	-
ANMC	55(12.2)	-
Job Status		
Yes	69(15.3)	-
No	383(84.7)	-
Locality		
Urban	293(64.8)	-
Rural	159(35.2)	-
Birth Order		
First Born	95(21.0)	-

Second Born	112(24.8)	-
Last Born	205(45.4)	-
Only Child	40(8.8)	-
Family System		
Nuclear	243(53.8)	-
Joint	209(46.2)	-
Smoking Status		
Smokers	209(46)	-
Non-Smokers	171(38)	-
Experimental Smokers	72(16)	-
Past Smoking Status		

Table 3.1 (Continued)

Demographic Characteristic of Sample (N = 452)

Variables	f (%)	M(SD)
In Adolescent	56(12.4)	-
In College Time	143(31.6)	-
Other point in Life	91(20.1)	-
Never Smoked	162(35.8)	-
Smoking initiation age (In years)		
Under 13 years	27(6.0)	-
13-17years	72(15.9)	-
18-21 years	151(33.4)	-
Over 22 years old	31(6.9)	-
Never Smoked	171(37.8)	-
Family History of Smoking		
One Parent smoked	126(27.9)	-
Both Parents smoked	17(3.8)	-
One or more Siblings smoked	55(12.2)	-
No Member of the family smoked	254(56.2)	-
Situational factors of Smoking		
When I am by myself	98(21.7)	-
When I am with other Friends who Smoked	163(36.1)	-
When I am With other Friends who don't Smoked	9(2.0)	-
I Never Smoked	182(40.3)	-
Motivators of Smoking		
Smoking Calms me Down	102(22.6)	-
Smoking Controls Metabolism	45(10.0)	-
My Friends Smoke	89(19.7)	-
Boredom	45(10.0)	-
I never smoked	171(37.8)	-
Past Attempts to Quit Smoking		
I have Successfully Quit Smoking	36(8.0)	-
I have tried to stop smoking 1-3 Times	72(15.9)	-
I have tried to stop smoking 4 or More Times	115(25.4)	-
I Never Smoked	172(38.1)	-
I Never tried to Quit Smoking	57(12.6)	-
Brand of Cigarettes		

	I Never Smoked	172(38.1)	-
	Gold leaf	90(19.9)	-
	Dunhill Table	52(11.5)	-

3.1 (Continued)

Demographic Characteristic of Sample (N = 452)

Variables	f (%)	M(SD)
Marlboro	56(12.4)	-
Benson and Hedges	47(10.4)	-
Capstan	35(7.7)	-
Other Tobacco Products Used		
Yes		0
No		452(100)
Reasons of preferred brand of cigarettes		
My Friends use it	57(12.6)	-
Low Price of Brand	14(3.1)	-
High Price of Brand	30(6.6)	-
Specific Taste of Brand	179(39.6)	-
I Never Smoked	172(38.1)	-
Cigarettes Smoked per Day		
1-10	117(25.9)	-
1 pack	59(13.1)	-
2 packs	23(5.1)	-
More than 2 packs	10(2.2)	-
I have tried smoking(one or more than one puffs) but don't smoke now	72(15.9)	
I Never Smoked	171(37.8)	-
Age in years (18-31)	-	21.8(2.10)
Number of Siblings	-	3.6(2.12)
Current Semester (1-8)	-	4.2(2.37)
Monthly Family Income (In rupees)	-	132736.7(418490.55)

Note. M= Mean; SD= Standard Deviation; f= Frequency; %= Percentage

Assessment Measures

Following tools were used for the purpose of assessment in the present study.

- 1) Demographic sheet
- 2) Assessment for Smoking Behavior
- 3) Fagerstrom Test for Nicotine Dependence
- 4) Big Five Inventory
- 5) Rosenberg Self-Esteem Scale
- 6) The General Self-Efficacy Scale
- 7)

demographic information which includes age, number of siblings, birth order, family income, family system, residence, name of institute, smoking initiation age, family history of smoking, situational factors of smoking, motivators of smoking, preferred brand of cigarettes, reason of preferred brand of cigarettes and any other drug usage.

