



The Structural Model of Relationships Between Dimensions of Personality Pathology and bullying Through Self handicapping Among High School Students

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ABSTRACT

Background and Aim: The phenomenon of bullying in schools is one of the things that can threaten the safety of students and consequently cause educational issues. The present study aimed to evaluate the structural model of the relationship between the dimensions of personality pathology and bullying through conditional self-handicapping among high school students. **Methods:** This research was conducted using the structural equation modeling method. The statistical population of the present study included all high school girls of District 2 of Tehran in the academic year 2021-22, who were 145,398 students, according to the Tehran Department of Education. According to the Michel (1993) criteria and the multi-stage cluster sampling method, 300 people were selected as a sample. They completed the following instruments: Schwinger, & Stiensmeier-Pelster self-incapacitation questionnaire (2011), Olweus bullying questionnaire (1986), and the short form of the fifth edition of the Diagnostic and Statistical Manual Personality Questionnaire (PID-5-BF). Data analysis was done using Pearson correlation method and structural equation modeling with SPSS and Lisrel software. **Results:** The findings of the structural model test showed that personality dimensions have a positive relationship with self-handicapping ($\beta=0.43$; $P<0.001$) and bullying ($\beta=0.33$; $P<0.001$). Also, the relationship between self-handicapping and bullying was positive ($\beta=0.25$; $P<0.001$). The results of mediation effects showed that academic self-handicapping plays a mediating role in the relationship between abnormal personality dimensions and bullying ($P<0.001$). **Conclusion:** The results generally showed that the tested model has a good fit with the conceptual model.



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Introduction

The phenomenon of bullying in schools is one of the things that can threaten the safety of students and consequently cause educational issues (Garmy, Vilhjalmsson, & Kristjansdottir, 2018). In fact, bullying hurts both the academic success of the bully and the academic success of the victim (Khosh Ayin, 2019). Bullying is a type of violent and annoying behavior that is repeatedly applied by a person or a group of people against a weaker person, this behavior can be verbal, physical, or even virtual (Olweus & Limber, 2009); which has become one of the concerns of educational systems around the world and many researchers are trying to find the causes and factors of bullying in schools and ways to reduce it (Menesini & Salmivalli, 2017); So that in European countries like Greece 23% of girls and 26% of boys, in England 32% of girls and boys, in France 36% of girls and 34% of boys and in America 33% of girls and 36% of boys have been bullied. (Panayiotis et al., 2010), in Iran, according to the study, 41% of boys witnessed bullying, 32% of them were victims, and 40% of girls witnessed bullying, 33% of them were victims of bullying. These findings show that investigating the causes of bullying has attention and research value.

Bullying is related to people's personality (Olweus, 2003); And bullies have more impulsivity, aggression, physical strength and domineering behavior; These behavioral aspects are consistent with pathological personality traits (Gibb & Devereux, 2014); Regarding pathological personality traits, according to the DSM-5 criteria of personality and personality disorders, they are classified in five general areas, including: Negative affect vs. emotional stability, detachment vs. extroversion, opposition vs. agreement, disinhibition vs. conscientiousness, and psychopathy vs. sanity (Vrabel et al., 2019). Abnormal dimensions of personality or pathological dimensions have a negative relationship with mental health (Anderson et al., 2014), these dimensions are also related to behaviors such as self-harm (Somma et al., 2019); psychiatric symptoms (Scott et al., 2020)); There is a relationship between violence (Varley Thornton, Graham-Kevan, & Archer, 2010) and bullying (Romero & Alonso, 2019); However, the effect of abnormal personality on violent behavior such

as bullying is not direct and is done through cognitive and motivational variables (Romero & Alonso, 2019; Russell & King, 2017). Academic self-handicapping can be considered one of these variables in educational environments.

Self-handicapping is a type of reaction in which people try to attribute their failures to external factors and their successes to their internal factors in order to reduce the negative implications of possible failure, such as looking like a failure (Gadbois & Sturgeon, 2011); In this context, Covington states in his self-esteem theory that the purpose of students' effort in school is to maintain a positive image of themselves and avoid being labeled as a "coward" (Covington, 1992). One of the ways that students can avoid being labeled as a bully is to use academic self-handicapping strategies (Şahin & Çoban, 2020). Based on this, when students are not supported or encouraged by the teacher in the classroom, due to maintaining their own value, they attribute this low importance to external factors such as the teacher's intention, which leads to anger and bullying behavior towards the class. (Leung, Wong, & Farver, 2018). Self-handicapping strategies also lead to academic failure (Lee, Fleck, & Richmond, 2021), and this issue leads to intensification of anger towards other students and may increase the amount of bullying behaviors (Dietrich & Ferguson, 2020); Despite the mentioned studies and evidence, the mediating role of academic self-handicapping in the relationship between abnormal personality dimensions and bullying has not been studied yet, so the present study intends to evaluate the structural model of the relationship between the dimensions of personality pathology and bullying through conditional self-handicapping among high school students.

