Iran J Psychiatry Behav Sci. 2017 June; 11(2):e9461. doi: 10.5812/ijpbs.9461.

Published online 2017 February 26. **Original Article**

Investigating the Relationship Between Attribution Styles and Metacognitive Skills With Fear of Success Among Students

Somayeh Ashrafifard,[1] and Abdollah Mafakheri[2,*]

[1]Department of Psychology, Islamic Azad University, Boujnord Branch, Boujnord, IR Iran
[2]Psychology Department, Payame-e-Noor University, Boujnord, IR Iran

[*]*Corresponding author*: Abdollah Mafakheri, Psychology Department, Payame-e-Noor University, Boujnord, IR Iran. Tel: +98-9153845879, E-mail: amafa32@yahoo.com

Received 2016 October 24; **Revised** 2016 November 23; **Accepted** 2017 January 05.

Abstract

Background: Fear of success is a stressful factor that is derived from achievement. A few children and adults have a fear of success and as a result restrict their contributions despite their skills.
Objectives: The present paper aimed at investigating the relationship between attribution styles and metacognitive skills and fear of success.
Methods: This was a descriptive cross sectional study conducted on a statistical population of all students of 3 universities of National, Azad, and Payam-e Noor of Bojnourd, Iran, in the first 6 months of 2015. In the present study, 385 students were selected through clustering random sampling, and 3 questionnaires of Zukerman and Ellison's Fear of Success, Peterson and Seligman's Attribution Styles, and Wells' MetaCognition were distributed among the students. The obtained data were analyzed using SPSS software version 20.
Results: Results of the regression revealed that in the best model of prediction, cognitive confidence, positive attributions, uncontrollability, and risk are able to predict the fear of success variable ($P \leq 0.05.01$). With respect to Pearson's correlation coefficient, a significant negative relationship was obtained between positive attribution style and fear of success ($P \leq 0.0005$), and only negative stable attributions had a significant relationship with fear of success ($P \leq 0.01$). In addition, a significant relationship was detected between cognitive confidence, uncontrollability, and risk ($P \leq 0.0005$), positive beliefs about concern, and fear of success.
Conclusions: The results of the present research, conforming to that of the other studies, revealed that attribution styles and metacognitive skills are able to predict the fear of success variable.

Keywords: Achievement, Attribute, Fear, Metacognitive Knowledge

1. Background

Fear is an emotional reaction and results from the human beings' interpretation of a dangerous situation being a threat for his/her health. The most common fearful situations are related to the prediction of physical or mental damage, vulnerability to the danger, or the expectation in the case that s/he is not able to face the unexpected situations (1). Fear of success is one of the greatest fears among the public opinion. Webster (1996) believes that fear of success is seriously mentioned when many people chose abstinence against success (2). Messina (2005) considers the fear of success as a fear that, first, when a person wants to reach the maximum of his/her actions, but s/he feels that s/he will never be satisfied and happy. Second, a person does not believe in his/her competency for doing an activity appropriately. Third, a person has a fear of doing a work honorably instead of fear of failure; and fourth, a person does not believe in his/her abilities to continue the improvement and self-successes. Brooks (2001) surmises this fear as a result of lack of a person's belief in his/her abilities (3). Horney (1936) states that the main root of this fear has been based on the creation of social identity in the inappropriate environment of the childhood, an environment that a child learns to always be a winner, but his/her abilities are unnoticed (4). This fear is a hidden and stable state that is created in the first days of life (5). Social factors, school connection, and parents' support negatively predict the fear of success (6).

Fear of success has a positive relationship with the criterion of seeking meaning in life and a negative relationship with the optimism, self-esteem, and self-efficiency (7, 8). On the one hand, a study on the athletes shows that fear of success decreases among the people with a regular physical activity (9). Avoidance of success accompanies some characteristic features. Some people attribute their success to chance, charm, and other external factors. They have external attributions and think that they do not deserve that success (10).