Demographic sheet. A self-constructed demographic information sheet was used to obtain

Smoking behavior Assessment. In our study it was used to screen out the status of smoking which is adapted from a survey designed for defining the three stages of smoking continuum classified as current smokers, never smokers, experimental smokers (Kaplan, Napoles-Springer, Stewart & Perez-Stable, 2001). It was also fits according to the criteria of definition mentioned in the scale developed by World Health Organization (WHO et al., 1998). Fewer than 100 cigarettes used were considered as experimental smokers (even a puff), equal to or more than 100 cigarettes used or currently engaged in smoking for the past 30 days or for at least 6 months were considered as current smokers and those who never smoked the cigarette not even a puff were regarded as never smokers (Kaplan et al., 200; WHO et al., 1998).

Fagerstrom test for nicotine dependence. It was developed by Fagerstrom in 1991. It is a revision of Fagerstrom Tolerance Questionnaire. It was also used as a screening tool in our study as it measures individual current level of nicotine dependence. So, as in our study only those participants are included who only use cigarettes so by using this tool it was easy to classify those participants as it was designed only for cigarette smokers (Heatherton, Kozlowski, Frecker & Fagerstrom, 1991). It consists of 6 items.

Big five inventory. It was developed by John and Srivastava in 1999. It measures Big Five dimensions of personality. It consists of 44 items with 5 subscales of extraversion, agreeableness, conscientiousness, neuroticism and openness. The response scale was a 5 point Likert-type scale (1=disagree strongly to 5=agree strongly). The BFI score is computed by total scores of 28 normal items and 16 reversed items.

Rosenberg self-esteem scale. It deals with global self-worth which is the positive and negative feelings about self. It consists of 10 items. The response scale was a 4 point Likert-type scale (1=strongly agree to 4=strongly disagree). The SES score is computed by sum of all scores.

Higher the score higher will be self-esteem. This scale has high internal consistency with Cronbach's $\alpha=.77$ and high construct validity (Rosenberg, 1965).

The general self-efficacy scale. It was developed by Schwarzer and Jerusalem in 1995. It measures general perceived self-efficacy in order to cope with daily hassles and stressful life events. It consists of 10 items. The response scale was a 4 point Likert-type scale (1=not at all true to 4=exactly true). The GSE score is computed by sum of all scores. Higher the score higher will be self-efficacy (Schwarzer & Jerusalem, 1995).

Procedure

For this research study, the permission was taken of the scales of Assessment Smoking Behavior and Fagerstrom Test for Nicotine Dependence from their respective authors through email. The scales named Big Five Inventory, Rosenberg Self-Esteem Scale and The General Self-Efficacy Scale are used in this study in their original language that is in English language so they are used as it is without any email formality as these authors give general permission for the non-commercial academic use of these scales and are easily available on their respective official websites. Permission was taken from the concerned authorities which were the in charge of the institute. Then a set of questionnaires was distributed to each of the participants which consists of consent form, demographic sheet, Assessment for Smoking Behavior, Fagerstrom Test for Nicotine Dependence, Big Five Inventory, Rosenberg Self-Esteem Scale and The General Self-Efficacy Scale. Then the first assessment tool that is the Demographic sheet was also filled by each of the participants. Second tool named Assessment for Smoking Behavior which is used as the Screening tool to assess the smoking status of the participants on the basis of a questions that is "have you ever smoked part or all of a cigarette or smoked less than 100 cigarettes in your entire life time". Those who answer it as "Yes" were considered as experimental smokers. Then

those who answer this question that is “have you ever smoked at least 100 cigarettes in your entire life time or during the past 30 days or within the duration of at least 6 months you smoked part or all of a cigarette” as “Yes” were categorized as smoker. Those who answers both of these questions that is “have you ever smoked part or all of a cigarette or smoked less than 100 cigarettes in your entire life time” and “have you ever smoked at least 100 cigarettes in your entire life time or during the past 30 days or within the duration of at least 6 months you smoked part or all of a cigarette” as “No” were considered as non-smoker. Those who filled the box of ex-smokers will be excluded from the study. Then comes third tool that is Fagerstrom Test for Nicotine Dependence, was used to measure the intensity of nicotine dependence. It was another screening tool used in this study which helps to screen out and include only those participants that fulfilled the decided inclusion criteria of the study. The fourth tool is Big Five Inventory was used to measure various dimensions of personality. The fifth tool is Rosenberg Self-Esteem Scale was used to measure