Method

The current research is fundamental in terms of its purpose, and in terms of the method of data collection, it is descriptive of the type of correlation based on path analysis. The statistical population of the present study consists of all secondary school female students in the 2nd district of Tehran in the academic year 2020-2021, whose total number was 145,398. The sampling method of the current study was a multi-stage cluster, so that 2 districts were selected from multiple districts of Tehran and 3 schools were selected from each district, then 4 classes were selected from the mentioned schools. In

structural equation modeling, Michel (1993) recommends a ratio of 10 to 20 subjects for each observed variable (Meyers, Gamst, & Guarino, 2013). Therefore, in the current study, due to the small number of variables observed (5 dimensions of abnormal personality dimensions, 2 dimensions of bullying and 7 questions as indicators of self-impairment), the sample size was calculated to be 20 times the observed variables of 280. However, considering that a larger sample is better for structural models, 300 people were selected as the final sample.

Materials

1. Short form of Personality Questionnaire, Fifth Edition of Diagnostic and Statistical Manual (PID-5-BF). This questionnaire was designed to assess DSM-5 personality traits by Krueger et al. (Krueger et al., 2012). Krueger et al. reported the psychometric properties and internal consistency of its scales of negative affect, delinquency, defiance, disinhibition, and psychoticism as 0.91, 0.96, 0.97, 0.93, and 0.89, respectively. (Krueger et al., 2012). The factorial structure of this questionnaire has introduced 5 factors in it, including negative affect, fault, opposition, cheating, disinhibition, and psychoticism (American Psychiatric Association, 2013). Items are scored on a 4-point Likert scale from strongly disagree (0) to strongly agree (3). In their study, Abdi and Chalabianlou have confirmed the psychometric properties of this version (Abdi & Chalabianlou, 2017); The total reliability of this tool is 0.89 and the internal consistency of its factors is reported between 0.83 and 0.89. In the present study, the Cronbach's alpha coefficient for the entire scale was 0.85.

2. Self-handicapping questionnaire. Academic Self-handicapping Questionnaire (ASHS) by Schwinger and Stiensmeier-Pelster is a single-factor questionnaire with 7 items (Schwinger & Stiensmeier-Pelster, 2012). This tool is in the form of a 5-point Likert scale, which is scored from 1 = completely disagree to 5 = completely agree. Schwinger and Steinsmer Plaster reported the reliability of this questionnaire according to the internal consistency coefficient equal to 0.80, the validity of the tool in the study of Schwinger et al. was estimated through exploratory factor analysis,

which showed a general factor with a specific value of 1.89. (Schwinger & Stiensmeier-Pelster, 2012). In Iran, Bordbar and Rastegar conducted this questionnaire on 258 people in 2014 (Tabe Bordbar & Rastegar, 2015). In their research, the Cronbach's alpha coefficient calculated for this questionnaire was equal to 0.86.

3. Alvius Bullying Questionnaire. This questionnaire, created by Olweus, measures the level of involvement of students in two scales: a) committing bullying (including 10 items) and b) being a victim (including 10 items) for ages 11 to 17 (Olweus, 1996). This scale is a 5-point Likert scale and the range of scores is from 10 to 50. Elvis reported a Cronbach's alpha of 87% for the bullying perpetration subscale and 86% for the victimization subscale. In Iran, in Hosseini's (2018) study, the confirmatory factor analysis (CFA) test confirmed both victimization and bullying scales (Hosseini, 2018). Also, Cronbach's alpha was 0.82 for the bullying scale and 0.80 for the victimization scale. It should be noted that in the present study, Cronbach's alpha test was used to check the reliability, and values of 0.78 and 0.88 were obtained for bullying and victimization, respectively.

Implementation

Among the ethical considerations in the present study were the following: 1) The objectives of the research were explained to the students. 2) The students entered the study with personal consent and the consent of one of the parents. 3) The students and their parents had the right to be informed about the results of the questionnaires and 4) The students had the right to refrain from answering the questionnaires and the research test if they did not want to.

