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Designing A Conceptual Model of the Contributing Factors in Students' Academic Burnout

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Abstract--- *The present study was conducted to design a conceptual model of the contributing factors in pupils' academic burnout. Therefore, a conceptual model of the contributing factors in academic burnout was designed based on the review of literature. A population consisting of 400 subjects in the third grade of the middle school in Tabriz were selected using multistage clustering sampling. The Breso's academic burnout questionnaire, Walrand's academic motivation questionnaire, Sherer's self-efficacy questionnaire, Ferasat's perfectionism questionnaire, Connor-Davidson Resilience scale, and Miller and Brown's self-regulation were used to data collection. Data analysis through the structural equations modeling method showed that the conceptual model fit desirably and the fitness indices including GFI, AGFI, CFI, IFI and RMSEA were at a desirable level. According to the findings of the present study, it can be inferred that the academic motivation, self-efficacy, perfectionism (adaptive and maladaptive), resilience and self-regulation are the factors predicting the academic burnout where the academic motivation and self-efficacy mediate the relationships between the independent variables and academic burnout. Hence, it can be stated that the academic burnout is influenced by the motivational factors, personal characteristics and life skills where the motivational factors can change the impacts of personal characteristic and skill variables on academic burnout.*

Keywords--- *Academic Burnout, Academic Motivation, Self-Efficacy, Perfectionism, Resilience, Self-Regulation*

I. INTRODUCTION

The education is a continuous process in terms of ontological nature where the learners continuously confront a myriad of situations, assignments, information as well as various visual, auditory, empirical and mental stimuli, and the wide variety of things they face with entails the efficient organization and management on the part of the learners. Although the majority of the learners could adapt themselves to the numerous educational demands through the predictions and timely interventions, some of the learners are afflicted with a problem called academic burnout due to the large number of the assignments and the lack of a clear prospect in the academic activities, motivational failure and the great level of academic, environmental and family stressful factors.

The academic burnout that is also known as school burnout, indicates the exhaustion resulting from the academic demands and obligations, the negative, fault-finding and unmotivated attitude towards the classroom assignments and the feeling of being unworthy (Zhang, Gan & Cham, 2007). At first, burnout was considered as a disorder relating to the job, and considering the procedure of the development of this consept, Maslach, as one of

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the pioneers in the scientific study on burnout, introduced it as a three-dimensional syndrome including: emotional exhaustion, depersonalization, reduced personal accomplishment and proposed Maslach Burnout Inventory (MBI) as a tool to assess it.

Although the concept of burnout has been combined with the jobs and careers in line with its origin, the concept has been extended to the field of academic-educational activities over recent years, and it is stated that the learners in the academic environments are similar to those involved in different jobs who are continuously busy doing certain activities and following some certain assignments, and the learners are to be present in the classrooms at certain times where they do some assignments to pass the tests and to get good marks. Hence, such an environment involves the learners in the stress connected with the performance where they most probably experience burnout at different academic levels. Accordingly, the type of burnout that the learners experience is similar to and comparable with the burnout in different job positions including the same features, events and consequences and also the same three components (exhaustion, disinterest, and inefficiency) that appear in the field of education (Salanova, Martinez & Breso, 2010), and they have a harmful effect on the cognitive commitment, interest in the lessons, participation in the classroom activities, finding the education stuffs meaningful and feeling capable of learning the lessons (Rudman & Gustavsson, 2012).

The studies have shown that not only does the academic burnout have a negative impact on the academic performance and achievement of the pupils and students (May, Bauer & Fincham, 2015; Galbraith & Merril, 2015), also the intensity and side effects of academic burnout, as a syndrome, increase along with the increase in the age and academic grades (Lee, Puig & Lea et al., 2013). The intensity and side effects of academic burnout is particularly higher than other students in the case of the pupils who are going to continue the studies at universities and to achieve higher academic levels (Bask & Salmela, 2013). This syndrome can influence the family members and close companions of the students as well as the students themselves in terms of mental, psychological and physical well-being (Mazerolle, Monsma & Dixon et al., 2012). This exerts some heavy costs on the society and deprives it of some considerable potentials as well as causing academic failure followed by the academic collapse in the pupils and students and other personal while also brining about social negative and harmful consequences. This can also lead to some harmful impacts including some psychosomatic problems such as cardiovascular problems, chronic fatigue, headache, digestive disorders, muscular and abdominal pains, respiratory and sleep disorders, skin and period disorders, behavioral problems like drinking alcohol and drug use, smoking cigarettes, being absent from classrooms and eating habits, emotional problems such as impatience and restlessness, irritability, inability to concentrate due to stress, depression, low self-esteem and lack of motivation (Marrau, 2009). The epidemic of burnout reported by the studies conducted on the pupils and students covers a wide range, and there are a few studies having investigated the relevant factors among Iranian pupils and students in spite of the importance of this syndrome for the education period and even for their working efficiency after the education period, thus no exact information has been found in this regard (Sharifshad, Arsang & Kheyrallahi, 2017). Considering the high prevalence of academic burnout and its destructive consequences, it is necessary to search to find the direct and indirect effective causes of burnout and its intensification.

