

## Effectiveness of the Program Extracted from the Causal model of Academic Conflict on Academic Burnout

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### Abstract

**Introduction:** Due to the high prevalence and importance of burnout in students, the purpose of this study was to investigate the effectiveness of the program derived from the causal model of academic engagement on burnout.

**Methods:** In this study, which examined the effectiveness of the program extracted from causal model on academic burnout, part of the quasi-experimental research with post-test-pre-test design with control group and in terms of objective dimension was applied. The statistical population of the present study included all female high school students in Hamedan who were studying in the academic year of 2018-2019. The statistical sample of this study was selected using a simple random method for 30 people (15 people in the control group and 15 people in the experimental group). Academic engagement with the Rio Questionnaire and academic burnout with the Schuffley Questionnaire were assessed.

**Results:** The results of covariance analysis with SPSS software showed that causal model affected academic burnout and there was a significant difference between the post-test scores of the experimental group and the control group.

**Conclusion:** Based on the results of this study, it is recommended to use the causal model of academic engagement to reduce academic burnout in students.

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**Keywords:** Academic Engagement" Academic Burnout" Causal Model

**Citation:** Saati Masoumi F., Jadidig H., Yarahmadi Y., Akbari M.. Effectiveness of the Program Extracted from the Causal model of Academic Conflict on Academic Burnout, Family and health, 2021; 11(3): 11-28

**Introduction:**

With the increasing progress of human societies, scientific expertise and consequently the process of scientific progress becomes more important. Institutions and educational institutions always seek to identify the factors that influence the advancement of this process and, in fact, ensure the academic progress of the next generation. One of the factors that has recently attracted the attention of researchers in this field is the variable of academic conflict [1].

According to the results of research, active involvement is necessary for any change and progress in the field of education and one of the most important predictors of academic outcomes such as high grades and academic achievement is school attendance, effective coping and resilience [2]. The three-dimensional dimension of academic conflict is emphasized.

Lenin Brink and Pintrich [3] have described the three behavioral, cognitive, and emotional dimensions of academic conflict as follows: includes; 2) Cognitive engagement is a variety of processing processes that are used by learners for learning and includes components of the use of cognitive and metacognitive strategies; 3) Emotional (motivational) conflict is considered to have positive emotions during learning and to prevent the development of negative emotions such as anxiety, which include the components of feeling, value and emotion. Students show a high level of involvement in academic issues when they have a strong motivation to succeed and progress in education, which in such a case will create grounds for academic excitement in them.

It is now necessary to examine a variable affecting academic conflict, which is one of the most important and, of course, hidden issues for students in the process of learning and study, which can be academic burnout. Academic burnout, which is a response to the difficulties faced by the ubiquitous, is the result of a mismatch between educational resources and one's own and others' expectations for academic success [3]. Academic burnout means feeling tired of doing homework and studying, having a pessimistic attitude towards education and curriculum, and feeling of academic inadequacy [4]. In fact, the negative response to acute and severe stress of the test, in which often due to high demands and beyond the power that comes from people, causes them to feel emotionally and physically tired [5].

Discuss the burnout that is the focus of every educational system and how it is affected by academic conflict. Academic burnout is manifested in the form of feeling tired due to scientific demands, having a pessimistic and passive attitude towards education, and is described by the dimensions of emotional fatigue, pessimism, and inefficiency [6]. Emotional fatigue, which refers to the feeling of emptiness and depletion of one's emotional resources, is considered as a component of personal stress [7]. Pessimism or apathy refers to negative pessimistic or overly reluctant negative responses to other classmates, which indicates the interpersonal component of

burnout [8]. Finally, inefficiency refers to a feeling of inadequacy in fertility and fertility and a sense of low efficiency, which includes the component of self-assessment of burnout [9].

Academic burnout leads to adverse consequences that not only lead to academic failure, probation, lack of specialization and even dropout and expulsion of students, but also waste their material and spiritual capital and society. In addition, academic burnout is thought to lead to decreased academic achievement and consequently increased dropout, as well as to mental distress such as anxiety, depression, repression, hostility or fear [10].

In general, it can be said that people with academic burnout usually experience symptoms such as apathy, inability to continue attending classes, not participating in class activities, feeling meaningless in class activities, and feeling incapable of learning. 11] and completely opposite are people who have high academic involvement.

