

Early Maladaptive Schemes and Academic Stress in College Students

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ABSTRACT

One of the most important factors influencing academic performances of individuals is academic stress. It is essential to identify these factors in order to clarify and control academic stress. The present study compares early maladaptive schemes in individuals with high and low academic stress. The method adopted in this study was causative-comparative. The samples consisted of 360 individuals randomly selected from college students. The instruments included the early maladaptive scheme questionnaire and the academic stress questionnaire. The results derived on the basis of variance analysis revealed that there is a significant difference between individuals with high academic stress and low academic stress in the early maladaptive schemes and those who experience high levels of stress report higher levels of early maladaptive schemes. Although the connection between these variables has not been explored, the results of the study are in line with the present theories. The results give more insight for academic planners and researchers and consultants into what goes on in the examinees minds other than the learned material during the exam session. On this basis, it seems essential to take into account the maladaptive schemes and to develop intervention and psychological-educational plans in academic and college contexts.

KEY WORDS: Academic performance, Early maladaptive schemes, Stress.

INTRODUCTION

One of the most important factors influencing individuals' academic performance is their psychological characteristics. Gollwitzer, Oettingen, Kirby & Duckworth are believed that individuals are equipped with resources such as psychological structures and personality traits in order to deal with different people and events (1). Researchers have always focused on psychological features on different aspects of life such as professional, academic, and interpersonal performance (2,3). Therefore, it should be accepted that academic improvement is not only the result of individual intelligence or hardware facilities in the context, but the individuals' psychological features such as personality can play an important role on this issue (4).

Evidence shows that in perusing their goals, students face a wide variety of challenges. When these experiences are conceived as negative, they can have a negative influence on motivation and performance (5). Some researches focus on investigating resources and negative emotions, especially stress, which influence academic performance (6). However, some others have emphasized on the need for identifying intrapersonal resources influencing academic performance, especially personality traits (4). Academic stress is referred to as an increasing desire for knowledge and at the same time, the individual's understanding that they don't have enough time to achieve it. Morris mentions five stressors (frustrations, conflicts, pressures, changes and self-imposed stress) the reactions to these kinds of stress are referred to as a form of physical and psychological stimulation which is the result of experiencing stress (7). In dealing with different stressors, students display a wide variety of physical and psychological reaction including physical injuries, chronic lack of stress, lack of motivation, headache, digesting problems, and sleep disorders (8, 9).

Given the fact that the aforementioned stressors are deeply rooted in cognition, it seems that early schemes play an important role in forming and structuring these stressors' cognitive core, and as a result, emotional reactions. The term "scheme" was first adopted by Adler (10). He believed that psychological disorders reflect defective and neurotic schemes. According to the definition provided by Young early maladaptive schemes are deep and wide-range motifs which were formed during childhood and adolescence, continue all through life, are related to the individual's interactions with others and highly ineffective (11). In the field of cognitive therapy, in their early publications, Beck and Rush mentioned schemes (12). Schemes can be adaptive or maladaptive, and mainly form due to toxic experiences in childhood (13). Young identified a set of schemes which he labeled "early maladaptive schemes" (11, 14). He held that early maladaptive schemes are characterized with deep, wide-range, frequent, highly ineffective beliefs which result from memories, emotions, cognitive schemes, and bodily emotions and engage a wide range of emotions when activate and result from the interaction between the child's dysfunctional experiences with

family and context and his/her temperament during the early years of life which continue all through life and are deeply and firmly structured (15). Young introduces 18 types of schemes including(11):