Considering the litrature provided over the last decade on academic burnout, we could achieve some components, each of them can be explained based on the Bandora's self-efficacy theory, Sile general adaptation model and the motivational approaches. This is the case such that a comprehensive approach titled "Conservation of Resources (COR) Theory" has been developed through the combination of the mentioned approaches over the recent years based on which the burnout phenomenon can be explained better (Mousavi & Shokri, 2015). According to this theory, the individuals lose their resources (like time and energy) when facing the stressful situations such that Hobfoll (1989) believes that burnout occurs under the pressure of high level of demands and reduction in the resources. As a result, this leads to the loss of individuals' energy and motivation, and the individual's resources decrease along with the increase in the level of tension. This is the case while the individual normally challenges and interact actively with the environmental stimuli to achieve positive reinforcement. These positive reinforcements lead to the creation and preservation of some features and reserves such as the individual's energy, motivation and self-esteem.

On the other hand, various studies conducted over the recent years by the educational authorities, and researchers involved in the field of behavioral sciences into the causes and factors involved in the academic burnout has attracted much attention, and numerous researches have been conducted to identify the factors affecting it, and some models have been also proposed in this regard. One of the proposed models is Lighter's model (according to Parker & Salmela-Aro, 2011). Emotional exhaustion is the element initiating burnout and it is a component that has spread as the inefficient countering strategy, and finally leads to the feeling of inefficiency, while according to Golembiewski model (1989) pessimism spread in the beginning and it is followed by the spread of the feeling of inefficiency along with emotional exhaustion that will finally lead to academic burnout. On the other hand, Tars, Le Blanc & Schaufeli et al., (2005) also believe that the emotional exhaustion has some direct and indirect impacts on the feeling of inefficiency and pessimism through the combination of the two above-mentioned models. Also, in a study on the students, Uludag & Yaratan (2010) found out that the emotional exhaustion, pessimism and decrease in self-efficacy have a negative relationship with enthusiasm, attraction and allocation of time and energy to the academic assignments. Another result of the present study was that the male learners, the learners with less academic background, and older students suffered greater academic burnout than the female students, the learners with greater academic background, and younger students. The results of a qualitative phenomenological study on the academic burnout also proposed some components, namely weakness in programming (including fault in setting goals, postponing, repeating the mistakes in programming), motivational problems (including disinterestedness, extrinsic motivation, feeling exhausted and impatient, external controlling source, efficiency expectations), and adaptation problems as a collection of the main and peripheral themes in phenomenology of academic burnout (Adib, Fat'hiazar & Dastori, 2017).

Also, the relationship between academic burnout and motivation has been addressed in the motivation-based approaches, and this relationship has been described as an inverse relationship (Zhang et al., 2007). There are numerous studies showing that from different types of motivation the intrinsic motivation has a negative role and the extrinsic motivation, amotivation and procrastination have positive roles in explaining and predicting the academic burnout (Tukaev, Vasheka & Dolgova, 2013; Cazan, 2015; Barzgar, Darbidi & Hemmati, 2015;

Ajamakrami, Rezai & Bayani, 2015). Of course, the academic burnout increases along with the increase in age and educational grade (Lee et al., 2013). This is the case such that the academic burnout increases in the pupils who are going to continue their studies at the universities where the academic burnout increases (Bask & Salmela, 2013). On the other hand, Reichel, Wach & Spinath et al., (2014) showed through a study that having extrinsic motivation and too ambitious expectations in selecting the field of study and occupation are some of the factors posing the risk of academic burnout.

The other kinds of studies have pointed out the importance and role of perfectionism as the feature that has a relationship both with academic burnout and academic motivation, and they have shown that the maladaptive dimensions of perfectionism are connected with the academic burnout and the positive and adaptive dimensions of perfectionism are connected with the academic motivation (Zhang et al., 2007; Karimi, Bashirpour, Khabbaz et al., 2014; Pourseyyed, Motavalli, Pourseyyed et al., 2015; Atadokht, 2016).