Data analysis was done using Pearson's correlation method and structural equation modeling with SPSS and Lisrel software.

Results

The final sample of this study included 300 people. The sample group's average age and standard deviation were 16.10 and 0.9, respectively. Also, the descriptive indices of the variables and their normality test are reported in Table 1.

Table 1. Descriptive indicators of research variables in the table

Variable	component	Mean	SD	Skewness	Kurtosis
bullying	bullying	31/30	5/33	0/32	-0/64
	the victim	31/06	6/01	0/25	-0/81
Abnormal personality	negative emotion	14/85	3/06	0/09	-0/36
	fault	15/17	3/24	-0/03	-0/40
	opposition	14/80	3/44	0/11	-0/52
	Fatigue	14/54	3/78	-0/08	-0/72
	mood swings	14/88	3/53	-0/20	0/51
self-incapacitation		20/97	5/08	-0/11	0/39

According to Table 1, the average and standard deviation indicators of the appropriate dispersion of the data and the skewness and kurtosis indicators also indicate the normality of

the data distribution. Also, the correlation matrix between research variables is reported in Table No. 2.

Table 2. Correlation matrix between model variables

n	Variable	1	2	3	4	5	6	7	8
1	Negative emotion	1							
2	Fault	0/50**	1						
3	Opposition	0/29**	0/26**	1					
4	Fatigue	0/44**	0/19**	0/41**	1				
5	Psychosis	0/38**	0/28**	0/48**	0/35**	1			
6	Bullying	0/24**	0/13**	0/11*	0/18**	0/15**	1		
7	Victim	0/23**	0/14**	0/13**	0/16**	0/10*	0/39**	1	
8	self-incapacitation	0/31**	0/15**	0/27**	0/25**	0/17**	0/22**	0/15**	1

The results of Table 2 show a positive relationship between the components of bullying and the components of abnormal

personality and self-impairment. Next, in picture number 1, it shows the tested research model along with the standard coefficients.

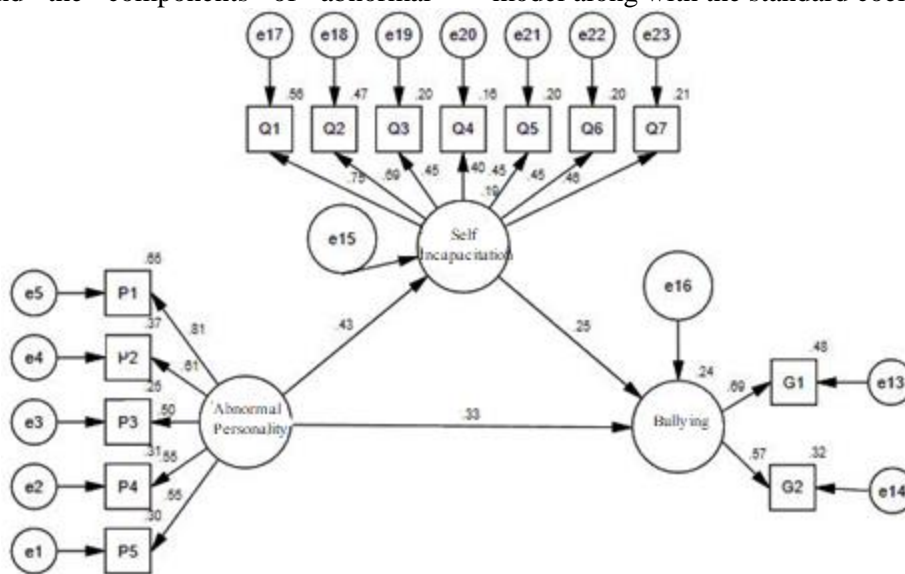


Figure 1. The tested model of the present study

Figure 1 shows the tested model of the present study, according to the results of the model test, abnormal personality dimensions predict 19% of the variance of self-disability and self-

disability together with abnormal personality dimensions predict 24% of bullying changes. Direct and indirect effects are reported in Table 3.

Table 3. Direct and indirect effects of the tested research model

Path	Direct effect	t	Indirect effect	Sobel	p
Abnormal personality->self-disability	0/43	5/08	-	-	0/001
Abnormal personality->bullying	0/33	3/25	-	-	0/001
Self-handicapping -> bullying	0/25	2/54	-	-	0/001
Personality disorder -> self-handicapping -> bullying	-	-	0/11	1/96	0/05

According to table 3, the direct effect of abnormal personality on self-disability is (0.43) and on bullying (0.33), and the direct effect of self-disability on bullying is also (0.25). In the

current model, self-impairment played a mediating role in the relationship between abnormal personality and bullying, and the indirect effect of this relationship was obtained

(0.11), which is significant at the 0.05 level. To check the fit of the model, the fit indices proposed by Gefen et al. were used (Gefen,

Straub, & Boudreau, 2000). The fit indices of the model are shown in Table 4.

