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PERCEIVED STRESS AS A PREDICTOR OF SELF-ESTEEM AMONG STUDENTS WITH AND WITHOUT SMOKING BEHAVIOR

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ABSTRACT

Objectives: *The aim of the present study is to explore the predictive relationship between perceived stress (PS) and self-esteem (SE) among students with smoking behavior. It will also explore the difference on the same variables with comparative group.*
Design of the Study*: Correlational/ cross sectional*
Duration and place of study: *Institute of Clinical Psychology, University of Karachi in 2016.*
Subjects and Method: *A purposive sample of 150 students was selected from different academic institutes of Karachi Pakistan. It was comprised of 75 participants who are regular users of smoking tobacco and a matched group of 75 non-smokers, age ranged from 18 to 23 years. An individual administration of A self-developed demographic data sheet, Rosenberg Self Esteem Scale (RSES) and Perceived Stress Scale (PSS) was done.*
Results and Conclusion: *Findings indicated that PS brings 20% change in SE among students who have smoking behavior. Further, significant difference was found on the variables of PS and SE in students with smoking behavior and the comparative group. It is concluded from findings that there is a need to alleviate the stress level and boost self-esteem to prevent this age group from unhealthy behavior.*

Keyword's*: Perceived stress; Self-Esteem, Adolescents; Tobacco Smoking*

INTRODUCTION

Smoking behavior is described as dependency on tobacco use. It contains nicotine and it has capacity to bring changes in brain chemistry and in behavior of individuals (Health Information Publication, 2004). World widely, among many public health problems cigarette smoking has also been considered harmful for life (Eftekhari, Nassr, Rassulain, & Sallehi, 2007; Sarafzade, Boshtam, & Tafazoli, 2004). It has many adverse consequences in the form of many chronic illnesses such as cancer of lungs that ultimately led a life towards death (Emmeree, 2003; Centers for Disease Control and Prevention, 2000; Nichols, 2006). In a report by the world health organization, 5.4 million deaths were assumed that is expected to rise towards ten million by the year 2030 with same inclination (World Health Organization, 2008). Smoking has an immense prevalence in developing countries (Rozi, Butt, & Akhtar, 2007; World Health Organization, 2008). According to American Cancer Society (2006) XZthe ratio of smokers in the world is almost 1.3 billion and 80% of this belongs to the emerging countries. In a report by WHO (2009) ratio of smoking among adolescents in Iran, Kuwait, Iraq, Pakistan and Saudi Arabia is 26.6%, 20.9%, 17.2%, 10.1% and 15.9% respectively.

Adolescence has been completely considered as the age of initiation of cigarette smoking (Ziaaddini, Meymandi, & Zarezadeh, 2007; Poorasl, Fakhari, Shamsipour, Rostamid, & Rashidian, 2011; Weinstein & Mermelstein, 2013 Apparently, increase in behavior of smoking has become an ordinary habit among many adolescents (Hiemstra, Otton, De Leeuw, Schayck, & Engels, 2011) and now it has become a universal problem (Diane, Ebert, & Ngamvitroj, 2005; Kear, 2002).

Major age group between 18 to 24 years has been found to indulge in smoking behavior with an obvious ratio as a previous research in US has highlighted high rate (27%) of tobacco smoking (CDCP, 2000) and larger ratio of cigarette use was 28% between periods of 1993 to 1997 (Rigotti, Lee, & Wechsler, 2000) and high ratio of substantial smokers of almost 85% to 90% before the age of 20 years (Nakhaee, Divsalar, & Bahreinifar, 2011). and among this population 2/3 experience this habit before 18 years, usually are more prone to be regular smokers (Ramezankhani, Sarbandi, Zarghi, Masjedi, & Heydari, 2010). And use of cigarettes smoking in adolescence or adulthood generally opens the door towards usage of other drugs as well (Mee, 2009). Most of the students during their education make free and independent choices in which

smoking is one (Lee, & Loke, 2005), many become curious, feel freedom by experiencing different psychoactive substances just to impress others and gain importance (Wetter, Kenford, & Welsch, 2004).