Some studies have addressed the role of self-efficacy beliefs as the key factor concerning the academic burnout (like those conducted by Capri, Ozlendir & Ozkurt, 2012; Rahmati, 2015) where Bigle, Tuzgol & Ceti (2014) in their study introduced study habits, self-efficacy beliefs and academic achievement as the factors affecting the pupils' academic burnout and engagement. In this regard, as Cazan (2015) puts it, the high level of engagement in the academic affairs is considered as the opposite of academic burnout. Thus, the studies have shown the mutual and negative impact of academic burnout on academic achievement and progress (Mousavi & Shokri, 2015; Galbraith & Merrill, 2015). As the self-efficacy beliefs also affect the academic achievement along with different levels of academic burnout (Capri, 2013).

Academic resilience is also another variable affecting the academic burnout which means the process and capacity of successful adaptation in spite of the undesirable conditions (Martin & Marsh, 2006). Some other experts believe that resilience is the effective flexibility against the life events and the ability to adapt oneself properly when facing the stressful and hazardous factors (Hatkoff & Kahumbu, 2006). In this regard, Alva (1991) believes that the pupils who are academically resilient enjoy a high level of performance, motivation and progress when facing the stressful conditions and events, and this may reduce the risk of academic failure of these students. In other words, the resilient pupils are more motivated than the other students, exhibit greater attempt during the study period, achieve greater success and are less likely to drop out of school (Kilmister, 2015).

Although the impacts of different types of stressful factors in burnout have been studied by different studies, some studies including the one conducted by Lin & Huang (2014) have shown that self-adaptation stress, intrapersonal stress, future progress stress, and academic stress commonly predict the academic burnout. Shih (2013) introduced self-regulation skills along with the ability to deal with the academic stress as the two important factors involved in controlling educational burnout. Vahedi, Hashemi & Shafiei (2014) showed in their study, while testing a theoretical model, that self-regulation, self-efficacy and intrinsic valuation has a negative effect on the academic burnout and the years of study and neuroticism has a positive impact on it. This is the case such that self-regulation has an intermediate role in the impacts of factors involved in neuroticism, self-efficacy and intrinsic valuation on academic burnout. In this regard, the study conducted by Duru & Baliks (2014) showed that on the one hand the pupils' academic progress has a negative relationship with all three components of academic burnout and it

has a positive relationship with self-regulation. On the other hand, the self-regulation skills have an intermediate role in the relationship between the academic burnout and progress.

On the whole, it is obvious that some micro and one-dimensional theories have been proposed about the identification of the factors involved in academic burnout over the recent decades, and also some studies have been conducted in this regard. Some of these studies are the ones conducted by Duru et al. (2014); Shih (2013); Capri (2013); Galbraith & Merril (2015); Cazan (2015); Capri et al. (2012); Bilge et al. (2014); Zhang et al. (2012); Reichel et al. (2014); Tokayof et al. (2013); Bask et al. (2013); Li et al. (2013); Taris et al. (2015); Park et al. (2011); Rodman et al. (2012); Salanva et al. (2010).The mentioned studies have emphasized the impacts of exhaustion, perfectionism, self-efficacy, academic motivation, intrinsic valuation, weakness in programming, study skills, self-regulation, academic engagement and perceived stress on academic burnout, and they determined some relevant relationships. However, it is obvious that the role of these factors are definitely adjusted when they are considered as a conceptual model because of the internal relationships between them. On the other hand, it may be the case that some of these constructs have a role as an intermediate while on the other hand some of them are removed from the model because of being covariant with other variables. Hence, the question in point is: Which factors extracted from the theoretical foundations can have the role of an intermediate or independent variable in explaining the changes in academic burnout? and, which factors in this conceptual model remain in the measured model?

From a different point of view, it can be stated that according to the existing theoretical approaches, the factors extracted from the theoretical foundations can be classified into some fields and they can be prioritized according to their nature because some of these factors such as the perfectionism construct are considered as the personal characteristics and accordingly they can be considered as the independent variables. On the other hand, some constructs such as the academic engagement and study skills are considered as the behavioral components and they can be considered as the second-degree intermediate variables that are in principle affected by some variables such as academic motivation, self-regulation, and emotional exhaustion. On the other hand, it can be inferred that the perceived stress and self-efficacy are the cognitive components that can have the role of first-degree intermediate variables such that these variables on the one hand affect the second-degree intermediate variables, and on the other hand are affected by some other variables like academic perfectionism and valuation. Accordingly, the question in point is that: Does the conceptual model have an appropriate fitness?