- 1- Abandonment: the individual feels that his loved ones might die, abandon him or become interested in another person any time in future.
- 2- Mistrust/abuse: the individual thinks others hurt him, are badly-behaved, make him ashamed, tell lies, and are deceitful and tricky.
- 3- Emotional deprivation: the individual thinks his/her desire to be supported emotionally is not fulfilled thoroughly by others.
- 4- Defectiveness/ unlovability: the individual feel that, in the most important aspects of his/her life, he/she is defective, unwanted, bad, trivial, and worthless.
- 5- Social isolation/alienation: the individual thinks that he/she is isolated from the world and does not belong to any special group or community.
- 6- Impaired autonomy and performance: feeling that the individual is not able to perform routine responsibilities (such as taking care of others, solving daily problems) without getting considerable help from others.
- 7- Vulnerability to harm or illness: excessive fear that a catastrophe is about to happen and one is not able to prevent it.
- 8- Enmeshment: the individual is entangled in an intense emotional relationship with significant people in their lives (typically parents), which cost them their individuality or natural social development.
- 9- Failure to achieve: coming to believe that one has failed or will fail in future and this failure is inevitable.
- 10- Entitlement/superiority: a person who has this kind of scheme feels a desire to achieve power or control others.
- 11- Insufficient self-discipline: these people suffer from lack of self-control, are not able to tolerate hardships in order to achieve their goals, or have difficulty keeping themselves from showing negative emotions and shocks.
- 12- Subjugation: feeling obliged to yield excessively to others so that others control them, and in doing so, they try to avoid anger, deprivation, or revenge by others.
- 13- Acting out: excessive focus on fulfilling other people's needs which cost them unfulfilled desires for themselves.
- 14- Admiration/recognition seeking: excessive focus on seeking recognition, attention and admiration by others, which prevents them from forming a real and confident sense of self.
- 15- Pessimism/worry: constant and intense emphasis on negative aspects of life (pain, death, anger, etc.) along with underestimating or neglecting positive aspects of life.
- 16- Emotional inhibition: excessive inhibition of actions, emotions, and self-stimulated relations, which results from a desire to prevent from being rejected by others, feeling embarrassed or losing one's control on personal emotions.
- 17- Unrelenting standards: in this scheme, the individual believes that, in order to achieve his/her goals in behavior and performance, he/she has to strive, which is meant to prevent from criticism.
- 18- Self-punitiveness: a fundamental belief which holds that individuals have to be punished severely for having made mistakes.

Having their origins in families, these schemes influence different aspects of life including academic performance. A study of the literature reveals that there have not been any investigations conducted on pessimism and impaired performance, given the significance of schemes in the formation of emotions and stress and their influence on academic performance, and despite the fact that pessimism and impaired performance are considered as essential cognitive components of stress. Therefore, the central hypothesis of the present study is that the students who have a higher perceived academic stress, in early maladaptive schemes, are different from those who have a lower academic stress.

METHODS AND MATERIALS

The design of the study: the present study is a descriptive-correlative one. It aims at comparing early maladaptive schemes among college students with high and low perceived academic stress. The community consisted of all students of Isfahan University during March, 2011. the sample consisted of 360 students including 180 students with high academic stress and 180 students with low academic stress. These students were selected based on their scores on T domain in the perceived academic stress questionnaire. On this basis, those who got scores more than 70 were considered as high stress and those who got scores below 30

were considered as low stress. Totally, 360 students were selected randomly from among students with high and low stress (180 students each). Data were collected using these questionnaires:

Early maladaptive schemes questionnaire: these questionnaire was developed by Young (14). This self-report questionnaire contains 90 items which includes the 18 early maladaptive schemes including Abandonment, Mistrust/abuse, Emotional deprivation, Defectiveness/ unlovability, Social isolation/ alienation, Impaired autonomy and performance, Vulnerability to harm or illness, Enmeshment, Failure to achieve, Entitlement/superiority, Insufficient self-discipline, Subjugation, Acting out, Admiration/recognition seeking, Pessimism/worry, Emotional inhibition, Unrelenting standards, and Self-punitiveness. Each domain contains 5 items which are graded based on a 6-grade scale. (1=completely disagree, 2= almost disagree, 3=more agree than disagree, 4= a little agree, 5= almost agree, 6=completely agree). Young, Norman, and Thomas examined the psychometric features of this questionnaire on a 564-member sample and verified its validity and reliability (16). Moreover, in Iran, Yousefi and Etemadi (17) tested the reliability and validity of the questionnaire on a 579-member sample (394 members in the first stage, and 185 people in the second stage). Using the Cronbach's alpha and splitting method, the reliability of this questionnaire was calculated as 0.86 and 0.91 for the whole sample, 0.84 and 0.87 for girls and 0.84 and 0.81 for boys and the extracted factors had high and satisfying validity. Convergent validity of the questionnaire was determined using measurement tools for psychological despair , positive and negative emotions, self-confidence, cognitive vulnerability for the symptoms of depression and identity disorder and the results for these factors were (0.37, 0.34, -0.40, -0.39, 0.35, 0.36) respectively, which were significant on ($p<0001$) (17). In this study the reliability of the questionnaire on the early 40-member sample was examined using Cronbach's alpha which was estimated as higher than 0.70 for all factors and 0.84 for the whole questionnaire.