The sociopsychological studies have shown that the attribution style of people has a serious effect on their failure and success as well as motivations and social behavior

(11, 12). The attributions are important from a motivational perspective because they affect beliefs, excitement, and behavior (13, 14). A great deal of the fear of success is related to the external factor attributions, and the fear of failure is related to the internal attributions (15). Repetitive failures cause students to doubt their abilities. Thus, it is suggested that some requirements be provided so that they attribute their success and failure to their attempts and not their abilities (16). The past reviews can be an introduction for fear and anxiety (17). People with fear of success may know their behavior's consequences under the control of external forces such as chance and destiny (18).

On the other hand, it seems that the metacognitive beliefs and controlling strategies are the effective factors in motivational structure. Negative and positive beliefs have influenced the evaluations of their thoughts (19). Most of the students with learning problems, consider it as the result of their inability, while their real problem is the way they use learning strategies (20). According to Flavell, the metacognition includes both the cognitive processes and cognitive experiences or regulation. The metacognition is called to the personal knowledge of the self-cognitive processes and is defined as any cognitive process or knowledge that accompanies evaluation, monitoring, or cognitive control (21-24). Metacognition points to thought monitoring and controlling (25), and awareness of thought management (26). The metacognitive skill increases the learning level and positively influences academic achievement (27). Teaching the metacognitive skill and the challenge of positive or negative metacognitive belief related to anxiety can reduce the fear among the students (28). Metacognitive skill among adolescents is problematic for their success in facing the environmental features (29). The students equipped with metacognitive skills possess high self-confidence (30). The metacognitive dimensions predict levels of fear, anxiety, and stress (31, 32). As it is mentioned in Hasanvand Amozadeh and Roshan Chesli study (2013), metacognition is able to predict the fear component and the negative beliefs in uncontrollability and fear is involved in predicting the fear of success (33). In addition, Seifi (2013) concluded that teaching metacognitive skills, self-consciousness, and decision-making style can reduce the fear of success among students (34).

2. Objectives

In this article, it has been attempted to achieve the general objective of investigating the relationship between attribution styles and metacognitive skills with the fear of success. Furthermore, the minor objectives were to investigate the relationship between the positive attribution styles, negative attribution styles, and metacognitive skills with the fear of success.

3. Materials and Methods

This researched was conducted to distinguish the relationship between the attribution styles and metacognitive skills with the fear of success. Therefore, the research method was descriptive cross sectional. The research community consisted of the students studying in 3 universities of National, Azad, and Payam-e Noor of Bojnourd, Iran, in the first 6 months of 2015. The population of the study included 12 220 students. Using Krejcie and Morgan ((1970), 385 students were selected. Participants were male and female students from different disciplines of Humanities, Sciences, Engineering, Agriculture, Arts, and Medical in different levels of associate degree, bachelor's, and master's degree. The Inclusion criterion was incoming students in 2013 and later. Incoming students before 2013, and participants who did not respond to 5 questions and more were excluded (Overall, 410 questionnaires were distributed, but 385 questionnaires were selected for the final research.).Then, some classes were selected from every college through clustering random sampling. Three questionnaires of Zukerman and Ellison's fear of success questionnaire (FOSS), Peterson and Seligman's attribution styles questionnaire (ASQ), and Wells' metacognition questionnaire (MCQ-30) were distributed among students after providing necessary information of the scale, purpose of the test, and correct way of answering the questions. Then, the questionnaires were collected by placing a box in each classroom. The students were assured about the confidentiality of their personal information. After obtaining students' consent (at the beginning of each questionnaire), they were asked to answer each question as honestly as possible. All participants took part on a voluntary basis and were not remunerated for participation.

The data were analyzed with SPSS software version 20. Because of the research essence, descriptive statistics were used to describe, classify, and regulate the raw scores by calculating the distribution frequency, mean, and standard deviation. The inductive statistics were used to analyze the research hypotheses using Pearson correlation coefficient and stepwise multiple regression.