II. Research Type And Research Design

The present study was a descriptive study and was conducted by a correlational method. The present study investigated the structural relationships between the variables proposed in the conceptual model in the following way (figure1):

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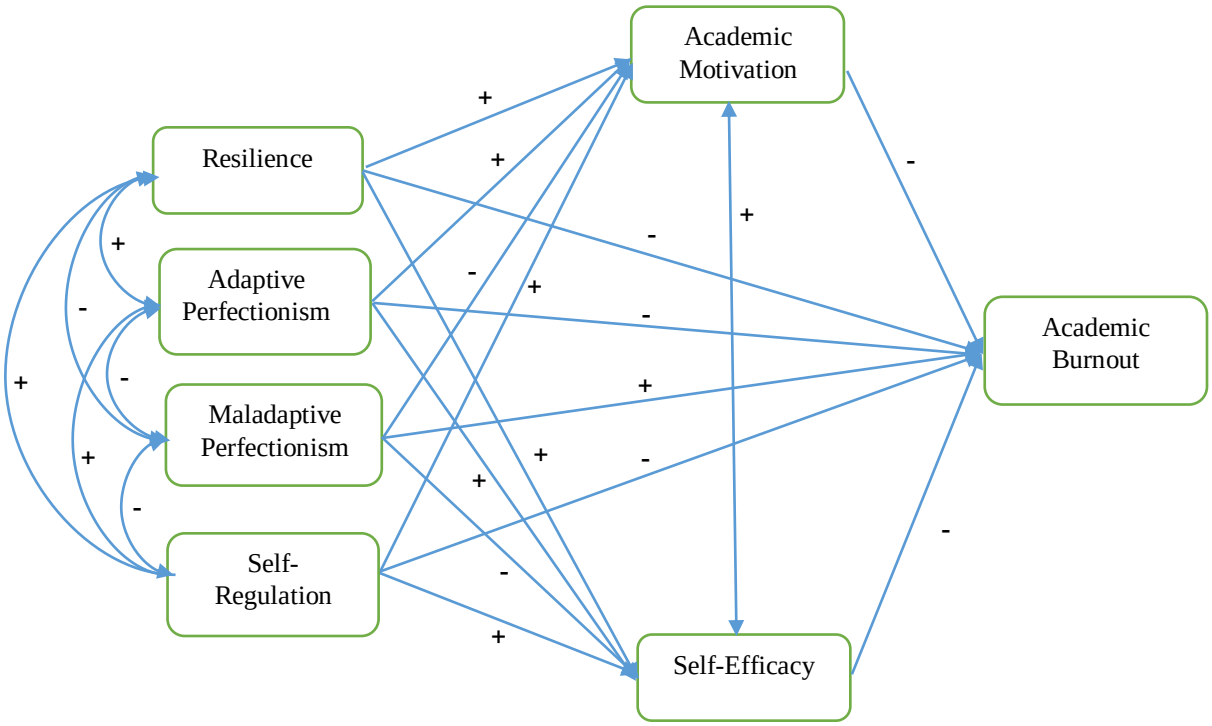

Figure1: The explanatory and conceptual model extracted from the existing theories.

On the other hand, the research plan of the present study was of explorative-explanatory type where the factors affecting the academic burnout were extracted through the review of the theories in the field of academic burnout so as to design the explanatory and conceptual model extracted from the existing theories, and Delphi method was used for final confirmation of the extracted model.

III. Methods

Since the present study was conducted as a correlational study, the population studied by this study consisted of the male third-grade high school students in the field of Experimental Sciences in Tabriz in 2018-2019. 400 students were selected from the population under study using the multistage random cluster sampling according to the number of indicator variables and based on the formula proposed by Tabachnick & Fidell (2007). On the other hand, Delphi method was used to discover the factors affecting the dependent variable where 10 educational psychologists were selected and the relevant factors were determined, and also the content and formal validity of the designed model was determined based on the experts' views.

IV. Instruments

1. Breso's Academic Burnout Questionnaire

This questionnaire assesses three domains of academic exhaustion, academic cynicism and academic inefficacy or inefficiency. This questionnaire includes 15 articles that have been scaled using 5-point Likert scale from strongly disagree to strongly agree by the subjects. The reliability of the questionnaire has been calculated by the designers of the questionnaire for the three mentioned domains of academic burnout as 0.70, 0.82 and 0.75 respectively (Badrigargari & Shafiei, 2018).

