

Abstract

Objective: This study aimed at determining the role of academic burnout, resilience, and perceived stress in predicting students' addiction potential. **Method:** In this correlational study, the number of 200 high school students in South Khorasan province was selected as the participants through random cluster sampling and they responded to the four pertinent questionnaires, namely resilience scale, school burnout inventory, perceived stress scale, and addiction potential scale. **Results:** The results showed that academic burnout, perceived stress, and resilience were positively correlated with addiction potential. Similarly, there was a significant positive relationship between academic burnout and perceived stress. **Conclusion:** Dimensions of burnout (emotional exhaustion, cynicism, inadequacy), dimensions of perceived stress (negative emotional responses and coping ability level), and resilience could predict 20% of addiction potential. Among these dimensions, only coping ability level and resilience were significantly effective in predicting addiction potential; therefore, educational authorities are recommended to pay more attention to the prevention and treatment of addiction in students towards having a healthy society.

Keywords: Academic Burnout, Resilience, Perceived Stress, Addiction

The Role of Academic Burnout, Resilience, and Perceived Stress in Predicting Students' Addiction Potential

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Introduction

Addiction is a physical, mental, social, and spiritual illness (Galanter, 2014). Addiction to narcotics is one of the top four global crises of the third millennium and is considered one of the top social threats and ills, and also one of the most tragic problems that has challenged most of today's societies and its impact has an objective realization on the emergence of other social problems (Tabatabai Chehr, Ebrahimi & Mortazavi, 2013). Addiction is the result of drug use and is, indeed, a chronic state as a result of repetition of drug use which has these features: 1- Mental habits are created as a result of repeated drug use and these habits lead people to drug use due to the mental desire and need. 2- The dose of drugs steadily increases. 3- Deprivation symptoms such as aggression, tension, anxiety, etc. are created in the person as a result of cut of drug use. 4- Drug addiction brings a detrimental state to individuals or society (Clarke et al., 2013). According to Madadi & Nogani (2004), substance abuse is referred to as a maladaptive pattern of drug use that leads to frequent problems and negative consequences and encompasses a set of cognitive behavioral and psychological symptoms. Drugs not only threatens the health of drug users and society, but also paves the way to the moral and intellectual corruption that can have dangerous consequences for the health of the consumer (Sinha, 2001). Attempt to understand, predict, prevent, and treat substance abuse and mental illnesses is initiated with the answer to the question, why. Questions such as why do people take drugs? Why do they become depressed? Why do they keep on taking drugs and drinking alcohol even after seeing the consequences of drug and alcohol consumption? In addition, thousands of other questions can be raised in this area. However, a few decades ago, researchers turned their attention to the question, why not? Why don't so many people who are at risk of drug use turn to it at all? Why don't so many people who have experienced drug use get addicted to it? Therefore, the questions of this category have led to a wide range of exploratory and clinical observations on the concept of resilience (Glantz & Johnson, 1999). Resilience that is also referred to as stress resistance and post-traumatic growth is placed along a continuum with varying degrees of psychological trauma (Ingram & Price, 2001). According to this definition, resilience is beyond surviving stresses and hardships of life (Bonanno, 2005). Indeed, with positive growth, adaptability and the achievement of a level of equilibrium after the passage of disorders, resilience matches the previous balance (Richardson, 2002). Therefore, resilience is referred to as a successful compliance that comes into existence in the face of debilitating disasters and stresses. This definition of resilience is indicative of structural productivity and mobility that entails a complex interaction between risk and protective factors (Olsson, Bond, Burns, Vella-Brodrick & Sawyer, 2003). Resilience is defined as the potential adaptability of humans in the face of overwhelming pressures and disasters and humans' advancement as a result of experiencing such experiences. This

attribute is protected with one's inner strength and social skills and interaction with the environment and, then, it is reflected as a positive feature (Diener & Ryan, 2009). Simply, resilience is positive adaptation in response to adverse conditions (Waller, Okamoto, Miles & Hurdle, 2003). Arce et al. (2009) believes that people who have resilience often restore to the normal situation after experiencing positive emotions as a result of stressful encounters. Resilient individuals leave behind stressful events without facing any problems in mental health (Waugh, Fredrickson & Taylor, 2008). Clinical psychologists have recently examined models of resilience under conditions of loss, bereavement, depression, and pain (Charney, 2004; Zautra, Johnson & Davis, 2005; Southwick, Vythilingam & Charney, 2005). The harmonious results of that study confirmed the positive, productive and protective effects of resilience on the successful resistance with and developed adaptation to stressful situations. Conversely, low levels of resilience are interrelated with vulnerability and psychological disorders (Campbell-Sills, Cohan & Stein, 2006). This shows the importance of research on the factors affecting resilience. In this regard, studies have shown that substance abuse is correlated with low levels of resilience and mental health (Friedli, 2009). The results of a study indicated that people with high resilience benefit from better health status, higher self-esteem, more parental support, and are less exposed to drug use (Buckner, Mezzacappa & Beardslee, 2003). In another study, Fadardi, Azad & Nemati (2010) showed that there is a relationship between resilience and attitude to drug use.