Education time is also period of pressure, tension and stress as many students strive for a professional career, success (El Ansari, & Stock, 2010) and bear increasing academic pressures and uncertain career prospects (Chatterjee, Haldar, & Mallik, 2011). To relieve this tension and stress many students develop risk taking behaviors like smoking as they consider it as a sense of calmness and relaxation (Finkelstein, Kubzansky, & Goodman, 2006). Many findings have highlighted the relationship of stress and use of cigarettes and almost 72% smokers have reported to use tobacco as a stress coping approach than non-smokers (Niaura, Shadel, & Britt, 2002). Another consistent findings indicated positive relationship between stress of students and use of cigarettes (Siqueira, Diab,& Bodian, 2000) and this indicates emotion focused coping (EFC) by Lazarus (1991) in his transactional model. He has defined EFC as a person's ability to deal with or adjust with a situation though this ability remains consistent with his/her goals or needs. Thus, the emotions he/she experiences are influenced by perception of ability to perform EFC.

However, many other researches have highlighted that students who had never smoked showed the lowest levels of stress (Finkelstein, Kubzansky, & Goodman, 2006). Smoking behavior in students is positively related with stressful events that increase with time than those who reported low stress level (Steptoe, Wardle, & PoUard, 1996). A study in Bangladesh by Booker, Gallaher, Unger, Ritt-Olson, and Johnson (2004). depicted that the respondents who smoke cigarettes presented lower level of self-esteem and emotional intelligence.

This study is aimed to investigate the relationship of perceived stress and self-esteem among students who were regular users of tobacco and those who were non-smokers. The findings from the current study may be used in planning positive interventional or preventive measures to reduce tobacco consumption and its inclination in students. And through awareness unhealthy steps of dealing stress level and feeling of depreciation among this young population can be transformed into healthier and sound directions.

Following are the hypotheses:

1. Perceived stress would predict lower self-esteem in students who have smoking behavior.
2. Perceived stress will be higher in students with smoking behavior as compared to students without smoking behavior.
3. Self-esteem will be lower in students with smoking behavior than students without smoking behavior.

METHOD

Participants

A purposive sample consisted of 150 male participants, (75 regular users of tobacco smoking, 75 non-tobacco users) was recruited from different academic institutes of Karachi. Their age ranged between 18 to 23 years (M=20.23 and SD=1.77). They belonged to nuclear and joint family set up with low, middle and high socioeconomic status with minimum education of intermediate.

Inclusion and Exclusion Criteria:

Following criteria was used;

1. Age between18-23 was included and below 18 and above 23 was excluded.
2. Only male participants were included.
3. Those participants who were using one pack daily of tobacco were included.
4. Those who were smoking ciggerters at least since 1 year were included.

Measures

Demographic Data Sheet

It was consisted of: name, educational level, No. of siblings, birth order, family system, socioeconomic class, No. of friends, duration of smoking, No. of cigarette taken.

Rosenberg Self Esteem Scale (Rosenberg, 1965)

RSES scale is a ten items likert type scale, it has4 points ranging from strongly disagree to strongly agree. Some of its items are reversed scored. When are respondent's score are greater than 20 it indicates that he or she has positive attitude towards self. It is widely used scale, with .90cronbach alpha.

Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983).

It is Likert type rating scale, comprised of 10items. It's 5 points rating ranges from never to very often. Its scores are obtained by reversing four positive items, e.g. 0=4, 1=3. 2=2, etc. and then summing across all 10 items. 4, 5, 7, and 8 are the positively stated items. Coefficient alpha reliabilities for the scale are ranged from .84 to .86.

Procedure

The sample was collected from different educational institutions of Karachi. The researcher took the permission from concerned authorities of those colleges and universities, describing the purpose of research along with demographic form and questionnaires. After getting the permission, participants were approached in different class rooms and purpose of the study was explaine. They were also assured about confidentiality and right to withdraw at any stage. After that information was taken through demographic data sheet, along with the scales. Descriptive statistics, linear regression and t-test were applied for analysis through SPSS (V. 21).

Ethical Consideration

The researcher confirmed the respect and dignity of the participants, and assured them about confidentiality, right to withdraw and welfare, formal consent was taken

RESULTS

Descriptive statistics, Linear Regression and t-test were used for analysis.

