Investigating the role of social anxiety in predicting students' academic self-efficacy

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The aim of this study was to investigate the role of social anxiety in predicting academic self-efficacy of female high school students in Zanjan. The research method was descriptive-correlational and its statistical population included all female high school students who were studying in 2021 and the sample size was 70 people, that were selected by convenience sampling. Scherrer's academic self-efficacy questionnaire and adolescents' social anxiety questionnaire were used to collect data. Pearson correlation analysis and multivariate regression were used to analyze the data. The results showed that there was a significant negative relationship between social anxiety (R = -0.563) and academic self-efficacy (P <0.001). Also, the results of regression analysis showed that the predictor (independent) variable of social anxiety has the ability to predict (criterion variable) students' academic self-efficacy. In summary, it can be inferred from the results of this research that social anxiety has a significant relationship with academic self-efficacy.

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Introduction:

Students are the intelligent and efficient class and the future makers of each country, who dedicate themselves the main plan and budget of each country. Therefore, paying attention to their psychological aspects has an special importance for improving academic performance (Heidari and Kooshan, 2002). One of the factors that can affect students’ academic performance is their ability to achieve success and progress. Sometimes a person judges his or her ability based on physiological symptoms such as anxiety and stress in various situations; That presence in some social situations for some people causes these symptoms. Thus, the person may consider this anxiety as a sign of his or her inability and weakness; So he or she does not act well in social situations and his or her expectation of success is reduced. The concept of social anxiety has been used to express this phenomenon (Klein, 2000 and Ziegler, 2005).

Anxiety as a global phenomenon that every person may experience that at some point in life, has attracted the attention of researchers in the field of psychology (Hashemi et al. 2015). Kyiros et al. (2011) stated that anxiety is a natural and physiological response to a threat, and the anxiety disorder occurs when this natural response is accompanied by a high level of arousal and the using of ineffective coping strategies. Huberty (2012) considers low levels of anxiety to be normal and high levels of it as the cause of serious problems. Humans experience different types of anxiety during their lifetime (Mohat et al., 2014; Stephen, 2014), one of the most common forms of that in adolescence and being in an educational environment called social anxiety.

Social anxiety is characterized by persistent and specific anxiety and fear of one or more social situations, and someone feels that his or her actions and behaviors are evaluated and judged by others, and therefore avoids social situations. Social anxiety disorder is the fourth most common psychiatric disorder and its lifetime prevalence is reported to be close to 12% (Morrison et al., 2013). Research has shown that social anxiety disorder is more prevalent, especially in adolescence, and its age of onset is in the early and middle of the second decade of life, often before the age of 13. Many students with social anxiety are less accepted by their peers due to lack of social skills (Reuland and Teachman, 2014). Social anxiety has a great effect on the reduction of interpersonal performance of individuals and weakness in social skills at the level of social interaction of individuals with others has a negative effect. People who can not have successful relationships with their peers miss opportunities to acquire mental, physical and social skills. In a study, Coles et al. (2011) found that people with social anxiety have problems in various aspects of their lives, such as work and study situations, and are not satisfied with their social life. Social anxiety increases the likelihood of dropping out of school (Amringen et al., 2003). Matza et al. (2003), Randall et al. (2001) consider poor coordination with society as a consequence of social anxiety. Erath et al. (2010) showed that social anxiety in childhood and adolescence causes problems in the cognitive and emotional dimensions of social adjustment. Many adolescents with social anxiety suffer from many adjustment problems such as academic failure, peer problems, substance abuse, mood disorders, poor academic performance, low self-efficacy and social adjustment (Gaudiano and Herbert, 2006).