the global self-worth. The sixth tool is The General Self-Efficacy Scale was used to assess perceived self-efficacy of individuals in general terms. Every participant was provided and filled these six sets of questionnaires. The average time to solve questionnaire was 10-15 minutes. 480 questionnaires were given to the participants and 452 questionnaires were returned. The response rate was 91%.

Ethical Considerations

- Participants were appropriately informed about the nature of the research.
- Informed consent was taken from the participants.
- Anonymity of participants and confidentiality of the information was maintained.
- Participants were given the right to withdraw from research at any time.
- The responses were accurately represented.

Results

Results are presented as under.

Reliability Analyses

Table 2 Cronbach’s Alpha and Descriptive Statistics of Big Five Inventory, Rosenberg Self-Esteem Scale and The General Self-Efficacy Scale (N=452).

Variables	k	M(SD)	Range		α
			Potential	Actual	
Big Five Inventory	44	142.8(13.3)	44-220	104-185	.61
Extraversion	8	25.4(4.6)	8-40	12-39	.47
Agreeableness	9	30.9(5.2)	9-45	16-68	.38
Conscientiousness	9	28.6(4.4)	9-45	18-41	.36
Neuroticism	8	23.9(4.8)	8-40	8-38	.51
Openness	10	33.8(5.1)	10-50	18-47	.51
Self-Esteem	10	26.6(7.1)	10-40	12-40	.91
Self-Efficacy	10	23.5(7.2)	10-40	12-40	.89

Note. k = Number of items, α = Cronbach’s alpha.

Table 2 revealed that the reliability analysis was carried out for each assessment measure using Cronbach’s alpha. Extraversion subscale has reliability of .46, agreeableness has .38, conscientiousness has .36, neuroticism has .51 and openness has .51. Whereas, overall scale has reliability of .61. The whole scale of Big Five Inventory has fair reliability (Schmitt, 1996; Kawakami et al, 2000; Peterson, 1994; Sijtsma,

2009; Crouch, 2016). While Rosenberg self-esteem scale has the reliability .91 and general self-efficacy scale has .89 respectively even with limited number of item which means that scales are highly reliable. The internal consistency of all scales and subscales is high. The reliability values of the scale are good to carry out further analysis.

It was hypothesized that there is likely to be a relationship among personality traits, self-esteem, self-efficacy and smoking behavior among

male university students. Thus, to assess this relationship Pearson correlation analysis was applied as shown in Table 3.

Table 3 Pearson product-moment correlation analysis between Personality traits, Self-esteem and Self-efficacy Related to Smokers(n=209), Non-smokers(n=171) and Experimental smokers(n=72) among Male Medical Students(N=452).

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Smokers(SB)	-	.12	-	.03	.04	-.00	.06	-.02	-.07	-.03	-	-	.02	.03	.90*	-	
	.40**	**	.03								.10*	.15*			*	.83*	*
2. ES(SB)		-	.05	-.04	.06	-.02	-	-.02	-.00	.05	-	.02	.05	-.02	-	.36*	*
		.08					.02				.04				.23**	*	
3. Age			.17**	.15*	.10*	-.03		.15*	-.02	-.03	.01	.10*	-.04	.02	.11*	-.08	
			**	*	*	.28*	*	*									
4. CS				.09	.04	-	-	.01	.01	-.04	-	-.06	.01	.06	-.03	.08	
						.13*	.03				.02						
5. NOS					-.08	.00	.02	.16*	-	-.00	-	-.06	-.02	-.06	.02	-.04	
								*	.18**		.03						
6. Family income						-	-	-.01	.08	.01	-	-.02	-.02	.00	.02	.01	
						.22*	.06				.03						
7. Job							.07	-.08	-.07	-.04	-	-.06	-.01	.03	.00	-.04	
											.01						
8. Birth Order								-.01	-.05	-.03	-	-.02	-.07	-.06	.04	.07	
											.07						
9. Family System									-	-.02	-	-.03	.03	.00	-.01	.01	
									.16**		.06						
10. Residence										.08	.07	.06	.01	.07	-.09*	.13*	*
11. Extroversion											.19**	.26*	-	.22*	-.11*	.14*	*
												*	.22**	*			
12.												.35*	-	.35*	-	.16*	