2. Vallerand's academic motivation scale

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This scale was developed by Vallerand in 1992 based on the self-determination theory, and it includes 28 seven-option questions that assess three dimensions including intrinsic motivation, extrinsic motivation and amotivation. This test is a self-report instrument, and the subject must determine through a 7-point Likert scale (from not at all=1 to completely=7) the extent to which each phrase expresses the reason for studying. The reliability and validity coefficients of this questionnaire were examined by the designers of the questionnaire such that the validity coefficient for the scales of intrinsic motivation, extrinsic motivation and lack of motivation were calculated as 0.82, 0.80 and 0.83 respectively (Ajam Ekrami et al., 2015).

3. Sherer's General Self-Efficacy Scale

This scale was developed by Sherer et al. in 1982 to determine different levels of individuals' general self-efficacy. The modified version of this scale includes 23 questions. The reliability coefficient of this test was measured through Cronbach's alpha for the general self-efficacy micro scale and social self-efficacy micro scale as 0.86 and 0.71 respectively (Falsafinejad, Aziziabarghoui et al., 2015).

4. Frost's perfectionism scale

This scale was developed in 1990 by Frost et al. (according to Seyf, Rastegar & Ershadi, 2017) based on the multidimensional perfectionism model which includes 6 components and 35 items not factors. The maladaptive and negative dimensions of the questionnaire include, "concern over mistakes" (9 items), "doubts about actions" (4 items), "parental expectations" (5 items), and "parental criticism" (4 items), and the adaptive and positive dimensions of the questionnaire include "personal standards" (7 items) and "organization" (6 items). All items are scored within a five-degree continuum from strongly disagree to strongly agree, and the scores range from 35 to 175. Seyf et al. (2017), in the Iranian version of this questionnaire, calculated the internal consistency coefficient for the whole questionnaire as 0.86 and calculated it for the above sub-scales as 0.85, 0.72, 0.78, 0.47, 0.57 and 0.83 respectively.

5. Connor-Davidson Resilience Scale

This scale was designed by Connor and Davidson in 2003. The scale includes 25 items that are scored according to the Likert scale from 1 (completely wrong) to 5 (always right). The least resilience score of the participants is 25 and the greatest score is 125. The higher scores express greater resilience. The scores 25 to 41 indicate low resilience, 42 to 83 indicate medium resilience, and 84 to 125 indicate high resilience. Connor and Davidson reported the validity of the scale through Cronbach's alpha within the range 0.76 to 0.90, and the validity of this scale was obtained by the designers of the tests in different groups (Kamalpour, Azizzadeh, & Tirgari, 2016).

6. Miller & Brown's Self-Regulation Questionnaire

The standard self-regulation questionnaire was designed by Brown, Miller and Lawendowski in 1999. The questionnaire includes 63 items and assesses the individuals' self-regulation through the 5-point Likert scale from 1 (strongly agree) to 5 (strongly disagree) where the least score is 63 and the greatest score is 315. The scores 63 to 105 indicate the low self-regulation; 105 to 210 indicate medium self-regulation; and the scores higher than 210 indicate high self-regulation. Brown et al. calculated the reliability of the questionnaire through test and post-test,

and also Cronbach's alpha among 83 people drinking alcohol as 0.94 and 0.91 respectively (Atarodi & Karshaki, 2013).

V. Research Findings

To answer the research questions, namely "Which factors in the form of causal-structural relationships have a predictive and intermediate role in the changes of academic burnout? How is the structural relationship of predictive and intermediate factors inserted in the model with academic burnout?" at first the correlative confidents between the research variables were presented in table 1 in order to better understand the relationship between the variables:

Table 1. Variable correlation matrix

	Variable	1	2	3	4	5	6	7
1	Academic Burnout	1						
2	Self-Efficacy	-0.52**	1					
3	Academic Motivation	-0.56**	0.30**	1				
4	Resilience	-0.39**	0.37**	0.36**	1			
5	Adaptive Perfectionism	-0.34**	0.46**	0.41**	0.24*	1		
6	Maladaptive Perfectionism	0.31**	-0.42**	-0.36**	-0.22*	-0.26*	1	
7	Self-Regulation	-0.37**	0.45**	0.49**	0.27*	0.21*	-0.26*	1

** P < 0.01 * P < 0.05

The obtained output of structural equation modelling has been presented in figure 2.