3.1. Zukerman and Ellison's Fear of Success Questionnaire (FOSS)

In 1976, Zukerman and Ellison created the questionnaire of fear of success based on Turner's theory. This questionnaire consists of 27 items, and it is regulated based on a 7-point Likert scale degree, ranging from "totally disagree" to "totally agree" (35). The range of the participants'

scores can be between 27 and 189 (36), with items 1, 4, 5, 8, 14, 10, 17, 21, 24, 26, and 27 referring to low level of fear of success and are scored in a reverse manner (37). To evaluate the criterion-based validity, in two studies, Zukerman and Ellison have shown that this scale is positively related to Turner's projective scale of fear of success in a condition that the correlation coefficients were 0.18 and 0.3 for females and 0.16 and 0.22 for males. Also Shahrarai and Abdi (2002), using the Persian version of the questionnaire, have achieved Cronbach alpha of 0.66 for females and 0.71 for males (38).

3.2. Peterson and Seligman's Attributional Style Questionnaire (ASQ)

This scale is a self-report questionnaire developed by Seligman (1979) as the reviewing the theory of learned helplessness (39). It is used to determine the attribution style of people at 3 dimensions of internal-external, stable-unstable, and general-specific (after success and failure situations), and it is compatible with the degree of importance that people pay to those consequences (40). In this 48-item questionnaire, a person is asked to answer in a 7-scale spectrum. The questionnaire includes 12 hypothetical situations (6 good events and 6 bad situations) (41). The question 1 in each situation is for the better understanding of other items and does not affect scoring.

Peterson et al. (1982) have achieved Cronbach alpha of 0.72 for the positive experiences and of 0.75 for the negative experiences including all the events. Soleymaninejad (2002), using the Persian version of the questionnaire, has reported Cronbach alpha of 0.74 for the entire questionnaire (42).

3.3. Wells' Metacognitive Questionnaire (MCQ-30)

In 2004, Wells et al. intended to prepare a small form of metacognitive questionnaire. In this self-report, 30-item questionnaire, the questions are ranged based on the Likert scale from 'I disagree' 1 to 'I totally agree' 4. It includes 5 factors such as low cognitive confidence, positive beliefs in stress, cognitive self-consciousness, negative beliefs in uncontrollability of thoughts and risk, and beliefs in the need to control thoughts (43).

Using factor analysis, the construct validity was confirmed and its reliability was reported to be 76% and 93% by Cronbach alpha for the total questionnaire and the subscales (44). In Iran, the Cronbach alpha of the Persian version of the questionnaire found to be 0.91 (45).

4. Results

The samples of the present research were 385 students of Bojnord universities, ofwhom 245 (63.6%) were female and 140 (36.4) were male.

The average age was 23.23, with 3.66 standard deviation. For all the participants, 43.1% were educating at Islamic Azad universities, 35.8% at Payam-e-Noor universities, and 21% at state universities.

Using stepwise multiple regressions, the results of fear of success revealed that in the best predicting model (the third model), the value of multiple correlation coefficients for predicting the variables of fear of success equals 0.36, representing a relationship between the predicting variables and the criterion variable (Table 1). In sum, the indexes of variance analysis represented the significance of regression and linear relationship between the variables. The small significance level (P = 0.01) proved it. The results of the test showed that the regression model with prediction and criterion variables had a good fitness and the changes determined by the models were real and were not the result of change or accident. It also revealed that the predicting variables accompany the predicting and changing the criterion variables with 99% probability. Table 2 demonstrates the values of regression coefficient.

The results of regression coefficients revealed that in the best predicting model for fear of success, the cognitive confidence (β = -0.23), positive attributions (β = -0.2), and uncontrollability and risk (β = 0.13) were able to predict the criterion variable. The cognitive confidence had the most shares in predicting the fear of success. Based on the discussed materials, the attribution styles and the metacognitive skills had a relationship with the fear of success and its prediction.

The results revealed a negative significant relationship between the positive attribution styles and the fear of success. The positive stable attributions and the positive attribution style (r = -0.2, P $\leq$ 0.0005) had the most correlation and the positive internal attributions (r = -0.14, P $\leq$ 0.0004) the least correlation with the fear of success.