In terms of drug addiction among students, different psychological, social, familial, and biological factors are involved (Magid, Colder & Stroud, 2009). Farjad (2006) classified the effective factors involved in addiction into three categories: Individual factors (pleasure, curiosity, individual and psychological problems, school dropout), family factors (presence of drug users in the family, the family's economic welfare, and parental discord), and social factors (availability of drugs, unemployment, economic inequality, the growth of industry). In addition, Eslamdoost (2010) classified the causes of addiction tendency into three categories, namely individual risk factors, interpersonal and environmental risk factors, and social risk factors. In this regard, individual risk factors include adolescence, hereditary predisposition, personality traits, mental disorders, positive attitude to drugs, aggressiveness, and risky situations; interpersonal and environmental risk factors include family, impact of friends, factors relating to school, and factors relating to residential place; and social risk factors include rules and regulations, drug market, drug use as a social norm, lack of sports, cultural, and leisure facilities, and lack of access to service, support, counseling, and therapeutic systems. Among these dimensions and factors, academic burnout as one of the individual factors among students is very important. Many researchers consider burnout as a state of emotional exhaustion that results from chronic stress syndrome, including role overload, pressure and time constraints, and lack of adequate resources to carry out the assigned

responsibilities (Maslach, Schaufeli & Leiter, 2001; Toppinen-Tanner, Ojaarvi, Vaananen, Kalimo & Jappinen, 2005). Academic burnout in educational situations is defined as feeling of fatigue due to the demands and requirements of education (exhaustion), possession of a cynical and reluctant sense to educational content and assignments (cynicism), as well as the feeling of weak personal progress in academic and educational affairs (reduced personal efficacy) (Zhang, Gan & Cham, 2007). Moreover, Bruce (2009) believes that burnout occurs when a person experiences stress for a long period. It seems that no studies have been conducted so far on the relationship between the variables of academic burnout and addiction tendency; however, the following studies can be referred to as, to some extent, related in this regard. Savari & Bashlideh (2009) concluded that personality traits of neuroticism and agreeableness are positively correlated with academic burnout whereas extraversion and openness are negatively correlated with academic burnout. In addition, there was no significant correlation between the personality trait, conscientiousness and academic burnout. Molavi & Rasoulzadeh (2004) showed that academic failure is predictor of tendency to narcotic drugs. Shafiea, Shamsi & Ghaderi (2012) found that drug use has negative effects on academic achievement.

It seems that perceived stress is one of the variables that can predict students' tendency to addiction. Perceived Stress is the body's reaction or response to a change that entails physical, mental or emotional adaptation. Stress can be caused by any stressful factors or stressors, even by communication with a patient (Morrow, 2011). Mojtahedi (1999) showed that unreasonable expectations of parents in comparison with others, economic problems, parents' illiteracy, populated family, humiliation by family members, and parents' ignorance of children's ideas constitute the most important stressors among secondary school students. Perceived stress is a psychological process or state in which a person perceives his/her physical and psychological well-being as threatening. In fact, stress production depends on how an individual perceives situations. It is possible that a situation will be perceived as a safe state by one person while the same situation may be perceived as a threat by another person (Clark, 2010). Different types of social, economic, and psychological stresses play some part in the preparation and emergence of addiction. Thus, the inability to cope with stressors and the belief that alcohol consumption and drug use will have good results constitute the basic reasons for turning to drug use (Samooea, Ebrahimi, Mousavi, Hassanzadeh & Rafiea, 2000). Research findings show that there is a statistically significant positive correlation between stress and induced craving for drug use and also between stress and instant craving for drug use (Pourseyedi Mousayi, Mousavi & Kafi, 2012). Jones (2004) found that students' stress has been the predictor of their recent smoking. In fact, stress is an important risk factor in the development and relapse of drug addiction (Sinha & Jastreboff, 2013).

