

WCES-2010

## An investigation on Turkish military school students: Are there associations among big five personality factors, perceived family environment and hopelessness?

Bahattin Göktaş<sup>a</sup> , Müge Akbağ<sup>a</sup> \*

<sup>a</sup>Marmara University, Faculty of Atatürk Education, Psychological Counseling and Guidance, Istanbul, 34760, Turkey

Received November 11, 2009; revised December 1, 2009; accepted January 22, 2010

---

### Abstract

The main purpose of this study was to examine whether there were associations among big five personality factors, perceived family environment and hopelessness in a sample of 124 Turkish military school students. In data collecting process, *NEO Five Factor Inventory*, *Hopelessness Scale* and *Family Environment Questionnaire* were used. Research findings revealed that factors having an effect on students' hopelessness were the personality traits (Conscientiousness, Extraversion, Agreeableness, and Neuroticism) and perceived family cohesion. Moreover, the interaction of these variables (personality factors and family environment factors) made stronger effect on students' hopelessness level.

© 2010 Elsevier Ltd. All rights reserved.

*Keywords:* Big five personality factors; family environment; hopelessness; adolescence; military school students.

---

### 1. Introduction

Throughout the adolescence stage, individuals need to complete their developmental tasks and they struggle to cope with some certain difficulties arising from this life period. For example, they attend a new school, experience conflicts in family relationships and change their friends. Adolescents who study at a military school have also the same adaptation problems developmentally. Additionally, they must change their actual life style and obey the rules of military education setting. When they try to get oriented, from time to time, they may feel hopeless intensely.

In the literature, the construct of hopelessness is characterized by negative expectations regarding the future (Beck, 1963; Beck, 1967; Clark, Beck, & Brown, 1989). Moreover, researchers emphasized that hopelessness would be an important risk factor in the development and predisposition of depression and suicide (Beck, Steer, Kovacs, & Garrison, 1985; Weishaar & Beck, 1992). Based on the importance of the issue, hopelessness has been investigated in relation to different variables such as personality factors and perceived family environment in different samples. For instance, Dyck (1991) found that hopelessness was positively correlated with Neuroticism

---

\* Müge Akbağ. Tel.: +90 216 345 47 05 / 235; fax: +90 216 338 80 60

E-mail address: [makbag@marmara.edu.tr](mailto:makbag@marmara.edu.tr)

but negatively correlated with Extraversion in non-clinical and clinical samples. Similarly, it was also reported that hopelessness was positively predicted by Neuroticism and negatively predicted by Extraversion and Conscientiousness in university student sample (Velting, 1999). On the other hand, based on some study results it appears that perceptions of family environment, especially, family cohesion may serve as a buffer against the development of hopelessness in children. That is, perceptions of low family cohesion were found to predict hopelessness (Michalik-Bonner, 1990). The forementioned studies examining the effect of big five personality traits and perceived family environment on hopelessness were separately carried out in different study designs. This study attempted to extend the existing literature by examining the predictive power of personality and family environment factors together on hopelessness among adolescents attending to military high school.

The results obtained from the study may help us to define potential risk groups in schools, and to support students more sufficiently via counselling and guidance process. Hence, the main purpose of the current study was to examine whether there were associations among big five personality factors, perceived family environment and hopelessness in Turkish military school students.

## 2. Method

### 2.1. Participants

The sample of the study consisted of 124 students gathering from Turkish Naval High School in Istanbul. They are all second and third grade pupils. Because of the possible orientation and adaptation problems, first grade students did not take part in this study. The participants ranged in age 16 to 18 years old.

### 2.2. Instruments

In data collecting process, participants responded three different measurements. They are: NEO Five Factor Inventory, Hopelessness Scale and Family Environment Questionnaire.

#### 2.2.1. NEO Five Factor Inventory (NEO FFI-TR)

The personality traits of the participants were measured by the short form of the NEO Personality Inventory (NEO-PI-R) developed by Costa and McCrae (1992) and adapted to Turkish culture by Gülgöz (2002). NEO FFI-TR which is commonly used to assess the dimensions of the normal personality is a 60-item questionnaire. The inventory yields five factor scores: Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. Items are rated on a 5-point Likert-type scale ranging from strongly disagree to strongly agree. A high score on each personality trait denotes a high level of this trait. Internal consistency of NEO FFI-TR subscales have been found to be acceptable (ranging from .55 to .83) for the Turkish form (Ekşi, 2004). On the other hand, Sunar (1996, cited in Kurt, 2001) reported that internal consistencies for the subscales ranged from .65 to .80. In our study, Cronbach alpha reliability scores of five factors were also computed and varied between .50 and .81.