In addition, a relationship found was between the negative attribution style and the fear of success. The results revealed that among the negative attribution styles, only negative stable attributions had a significant relationship with fear of success (r = 0.13, P $\leq$ 0.01).

Moreover, a relationship was detected between the metacognitive skills and the fear of success. The results also revealed a significant relationship between the cognitive confidence (r = -0.27, P $\leq$ 0.0005), the positive beliefs in stress (r = -0.15, P $\leq$ 0.0004), uncontrollability and risk (r = 0.21, P $\leq$ 0.0005) with the fear of success. No significant relationship was detected between the cognitive self-consciousness and the need to control thoughts.

Table 1. Summary of the Regression Model and the Results of Variance Analysis of Fear of Success Based on Attribution Styles and Metacognitive Skills

Criterion Variable	Model	Predictive Variables	R	R^2	R^2 Adjusted	F	P Value
Fear of success	1	Cognitive Confidence	0.27	0.07	0.07	30.35	0.0005
	2	Cognitive Confidence	0.34	0.12	0.11	24.85	0.0005
		Positive Attribution					
	3	Cognitive Confidence	0.36	0.13	0.12	19.07	0.0005
		Positive Attribution					
		Uncontrollability and Risk					

Table 2. Stepwise Regression Coefficients for Fear of Success Based on Attribution Styles and Metacognitive Skills

Criterion Variable	Model	Predicting Variables	Nonstandard Coefficients		Beta	t	P Value
			B	Standard Error			
Fear of success	1	Cognitive Confidence	-0.73	0.13	-0.27	-5.51	0.0005
	2	Cognitive Confidence	-0.13	0.13	-0.27	-5.63	0.0005
		Positive Attribution	-2.61	0.62	-0.20	-4.24	0.0005
	3	Cognitive Confidence	-0.61	0.14	-0.23	-4.44	0.0005
		Positive Attribution	-2.60	0.61	-0.20	-4.26	0.0005
		Uncontrollability and Risk	0.39	0.15	0.13	2.60	0.01

5. Discussion

The results revealed a relationship between the positive and negative attribution styles with the fear of success. The positive attribution styles had the most correlation; and among the negative attribution styles, only negative stable attributions had a significant relationship with fear of success.

In determining the results, it can be stated that the optimistic people with positive attributions attribute the defeat to the external-instable and specific reasons. In addition, the positive consequences of behavior, which attributed to the internal reasons such as ability and effort, bring about pride and self-esteem as well as self-respect. The helplessness as a result of pessimistic attribution style by creating the cognitive, emotional, and physical disorders such as anxiety and stress reduced quality of life (46). Haller et al. (2016) have proved the relationship between the anxiety and negative attributions (47). The results of Yazdanpanah-Nozari et al. (2011) have shown that the dominant attribution style of students are the external styles that have opposite effects on motivation, effort, and success (48). In general, the attributions of successes lead to the stable factors of hope excitement and consequently increase the expectation of repeating the successes (14). For instance, in determining the events, the effort attributions are the stable factor and the fatigue attributions are the instable factor. Hope encourages people to continue their work with more effort and persistence.

Rezaee-Mogaddam and Rostami (2010) found a significant positive relationship between success attributions to internal, stable, general factors, and academic achievement. The fear of success is a negative factor affecting academic achievement (49). Their result is in tune with the results of the present research. The results of this research conform to the study of PakTinat, Shahrarai and Farahani (2008) who showed that those people possessed with the internal control source and positive self-conception have less fear of success (50). Sukariyah and Assaad (2015) concluded that the students with the success attributions to the internal factors have more academic achievement in mathematics (51).

The results of Mehdizadeh, Abolghasemi and Rostamogli (2014) revealed that among the components of attri-

bution style, only the negative internal-external and negative stable-instable attribution styles are the strongest predicators of quality of life (52), which is in harmony with the results of this research. Furthermore, the results of Davoodi et al. (2011) and Shokuhi et al. (2010) are in line with the results of this research (53, 54). The results of Yazdanpanah-Nozari, Ghasemi, Siamian and Javadian (2011), and Maleki and Mohammadzadeh (2010) represented the relationship between the external attribution style and the fear of success, with the reduction in the motivation of development. Stanculescu (2013) also proved the negative relationship between the fear of success and optimism. Andre and Metzler (2011) have confirmed the relationship between the anxiety and stress and nonconcentration with the amount of fear of success (55). Therefore, the results of these studies are in tune with the results of the present research.