Addiction and its unpleasant consequences are among the most important challenges for societies and one of the worst social ills; therefore, it has attracted the attention of experts of mental health and is considered as one of the key issues in relation to health of the youth (Botvin, 2000). Adolescents and young people in each country a central role in the inclusive development of the society in terms of social mobility and growth. Therefore, the identification of the young people at risk of substance abuse and other risky behaviors should be of major concern to the education authorities. Since adolescence is the time to gain experience and make personal choices and a person's identity is shaped at this time, adolescents and young people are very vulnerable against drug use and risky behavior. For this reason, the identification of factors effective in the prevention and protection of adolescents and young people from drug use and risky behaviors (Khalaj Abadi & Ebadi, 2003). Rahimi Movaghar & Sahimi Izadian (2005) conducted a study on students in the country and showed that drug use among students, including cigarette smoking, alcohol, opium, hashish, etc. has dramatically increased in recent years. Accordingly, it seems that research on the factors effective in students' tendency to addiction is essential. Although there is a rich literature on burnout and stress in working situations, the investigation of this phenomenon among students is still remarkable. On the other hand, given the importance and prevalence of addiction among students and the important role of resilience, the interaction of these variables requires more research. Therefore, the current study has also been conducted on this basis. Accordingly, this study is an attempt to determine the role of academic burnout, resilience, and perceived stress in predicting students' addiction potential.

Method

Population, sample, and sampling method

In this correlational study, all the male high school students of South Khorasan in the academic year 2013-2014 constituted the statistical population, out of whom the number of 200 students was selected from cities of Birjand, Qaen, and Nehbandan (70 participants from each city) as the participants through random cluster sampling. After data collection, the number of 10 questionnaires were left out from the final data due to incompleteness and the total of 200 questionnaires was analyzed.

Instrument

1- Connor-Davidson Resilience Scale: This questionnaire contains 25 items that measure the construct of resilience in a 5-point Likert scale. It is noteworthy that each item is scored within the range of 0 (always false) to 4 (always true) and, thereby, the total score ranges from 0 to 100. The results of the studies pertinent to the psychometric properties of this questionnaire in normal subjects

and patients have confirmed the reliability and validity of the scale (Connor & Davidson, 2003). Mohammadi (2005) administered this questionnaire to 248 participants and reported the reliability of the scale via internal consistency to be .89. In the current study, the reliability of this scale was calculated via Cronbach's alpha equal to .91.

2- School Burnout Inventory (SBI): This questionnaire was constructed by Salmela-Aro, Kiuru, Leskinen & Nurmi in 2009 and consists of 9 items and 3 factors. The first factor is exhaustion at school and contains 4 items, the second factor is cynicism toward the meaning of school and consists of 3 items, and the third factor is sense of inadequacy at school and contains 2 items. The items are responded and scored based on the following alternatives: strongly agree (6), agree (5), somewhat agree (4), disagree (3), somewhat disagree (2), and strongly disagree (1). Salmela-Aro, et al. (2009) obtained Cronbach's alpha for exhaustion, cynicism, and inadequacy equal to .80, .80, and .67, respectively. This questionnaire was translated and administered to senior high school students for the first time by Savari and Bashlideh (2009) and its Cronbach's alpha coefficient was reported to be .74. In the present study, Cronbach's alpha was obtained equal to .87 for the whole scale.

3- Perceived Stress Scale: This scale was constructed by Cohen, Kamarck & Mermelstein (1983) and consists of 14 items. Each item is responded on a 5-point Likert scale (never to always). These alternatives are assigned 0 to 4 points, respectively. This scale measures two sub-scales, namely negative perceived stress (7 items) and positive perceived stress (7 items). In a research on Japanese students, Mimura & Griffiths (2004) obtained Cronbach's alpha coefficients for negative and positive perceived stress equal to .88 and .81, respectively. The content validity of this questionnaire has been confirmed by ten professors of Mashhad university of Medical Sciences. The reliability of the Persian version of this scale has been reported through internal consistency equal to .74 (Bastani, Rahmatnezhad, Jahdi & Haghani, 2008). Mohammadi Yeganeh, Bastani, Feizi, Aguilar Vafae & Haghani (2008) also confirmed its reliability. In the present study, Cronbach's alpha coefficient for perceived stress was obtained equal to .74.

4- Addiction potential scale: This questionnaire consists of 16 items and generally aims to evaluate the tendency to addiction from three social, individual, and environmental dimensions in different people. This questionnaire was constructed by Farjad (2006). Items are responded and scored based on a 5-point Likert scale within the range of very little (1) to very much (5).

Items numbered 1 to 5 touch upon the environmental dimension, items numbered 6 to 9 measure the individual dimension, and items numbered 10 to 16 measure the social dimension. The total score of the whole scale ranges between 16 and 80. The higher the score, the higher will be the individual's tendency to and potential for addiction. The content validity of the scale was confirmed by university professors and the reliability coefficient of the scale was

reported equal to .79 (Mirhesami, 2009). In the present study, Cronbach's alpha reliability was obtained .83.