According to the results of the calculations of the model, the fitness indices of the proposed model have been presented in table 2:

Table 2. Indices of goodness of fit of proposed research model

Indices	(χ2)	(df)	(χ2/df)	(p)	(GFI)	(AGFI)	(CFI)	(IFI)	(RFI)	(NFI)	(TLI)	(RMSEA)
	476	119	4	0.001	0.92	0.91	0.93	0.90	0.91	0.90	0.90	0.04

According to Hou & Bantler (1999), each single one of these indices cannot be considered as a reason for fitting, but they should be interpreted together. If the chi square is not statistically significant and the ratio of the chi square to degree of freedom is less than 5, this indicates the proper fit of the model. As can be seen in the above table, this value is less than 5. If the indices CFI, GFI, AGFI, NFI and TLI is greater than 0.90, they indicate the proper fitting of the model. As can be seen in the above table, all these indices are greater than 0.9. Also, the index RMSEA, as the root-mean-square error, is less than 0.05 which shows that the main model has a proper fitting.

According to the results obtained from research testing model, the direct and indirect effects of the research variables have been presented in table 3. As can be seen in the table, the academic motivation (-0.43) and self-efficacy (-0.42) had the greatest direct and negative effects on academic burnout followed by the effects of self-.

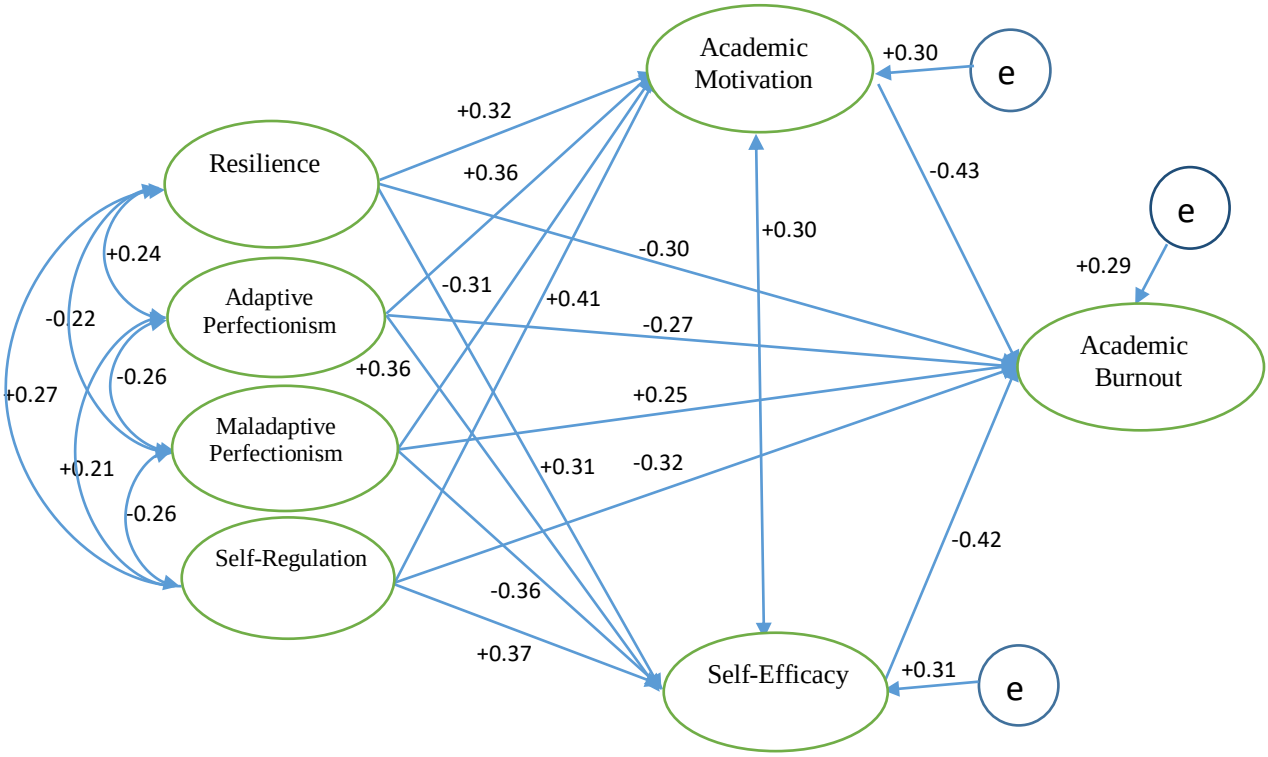

Figure 2: The obtained output of structural equation modelling

regulation (-0.32), resilience (-0.30), adaptive perfectionism (-0.27) had a direct negative effect on academic burnout and maladaptive perfectionism (0.25) had a direct positive effect on it. In fact, all these variables have a direct effect on explaining the academic burnout.