On the one hand, the results revealed a significant relationship between the cognitive confidence, positive beliefs in stress and uncontrollability, and risk with the fear of success. The positive beliefs in stress are attributed to the extent of a person's belief that the stress is a helping factor and a positive phenomenon. To Wells (2009), the effect of strategies that people have to regulate their anxious thoughts and emotions can have consequences such as physical symptoms, negative beliefs in self, and the social world, as well as behavioral changes. The existence of negative metacognitive beliefs in self can be a risk factor in the fear and avoidance of potential people entering the social successes. Therefore, increase in positive beliefs in stress causes reduction of fear of success. Wells, Cartwright-Hatton (2004) have shown, in their research, that some of the metacognitive dimensions such as negative beliefs in uncontrollability of thoughts and risk, cognitive confidence, and beliefs in the need to control thoughts have a positive relationship with types of anxiety and fear. Mirzakhani et al. (2014) found that the metacognitive skills and their components have positive effects on the academic achievement (56). The results of Seifi, Zare' and Saffainia (2013), and Hasanvand-Amozadeh, Roshan Chesli and Hasanvand-Amozadeh (2013) are also in harmony with this research. Alper Karsli (2015) found that the metacognitive level and skill among adolescents is problematic for their success in facing the environmental features, which surely decreases their fear in dealing with these features. Therefore, it conforms to the results of this study. Kisac and Budak (2014) also found that the students with metacognitive skills have high self-confidence. Spada, Caselli, Manfredi, Rovetto, Ruggiero et al. (2012) also counted the metacognitive dimensions such as metacognitive beliefs in stress and low cognitive confidence as the factors that create fear, anxiety, and stress. Hrbuckova, Hladik, Vavrova (2012) have mentioned that the metacognitive skills increase the learning level and have positive effects on the academic achievement. Therefore, using metacognitive skills is appropriate and changing metacognition can be an obstacle in intensifying the fear and anxiety factors, as confirmed by the results of this study. Sattari Najafabadi and Heidari (2015) found that teaching metacognitive skill and challenge of positive and negative metacognition related to stress can reduce fear and anxiety among the students which is in agreement with this research.

There is a relationship between the attribution styles and the metacognitive skills with the fear of success. People have trouble facing the reality. They face a variety of inappropriate performances due to having high criteria for performance and evaluation of self and others. Some people have external and some have internal attributions.

Among the metacognitive subscales, 2 subscales of cognitive confidence and the belief in uncontrollability and risk in the best predicting model for the fear of success can predict the criterion variable. This metacognitive belief causes the people to have little sense of personal control and this issue can increase anxiety, depression, and fear. On the other hand, the metacognitive belief in uncontrollability and risk causes the people to doubt their potentials and abilities, which negatively influences their mental health. The experience of emotional tension among people, who obtained a high score in the dimension of uncontrollability and risk, causes these people to experience the incompatible coping strategies. Using these strategies can provide more accessibility of threat contents in processing and intensifying the stress, fear, and negative excitements. In fact, these processes enable people to estimate the environmental threats more and underestimate their coping abilities. Therefore, considering the current and previous results of the studies, it seems that attribution styles and metacognitive skills are able to predict the fear of success variable. In addition, the Ministry of Education can use the process of reducing the fear of success in students to reduce the cost of studying.

5.1. Limitations and Suggestion for Future Studies

The present study had its own limitations like small sample size. Thus, further studies should be conducted in different cities and on other age groups with other instruments and the results should be compared. In the present study, the interaction of variables of emotional, stressful situations, socioeconomic level of the family, environmental factors, and cultural variables that influenced such factors as metacognitive skills and attribution styles was out of reach. Therefore, it is suggested that the relationship of test variables with other variables such as age, gender, education, family socioeconomic level, stressful situations, en-

vironmental factors, and personality be investigated in different cities. Moreover, providing awareness for parents on the creation of successful internal beliefs in children, and teaching practical ways to deal with fear of success and synchronously use metacognitive skills training to identify the type of attribution styles could be useful to reduce fear of success.