Results

In terms of age group, about 5% of the participants was 14 years old, 42% was 15 years old, 20 % was 16 years old, 18% was 17 years old, and 15% was 18 years old. In terms of education, 47% was first-grade senior high school students, 20% was second-grade senior high school students, 18% was third-grade senior high school students, and 15% was fourth-grade senior high school students. The descriptive statistics of the variables of the study are shown in the table below.

Table 1: Descriptive features of the variables under study

<i>Variable</i>	<i>Mean</i>	<i>SD</i>	<i>Standard error of the mean</i>
Exhaustion	14.82	4.82	.34
Cynicism	10.56	3.98	.28
Inadequacy	6.92	2.56	.18
Academic burnout	32.34	8.97	.63
Negative emotional responses	12.52	4.58	.32
Coping ability level	12.50	5.23	.37
Perceived stress	25.02	5.76	.40
Resilience	52.81	15.23	1.07
Environmental factors	11.79	4.62	.32
Individual factors	10.08	3.70	.26
Social factors	18.19	6.01	.42
Potential for addiction	40.06	13.13	.92

The correlation matrix of the variables under study is presented in the following table.

Table 2: Correlation matrix of the variables under study

<i>Variable</i>	<i>Academic burnout</i>	<i>Perceived stress</i>	<i>Resilience</i>	<i>Potential for addiction</i>
Academic burnout	1	-	-	-
Perceived stress	** .33	1	-	-
Resilience	.04	-.10	1	-
Potential for addiction	** .26	** .40	** -.32	1

**p < .01

Multiple regression analysis should be used to test the hypothesis which variables can play a more effective role in predicting potential for addiction. This analysis requires the satisfaction of such assumptions as normality of the data, the availability of no multi-collinearity between predictor variables, and independence of errors. Kolmogorov-Smirnov test was used as follows to examine the normal distribution of the variables.

Table 3: Results of one-tail Kolmogorov-Smirnov test indicating the normal distribution

<i>Indexes</i>	<i>Academic burnout</i>	<i>Perceived stress</i>	<i>Resilience</i>	<i>Potential for addiction</i>
Z	1.08	1.13	1.08	.75
Sig.	.19	.15	.18	.61

As shown in the above table, the assumption of normal distribution has been met in all variables. It is required to use VIF index to check the absence of multi-collinearity. For the satisfaction of this assumption, the value of this index must be lower than 2. The results showed that the value of this index was 1.98, 1.79, 1.27, 1.14, 1.97, and 1.66 for exhaustion, cynicism, inadequacy, negative emotional responses, coping ability level, and resilience, respectively. Therefore, this assumption has been met in all the variables and components. Another assumption for using the parametric test of regression analysis is independence of errors, for which the hypothesis of existing a significant correlation between errors must be rejected. Durbin-Watson test is used to check this assumption. For the satisfaction of this assumption, the value of this statistic should range from 1.5 to 2.5. This statistic was obtained equal to 1.75 in the current study, which suggests the assumption has been met. Considering the satisfaction of all the assumptions required for using the parametric test of regression analysis, it was conducted. The results showed that predictors accounted for 22% of the total variance of potential for addiction. The regression coefficients are given in the table below.

Table 4: Regression coefficients on predicting potential for addiction

<i>Predictors</i>	<i>B</i>	<i>β</i>	<i>t</i>	<i>Sig.</i>
Constant	21.95	-	3.240	.001
Exhaustion	.47	.17	3.290	.923
Cynicism	-.28	-.09	-1.070	.28
Inadequacy	.32	.06	.83	.41
Emotional responses	-.27	-.09	-1.190	.24
Coping ability level	-.61	-.24	-3.970	.003
Resilience	-.14	-.17	-1.990	.04

As shown in the above table, only coping ability level and resilience among all the predictors with the regression weight of -.61 and -.14 are significant predictors of potential for addiction.