Table 1
Summary of Socio-Demographic Characteristics of Current Sample (N=150)

Variables	*Category*	*f*	*%*
Category of Smoking	Smokers	75	50
	Non-Smokers	75	50
	Total	150	100
Level of Education	Intermediate	62	41.3
	Bachelors	26	17.3
	Masters	62	41.3
	Total	150	100
Family System	Joint	78	52.0
	Nuclear	72	48.0
	Total	150	100
Socioeconomic status	Lower	30	20.0
	Middle	85	56.7
	High	35	23.3
	Total	150	100
Age	18-20	89	59.3
	21-23	61	40.7
	Total	150	100

Frequency distribution shows that both groups were equal in number with high ratio of age 59.3% that falls between 18 to 20 years. Most ratio of level of education was intermediate and masters with 41.3% respectively, and majority of the sample lived in joint family setup with 52.0% and high ratio of middle socioeconomic status was 56.7%.

Table 2
Regression Analysis with Perceived Stress as Predictors of Self-Esteem in Students with Smoking Behavior (N=75)

Variable	***B***	***SE***	***β***	R^2	***F***	***Sig.***
Perceived Stress	-.26	.06	-.45	.20	18.85	.000*

Note: $p < .05$*; $df = 1, 73$

Table shows that the standardized B and F-value is significant and the $AdjR^2$ value is also high for the model variable. It shows that perceived stress contributes 20% change in self-esteem. It is worth mentioning that the B in the model of PSS and SE are negative which shows that as PSS increases by 1 unit then SE decreases 0.45 times.

Table 3

Mean Scores of Perceived Stress in Students with Smoking (N=75) and without Smoking behavior. (N=75).

Groups	*M*	*SD*	*t*	*MD*	*Sig*
Non-Smokers	14.72	5.50			
			-4.95	-4.22	.000
Smokers	18.95	4.92			

*Note:p<.001**, N=150.df=148.*

Findings reveal that there is a significant difference on the variable of perceived stress among students who have smoking habit than the comparative group.

DISCUSSION

The present study focused on the predictive relationship of perceived stress with self-esteem among students with smoking behavior and it also further explored the differences on these variables among students who are tobacco smoking users and those who do not smoke. Results have provided supporting evidences for all three hypotheses.

Our first has been approved by the current findings as mentioned in (table 2) that perceived stress will predict self-esteem in students with smoking behavior and it is also consistent with the previous research findings (Niaura etal., 2002) who found that the respondents who smoke cigarettes, they presented lower level of self-esteem and emotional intelligence. Our second hypothesis has also been approved by the current findings as mentioned in (table 3) that perceived stress will be higher in students who have smoking behavior as compare to those students who do not smoke. And an old finding in 2003 by Liu also supported this phenomenon that people who have smoking habits face more stress in their lives than those who do not smoke and also reported the same findings. A big question mark is; why individuals have more probability of being

involved in smoking behavior at the time of high level of stress? One reason might be chemistry of neurotransmitters that arise due to the intake of nicotine. As nicotine releases chemicals (norepinephrine and beta-endorphin) that makes a person to feel relax and improves the mood for a shorter time, hence it works as an activist or energizer for a while.

Another reason of increased in smoking is psychological in nature. It is described as a way of emotional focused coping which Lazarus (1991) has described in his transactional model. In this model, EFC is considered as a person's ability to deal with or adjust with a situation whether it is favorable, unfavorable, or threatening though this ability remains consistent with his/her goals or needs. Thus, the emotions he/she experiences are influenced by perception of ability to perform EFC (such as anger, anxiety etc.). Thus the use of tobacco smoking becomes frequent for the youth. As students at the time of stress show heavy smoking intake and it is also consistent with the previous research that has explained that students increased their number of cigarettes when they faced more stressful situations such as final exams as compared to the time when there was no obvious stressor (Booker, Gallaher, Unger, Ritt-Olson, & Johnson, 2004).

As far as third hypothesis is concerned it has been approved that self-esteem will be lower in students who do smoking as compare to non-smokers (table 4) and this is also consistent with the previous research findings (Kim, 2004) that smoking behavior and its usage is more common in students who have low self-esteem. Its reason can be best described through problem behavior theory (Jessor, & Jessor, 1977). and self-derogation theory by Kandel (1980). Problem behavior theory (PBT) says that our cognitive regulatory systems are actually built by our personal belief system that is how a person views him/herself. And it has capacity to suppress the likelihood of being involved in some unusual behaviors. But when this regulatory system gets connected with additional causing factors such as parental tolerance for unusual behaviors, devaluation on achievements and desire to be free and independent, peer pressure of get involved in unusual behavior, then according to PBT such type of low self-esteem can lead towards more delinquent behaviors.