Training officials can put the programs of metacognitive learning inside the textbooks to increase students' abilities and talents.

Footnotes

Authors' Contribution: Somayeh Ashrafifard conceived and designed the study, collected and interpreted the data, drafted and revised the manuscript. Abdollah Mafakheri conceived and designed the study, performed the statistical analysis, participated in the interpretation of data and revised the manuscript critically for important intellectual content, and supervised the study. Both authors read and approved the final manuscript.

Declaration of Interest: None declared.

Funding/Support: This research received no specific grant from any funding agency in whether public or commercial, and no financial support was received for the current study.

References

1. Marshall R. Motivation and excitement. Tehran: Virayesh Publication; 2009.
2. Webster EC. Fear of success:Stop it from stopping you. U.S.A: Privileged communications; 1996.
3. Brooks T. Understanding the fear of success 2001. Available from: http://www.black-collegian.com/news/student_correspondents/fearofsuccess501.shtml.
4. Mehrabizadeh Honarmand M, Basaknejad S, Shahni Yeylag M, Shokrkon H, Haghighi J. Exploring the relationship between fear of success,self-esteem,perfectionism and fear of negative evaluation with imposter syndrome in graduate students Chamran University [in Persian]. *J Educ Psychol Univ Chamran.* 2005;**12**(3):1–24.
5. Zuckerman M, Allison SN. An objective measure of fear of success: construction and validation. *J Pers Assess.* 1976;**40**(4):422–30. doi: 10.1207/s15327752jpa4004_12a. [PubMed: 957090].
6. Gore JS, Thomas J, Jones S, Mahoney L, Dukes K, Treadway J. Social factors that predict fear of academic success. *Educ Rev.* 2016;**68**(2):155–70.
7. Stanculescu E. University Students' Fear of Success from the Perspective of Positive Psychology. *Proc Soc Behav Sci.* 2013;**78**:728–32. doi: 10.1016/j.sbspro.2013.04.384.
8. Bramante AC. Correlation between self-esteem, self-efficacy, personality, fear of success, and self-defeating behaviors of performing artists. Walden: College of Social and Behavioral Sciences; 2015.
9. Maleki B, Mohammadzadeh H. Relationship between fear of success and sport achievement motivation between of successful and unsuccessful athletes. *Res Sport Sci.* 2010;**2**(5):75–88.
10. Zaynivand Z, AminiJavid L, Moradi A. A Study on the Relationship between Fear of Success, Emotions of Shame and Guilt with Imposter Syndrome among Female Students. *J womens Stud Sociol Psychol.* 2015;**13**(1):161–80.
11. Rensheng H, Weihua J. On the Attribution of success or failure of primary and High school students in communication. *Psychol Sci.* 2003;**3**.
12. Weiner B. An Attributional Theory of motivation and Emotion. New York: Springer; 1986.
13. Schunk DH. Learning theories: An educational perspective. Boston: Pearson Education; 2012.
14. Schunk DH. Education learning theory perspective. Tehran: Virayesh Publishing; 2014.
15. Macdonald NE, Hyde JS. Fear of success, need achievement, and fear of failure: A factor analytic study. *Sex Roles.* 1980;**6**(5):695–711.