Self-efficacy includes the beliefs that students have about themselves, the difficulty of the task, and the consequences of doing the task. According to Bandura, in order to a person perform a task successfully, in addition to having the skills and knowledge, she or he must have a certain level of expectation for success before completing the task (Bernard, 2000). Bandura defines self-efficacy as the belief in the ability to perform an action in a given situation. Elias (2008) considers academic self-efficacy as a student’s confidence in his/her ability to succeed in difficult assignments. It turned out that self-efficacy is associated with effective learning strategies (Linnenbrink and Pentrich, 2003), self-regulation (Walker et al., 2006; Zimmerman, 2000), academic performance (Lane and Kyprianou, 2004; Kim and Park, 2000; Vaskat et al., 2009) And skills in social interactions with classmates (Hosseinchari, 2007; Hosseinchari and Kiani, 2008). A student with low self-efficacy may not even prepare for an exam; Because he thinks that no matter how hard he or she tries, it will not use. In contrast, a person with high self-efficacy is more successful and hopeful in doing things. In fact, self-efficacy is a kind of self-assessment about competencies and it helps the individual in organizing his or her activities to achieve his or her goals (Narimani et al. 2013; Narimani and Vahidi, 2013; Alaei Kharaem et al., 2012). According to Zamani and Pouratashi (2017), self-efficacy is effective on students’ academic progress, so that the
more students' beliefs about academic self-efficacy, the higher their academic achievement. Academic self-efficacy also has a direct effect on adolescents 'academic success and has a positive effect on students' mental health, in addition to students with high self-efficacy, have more anxiety and the group that has lower self-efficacy are more depressed, more fearful and obsessive (Saeed and Dartaj, 2017). High levels of self-efficacy are associated with high motivation and low levels are associated with low motivation, so that people with high self-efficacy are more open in dealing with issues and problems, and failure is a factor for future success and They focus more on learning goals than functional goals resulting in less anxiety (Lotfi et al., 2015). As a result, they perform better and engage in activities more deeply and use more effort when they fail; While people with poor self-efficacy find tasks more difficult than they really are, this causes stress, depression, and limited vision of problem solving. While high self-efficacy is associated with better health; Low self-efficacy is strongly associated with symptoms of anxiety, depression and high psychosomatic (Dennis, 2003; quoted by Birami and Pour Faraj Omran, 2013). Students with high self-efficacy feel highly empowered about learning activities; therefore; In the face of stressful academic situations, they have acceptable tolerance (Hashemi et al., 2015). Bandura (1997) considers persuasion as the result of verbal judgments of others about a person, which plays an important role in the development of self-efficacy. In addition, feedback from emotional and physical factors is also a source of self-efficacy (Bandura, 1993).

Klein (2000) and Ziegler (2005) stated that sometimes people's abilities are judged based on physiological symptoms. These symptoms include physical symptoms such as anxiety and stress experienced in different situations that are interpreted differently. For example, being in a social situation leads to the appearance of these symptoms in some people and causes a person to consider this anxiety as a result of his disability and weakness and the expectation of success decreases in him or her . Despite the unpleasantness of being in the community for people with social anxiety, they are forced to do so. Because human sociality is an inevitable reality and presence and participation in social activities and situations is considered one of the requirements of life. Educational Institutions and School are places that require the active presence of students in academic activities (Khajeh and Hosseinchari, 2011).

Some studies have investigated the effect of social anxiety on academic self-efficacy. Among them, Khajeh and Hosseinchari (2011) in a study on a sample of 550 third year middle school students showed that social anxiety in general has no role in predicting academic self-efficacy; Because socially anxious people, rather than attributing their dysfunction to internal factors, due to cognitive errors, consider others as critical observers, and these impersonal factors play a large role in perpetuating their problem. In another study, Hassanvand Amouzadeh (2012) stated that there is a negative and significant relationship between self-efficacy and social anxiety in male and female students and students who believe in their ability to do things successfully, experience less social anxiety. Causal models of social anxiety are also able to explain and predict social anxiety.

Since research with different findings on the relationship between social anxiety and academic self-efficacy have been conducted and studies have not been performed on adolescent girls in whom social anxiety is more common; Addressing social anxiety as one of the most common problems of students in the educational environment and its important psychological consequences on factors such as academic self-efficacy is not useless. Therefore, the present study intends to investigate the effectiveness of the social anxiety component in adolescent female students on their academic self-efficacy. Therefore, the main question of the present study was whether students' social anxiety has a significant relationship with their academic self-efficacy?

**Materials and Methods:**

The method of the present research is applied in terms of purpose and is among the descriptive studies of the correlation type (regression) in terms of methodology. The statistical population of this study included all female high school students who were studying in Zanjan in 1399. Using the available sampling method, a sample of 70 female students was selected and responded to the academic self-efficacy questionnaire and the social anxiety questionnaire. Data were analyzed using SPSS-18 software using Pearson correlation coefficient and multiple regression tests. Two tools of academic self-efficacy
and social anxiety questionnaire were used to collect data.