It is obvious that considering the importance and consequences of academic burnout, controlling it in high school students with special conditions of these students means entering high school, passing adolescence and the desire to achieve success and be considered and confirmed, academic success and academic conflict. The fundamental issue is in them. Therefore, identifying the variables affecting the conflict and academic performance of high school students and how it affects academic burnout is one of the important tasks of educational psychologists that has become a major concern for researchers and educational officials in our country. Today, many researches have been done on the variables that affect academic burnout and have proposed various theories and cognitive-social models in this regard. The important point in using most of the results of these studies is that when discussing a complex phenomenon such as burnout, it is necessary to pay attention to the role of a set of factors and it should be noted that one variable alone has an effect on another variable. Study simultaneously with other variables, different results may be obtained, and so far, research on burnout among students has not been able to address all of these factors and variables mentioned together and in relation to each other, and this is the subject of this study. The data and the effectiveness of the program extracted from the causal model on academic burnout are examined. In general, the present study seeks to answer the question of whether the educational program extracted from the model is effective on academic burnout?

### **Methods:**

The present study investigated the effectiveness of the program extracted from the causal model on academic burnout. It is part of a quasi-experimental research with a post-test-pre-test design with a control group. The statistical population includes all female high school students in the city of Hamedan who are studying in the academic year 1397-98. The statistical sample of this study was selected using a simple random method to 30 people (15 in the control group and 15 in the experimental group).

In the present study, a burnout questionnaire was distributed for screening among female high school students. After that, 30 students with the highest rate of burnout were identified and randomly divided into control and experimental groups. The program extracted from the model was then taught to the experimental group, while the control group received no training. Then, the

burnout questionnaire was given to the two groups as a post-test, and finally, after collecting the questionnaires, statistical analysis was performed.

### **Research tools**

**Academic Conflict Questionnaire:** The Academic Conflict Questionnaire was designed and developed by Rio to assess academic conflict. This questionnaire has 17 questions and 4 components of behavioral conflict (questions 1 to 4), factor conflict (questions 5 to 9), cognitive conflict (questions 10 to 13) and emotional conflict (questions 14 to 17) and is based on a range of seven options. Likert (strongly disagree = 1, disagree = 2, somewhat disagree = 3, moderate = 4, somewhat agree = 5, agree = 6 and strongly agree = 7) assesses academic engagement [12], with scores ranging from 17 to 119. It is that the score of 68 is the cut-off point of the academic engagement questionnaire that scores less than 68 indicate low academic engagement and scores higher than 68 indicate high academic engagement. The results of Ramezani and Khamesan research in 1396 showed that the academic engagement questionnaire has a good reliability (0.92). Also, the results of confirmatory factor analysis of these researchers showed that the structure of the questionnaire had an acceptable fit with the data and all the goodness indicators fit for the four-factor model underlying the questionnaire [13].

**Academic Burnout Questionnaire:** The questionnaire used in the present study is a modified form of the Maslach Burnout Scale - a general form that has been modified for use in a student sample by Shuffle et al. [14]. This questionnaire has a total of 15 questions and includes three subscales. Emotional fatigue was measured with 5 questions (questions 1 to 5), doubt and pessimism with 4 questions (questions 6 to 9) and academic inefficiency with 6 questions (questions 10 to 15). All questions were scored in a 7-point continuum (never = 1, very rarely = 2, relatively low = 3, sometimes = 4, relatively high = 5, most of the time = 6 and always 7). The way questions are scored (12 to 15) is reversed. The score range of this questionnaire is between 15 to 105, which is a score of 60 points of the questionnaire, where scores less than 60 indicate low academic burnout and scores higher than 60 indicate high academic burnout. Internal consistency has been reported in Dutch, Portuguese, and Spanish samples as follows:

Spanish sample (emotional fatigue 0.74, skepticism 0.79, academic self-efficacy 0.76)

Portuguese sample (Emotional fatigue 0.79, doubt and pessimism 0.82, academic self-efficacy 0.69)

Dutch sample (emotional fatigue 0.80, skepticism 0.86, academic self-efficacy 0.67) [14]

In Iran, in Rostami, Abedi and Shofli research in 2011 to evaluate the simultaneous validity of the correlation questionnaire, the academic burnout scale was calculated with the total score of the students' depression questionnaire and the correlation coefficient was 0.74, 0.68 and 0.5 for the subscales of fatigue, respectively. Acquired emotional, skepticism and academic self-efficacy [15]. To investigate the divergent validity, the researcher-made scale of interest in the field of study was used, which for the subscales of emotional fatigue, doubt, pessimism and academic self-efficacy, the coefficients were -0.21, -0.53 and -0.32, respectively.

Table 1: Training protocol

Subject	Content	Number of sessions
Life Skills	Self-awareness skills - Problem solving skills - Self esteem and self-confidence coping skills - Communication skills - Independence skills	5 sessions
The role of active presence in the classroom	Active class attendance techniques-goal setting-command role	2 sessions
educational planning	How to plan a lesson - Important techniques in planning	2 sessions
Focus	Focus - Distractions - How to focus on things we are not interested in	2 sessions
Learning and study strategies	Cognitive Strategies-Metacognitive Strategies	2 sessions
Academic skills	Reading-Listening skills	1 session
Psychological solutions	Relaxation training - Deep thinking techniques - Yoga - The impact of positive beliefs and thoughts on success	2 sessions
Reasons for academic failure	Review and self-assessment of the training received during the course	1 session

**Results:**

First, before examining the research hypotheses, it is necessary to evaluate the normality of the research variables by Kolmogorov-Smirnov test. Therefore, Table 2 examines the normality of the research variables.

