

## A Study of Relationship between Depression, Personality Traits and Health Risk Behaviors among Uyghur Students

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### Abstract

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Depression is one of the biggest problems that college students face. The aim of this study was to determine the contribution of personality traits and students' favor of their major to depressive symptoms and risky health behavior. I predicted depression and neuroticism would be positively associated with risky health behavior while conscientiousness would be negatively associated. I also predicted that depression would be negatively associated with the students' favor of their major and neuroticism. The study was conducted on a sample of 493 Uyghur students from Xinjiang Uyghur Autonomic Region. Correlational analysis showed that students' favor of their major and neuroticism were significantly associated with depressive symptoms. The results confirm that, neuroticism and the students' favor of major contribute to the depression symptoms. The results also showed that depression contributes to smoking and drinking behavior. The findings helps with the understanding of depression and can be used to develop educational and psychosocial interventions to help students with ensuring a happier and healthier university life.

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**Keywords:** NEO-PI-R, Uyghur students, depression, personality traits, health risk behaviors

### Introduction

The NEO-PI-R is a model that measures personality traits - five broad factors including Neuroticism (N), Extraversion (E), Openness to Experience (O), Agreeableness (A), and Conscientiousness (C).

In the last few decades, with a growing consensus, the five factor personality traits have been shown to be generalizable across-cultures (McCrae & Costa 1997, Paunonen et al. 2000, McCrae 2001b, see also Triandis & Suh 2002). Personality traits are major determinants of behavior (Paunonen, 2003). In this study, the five factors were used as a framework to study the relationship between depression and personality as well as risky health behavior and personality.

Various studies have examined the relationships between personality traits and smoking. Although the personality differences between smokers and nonsmokers are usually small, they are important considering the large number of people who smoke (World Health Organization 2002). Even a small contribution of personality research may enhance the knowledge of depression and smoking behavior.

Despite the voluminous research on how personality influences depressive symptoms has been conducted in China, there has been little focus on examining how it predicts depressive symptoms among Uyghur college students and how the variables relate to each other. The main research question asks whether and how personality traits would predict depressive symptoms among Uyghur college students and whether students' satisfaction with their choice of university major influence depression. To answer this comprehensively, I proposed to answer the following subsequent questions.

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First, does students' satisfaction with their university major predicts depressive symptoms among the students? Second, is there a significant relationship between students' healthy risk behaviors and depressive symptoms? Finally, is there a significant relationship between the Big Five personality traits and depressive symptoms among the Uyghur students?

## Method

### Participants

The research was conducted with a sample of students (N=493, male=264, female=229) who were Uyghurs from Xinjiang Uyghur autonomic region. The age of subjects ranged from 15 to 43 years (M =21.619, SD =2.684). The majority of them (82%) are between the ages of 18 and 24.

### Instruments

*Demographics.* The first section of the survey asked students to provide primary information about themselves (e.g., whether they were a student or not, their sex, and age). Other sections requires the participants to rate themselves on a five-point scale on NEO-PI-R and other scales. *Personality Test.* NEO-PI-R (Costa & McCrae 1992) is a self-report questionnaire consisting of 240 items that could be answered on a five-point Likert scale ranging from strongly agree to strongly disagree. The NEO-PI-R assesses 30 facets of personality, six for each dimension of the Five Factor Model. Normative data are used to standardize raw scores into T-scores (M =50, SD = 10). NEO-PI-R scales have been shown to have longitudinal stability, cross-observer agreement, and convergent and discriminant validity in a large body of studies (Costa & McCrae 1992). For the purposes of this study, the 58 items of NEO-PI-R was translated and adapted by the author of the study in Uyghur language. The scale consists of 58 items (see Appendix, A) and measures five personality dimensions: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Each of the factors of agreeableness, conscientiousness, openness to experience was represented in the questionnaire with 12 statements (e.g. If I don't like people, I let them know it. When I start a self-improvement program, I usually let it slide after a few days. Aesthetic and artistic concerns aren't very important to me); extraversion with 9 statements (e.g., in conversations, I tend to do most of the talking); neuroticism with 13 statements (e.g., I am known as hot blooded and quick tempered). It was only possible to use the Neuroticism dimension in this study. Because other dimensions did not constitute reliable and valid measure according to Factor and Reliability Analyses. After leaving out some of its items due to causing lower Cronbach's alpha values, Neuroticism items used in the present study yielded a Cronbach's Alpha of .75. All other dimensions did not show adequate reliability.