Academic stress questionnaire: this is a standard and widely-recognized questionnaire which was developed by Zajacova, Lynch, & Espenshade and includes 27 assignments (18). The respondents must determine the degree of stressfulness on an 11-degree scale from (0= not at all stressful) to (11= completely stressful)the results of investigations for psychometric features in an Iranian community showed that it has sufficient reliability and validity and the factor structure was verified(19). In this study, the reliability of the questionnaire was examined for an early sample of 40 students using Cronbach's alpha which was 0.81 and is sufficient for researching purposes.

RESULTS

The results of descriptive analysis and multivariate analysis of variance are presented in tables below.

Table1. Demographic characters of participants

variables		Groups	
		low academic stress	high academic stress
Gender	Male	Frequency 90	90
		Percent 0.50	0.50
	female	Frequency 90	90
		Percent 0.50	0.50
Marital status	Single	Frequency 169	161
		Percent 0.51	0.49
	married	Frequency 17	13
		Percent 0.56	0.43
Employment status	Employed	Frequency 48	53
		Percent 0.47	0.52
	Unemployed	Frequency 136	123
		Percent 0.52	0.47
Age	M	21.26	22.01
	SD	3.69	4.57
Income	M	456362.12	498301.80
	SD	107653.17	119362.12

Table 1 shows demographical features of the sample. As it can be seen, there is not a considerable difference between two groups demographically. The results of the T-test showed that there is not a significant difference between the groups in terms of age($t=0.93$, $p=0.38$).

Prior to conducting the multivariate analysis of variance, the Box test was conducted in order to investigate the hypothesis that held the covariance matrices were identical. The hypothesis was verified (Box's $M=207.67$, $F=1.51$, $p=0.86$).

Table 2. Results of multivariate analysis of variance(Wilks' lambda) for groups compare in centroids of maladaptive schemes

Value	F	Hypothesis df	Error df	Partial Eta ²	Observed Power
.533	16.570**	18.000	340.000	.467	1.000

** p< 0.01

Table2 shows the results of the multivariate analysis of variance (Wilk's Lambda) in order to compare the centroids of maladaptive schemes in the groups of high and low academic stress. On this basis, there is a difference in the centroids of the scores of maladaptive schemes between the two groups and the Partial Eta Square shows that the degree of the influence of schemes on group membership is 0.47. The observed power was 1 which shows the sufficiency of the sample volume for this analysis.

Table3. Results of univariate analysis of variance for groups compare in maladaptive schemes

Variables	Groups				F
	low academic stress		high academic stress		
	M	SD	M	SD	
abandonment	2.66	1.01	3.38	1.23	36.62**
mistrust/abuse	2.30	1.19	3.02	1.47	25.43**
Emotional deprivation	2.93	1.17	3.76	1.64	30.36**
defectiveness/unlovability	2.91	1.15	3.73	1.59	31.89**
social isolation/ alienation	2.72	1.20	3.54	1.63	29.59**
impaired autonomy and performance	2.88	1.22	3.68	1.53	29.41**
vulnerability to harm or illness	2.68	0.93	3.39	1.21	39.36**
Enmeshment	2.67	0.99	3.38	1.26	35.09**
failure to achieve	3.06	1.17	3.95	1.71	32.28**
entitlement/ superiority	3.09	1.11	3.90	1.48	34.24**
insufficient self- concipline	2.50	1.10	3.27	1.45	31.80**
subjugation	2.63	0.97	3.36	1.22	38.85**
acting out	2.64	0.95	3.36	1.20	39.92**
Admiration/ recognition- seeking	2.41	1.21	3.22	1.67	27.46**
pessimism/ worry	3.02	1.14	3.77	1.48	29.54**
emotional inhibition	2.69	1.06	3.43	1.33	33.78**
unrelenting standards	2.52	0.99	3.21	1.11	43.56**
self- punitivness	2.58	0.94	3.26	1.03	47.66**

** p< 0.01

Table 3 shows the results of ANOVA test to compare both groups in any of the maladaptive schemes. As the table shows, all differences are significant (p<0.01) and those who perceive a higher academic stress got higher scores in the early maladaptive schemes.