Agreeableness	*	.12	*	.15**	*
		**			
13. Conscientiousness		-	.29*	-	.21*
		.24	*	.19**	*
		**			
14. Neuroticism			.10*	.05	-.07
15. Openness				-.02	.08
16. Self-esteem					-
17. Self-efficacy					.77*
					*

Note. ES= Experimental Smokers, RSS= Rosenberg Self-esteem Scale, GSE= General Self-efficacy Scale, Reference Category= Non-Smokers, SB= Smoking Behaviour Category, CS= current semester, NOS= number of siblings, Coding Smokers: Smokers= 1, Non-Smokers= 0, Experimental Smokers: Experimental Smokers= 1, Non-Smokers= 0; *,p<.05; **,p<.01; ***,p<.001

Table 3 showed that smokers among smoking behavior category has negatively significant correlation with agreeableness and conscientiousness traits of personality measure but showed non-significant correlation with extraversion, neuroticism and openness personality traits. Moreover, smokers showed positive

relationship with self-esteem while showed negative association with self-efficacy.

Furthermore, in the next category of smoking behavior that is experimental smokers, it showed negatively significant correlation with self-esteem while showed a positive correlation with self-efficacy.

It was hypothesized that there is likely to be a difference between personality traits (extraversion, agreeableness, conscientiousness, neuroticism and openness), self-esteem, self-efficacy and smoking behavior (smokers, non-smokers, experimental smokers) among male medical students. Thus, to assess this difference ANOVA was applied as shown in Table 4

Table 4 One Way Independent Measure ANOVA Comparing Personality Traits, Self-Esteem and Self- Efficacy among smoking behaviors (N=452).

Variable	Smokers (n= 209)		Non-Smokers (n= 171)		Experimental smokers (n=72)		F(2,449)	P	Partial η ²
	M	SD	M	SD	M	SD			
Extraversion	25.29	4.71	25.41	4.43	25.93	4.85	.52	.594	.002
Agreeableness	30.36	5.36	31.84	5.28	30.50	4.56	4.07	.018	.02
Conscientiousness	27.92	4.04	29.41	4.81	28.82	4.33	5.50	.004	.02
Neuroticism	24.06	4.68	23.63	5.08	24.49	4.78	.88	.417	.004
Openness	33.99	5.29	33.77	4.99	33.65	5.21	.15	.859	.001
Self-Esteem	22.45	2.56	19.89	2.12	22.93	2.27	1072.11	.000	.82

Table 4 showed that the difference between personality traits i.e. agreeableness and conscientiousness in three smoking behaviors was found to be significant. Results showed that non-smoker medical students have significant high agreeableness and also have high level of conscientiousness as compared to smokers and experimental smokers. The effect size of agreeableness and conscientiousness was small. Further for the pair wise comparison post hoc Test Hochberg for agreeableness and Games-Howell for conscientiousness was carried out shown in table 4.3.1 and 4.3.2 respectively. Moreover, the difference between self-esteem in three smoking behaviors was found to be significant. Smoker students have significant high self- esteem as

compared to experimental smokers and non-smokers. While among three groups, non- smokers have low self-esteem. The effect size was large. Further for the pair wise comparison post hoc Test Games-Howell for self-esteem was carried out as shown in table 4. Also, the difference between self-efficacy in three smoking behaviors was found to be significant. Experimental smoker medical students have significant high self-efficacy as compared to non-smokers and smokers. And smokers have low level of self-efficacy as compared to other two groups. The effect size was large. Further for the pair wise comparison post hoc test Games-Howell for self-efficacy was carried out as shown in table 5

Table 5 Pair Wise Comparison through Post Hoc Test Hochberg for Effect of Smoking Behavior on Agreeableness.