Adolescent Social Anxiety Questionnaire: The Adolescent Social Anxiety questionnaire was invented by LaGreca (1999) and consists of 18 items and three subscales: Fear of Negative Evaluation, Social Avoidance and Grief in New Situations. Adolescents' social anxiety is a five-degree graded (quite similar to me = 5, somewhat similar to me = 4, have no opinion = 3, different from me = 2, completely different from me = 1). High scores on this scale indicate higher anxiety. In order to calculate the reliability, Khajeh et al. (2011) used the Cronbach’s alpha method to calculate the reliability. And reported the alpha coefficient of 86% for the fear component of negative evaluation, 70% for the social avoidance and grief in new situation and 58% for the social avoidance and general grief. Ostovar et al. (2003) confirmed the three-factor structure of this scale on a sample of Iranian adolescents and reported its validity as favorable. In addition, the internal consistency of the scale using the alpha coefficient for the subscale of fear of negative evaluation, social avoidance and grief in new situations and social avoidance and general grief were reported: 84%, 74% and 77%, respectively.

Academic self-efficacy questionnaire: The Scherer Self-Efficacy Scale is used to measure self-efficacy. The Scherr et al. Academic Self-Efficacy Scale has 17 terms. Scherrer and Maddox (1982) without specifying the factors and their expressions believe that this scale measures three aspects of behavior, including the desire to initiate behavior, the desire to expand the effort to complete the task and different in dealing with obstacles. The self-efficacy questionnaire is scored on a 5-point scale; The scores of each are as follows: completely disagree = 1, disagree = 2, mean = 3, agree = 4, completely agree = 5. Therefore, the highest score of this questionnaire is 85 and the lowest score is 17. Scoring questions 2, 4, 5, 7, 11, 12, 14, 16 are inverse. The validity and reliability of the questionnaire has been proven by 79% in Barati Bakhtiari's research and 73% in Malek Shahi et al. Therefore, this scale is statistically justifiable.

Findings:

In this study, frequency of the subject’s gender was 70 (100%) girls.

The mean (and standard deviation) age of the participants in this study was 16.48 (1.13), respectively, and the minimum and maximum age range of students were 14 and 18, respectively.

31 (44/3%) of the subject were humanities students, 32 (45/7%) of them were students of experimental sciences and 7 (10%) of students were in mathematics, respectively.

Educational grades of the subject: 27.1% (19 people) in the first high school, 54.3% (38 people) in the second high school and 18.6% (13 people) in the third high school, respectively.

Table 1. Table of descriptive indicators in research variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic self-efficacy</td>
<td>61/34</td>
<td>8/37</td>
</tr>
<tr>
<td>social anxiety</td>
<td>44/15</td>
<td>13/42</td>
</tr>
</tbody>
</table>

As it is seen in the table above, the mean (and standard deviation) scores of the academic self-efficacy score is 61.34 (8.37). Also in this table, the mean (and standard deviation) score of social anxiety is 44.15 (13.42), respectively.

The significance level of the test for variables in being normal is more than (P > 0.05), so the null hypothesis is accepted and we can confidently declare with 95% confidence that the distribution of variables is normal. Therefore, parametric tests have been applied to test the relevant hypotheses.

Table 2. Results of Pearson correlation test for research variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Academic self-efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social anxiety</td>
<td>Pearson correlation</td>
</tr>
<tr>
<td></td>
<td>- 0/563</td>
</tr>
</tbody>
</table>
As it is seen in Table 2, the correlation coefficient obtained for the research variable is \((R = -0.563)\) which is significant at the level \((P <0.001)\). Therefore, the null hypothesis can be rejected. That is, according to the above method and in the case of the study population, there is a negative and significant relationship between social anxiety and academic self-efficacy. In the other words, the level of students’ academic self-efficacy decreases in proportion to the increase in social anxiety.