On the other hand, self-derogation theory (SDT) describes this phenomenon of low self-esteem in perspective of psychological distress when one wants to get self-acceptance, this desire for self-acceptance can motivate some youth to adopt such ways to enhance their esteem that are beyond

conventional ways. And according to SDT when someone faces emotional trauma in the form of some break up from family, and schools, youth start searching bonding with deviant peer group for the purpose of gaining self-acceptance and it leads towards problematic behavior.

Conclusion and Recommendations

From the present research it is indicated that perceived stress is linked with self-esteem among adolescence who have smoking habits and further perceived stress is higher and self-esteem is low among the adolescents who have smoking behavior as compare to those who do not smoke. However, this study has some limitations, such as the sample was taken from particular colleges and universities for future research other colleges and universities may be considered for generalization of results. Sample size should also be enlarged. Other variables such as socioeconomic status, family structure, family pattern and parenting style should be considered.

REFERENCES

American Cancer Society. (2006). *Global smoking epidemic*. Retrieved on 7-17-2016, from http://www.cancer.org.

Booker, C. L., Gallaher, P., Unger, J. B., Ritt-Olson, A., & Johnson, C. A. (2004). Stressful life events, smoking behavior, and intentions to smoke among and multiethnic sample of sixth graders. *Ethnicity & Health, 9*(4), 369-97. dio: 10.1080/1355785042000285384.

Centers for Disease Control and Prevention. (2000). *Cigarette smoking among adults: United States 1998.* MMWR Morb Mortal Wkly Rep. 49:881-884.

Centers for Disease Control and Prevention. (2000). S*elected cigarette smoking initiation and quitting behaviors among high school students,* Mortal Wkly Rep MMWR Morb. United States.

Chatterjee, T., Haldar, D., & Mallik, S. (2011). A study on habits of tobacco use among medical and non-medical students of Kolkata. *Lung India, 28*, 5-10.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*(4), 385-396.

Diane, V., Ebert, S., & Ngamvitroj, A. (2005). Factors related to cigarette smoking initiation and use among college students. *Tobacco Induced Diseases, 3*, 27-40.

Eftekhari, M., Nassr, M., Rassulain, M., & Sallehi, M. (2007). Prevalence of cigarette smoking in Tehran: A household study. *Iranian Journal of Psychiatry and Behavioral Sciences, 1* (2), 33-37.

El Ansari, W., & Stock, C. (2010). Is the health and wellbeing of university students associated with their academic performance? Cross sectional findings from the United Kingdom. *International Journal of Environmental Research and Public Health, 7*(2), 509-27. doi: 10.3390/ijerph7020509

Emmeree, F. (2003). *Social factors of cigarette smoking initiation among undergraduate college students*. Unpublished Doctoral Dissertation, University of Florida, United States.

Finkelstein, D. M., Kubzansky, L. D., & Goodman, E. (2006). Social status, stress, and adolescent smoking. *The Journal of Adolescent Health, 39* (5), 678-85. doi: 10.1016/j.jadohealth.2006.04.011.

Health Information Publication. (2004). *Smoking how to stop*. Retrieved on Oct 2009 from http://www.ehealth.com.

Hiemstra, M., Otton, R., De Leeuw, R., Schayck, O., & Engels, R. (2011). The Changing Role of Self-Efficacy in Adolescent Smoking Initiation: A 4-Year Longitudinal Study. *Journal of Adolescent Health, 47*(6), 597-603.

Jessor, R., & Jessor, S. L. (1977). *Problem Behavior and Psychosocial Development: A longitudinal study of youth*. New York: Academic Press.

Kandel, D. B. (1980). Drug and drinking behavior among youth. *Annual Review of Sociology*, *6*, 235-285.

Kear, M. E. (2002). Psychosocial determinants of cigarette smoking among college students. *Journal of Community Health Nursing, 19*(4), 245-257.

Kim, Y. H. (2004). Psychological constructs to predicting smoking behavior among Korean secondary school students. *Preventive Medicine*, *38* (5), 620-627.

Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of Emotion. *The American Psychologist, 46*(8), 819-834.