Pair	MD	SE	P	95% CI	
				LL	UL
Group 1 (S) – Group 2 (N)	-1.47	.54	.019	-2.76	-.19
Group 1 (S) – Group 3 (E)	-.14	.71	.996	-1.84	1.57
Group 2 (N) – Group 3 (E)	1.34	.73	.192	-.42	3.09

Note. Group 1= Smoker, Group 2 = Non-smoker, Group 3 = Experimental Smokers, CI = Confidence interval, LL = Lower Limit, UL= Upper Limit

Results of the table 5 revealed that there was a significant difference on agreeableness personality trait of the participants from the three groups. Moreover, there is a statistically significant difference between smoker and non-smoker group.

Whereas, there is a non- significant difference between smoker and experimental smoker group and between non-smoker and experimental smoker group. So, the level of difference between the group of non-smoker and experimental and between smokers and experimental smokers will be same on agreeableness personality trait but non-smokers shows more agreeableness as compare to smokers. Hochberg Post hoc test was used for agreeableness.

Table 6 Pair Wise Comparison through Post Hoc Test Games-Howell for Effect of Smoking Behavior on Conscientiousness.

Pair	MD	SE	P	95% CI	
				LL	UL
Group 1 (S) – Group 2 (N)	-1.49	.46	.004	-2.58	-.40
Group 1 (S) – Group 2 (E)	-.90	.58	.272	-2.28	.48
Group 1 (N) – Group 2 (E)	.59	.63	.617	-.90	2.08

Note. Group 1= Smoker, Group 2 = Non-smoker, Group 3 = Experimental Smokers, CI = Confidence interval, LL = Lower Limit, UL= Upper Limit

Results in Table 6 reflected that there was a significant

difference on conscientiousness personality trait of the

three groups. Moreover, non-smokers shows more conscientiousness personality trait as compare to smokers as there was a statistically significant difference between smokers and non-smokers group. Whereas the level of conscientiousness personality trait between smokers and experimental smokers

group and between non-smokers and experimental smokers group are the same, as there is none significant difference existed among these groups. Games Howell post hoc test was used for Conscientiousness.

Table 7 Pair Wise Comparison through Post Hoc Test Games-Howell for Effect of Smoking Behavior on Self-esteem

Pair	MD	SE	p	95% CI	
				LL	UL
Group 1 (S) – Group 2 (N)	13.50	.30	.000	12.80	14.20
Group 1 (S) – Group 2 (E)	10.40	.44	.000	9.36	11.43
Group 1 (N) – Group 2 (E)	-3.10	.46	.000	-4.20	-1.10

Note. Group 1= Smoker, Group 2 = Non-smoker, Group 3 = Experimental Smokers, CI = Confidence interval, LL = Lower Limit, UL= Upper Limit

Table 7 revealed that there was a significant difference on self-esteem of the participants from the three groups. Moreover, smoker's self-esteem is higher as compare to non-smokers.

Whereas smokers and experimental smokers group are significantly different from each other. However, experimental smoker's self-esteem is higher in comparison with non-smokers. Games Howell post hoc test was used for Self-esteem.

Table 8 Pair Wise Comparison through Post Hoc Test Games Howell for Effect of Smoking Behavior on Self-efficacy.

Pair	MD	SE	P	95% CI	
				LL	UL
Group 1 (S) – Group 2 (N)	-11.84	.41	.000	-12.81	-10.86
Group 1 (S) – Group 2 (E)	-12.52	.65	.000	-14.06	-10.97
Group 1 (N) – Group 2 (E)	-.68	.72	.612	-2.38	1.02

Note. Group 1= Smoker, Group 2 = Non-smoker, Group 3 = Experimental Smokers, CI = Confidence interval, LL = Lower Limit, UL= Upper Limit