Table 2: Investigating the normality of research variables

Variables	Statistics Z	Significance level
<b>Pre-test for burnout</b>	0/162	0/051
<b>Post-burnout test</b>	0/084	0/2

Significance level for burnout variables in both pre-test and post-test is more than 0.05 and this shows that these two variables have a normal distribution, so parametric tests are used to evaluate the research, because one of the conditions The use of parametric tests is that the distribution of research variables is normal.

To test the research hypothesis, univariate analysis of covariance or ANOVA under SPSS software is used. In the above model hypothesis, academic engagement as an independent variable, academic burnout scores in the post-test mode as a dependent variable and burnout scores in the pre-test mode play a role as a control variable. First, before examining the research hypothesis, it is necessary to examine and confirm the assumptions of the univariate analysis of covariance,

including the homogeneity of regression slopes, the existence of linear correlation, and the equality of variances.

Investigating the homogeneity of regression slope

This assumption means that the relationship between pre-test and post-test burnout scores is the same in the experimental and control groups. Analysis of variance was used to test this hypothesis, the results of which are shown in Table 3.

Table 3: Homogeneity of regression slopes in research hypothesis

	<b>sum of squares</b>	<b>dg</b>	<b>Average squares</b>	<b>F</b>	<b>significance level</b>
<b>Corrected model</b>	1727.314	3	575.771	15.478	0.001
<b>Width of origin</b>	557.688	1	557.688	14.992	0.001
<b>group</b>	48.913	1	48.913	1.315	0.262
<b>pre-exam</b>	742.816	1	742.816	19.968	0.001
<b>Pre-test× group</b>	3.094	1	3.094	0.083	0.775
<b>Error</b>	929.996	25	37.2	-	-
<b>Total</b>	104434	29	-	-	-
<b>Corrected total</b>	2657.31	28	-	-	-

The above table shows that the significant level obtained from the F statistic in the fifth line of the table is more than 0.05, and this indicates that with a 95% confidence level of interaction between the group and the pre-test of burnout scores are statistically It does not make sense. Therefore, it can be concluded that the data support the hypothesis of homogeneity of regression slopes. This will be made clearer by using a scatter plot.

Table 4 examines the equality of variances using the Leven test.

Table 4: Investigation of equality of variances in research hypothesis

<b>Statistics F</b>	<b>First degree of freedom</b>	<b>Second degree of freedom</b>	<b>Second level of significance</b>
<b>0/023</b>	1	27	0/88

Table 4 shows that the significance level obtained from the Loon test is greater than 0.05, so with the 95% confidence level, the assumption of equality of variance error is not violated and therefore the variances are homogeneous and equal.

Table 5 examines the effect of the causal model on academic burnout using the analysis of covariance test.

Table 5: Investigation of research hypothesis

	<b>Total Squares</b>	<b>df</b>	<b>Mean Squares</b>	<b>F Statistics</b>	<b>Significant Level</b>	<b>Eta Squared</b>
<b>Corrected model</b>	1727/221	2	862.11	24.022	0/001	0/649
<b>Width of origin pre-exam group</b>	1122/394	1	1122/394	31.275	0/001	0/649
<b>Error</b>	1169/201	1	1169/201	21.587	0/001	0/649
<b>Error</b>	1046/194	1	1046/194	29.152	0/001	0/649
<b>Total</b>	933/09	126	35.888	-	-	-
<b>Total</b>	104434	29	-	-	-	-
<b>Corrected total</b>	2657/31	28	-	-	-	-

The significance level obtained from F statistic in the pre-test variable is less than 0.05. Therefore, the random variable is related to the dependent variable. The results obtained from the main effect of the group showed that the group had a significant effect on the dependent variable. Therefore, the results of analysis of covariance to test the research hypothesis, which is presented in Table 5, show that the causal model has an effect on academic burnout. On the other hand, it can be concluded from ETA squares that teaching the causal model of academic conflict has an effect of approximately 53% on academic burnout. Therefore, the research hypothesis is confirmed and the null hypothesis is rejected.

### **Conclusion:**

Considering that the research hypothesis examines the effect of causal model on academic burnout, the results obtained in previous discussions indicate the fact that the causal model had a 53% effect on academic burnout and this caused the burnout scores of the experimental group after Reduce the causal model of academic conflict.