16. Schultz DP. Psychology and industry today. An introducation and industrial and Organization Psycholog. Newyork: Mac Millan; 1998.
17. Bensaid S. Contribution of motivational beliefs and matacognition to student's performance under conseguentioal and no conseguential test conditions. *Educ Res Eval.* 2009;**13**(2):127–42.
18. Froelich RL. University students and fear of success. Kansas, United States: Fort Hays State University; 1996.
19. Wells A, Matthews G. Modelling cognition in emotional disorder: the S-REF model. *Behav Res Ther.* 1996;**34**(11-12):881–8. [PubMed: 8990539].
20. Darvizeh Z. Analyzing empathic behavior of female adolescent high-school students with their mothers and their relationship with metacognitive skills and academic achievement in Tehran. *Soc Stud Women.* 2005;**3**(8):67–82.
21. Flavell JH. Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry. *Am Psychol.* 1979;**34**(10):906.
22. Moser LJ, Baird J. A. . Metacognition. In: Wilson RA, Keil FC, editors. The MIT encyclopedia of the cognitive sciences. Cambridge: MIT press; 2002. .
23. Brown AL. Metacognitive development and Reading. In: Spiro RJBC, Bruce WFB, editors. Theoretical issues in reading comprehension. Hillsdole: Erlbaum; 1982. pp. 458–82.
24. Flavell JH. Metacognitive aspects of problem solving. In: Resnick L, editor. The nature of intelligence. Hillsdale: Erlbaum; 1976. .
25. Martinez ME. What is Metacognition? *Phi Delta Kappan.* 2006;**87**(9):696–9. doi: 10.1177/003172170608700916.
26. Kuhn D, Dean JD. Metacognition: A bridge between cognitive psychology and educational practice. *Theory Into Pract.* 2004;**43**(4):268–73.
27. Hrbackova K, Hladik J, Vávrova S. The relationship between locus of control, metacognition, and academic success. *Proc Soc Behav Sci.* 2012;**69**:1805–11.
28. Sattari Najaf-Abadi R, Heidari H. Effectiveness of consultation with metacognitive approach in students' test anxiety. *J Behav Sci.* 2015;**1**(1):27–32.
29. Karsli TA. Relation among Meta-Cogntition Level, Decision Making, Problem Solving and Locus of Control in a Turkish Adolescent Population. *Proc Soc Behav Sci.* 2015;**205**:35–42. doi: 10.1016/j.sbspro.2015.09.008.
30. Kisac I, Budak Y. Metacognitive Strategies of the University Students with Respect to their Perceived Self-confidence Levels about Learning. *Proc Soc Behav Sci.* 2014;**116**:3336–9. doi: 10.1016/j.sbspro.2014.01.759.
31. Spada MM, Caselli G, Manfredi C, Rebecchi D, Rovetto F, Ruggiero GM, et al. Parental Overprotection and Metacognitions as Predictors of Worry and Anxiety. *Behavioural and Cognitive Psychotherapy.* 2011;**40**(03):287–96. doi: 10.1017/s135246581100021x.
32. Saricam H. , Ogurlu U. . Metacognitive awareness and math anxiety in gifted students. *Cypriot J Educ Sci.* 2015;**10**(4):338–48.
33. Hassanvand Amozadeh M, Roshan Chesli R. The relationship of the meta-cognitive beliefs with social anxiety-symptoms (avoidance, fear and physiological arousal) in non clinical population. *J Res Cogn Behav Sci.* 2013;**3**(10):55–70.
34. Seifi R. The effect of intervention to reduce the fear of success on the decision-making style junior high school students in Tehran locus of control. Tehran: Univ Payam Noor; 2013.