Table 8 revealed that there was a significant difference on self-efficacy of the participants from the three groups. Moreover, non-smokers have higher self-efficacy as compare to smokers. Whereas, experimental smokers have higher self-efficacy as compare to smokers. However, the level of self-efficacy between non-smokers and experimental smokers are the same. Games Howell post hoc test was used for self-efficacy.

agreeableness and conscientiousness traits of personality but showed non-significant correlation with other traits that are extraversion, neuroticism and openness personality traits. Results further shows that there is a non-significant correlation between experimental smokers and big five personality traits. According to Settles et al. (2012) certain attributes of personality like low conscientiousness and agreeableness are involved in the causation of external behaviors like substance abuse. Smokers have low level of conscientiousness is justified due to their low level of self-discipline and organization in negative and stressful stimuli which eventually leads them to risky and unhealthy behaviors (Kassel et al., 2003).

Discussion

First hypothesis of the current study is that there is likely to be a relationship among personality traits and three types of smoking behavior (smokers, non-smokers and experimental smokers) in male university students. The results of the current study partially confirm this hypothesis as it shows that smokers has negatively significant correlation with

Second hypothesis of the current study is that there is likely to be a relationship between self-esteem and three types of smoking behavior (smokers, non-

smokers and experimental smokers) in male university students. The result of the current study displays that self-esteem is positively correlated with smoking behaviour. The result is consistent with the previous results of Gupta & Mehta (2011) which concludes that one's friends' company greatly influences in adapting the risky behaviors especially tobacco as this habit is commonly being practice by students because of its easy availability and accessibility like from friends, class fellows etc.

Third hypothesis of the current study is that there is likely to be a relationship between self- efficacy and three types of smoking behavior (smokers, non-smokers and experimental smokers) in male university students. The results of the current study showed that smokers showed negative association with self-efficacy. Negative association of smoking behavior with self- efficacy can be understood by the results of the study which revealed that smokers having low self-efficacy beliefs because they perceive themselves as incapable, ineffective and worthless to achieve their desired goals. smoking habit could be a coping mechanism for smokers in order to deal with these stressors (Engels, Hale, Noom & Vries, 2005) positive beliefs shown a significant association with resistance self-efficacy in the promotion of substance abuse.

Limitations and Suggestions

Following are the limitations and suggestions of the present study:

- The data was collected from the universities of a specific city. So, it is suggested to include institutes of other cities as well for enhancing

external validity.

- The future researches should include participants belongs to different age group not specifically focus on the selected age group like in this study as 19-27 years.
- Smoking behavior is a very vast term, in the current study the smoking behavior assessment tool is used to categorize the three categories of smokers. So in this study the main focus is only on the status of smoking behavior. The future researches must focuses on the in depth analysis of smoking behavior like the topography, levels of dependency, urges, consequences etc.

Implications

- The study is targeted at creating awareness to people on how individual factors can lead towards unhealthy and risky behaviors such as tobacco usage.
- It appends to the body of literature in the domain of health and social psychology.
- In order to reduce the intake of addictive substances facilities are been provided in the rehabilitation centers for addicts in the form of interventional programs which are especially designed for the people who have any kind of short term or long-term addictions. So, the detailed study of personal factors involved in the progression and maintenance of smoking behavior may contributed to include the impotent features of these programs which helps to deal with them more successfully by using a proper guideline.

References

1. Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191-215. doi:10.1037/0033-295X.84.2.191
2. Bandura, A. (1995). *Self-efficacy in changing societies*. New York, NY, US: Cambridge University Press.
3. Bandura, A., & Locke, E.A. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology*, 88(1), 87-99. doi:10.1037/0021-9010.88.1.87
4. Bandura, A., Caprara, G. V., Barbaranelli, C., Gerbino, M., & Pastorelli, C. (2003). Role of affective self-regulatory efficacy in diverse spheres of psychosocial functioning. *Child development*, 74(3), 769-782.
5. De Vries, H., Dijkstra, M., & Kuhlman, P. (1988). Self-afficacy: the third factor besides