Discussion and Conclusion

This study aimed to determine the role of academic burnout, resilience, and perceived stress in predicting high school students' addiction potential in South Khorasan province. Substance abuse is one of the main problems ahead of human societies and has detrimental effects on the economic and social status of

society and substance users. Substance abuse causes the demolition of a person's moral foundations and provides the conditions for committing delinquency and crime. In this regard, students as young people of a country and as a core group with a pioneering role in the future careers of a society are of great importance, especially since this phenomenon prevalently happens to young groups. The first finding of this study was indicative of the fact that there is a significant positive relationship between burnout and addiction potential. Therefore, it is implied that addiction potential increases as school burnout increases. This finding is consistent with that of the studies conducted by Savari & Bashlideh (2009) and Shafiea, et al. (2012). To explain these findings, one can argue that having a cynical and reluctant sense to the school content and assignments (apathy), as well as feeling of weak personal progress in educational and school affairs are among the signs and symptoms of school burnout and lead to some sort of frustration and a sense of disappointment in people. This feeling can be a pressure to isolation and innovation adaptations. In isolation adaptations, addiction to alcohol and drugs is a good way to forget the present situation and escape from the pressures and tensions that a person is involved in; therefore, such a person tends to drug use.

Another finding of the current study was indicative of the existence of a significant negative relationship between and addiction potential. To account for this finding, one can argue that people with low resilience have no specific goals in life, have found no important meaning for their lives, get defeated with any trouble and difficulty, lose their motivation, are not flexible to changes in life, and always remain in fear and disappointment, and do not have the ability to cope with difficulties. Therefore, such people turn to drug use in threatening conditions and situations.

One of the other findings of this study was the existence of a significant positive correlation between perceived stress and addiction potential which shows that addiction potential increases with an increase in the level of perceived stress. This finding is consistent with that of the studies undertaken by Trinidad & Johnson (2002), Samoosa, et al. (2000), Pourseyedi Mousayi, et al. (2012) who showed that there is a significant positive relationship between stress and addiction potential. To explain this finding, one can assert that when a person is placed in stressful conditions, s/he turns to drugs in order to feel relaxed and escape from those conditions. The impact of narcotic drugs leads one to detect that s/he is able to affect his/her pain and trouble which is the result of stress and mental pressure by means of narcotics. Thereby, his/her mental condition get transformed.

Results also showed that the dimensions of school burnout (exhaustion, cynicism, and inadequacy), dimensions of perceived stress scale (negative emotional responses, and coping ability level), and resilience have 22% ability to predict addiction potential in students. This finding is consistent with the findings of the previous studies. For example, Molavi & Rasoulzadeh (2004)

showed that educational failure is a predictor of drug use tendency. Shafiea, et al. (2012) showed that drug use had a negative impact on educational achievement of students. Meanwhile, Fredrickson, Tugade, Waugh & Larkin (2003) showed that resilience was associated with positive feelings and plays a protective role in tendency to drugs. Isralowitz & Rawson (2006) also indicated that the employment of the theory of resiliency established a conceptual framework for the study of protective factors influencing drug use. Therefore, it is possible to increase and strengthen people's resilience by identifying characteristics of resilience such as coping responses. Resilience can be considered as an effective factor in preparation for substance use or prevention from it (Connor & Davidson, 2003). Pourseyedi Mousayi, et al. (2012) showed that stress can be an important predictor of craving for drug use in addicts. In addition, Jones (2004) found that students' stress is the predictor of their recent smoking.

To account for the role of academic burnout in predicting addiction potential, one can state that exhaustion, cynicism, and feeling of inadequacy are all the underlying individual and social factors (Eslamdoost, 2010) effective in addiction potential that cause one to turn to drug use. This finding is consistent with that of the study done by Kamali (2010). In terms of the role of perceived stress dimensions (negative emotional reactions and coping ability level) in addiction potential, it is possible to assert that negative emotional reactions and coping ability level, as one of the risky situations, are included among individual and environmental factors (Eslamdoost, 2010) effective in addiction potential and provide the conditions for addiction potential.

The last finding of this study revealed that only coping ability level and resilience had a significant negative impact on addiction potential. In fact, this indicates that addiction potential is reduced among students as these factors increase. This finding is consistent with the findings of other studies done on the effectiveness of resilience in preparation for drug use and addiction prevention (Thies & Travers, 2006; Miller, 2003). On the one hand, this finding is also consistent with the findings of other researchers (Bradizza, et al., 2009; Dejong & Langford, 2002; and Rohsenow, Martin & Monti, 2005) who have studied the effectiveness of coping skills in addiction potential and prevention.

As one of the limitations of this study, one can refer to the statistical population of the study and, thereby, care and caution should be exercised in generalizing these results and findings to other places of the country. In addition, there is room for reconsidering the reliability of the responses provide by participants since these instruments were all self-report. Furthermore, the conduct of research on both genders, i.e. male and female, and different age groups and educational programs is recommended. Future researchers are also recommended to include factors such as family environment, attachment styles, and social class of participants in future studies so that more accurate judgments can be made in predictive factors of addiction potential. According to the present results, the

higher attention of educational authorities to the prevention and treatment of substance abuse is essential for having a healthy society.

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