35. Piedmont RL. Another look at fear of success, fear of failure, and test anxiety: A motivational analysis using the five-factor model. *Sex Roles.* 1995;**32**(3-4):139–58.
36. Abdi B, Shahrarai M, Naghi FM. Sex and gender roles differences in fear of success among engineering universiıy students. *J Psychol.* 2005;**34**(2):199–214.
37. Mansoobifar M, Delavar A, Ahadi H, Nafisi Q. Normalization of fear of success test [in Persian]. *J Behav Sci.* 2012;**4**(12):131–47.
38. Shahrarai M, Abdi B. Relationship between occupational identity and sex on fear of success among engineering university students. *J Educ Psychol Univ Chamran.* 2002;**9**(3):43–64.
39. Seligman MEP. Learned Optimistic. New York: Bcket Books; 1990.
40. Mazlumi Rad M, Zalkan F. The relationship between religious orientation and mental health attribution styles in students at the University of Applied Sciences,Arts and Culture. First National Conference on Spirituality and Health Sciences,Education and Psychology, Islamic Azad University, Gaz. 2014; .
41. Peterson C, Semmel A, von Baeyer C, Abramson LY, Metalsky GI, Seligman MEP. The attributional Style Questionnaire. *Cogn Ther Res.* 1982;**6**(3):287–99. doi: 10.1007/bf01173577.
42. Ashkani F, Heidari H. Effects of emotional adjustment on psychological welfare and attributional styles of students with learning disabilities in primary school. *J Learn Disabil.* 2014;**4**(1):6–22.
43. Azimi M, Shakeri M, Noori R, Hatami M. The effect of meta-cognitive therapy in reducing test anxiety and change metacognitive beliefs third and fourth year high school students [in Persian]. *J North Khorasan Univ Med Sci.* 2014;**6**(3):591–600.
44. Wells A, Cartwright-Hatton S. A short form of the metacognitions questionnaire: properties of the MCQ-30. *Behav Res Ther.* 2004;**42**(4):385–96. doi: 10.1016/S0005-7967(03)00147-5. [PubMed: 14998733].
45. Shirinzadeh Dastgiri S, Gudarzi MA, Rahimi C, Naziri G. Study of factor structure, validity and reliability of metacognition Questionnaire-30. *J Psychol.* 2008;**12**(48):445–61.
46. Bennett KK, Elliott M. Explanatory Style and Health: Mechanisms Linking Pessimism to Illness1. *J Appl Soc Psychol.* 2002;**32**(7):1508–26. doi: 10.1111/j.1559-1816.2002.tb01449.x.
47. Haller SP, Raeder SM, Scerif G, Cohen Kadosh K, Lau JY. Measuring online interpretations and attributions of social situations: Links with adolescent social anxiety. *J Behav Ther Exp Psychiatry.* 2016;**50**:250–6. doi: 10.1016/j.jbtep.2015.09.009. [PubMed: 26476463].
48. Yazdanpanah-Nozari A, Ghasemi A, Siamian H, Javadian M. Analyzing attribution styles of students of Medical Sciences in the academic year 2008-2009 [in Persian]. *J Mazandaran Univ Med Sci.* 2011;**21**(82):83–8.
49. Rezaei Moghaddam K, Rostami S. Attribution Style, locus of control and academic achievement in college of agriculture, Shiraz University. *Iran Agric Extens Educ J.* 2011;**6**(2):115–30.
50. Pak Tinat M. Examining the relationship between control source and self-conception with the fear of success among female students of Tehran state universities in 2006-2007. Tehran: Teacher Training University; 2008.
51. Sukariyah MB, Assaad GH. The Effect of Attribution Retraining on the Academic Achievement of High School Students in Mathematics. *Procedia Soc Behav Sci.* 2015;**177**:345–51.
52. Mehdizadeh Z, Abolghasemi A, Rostamogli Z. Predicted role of information processing and attribution styles in students with body dysmorphic quality of life [in Persian]. *J sch Psychol.* 2014;**3**(4):111–27.
53. Davoodi R, Aghdasi MT, Turabi F. The relationship between fear of success and control source with athletic performance among athletes in East Azerbaijan province. Tehran: Iran Univ Faculty of Physical Education and Sport Sciences. [Thesis]; 2011.
54. Shokouhi L, Khalatbari J, Rezabakhsh H. Perceived stress among university students with various attribution styles [In Persian]. *J N Thoughts Educ.* 2010;**5**(4):107–19.
55. Andre N, Metzler JN. Gender differences in fear of success: A preliminary validation of the Performance Success Threat Appraisal Inventory. *Psychol Sport Exerc.* 2011;**12**(4):415–22. doi: 10.1016/j.psychsport.2011.02.006.
56. Mirzakhani M, Bagheri M, Sadeghi MR, Mirzakhani F, Modanloo Y. The impact of metacognitive skills and academic medical sciences [In Persian]. *J Mazandaran Univ Med Sci.* 2014;**24**(115):168–74.