- attitude and subjective norm as a predictor of behavioural intentions. *Health education research*, 3(3), 273-282. doi:10.1093/her/3.3.273
6. Derlega, V. A., Winstead, B. A., Jones, W. H., (2005). *Personality: Contemporary theory and research*. Australia; Belmont, CA: Thomson/Wadsworth.
 7. Engels, R. C., Hale, W. W., Noom, M. & De, V. H. (2005). Self-efficacy and emotional adjustment as precursors of smoking in early adolescence. *Substance Use and Misuse*, 40(3), 1883-1893. doi:10.1080/10826080500259612.
 8. Feist, J., Feist, G. J., Roberts, T. A., (2013). *Theories of personality*. New York: McGraw-Hill.
 9. Husten, C. G. (2009). How should we define light or intermittent smoking does it matter. *Nicotine and Tobacco Research*, 11(2), 111-121. doi:10.1093/ntr/ntp010
 10. James, W. (1890). *The principle of psychology*. New York: Holt.
 11. John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives.
 12. Judge, B., Timothy A., Erez, K., Amir, L., Bono, I., Joyce E., Thoresen, T. & Carl, J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct. *Journal of Personality and Social Psychology*, 83(3), 693-710. doi:10.1037/0022-3514.83.3.693.
 13. Kaplan, C. P., Napoles-Springer, A., Stewart, S. L., & Perez-Stable, E. J. (2001). Smoking acquisition among adolescents and young Latinas: the role of socioenvironmental and personal factors. *Addictive behaviors*, 26(4), 531-550. doi:10.1016/S0306-4603(00)00143-X
 14. Kassel, J.D., Stroud, L.R., & Paronis, C.A. (2003). Smoking, stress, and negative affect: correlation, causation, and context across stages of smoking. *Psychological Bulletin*, 129(2), 270-304. doi:10.1037/0033-2909.129.2.270
 - Gupta, S., & Mehta, S. (2001) Effect of smoking on self-esteem and Personality type: a study on engineering students. *Indian Journal of Pharmaceutical Sciences*, 2(2), 51-60
 15. Kegler, M. C., Cleaver, V. L., & Yazzie-Valencia, M. (2000). An exploration of the influence of family on cigarette smoking among American Indian adolescents. *Health Education Research*, 15(5), 547-557. doi:10.1093/her/15.5.547
 16. Kenney, B. A., & Holahan, C. J. (2008). Depressive symptoms and cigarette smoking in a college sample. *Journal of American College Health*, 56(4), 409-414.
 17. Larsen, I. J., Montgomery, D. R., & Greenberg, H. M. (2014). The contribution of mountains to global denudation. *Geology*, 42(6), 527-530.
 18. Mazanov, J., & Byrne, D. G. (2002). A comparison of predictors of the adolescent intention to smoke with adolescent current smoking using discriminant function analysis. *British Journal of Health Psychology*, 7(2), 185-201.
 19. Munafo, M. R., Zetteler, J. I., & Clark, T. G. (2007). Personality and smoking status: A meta-analysis. *Nicotine & Tobacco Research*, 9(3), 405-413.
 20. Nizami, S., Sobani, Z. A., Raza, E., Baloch, N. U. A., & Khan, J. (2011). Causes of smoking in Pakistan: an analysis of social factors. *Journal of the Pakistan Medical Association*, 61(2), 198.
 21. Rosenberg, M. (1965). *Society and the adolescent self-image*. New Jersey: Princeton University Press.
 22. Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs*, 35, 37.
 23. Settles, R. E., Fischer, S., Cyders, M. A., Combs, J. L., Gunn, R. L., & Smith, G. T. (2012). Negative urgency: A personality predictor of externalizing behavior characterized by neuroticism, low conscientiousness, and disagreeableness. *Journal of Abnormal Psychology*, 121(1), 160-172. doi:10.1037/a0024948

24. Smith, E. R., Mackie, D. M., & Claypool, H. M. (2014). *Social psychology*. New York; London: Psychology Press.
25. World Health Organization. (1998). *Guidelines for Controlling and Monitoring the Tobacco Epidemic*. Switzerland: World Health Organization.
26. Zolnowski, W. (2012). Smoking behaviour and its correlates: personality, self-esteem, self-efficacy and coping strategies. Age-effect perspective.