Table 4. Fit indices of the tested model

Index	X ²	df	P	X2/df	RMSEA	GFI	CFI	NFI	AGFI
Value	249/23	74	0/001	2/98	0/6	0/91	0/90	0/90	0/86
Acceptable range				<3	<0/08	>0/90	>0/90	>0/90	>0/85

Gefen et al.'s indices were used to check the fit of the model (Gefen, Straub, & Boudreau, 2000). The results of the fit indices show that the tested model has a good fit.

Conclusion

The present study was conducted with the aim of testing the structural model of the relationship between dimensions of personality pathology and bullying through self-impairment among high school students, the results of the tested model showed a positive relationship between dimensions of abnormal personality and self-impairment. This finding is in line with the results of various studies (Abdi & Pak, 2017; Bodroža, Mandarić, & Milosavljević, 2022; Kalyon, Dadandi, & Yazici, 2016; Núñez et al., 2021). In this context, Budroza, Mandaridge and Milosavich in their study, which was conducted with the aim of investigating the relationship between self-handicapping and some aspects of abnormal personality such as narcissistic personality, showed that high scores of self-handicapping have a positive relationship with high scores of abnormal personality. (Bodroža, Mandarić, & Milosavljević, 2022). In explaining this finding, it can be stated that abnormal dimensions of personality such as psychopathy have a significant relationship with high levels of obsession and obsessive behavior (Kalyon, Dadandi, & Yazici, 2016). On the other hand, students who have a high level of self-handicapping are extremely hesitant and obsessive about doing their homework, they think that by doing homework or facing academic challenges, they will fail and their self-esteem will be damaged. (Núñez et al., 2021); Based on this, students with high grades in abnormal personality obsessively face the fear of failure, which increases their tendency to self-disability.

Among the other findings of the present study was the positive relationship between self-impairment and bullying, the relationship and effect of self-impairment on high-risk behaviors such as bullying and violence has been shown in

various studies, the results of which are consistent with the findings of the present study. (Barutcu Yildirim & Demir, 2020; Ghazi, Hasanvandi, & Ghadampour, 2017; Kalyon, Dadandi, & Yazici, 2016; Melhem, 2022). In this regard, Melhem (2022) showed in his study that academic self-handicapping has a positive relationship with violence and risky behaviors and bullying (Melhem, 2022). In explaining this finding, we can point to the role of anxiety in people with self-impairment, according to others, people with self-impairment have many areas of anxiety and stress, and anxiety is also a generator of violence and bullying (Kalyon, Dadandi, & Yazici, 2016). From Adler's point of view, feeling inferiority is the source of many motivational injuries, and feeling inferiority can also lead to anger and violence; Therefore, students who have self-handicapping have anxiety and stress as well as a sense of inferiority, which are all violent factors and can lead to bullying behaviors (Adler, 2013).

Another result of the structural model test was the positive effect of abnormal personality on bullying. This finding is also consistent with various studies. (Bodroža, Mandarić, & Milosavljević, 2022; Chang, 2020; Ghoul, Niwa, & Boxer, 2013; Núñez et al., 2021), in this regard, it can be said that students with high abnormal personality have a low level of mental health. and therefore has low self-esteem and self-worth (Chang, 2020); On the other hand, low self-esteem also leads to an increase in jealousy, resentment and feelings of inferiority towards others, these people try to satisfy themselves with compensation mechanisms for this sense of incompetence and therefore resort to violence and bullying (Deci & Ryan, 2010). According to the mentioned materials, the mediating role of self-impairment in the relationship between abnormal personality and bullying can also be defended. In fact, abnormal personality can increase the level of self-impairment of a person, and on the other hand, as mentioned, increasing the level of self-impairment also leads to an increase in violence

and bullying among students, so the mediating role of self-impairment in these relationships is confirmed. However, future studies can provide a deeper understanding of the causes of self-handicapping and bullying among students based on a qualitative approach; Finally, the limitedness of the studied population to high school female students in two cities of Tehran was one of the important limitations of the present research, which should be cautious in generalizing the results.

Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

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