Table 3. Direct and indirect effects between the variables assessed in the model

	β	t	P
… ⟶ Academic Burnout			
Resilience	-0.30	-4.26	0.01
Adaptive Perfectionism	-0.27	-3.96	0.01
Maladaptive Perfectionism	+0.25	+3.82	0.01
Self-Regulation	-0.32	-4.39	0.01
Self-Efficacy	-0.42	-5.15	0.01
Academic Motivation	-0.43	-5.21	0.01
… ⟶ Self-Efficacy			
Resilience	+0.31	+4.33	0.01
Adaptive Perfectionism	+0.39	+5.02	0.01
Maladaptive Perfectionism	-0.36	-4.75	0.01
Self-Regulation	+0.37	+5.12	0.01
…⟶ Academic Motivation			
Resilience	+0.32	+4.41	0.01
Adaptive Perfectionism	+0.36	+4.78	0.01
Maladaptive Perfectionism	-0.31	-4.35	0.01
Self-Regulation	+0.41	+5.12	0.01
… ⟶ Self-Efficacy ⟶ Academic Burnout			
Resilience	-0.13	-2.81	0.04
Adaptive Perfectionism	-0.17	-3.21	0.02
Maladaptive Perfectionism	+0.15	+3.16	0.03
Self-Regulation	-0.16	-3.19	0.02
… ⟶ Academic Motivation ⟶ Academic Burnout			
Resilience	-0.14	-2.92	0.03
Adaptive Perfectionism	-0.16	-3.21	0.02

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Maladaptive Perfectionism	+0.13	+2.84	0.04
Self-Regulation	-0.18	-3.29	0.02

On the other hand, the effects of the variables of resilience, adaptive and maladaptive perfectionism, and self-regulation on the variables of self-efficacy and academic motivation were significant at $P< 0.01$ level, and their indirect effects through these two variables on academic burnout is significant at $P< 0.05$ level. This means that self-efficacy and academic motivation have an intermediate role in the relationships between the variables and academic burnout.

VI. Discussion And Conclusion

The purpose of the present study was design a conceptual model based on the review of the literature of the factors affecting the academic burnout and evaluation of the fitting of this model where the findings of the study show the fitting of the proposed model clearly. According to the proposed model, the factors of self-efficacy, academic motivation, resilience, perfectionism (adaptive and maladaptive) and self-regulation had a significant relationship with academic burnout, and each one of these factors had a considerable role in predicting the academic burnout. In this regard, the two variables of self-efficacy and academic motivation had also the intermediate role among the three factors of resilience, perfectionism and self-regulation as well as having a greater role in predicting the academic burnout.

Considering the role of self-efficacy in predicting the academic burnout, this research finding aligns with those of the studies conducted by Capri et al. (2012); Capri (2013); Rahmati (2015); Bilge et al. (2014); Cazan (2015); Mousavi & Shokri (2015); Galbraith & Merril (2015); Herman, Hickmon & Reinke (2018). According to Bandora, in explanation of the findings, self-efficacy means that the individual finds himself able to organize the phenomena and events through his appropriate behavior and actions to achieve the desirable conditions. The individuals with low self-efficacy hold some pessimistic views on their abilities and avoid any situation that is beyond their abilities according to their own views. On the other hand, the individuals with high self-efficacy consider the difficult tasks as challenges that they can overcome (Jain & Dowson, 2009). Over the past decades, the researchers used the self-efficacy theory to explain burnout phenomenon and some of the researchers confirmed the relationship between self-efficacy and burnout in describing the relationship between burnout and physiological states (Hobfoll & Freedy, 1992; names, 1993; Yang & Farn, 2005). The recent evidence and research show that the individuals with high self-efficacy show a higher level of academic engagement, and the students with low self-efficacy suffer academic burnout (Rigg, Day & Adler, 2013).

The findings of the present study about the role of academic motivation in predicting burnout also align with those of the studies conducted by Zhang et al. (2007); Toykaf et al. (2013); Cazan (2015); Barzegar et al. (2015); Ajamakrami et al. (2015); Lee et al. (2013); Bask & Salmela, (2013); and Reichl et al. (2014). In explaining this finding, there are three types of motivational orientations in the students based on the self-determination theory developed by Desi & Riyan (2002, according to Rosicka & Hoskova-Mayerova, 2014). These orientations include the individuals with intrinsic motivational orientation, with extrinsic motivational orientation and without any motivation. The individuals with intrinsic motivation orientation are intrinsically disciplined i.e. they do not let others or extraneous factors have much effect on their performance. Therefore, the learners with intrinsic motivation do study to gain intrinsic pleasure and not because of being afraid of others or trying to satisfy them or for the sake