In this regard, the results of the studies of Tarazi [16], Palos et al. [17], Mainpa et al. [18] and Friedman [19] are consistent with the results. Because he concluded in his research that academic burnout in students is affected by their academic conflict, and if students become more involved in academic issues, the rate of academic burnout and burnout will decrease. While the result of Ramezani [20] study that examined the mediating role of academic self-regulation and academic self-efficacy in the relationship between perceived social support by the teacher and academic conflict in high school students in Birjand was inconsistent with the result. This study showed that the mediating role of self-efficacy (as one of the dimensions of academic burnout) in the relationship of social support perceived by the teacher with academic conflict was not confirmed. The cause of this heterogeneity can be derived from the study population or differences in measurement tools, which causes different and heterogeneous results.

Therefore, comparing the results with the results of previous studies, it is concluded that the causal model of academic conflict in this regard affects academic burnout and can reduce it in the students of the experimental group through the subject of academic conflict and that the person who It is involved in academic issues. It listens well to the lessons presented by the teacher, increases the

level of effective listening in students, and thus students learn to listen with all their being and focus on the lessons taught by the teacher so that Be able to have a better understanding of their lessons. Therefore, the more this perception of academic issues increases, the better students will be able to cope with their homework and the better they will be able to cope with homework, they will be able to do their homework on time and in the best way, which ultimately causes It reduces their fatigue and anxiety about studying, and as a result, it can significantly reduce academic burnout among them.

Also, because positive and negative emotions affect academic engagement, it helps to teach students how to better understand their academic emotions and best distinguish between positive and negative emotions. Because the distinction between positive and negative emotions in students helps them to understand their feelings and emotions, which causes them not to lose control and mastery of academic issues due to positive emotions and because of their negative emotions. Do not reduce your motivation, because it is necessary to increase academic engagement and consequently reduce academic burnout so that students can have a good understanding of their positive and negative emotions in academic issues, and if they do not understand these emotions, these emotions can Keep them away from the path of success in education.

Therefore, because in the causal model of academic engagement, students are taught to manage their emotions properly and improve their emotional intelligence, so students will be able to overcome academic problems well with the emotions under their control. Because emotion control allows the student to make the most of this energy when he or she has a strong passion for education and to use it to advance his or her academic pursuits, and when he or she has negative emotions and is tired of studying. Properly rest for himself without dealing with distracting factors such as television, so that the amount of emotional fatigue as one of the dimensions of academic burnout does not increase in him and he can again deal with his educational issues with more energy and focus.

Also, the causal model of academic conflict, which is also due to self-regulation, causes students to be given individual discipline training in this model so that students learn that everything will be achieved with planning and commitment to implement it in education. By avoiding the constant blame of themselves and others, they should keep their power and energy at the highest level so that the level of form and pessimism about the dimensions of academic burnout decreases with them. On the other hand, students are taught to make the most of their educational opportunities and to know that they can use any opportunity to their advantage, and if something negative happens to them in academic matters, they believe that they must In this regard, strengthen their abilities and instead of criticizing the situation and themselves, increase the level of positive re-evaluation as one of the dimensions of self-regulation, which, as a result, will pave the way for reducing academic burnout. Because academic burnout affects a student when he constantly blames himself and undermines his self-esteem, as a result of which his academic ability decreases and he can not cope with homework that the overall feeling of burnout is evident. will be. Because one of the dimensions of academic burnout will be the reduction or lack of academic self-efficacy and the person who does not believe in their abilities, had a low level of academic self-efficacy.

Also, the causal model of academic engagement, which is related to academic self-disability, teaches students not to procrastinate their homework and therefore they will be given training in overcoming procrastination, which will increase their level of efficiency and academic performance. To increase. Because one of the factors that causes students to suffer from high academic burnout is that they constantly postpone their work and homework, and the more this procrastination increases, the more they feel empowered against that task and always that task for He gets bigger and bigger and therefore does not see himself in overcoming it and doing it properly, and as a result, the stress and anxiety caused by the accumulation of work causes him to suffer from academic burnout.

### **Suggestions**

According to the research hypothesis and that the causal model of academic conflict has an effect on academic burnout, all officials in education in Hamadan are recommended to use this protocol of the causal model of academic conflict to promote more academic conflict to increase self-regulation. Provide positive emotions and as a basis for reducing negative emotions and self-disability among students.

### **Thanks, and appreciation**

Many thanks to all the mothers who helped us with this research.

### **Conflict of interest**

The authors of the article have no conflict of interest.

### **Ethical considerations**

In this research, ethical criteria include; The principle of respect and confidentiality, preventing the disclosure of the information obtained by the subjects with their real names, the authority and freedom of the subjects to participate or leave the training, obtaining written consent from the subjects has been observed.

### **Contribution of authors**

All authors have contributed to the writing, submission and follow-up of this article.

### **Financial support**

This research was conducted at personal expense and did not have the financial support of a specific organization or institution.

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