To measure how much students' favor of their major, the question-"I love my major", which is also ranked on a Likert scale is added to the questionnaire to examine whether depression is related attitudes toward one's university major. (See Appendix, B).

The Depression Scale is a self-assessment questionnaire consisting of six items which measures the severity of depressive symptoms. For the purpose of this study, it was translated and adapted for the region of Xinjiang Uyghur Autonomic region by Saimire Asikaer (2015). It consists of 6 items that relate to the loss of energy, inability to concentrate, difficulty in communicating with people, loss of interest in things even things that one is passionate about and irregular sleeping (see Appendix, C). The participants answered questions also on a seven point scale so that the total score can range from 6 to 30. A cut-off point of 18 ( $\geq 18$ ) points was used to determine depressed students. Depression Scale yielded a Cronbach's alpha value of .72.

The smoking and drinking questions were used to measure the risky health behaviors and translated into the Uyghur language by the author of the present study. Part one is a smoking scale and part two is a drinking scale. Part one was consisted of the following five factors: reasons of smoking, inclination to smoking, place of smoking and students' parents' attitude towards students' smoking. Part two consisted of the situations in which students drink. They could select at least one item out the choices they were provided with. (See Appendix, D)

### Procedure

The survey was conducted in December 2015 and January 2016 and was uploaded onto a web-based survey website. The link of survey was distributed to users of a popular social app -WeChat via WeChat platform, through which the survey link can be accessed by many users. Once users click the link they can access the survey online. Only the data of those who identified themselves as students were included in the present study.

### Statistical Analyses

Statistical analyses were conducted in SPSS v. 22. I used parametric statistics including Pearson correlation.

### Proposed Analysis

Descriptive and correlational statistics will be primarily employed in exploring responses to the different sections.

### Results

Pearson correlations were conducted among depression and five personality factors. Correlation between depression and neuroticism was significant ( $r=0.574$ ,  $p<.01$ ). The findings suggest that those who are less emotionally stable have a greater tendency toward depression. The students' favoring of their major was significantly correlated with depression ( $r= -0.107$ ,  $p<.05$ ). Depression and smoking ( $r=0.113$ ,  $p<.05$ ), drinking is significantly correlated ( $r=0.111$ ,  $p<.05$ ). Also drinking behavior is highly correlated significantly with smoking ( $r= 0.785$ ,  $p<.01$ ).

	<i>r</i>					
	Depression	Neuroticism	Satisfaction with University Major	Smoking	Drinking	
Depression						
Neuroticism	.574**					
Satisfaction with University Major	-.107*	-.020				
Smoking	.113*	.079	-.017			
Drinking	.111*	.016	-.005		.785**	

\*:  $p < .05$ ; \*\*:  $p < .01$ , \*\*\*:  $p < .001$

### Descriptive Data

Age of subjects ranged from 15 to 43 with a mean age of 21.619 (SD =2.684).

### Discussion

The goal of this study was to examine the contributions of personality to explain depressive symptoms among Uyghur college students. The results showed that students scoring lower on neuroticism showed lower depressive symptoms. The finding that students' favoring of their university major was negatively correlated with depression indicated that studying a major that one enjoys can be associated with lower levels of depressive symptoms. Additionally, the results of this study provided strong evidence that college students' risky health behavior was associated with depressive symptoms. College represents an important life transition. To work effectively with multiple challenges that college students face, it will be helpful to have an increasing awareness of the factors that predict students' well-being.

The present study supports the view that depression is a predictor of health risk behaviors (Booth-Kewley & Vickers 1994). Students with higher levels of conscientiousness were less likely to try cigarette smoking than students with lower levels of conscientiousness. However, in this Uyghur sample, the link between neuroticism and risky health behavior was not observed, showing an inconsistency with previous findings (Vollrath & Torgersen, 2002).

The current study did not indicate a significant relationship between neuroticism and risky health behavior-smoking and drinking. Based on the results of the current study, it might be important to mention the role of family intervention in the prevention of smoking. Previous findings with adolescents have indicated that family social support, such as parental support, is an important protective factor in reducing the initiation and the use of cigarettes (Wills, T.A., Vaccaro, D., Mc Namara, G., 1992 & Wills, T.A., Cleary, S. D, 1996). Together with the results of the present study, these findings can be used to make Uyghur parents aware of their role and support in reducing their student children's risky health behaviors.