Lee, R. L., & Loke, A. J. (2005). Health-promoting behaviors and psychosocial well-being of university students in Hong Kong. *Public Health Nursing, 22*(3), 209-220. doi: 10.1111/j.0737-1209.2005. 220304.x

Mee, S. (2009). *Correlates of Smoking Behavior among older Adolescents.* The State University of New Jersey, Newark, New Jersey.

Nakhaee, N., Divsalar, K., & Bahreinifar, S. (2011). Prevalence of and Factors Associated with Cigarette Smoking Among University Students: A Study from Iran. *Journal of Public Health, 2*(1), 32-37.

Niaura, R., Shadel, W. G., & Britt, D.M. (2002). Responses to social stress, urge to smoke, and smoking cessation. *Addict Behavior, 27*(2), 241-250.

Nichols, A. J. (2006). *The influence of a school-based substance abuse prevention program reducing smoking among sixth grade African American students in Louisiana.* Doctoral Dissertation University of California, Los Angeles LA.

Poorasl, A. M., Fakhari, A., Shamsipour, M., Rostamid, F., & Rashidian, H. (2011). Transitions between the stages of smoking in Iranian adolescents. *Preventive Medicine, 52*, 136-138. doi:10.1016/j.ypmed.2010.11.024

Ramezankhani, A., Sarbandi, F., Zarghi, A., Masjedi, M., & Heydari, G. (2010). Smoking Habits of Adolescent Students in Tehran. *Tanaffos Journal, 9*(2), 33-42.

Rigotti, N. A., Lee, J. E., & Wechsler, H. (2000). US college students' use of tobacco products: results of a national survey. *Journal of American Medical Association, 284*(6), 699-705.

Rosenberg, M. S. (1965).*Society and Adolescent Self-image.* Princeton, NJ; Princeton University Press.

Rozi, S., Butt, Z., & Akhtar, S. (2007). Demographic influences associated with current smoking status of college students in Karachi, Pakistan. *BMC Public Health, 7*, 312-320. doi: 10.1186/1471-2458-7-312

Sarafzade, N., Boshtam, M., & Tafazoli, F. (2004). Tobacco use among Iranian men, women and adolescents. *European Journal of Public Health, 14*, 76-78. http://dx.doi.org/10.1093/eurpub/14.1.76

Siqueira, L., Diab, M., & Bodian, C. (2000). Adolescents becoming smokers: the roles of stress and coping methods. *Journal of Adolescence Health 27*(6), 399-408.

Steptoe, A., Wardle, J., & PoUard, T. M. (1996). Stress, social support and health-related behavior: a study of smoking, alcohol consumption and physical exercise. *Journal of Psychosomatic Research, 41*(2), 171-180.

Uddin, K.M., Islam, T. M., & Asaduzzaman, M. (2012). Perceived Stress and Self-Esteem as Significant Predictors of Cigarette Smoking Behavior of Bangladeshi Male Adults. Journal of Behavioural Sciences, *22* (2), Retrieved https://www.thefreelibrary.com/Perceived+Stress+and+Self-Esteem+ as + Significant+Predictors+of...-a0309533744

Weinstein, S. N, & Mermelstein, R J. (2013) Influences of mood variability, Negative moods, and Depression on Adolescent cigarette smoking. *Psychology of Addictive Behaviors*, 27 (4), 10.1037/aoo31488

Wetter, D. W., Kenford, S. L., & Welsch, S. K. (2004). Prevalence and predictors of transitions in smoking behavior among college students. *Health Psychology, 23*, 168–77.

World Health Organization (2009). *Adolescent Health and Development*. from: http://www.searo.who.int/en/ Section13/Section1245_4980.htm

World Health Organization, (2008). *Tobacco key facts*. Retrieved on 7-16-2016, from: http://www.who/int/topics/tobacco/facts/en/index.html

World Health Organization, (2008). *Tobacco key facts*. Retrieved on 7-16-2016, from: http://www.who/int/topics/tobacco/facts/en/index.html

Ziaaddini, M., Meymandi, M., & Zarezadeh, A. (2007). The prevalence and motivation of cigarette smoking among Kerman high school students. *Iranian Journal of Psychiatry, 2*, 41-45. http://ijps. tums.ac. ir/index.php/ ijps/article/viewFile/234/229