of other extraneous factors (like bad marks). There are also some other individuals who act based on their extrinsic motivation and do not consider themselves worthy of self-determination or being autonomous i.e. they pay more attention to the extraneous factors and individuals than their personal satisfaction and personal pleasure. Therefore, the individuals with extrinsic motivation orientation expect some sort of social reward or punishment for doing or not doing the tasks instead of focusing on the task or feeling satisfied when doing a task well. The individuals without any motivation are like the individuals with extrinsic motivation, and do not consider themselves to be worthy of self-determination or autonomy. These individuals quit the tasks after attempting for a long time and expending much energy to do them. The perception of worthiness and self-control in these individuals are so low that they feel desperate in different situations. They have come to believe that their efforts are futile and their success and failures are not controlled by them (Clarke, 2010).

The students who suffer from academic burnout do not have any motivation to participate in the classroom activities, and they show some particular behavioral characteristics such as being absent from classroom, being late for the classroom, and leaving the classroom early. In addition, they do not pay attention to what is taught in the classrooms and do not participate in the classroom group activities. They often show a lack of respect for the classroom and professor and invent excuses for their poor academic performance. Therefore, they are not accountable for their poor performance (Qinyi & Jiali, 2012). This means that the greater the academic motivation is, the lesser the academic burnout will be, and the students who are unmotivated and not interested in the lessons will probably not try enough and this inattention and lack of attempt will also lead to academic burnout (Ajamakrami et al., 2015).

The results of numerous studies, in line with the results of the present study, have shown that there is a negative relationship between the academic resilience and academic burnout of the pupils (Risquez, Garcia & Tebar, 2012; Rahimi et al., 2012; Izquierdo, Risquez, Garcia et al., 2015; Rushton, Batcheller & Schroeder et al., 2015; Birdman, 2016; Guiyuan, Xiuying, Xiaohong et al. 2016; Sadoughi, Tamanaifar & Naseri, 2017; Taherikharameh, Sharififard, Asayesh et al., 2017). The resilience enables the individuals encounter the stress in two ways and reduces the burnout. In one of these ways the individuals eliminate the stressful situation through accessing the information, programming and using the problem-solving skills, and in the other way the individuals leave the stressful situations and achieve peace of mind by managing their feelings (Rahimi, Baetz, Bowen et al., 2014). The resilient individuals overcome the problems instead of avoiding them, and they believe that they will succeed. Therefore, this group of individuals are less exposed to burnout (birdman, 2016).

The findings of the present study about the role of adaptive and maladaptive dimensions of perfectionism in explaining the burnout aligned with those of the studies conducted by Zhang et al., (2007); Karimi et al., (2014); Pourseyyed et al., (2015); and Atadokht (2016). This is the case such that most of the studies showed that the maladaptive perfectionism has an important role in creating stress and academic burnout and as a result it has a role in poor performance of the pupils and non-realization of the educational goals (Flett, Hewitt & Hallett, 1995; Friedman, 2000; Stober & Rennert, 2008; Zhang et al., 2007). The studies of Falsafinejad et al. (2015), Karami & Hatamiyan (2016); Dashtbozorgi (2016); Seyf et al. (2017) also confirmed the importance and impact of perfectionism on academic burnout.

The findings of the present study about the role of the self-regulation skills in academic burnout also align with those of the studies conducted by Shih (2013); Vahedi et al., (2014); Duru et al., (2014); Brackett, Palomera, Mojsa

et al., (2010); Narimani, Rostamoghli & Mousanejad (2016); Badri & Shafiei (2018). The studies have shown that the pupils need a collection of study strategies and self-regulation in order to be able to fulfil the expectations from them so that they can make use of these strategies while having access to them. Unfortunately, not only do the students not have enough basic knowledge about the effective strategies, but also they do not know how to choose and value these strategies and correct the wrong strategies when they have a poor academic performance (Dembo & Deaton, 2000).

Considering the above-mentioned items, it can be concluded that not only does each one of the above-mentioned five variables have a significant relationship with academic burnout, but also these five factors can have an obvious role and considerable share in explaining pupils' academic burnout in interaction with each other and in the form of the model provided in the present study. Accordingly, it is possible to test their impacts on the reduction of pupils' future academic burnout through designing various and efficient educational interventions that are based on this model and through manipulating the mentioned variables. Thus, one of the main achievements of the present study could be considered as preparation of the ground for the future studies by those who are interested in education to decrease and control pupils and students' academic burnout phenomenon.

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