In sum, personality can play a buffer role against depressive symptoms. This may be important for educators to consider as they work with students. Depression among college students represents a significant challenge that needs to be addressed. The present research highlighted the importance of students' satisfaction with their choice of university major in understanding the nature of college students' depression and risky health behaviors. Future research might fruitfully explore the ways in which students can be helped to understand the possible influences of their own personality, motivation for their studies on their psychological wellbeing.

As a limitation of the present investigation, even though the results of the study point to links between personality traits and risky health behavior, depression, they do not presuppose a causal relationship. However, given the relatively large sample size, the findings are likely to generalize to the Uyghur college students today.

## References

- Booth-Kewley S, Vickers RR. 1994. Associations between major domains of personality and health behavior. *Journal of Personality*; 62: 282–298.
- Costa, P. T. Jr., & McCrae, R. R. 1992. Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual. Odessa, FL: Psychological Assessment
- McCrae, R. R. 2001. *Trait psychology and culture: Exploring intercultural comparisons*. *Journal of Personality*, 69, 819-846
- Paunonen SV, Zeidner M, Engvik HA, Oosterveld P, Maliphant R. 2000. The nonverbal assessment of personality in five cultures. *Journal of Cross-Cultural Psychology* 31:220–239.
- Triandis HC, Suh EM. 2002. Cultural influences on personality. *Annual Review of Psychology* 53:133–160.
- Torgersen, S. & Vollrath, M. E. 2006. Personality types, personality traits, and risky health behavior. In M. E. Vollrath (Ed.), *Handbook of personality and health* (pp. 215–233). Chichester, UK: Wiley.
- Roelofs, J., Huibers, M., Peeters, F., Arntz, A., & Van Os, J. 2008. Rumination and worrying as possible mediators in the relation between neuroticism and symptoms of depression and anxiety in clinically depressed individuals. *Behaviour Research Therapy*, 46(12).
- Vollrath, M. & Torgersen, S. (2002). Who takes health risks? A probe into eight personality types. *Personality and Individual Differences*, 32(7), 1185–1198.
- World Health Organization. *The World Health Report 2002. Reducing risks, promoting healthy life*. Geneva: World Health Organization;
- Wills, T.A., Vaccaro, D., McNamara, G., 1992. The role of life events, family support, and competence in adolescent substance use: A test of vulnerability and protective factors. *American Journal of Community Psychology*, 20: p. 349-374.
- Wills, T.A., Cleary, S. D., 1996. How are social support effects mediated? A test with parental support and adolescent substance use. *Journal of Personality and Social Psychology*, 71(5): p. 937-952.

## Appendix

### A Neo-pi-r

8. I often feel helpless
18. I am often sad or depressed
24. When I'm under a great deal of stress, sometimes I feel like I'm going to pieces
27. I have sometimes experienced a deep sense of guilt or sinfulness
56. .Even minor annoyances can be frustrating to me

### B Favor of Major

59. I love my job/ major

### C Depression Questionnaire

60. I am tired for no reason
- Strongly agree  Agree  Undecided  Disagree  Strongly Disagree

61. It is difficult to focus when I read books

Strongly agree  Agree  Undecided  Disagree  Strongly Disagree

62. I wait for somebody's message or call

Strongly agree  Agree  Undecided  Disagree  Strongly Disagree

63. I rarely communicate with people or it is difficult for me

Strongly agree  Agree  Undecided  Disagree  Strongly Disagree

64. I have no interest in anything nor the thing I am passionate about.

Strongly agree  Agree  Undecided  Disagree  Strongly Disagree

65. I sleep too less or too much

Strongly agree  Agree  Undecided  Disagree  Strongly Disagree

#### **D Smoking & Drinking Questionnaire**

Smoking. I smoke because of

I am bored

I feel lonely

Friends like

Look cool

Relax

Stress

Enjoyable

Looks more man

Girls like

Drinking .I drink alcohol when

1 "...it reduces my level of anxiety."

2 "...it makes me more outgoing."

3 "...most of my friends drink it."

4 it makes me feel good."

5 "I like the taste."

6 drinking to get drunk."