#### 2.2.2. Beck Hopelessness Scale (BHS)

Hopelessness Scale was developed by Beck *et al.* (1974). The adaptation study for the Turkish culture was conducted by Seber (1991) and Durak (1994). The Beck Hopelessness Scale is a 20-item self-rating instrument consisting of statements that assess future oriented negative expectations. Higher scores indicate higher levels of hopelessness. Cronbach Alpha reliability coefficient was reported as .85. In the present study, Cronbach alpha coefficient was found to be .86.

#### 2.2.3. Family Environment Questionnaire (FEQ)

The original form of the scale was developed by Moss (1974). This scale was adapted to Turkish participants by Usluer (1989). The FEQ is a 26-item, 4-point, Likert-type instrument with two factors, namely family cohesion and control. Cronbach Alpha reliability scores for the family cohesion and control were reported as .82 and .74, respectively. In the current study, Alpha coefficients were found to be .72 for family cohesion and .74 for control.

### 2.3. Data collection and analysis procedures

The participants were asked to complete questionnaires mentioned above during a class period under the supervision of the researcher and school counselor. In order to standardize the procedures, the questionnaires were administered to all participants in the following order: Family Environment Questionnaire, Beck Hopelessness Scale, NEO Five Factor Inventory (NEO FFI-TR). In the data analyzing process, multiple regression analysis was performed in order to investigate the effects of big five personality traits and family environment factors on hopelessness.

## 3. Results

The descriptive statistics and correlations for the variables included in the study are presented in Table 1.

Table 1. Descriptive Statistics and Correlations

	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1. Hopelessness	6.50	4.74							
2. Neuroticism	51.24	8.67	.12*						
3. Extraversion	48.33	10.19	-.36**	-.09					
4. Openness	49.26	8.82	-.01	.22*	.16				
5. Agreeableness	47.06	9.49	.13**	.10	-.08	.08			
6. Conscientiousness	48.75	11.25	-.40**	.15	.21*	.21	.20		
7. Family Cohesion	33.56	7.15	-.23**	.10	.10	.05	.17	.15	
8. Control	21.28	4.55	-.06	.18	.01	.007	.14	.06	.43**

Note.  $N=124$ , \* $p<.05$ , \*\* $p<.01$

In terms of big five personality factors, participants obtain the highest mean score from Neuroticism, and the lowest mean score from Agreeableness, relatively. So, this result supported our expectations. As it is well known, individuals in adolescence stage are generally less emotionally stable, in other words, they have a tendency to experience negative emotions easily, such as anxiety, anger, or vulnerability. Besides, findings indicate that mean scores of hopelessness, perceived family cohesion and control are all moderate level in accordance with the maximum highest scores obtained from BHS and FEQ.

In order to examine the relationships among big five personality factors, perceived family environment and hopelessness Pearson Product Moments Correlation Coefficient was used. The results showed that there were significant correlations among study variables. Hopelessness was positively correlated with Neuroticism and Agreeableness whereas negatively correlated with Extraversion and Conscientiousness. On the other hand, it was found to be negative significant correlation between hopelessness and perceived family cohesion. There was no significant correlation between hopelessness and perceived control in family environment.

Finally, Multiple Regression Analysis was performed to determine the predictive power of big five personality factors and perceived family environment, as independent variables, on military school students' hopelessness. According to the results obtained from regression analysis; Conscientiousness, Extraversion, Agreeableness, family cohesion and Neuroticism explained %33 of total variance in hopelessness scores. Moreover, Conscientiousness was the best predictor of the hopelessness. Extraversion, Agreeableness, perceived family cohesion and Neuroticism contributed to model, respectively. Other variables which were Openness to experience and perceived control in family environment did not make any contribution to this model (see Table 2).

Table 2. Hierarchical Regression Analysis Predicting Hopelessness Using Measures of Family Environment and Big Five Personality Factors

Model	<i>B</i>	$\beta$	<i>t</i>	<i>R</i>	<i>R</i> <sup>2</sup>
<i>Step 1</i>					
Conscientiousness	-.17	-.40	-4.86***	.40	.16
<i>Step 2</i>					
Conscientiousness	-.15	-.34	-4.22***	.49	.24
Extraversion	-.13	-.28	-3.47***		

<i>Step 3</i>					
Conscientiousness	-.16	-.39	-4.72**		
Extraversion	-.12	-.26	-3.22**	.52	.27
Agreeableness	.10	.19	2.37*		
<i>Step 4</i>					
Conscientiousness	-.16	-.37	-4.57***		
Extraversion	-.11	-.24	-3.05**	.55	.31
Agreeableness	.11	.22	2.77**		
Family Cohesion	-.13	-.19	-2.44*		
<i>Step5</i>					
Conscientiousness	-.17	-.39	-4.89***		
Extraversion	-.10	-.22	-2.82**		
Agreeableness	.11	.21	2.71**	.56	.33
Family Cohesion	-.14	-.20	-2.62**		
Neuroticism	.09	.16	2.06*		