### Table 3. Results of multiple regression analysis of research variables

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum Of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1532/98</td>
<td>1</td>
<td>1532/98</td>
<td>31/48</td>
<td>0/000</td>
</tr>
<tr>
<td>Residual</td>
<td>3310/79</td>
<td>68</td>
<td>48/68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4843/77</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As it is seen in the table above, the variable of social anxiety predicted 0.56% (about 56%) of the variance (changes) of the variable of academic self-efficacy. The results of the above table show that \((P <0.001, F_{(1,69)} = 31.48)\); As a result, the whole regression model is significant. According to the results of the above tables, the data related to predicting the variable of academic self-efficacy using the variable of social anxiety show that this component is a significant predictor of the variable of academic self-efficacy.

### Table 4. Multiple regression analysis indices with simultaneous entry method

<table>
<thead>
<tr>
<th>Model</th>
<th>Standardized</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic self-efficacy</td>
<td>-0.563</td>
<td>-5.61</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The results of multiple regression test analysis show that the standardized beta coefficient for measuring the portion of each variable in the model gives a measure. Beta, t and P values indicate the effect of each predictor variable. The large value of Beta and absolute t and the small value of P \((P <0.05)\) show that there is a significant relationship between the predictor variables and the criterion variable.

Based on the above data and considering Table 4, the predictor (independent) variable of social anxiety is a significant predictor of the criterion (dependent) variable of academic self-efficacy \((P <0.001)\); The predictor (independent) variable “social anxiety” with larger Beta and absolute t values \((t = 5.61, \text{Beta} = 0.56)\) and smaller P \((P = 0.001)\), respectively, had the greatest effect on the criterion variable (Dependent) has academic self-efficacy.

### Discussion and Conclusion:

The aim of this study was to investigate the role of social anxiety on students’ academic self-efficacy. Findings showed that there is a significant negative relationship between social anxiety and students’ academic self-efficacy. The results obtained from this study are consistent with the results of Khajeh and Hosseinchari’s research (2011). The results of Khajeh and Hosseinchari’s research (2011) showed that social anxiety in general has no role in predicting academic self-efficacy and socially anxious people are more likely to attribute their performance defects to internal and personal factors, due to cognitive errors that They have, they consider others as critical observers. Among the dimensions of social anxiety, only the dimension of avoiding the new situation negatively predicts the dimension of effort, and effort is one of the issues related to self-efficacy.

The results of this study are consistent with the results of Gaudiano and Herbert’s (2006), Biddle et al. (2014) and Thyssen et al.’s research (2001). The results of Gaudiano and Herbert’s research (2006) showed that a large number of adolescents with social anxiety suffer from many adjustment problems such as poor academic performance, self-efficacy and low social adjustment. The results of Biddle et al.’s research showed that social anxiety disorder affects social, occupational and educational functions. According to the results of Thyssen et al.’s research (2001), the experience of anxiety during schooling creates problems for students that, in addition to personal discomfort, can negatively affects their academic performance and daily activities.
to Bandura (1997), people with high social anxiety often feel that they do not have the special skills and abilities necessary for interpersonal behavior and they have little expectation of success in social situations. This causes more anxiety and the persistence of anxiety in them. It also gives the person a sense of high self-efficacy to be able to handle unpredictable events and situations, to protect themselves from many psychological problems, such as social anxiety, and to handle stressful situations with confidence in their abilities. Also, people with strong self-efficacy are less vulnerable to stressors and interpersonal demands (Caprara et al., 2004) and therefore can better prevent anxiety in important life situations, such as social interactions. Teachers can also consider the fact that the existence of problems such as social anxiety in some students is not a reason for their inability to realize their talents and abilities, and perhaps these students if educated in the field of reducing social anxiety Seeing or being treated, they can, like their peers and even more so, use their resources to grow and develop.

**Research Limitations:**

1. According to the present study on second high school female students has been done, it is necessary to be careful in generalizing the results to other ages, educational levels and the boys' community.

2. The research findings are based on self-report scales and are analyzed only quantitatively that participants are likely to be biased in their responses.

3. Another limitation was the small number of samples due to conditions caused by the outbreak of Covid-19.

**Research and practical suggestions:**

1. Use other tools such as interviews and observation to assess and test these people.

2. The statistical population of this study was female high school students. It is suggested that further research be done on the male population.

3. Considering the effectiveness of social anxiety on female students' academic self-efficacy, it is suggested that students be helped to increase their academic self-efficacy by reducing social anxiety.

4. It is suggested that school counselors design educational programs based on social anxiety reduction skills in the form of textbooks, lectures, plays, etc. and present them in student communities.

**References:**


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