DISCUSSION

The results of the study showed that the two groups of high and low academic stress are different in terms of early maladaptive schemes. Although the study of the literature showed that no studies with similar aims and hypotheses has been conducted, it could be concluded theoretically that different stressors (pressure, change, conflict, frustration and self-imposed stress) are highly influenced by fundamental cognitive beliefs which have been organized since childhood and in the form of schemes (11).

Regarding to level of defectiveness/unlovability differences between two groups, It should be noted when an individual feels that he/she is defective in education which is considered to be one of the most aspects of life, can influence the individual's self-esteem(11, 13). As the content of this belief shows, it has its roots in the ineffective scheme of defect. Such a belief during education can lead to higher levels of stress and the individual frequently tries to do self-assessment, which particularly raises the levels of pressure and self-imposed stress.

Another cognitive and emotional source of academic stress is excessive fear of performance and the results which are expected from academic performance. That an individual thinks that he will probably get an unsatisfactory result and it could happen any time can lead to fear which is rooted in the scheme of vulnerability. This causes the individual to feel desperate about consequences and vulnerability. In this case, it could be concluded that the schemes of failure in achievement and pessimism and a frequent focus on

negative aspects have been effective in forming stress, since according to Young and Yousefi et al (14, 17), anticipating failure and the feeling of despair and escape from failure are rooted in the maladaptive scheme of failure in improvement and pessimism.

The presence of vulnerability and failure or anticipation of failure can raise the probability of increase in feeling of impaired performance. When the individual is obsessed with these ideas while studying, vulnerability of self-esteem will increase considerably and internal tension might lead to the stimulation of impaired performance scheme and they can jointly cause a blend of attritional thoughts and increase the level of pressure and failure during the process of academic performance.

It seems that the "pressure" and "conflict" aspects of academic stress, which result from internal conflicts and in an emotional level can lead to anxiety, are deepened by insufficient discipline. In this case, during the process of academic performance and thinking proper or improper thoughts, the individual experiences emotions which are not able to display. Regardless of the fact that whether or not these emotions can be displayed during the process of academic performance, the very feeling of limitation to display emotions can be heightened as a result of ineffective scheme of insufficient self-discipline.

Another factor which increases academic stress is seeking recognition and making self-esteem contingent upon admiration and recognition by others, which seems to be rooted in the cognition-seeking scheme and is constantly in line with the emotional inhibition scheme. By suggesting the fact that a failure in education will lead to losing recognition and admiration by others, these schemes result in academic stress and the feeling of embarrassment with academic performance.

Another noteworthy point in the relationship between schemes and academic stress is the standards individuals have for achieving their goals (such a drawing attention under the influence of the recognition seeking scheme). It seems that the maladaptive scheme of "unrelenting standards" is one of the sources of the individual's unrelenting attitudes toward him/herself. When an individual faces a condition in which he/she has to function based on one his/her unrelenting standards, internal conflicts regarding meeting or not meeting this standards can lead to tension and conflict which are main components of stress. With unrelenting standards present, it seems logical that the individual devises a plan which is not so solid and workable to meet these standards. In this case, if the individual is not able to meet these standards, he/she will set some limitations or deny him/herself of some pleasures, which seems to be related to the self-punitive scheme.

Generally, the struggle of mind with thoughts which are rooted in early maladaptive schemes will lead to some emotions and thoughts which cause mental obsession and decrease in the level of performance, during the process of academic performance and evaluation. This results in a drop in the person's concentration and productivity, so the individual will find some evidence for his/her improper thoughts and imposes more stress on himself/herself. Afterwards, negative emotions and anxiety ruin general performance. The downward spiral of schemes and stress boost each other and disturb the individual's performance during evaluation, particularly the exam session.

Since cognitive processes during academic evaluation are of great significance to students, it is obvious that analyzing and explaining early maladaptive schemes are vital. Realizing this issue provides researchers and educational planners with more insight into what goes on in the students' minds during the exam. It is heartening that early maladaptive schemes can be detected and investigated and they could be solved before academic evaluation. Based on the findings of this study, it is essential to take into account the early maladaptive schemes and to develop intervention and psychological-educational plans in academic contexts.

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