Note.  $N=124$ , \* $p<.05$ , \*\* $p<.01$

#### 4. Conclusion and General Discussion

To sum up the findings of the current study, hopelessness was negatively predicted by Conscientiousness and Extraversion and positively predicted by Agreeableness and Neuroticism among military high school students. These findings are supported by another study results obtained from different age groups (Dyck, 1991; Velting, 1999; Chioqueta & Stiles, 2005). On the other hand, perceived family cohesion was found to be negative predictor of hopelessness. As it was expected, this finding is parallel with the other research findings in related literature (Michalik-Bonner, 1990). Thus, a supportive family environment could serve as buffer against hopelessness in military school students. Moreover, the interaction of the fore-mentioned personality and family environment factors made stronger effect on students' hopelessness level. As a remarkable result, Conscientiousness which was described as "socially prescribed impulse control that facilitates task and goal directed behavior such as organizing and prioritizing tasks" was the best predictor of hopelessness in the present study sample. The military high school students are expected to have this personality factor, namely Conscientiousness. It is possible to say that students who possess Conscientiousness in higher level might adopt to military education settings easily, and this might in turn reduce their hopelessness' level.

Based on the results of the present study, it is suggested that personality characteristics of applicants are taken into consideration during the entrance exam to military high school. Additionally, psycho-educational programmes should be planned in order to enable military school students being aware of their personality traits, and to help them reduce their future oriented anxiety (hopelessness). This study was accomplished with military school students, a fact that may limit the generalizability of the results to other normal populations. Then, different sample groups should be compared with each other in the same research design to generalize the overall results.

#### Acknowledgements

**We would like to express our appreciation to Sami Gülgöz for supporting this study by giving permission to use NEO FFI-TR.**

#### References

- Beck, A. T. (1963). Thinking and distortion. *Archives of General Psychiatry*, 4, 561–567.
- Beck, A. T., Weissman, M., Lester, D., & Trexler, L. (1974). The measurement of pessimism: The hopelessness scale. *Journal of Consulting and Clinical Psychology*, 42, 861–865.
- Beck, A. T., Steer, R. A., Kovacs, M., & Garrison, B. (1985). Hopelessness and eventual suicide: A 10-year prospective study of patients hospitalized with suicidal ideation. *American Journal of Psychiatry*, 142(5), 559–563.
- Chioqueta, A. P., & Stiles, T. C. (2005). Personality traits and the development of depression, hopelessness, and suicide ideation. *Personality and Individual Differences*, 38, 1283–1291.

- Clark, D. A., Beck, A. T., & Brown, G. (1989). Cognitive mediation in general psychiatric outpatients: A test of the content-specificity hypothesis. *Journal of Personality and Social Psychology*, 56, 958–964.
- 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 Resources.
- Durak, A. (1994). Beck umutsuzluk ölçeği'nin geçerlik ve güvenilirlik çalışması [Validity and reliability of Beck hopelessness scale]. *Turkish Journal of Psychology*, 9 (31), 1-11.
- Dyck, M. J. (1991). Positive and negative attitudes mediating suicide ideation. *Suicide and Life-Threatening Behavior*, 21, 360–373.
- Ekşi, H. (2004). Personality and coping: A multidimensional research on situational and dispositional coping. *Educational Sciences: Theory & Practice*, 4 (1), 94-98.
- Gülgöz, S. (2002). Five-factor model and NEO-PPI in Turkey. In R.R. Merae & J. Allik (Eds.), *The five factor model of personality across cultures* (pp. 175-195). New York: Kluwer Academi/Plenum Publishers.
- Kurt, E. (2001). *Effects of religiosity, personality traits and social responsibility attitudes on nonspontaneous helping behavior in a natural disaster*. Unpublished master thesis. Bosphorus University, Istanbul, Turkey.
- Michalik-Bonner, D.R. (1990). *An investigation of the relationship between behavior style, perceptions of family environment, and suicidal ideation in children*. Unpublished dissertation. Pennsylvania, USA.
- Moos, R. H. (1974). Family environment scale preliminary manual. Palo Alto, CA: Consulting Psychologist Press.
- Seber, G. (1991). *Beck umutsuzluk ölçeği'nin geçerlik ve güvenilirliği üzerine bir çalışma [A study on validity and reliability of Beck hopelessness scale]*. Unpublished associate professorship's thesis. Anadolu University, Eskişehir, Turkey.
- Usluer, S. (1989). *The reliability and validity of the Turkish family environment questionnaire*. Unpublished master thesis. Bosphorus University, Istanbul, Turkey.
- Velting, D. W. (1999). Personality and negative expectancies: Trait structure of the Beck hopelessness scale. *Personality and Individual Differences*, 26, 913–921.
- Weishaar, M. E., & Beck, A. T. (1992). Clinical and cognitive predictors of suicide. Assessment and prediction of suicide. In R. W. Maris, A. L. Berman, J. T. Maltzberger, & R. I. Yufit (Eds.) (pp. 467–483). London: The Guilford Press.