The Relationship Between Cognitive Emotion Regulation and Academic Buoyancy with The Role of Mediating Self-Handicapping in Students

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Abstract

Purpose: In the present study, the relationship between cognitive emotion regulation and academic buoyancy with the role of mediating self-disability in students has been studied.

Methodology: The present study was descriptive-correlational. The research population included all female secondary school students in Sabzevar City. 323 students were randomly selected as the sample in a multistage cluster sampling method. They completed Jones and Rodwellt Self-Handicapping Scale (1982), Garnfesky, Kareev and Spinhaun (2001) Emotional Cognitive Regulation Questionnaire and Dehghanizadeh and Hosseinchariy (2012) Academic Buoyancy Questionnaire.

Findings: The results of the research indicated that the model of the research had excellent fitting and self-handicapping has a mediating role in the relationship between emotional cognitive regulation and students’ academic buoyancy. Also, 79% of the variations in academic buoyancy are explained through the strategies of positive and negative cognitive emotion regulation and academic self-handicapping and 74% of the variations in academic self-handicapping are explained through the strategies of positive and negative emotion cognitive regulation.

Discussion: As a result, it should be acknowledged that students who grow up to develop strong emotions could handle social barriers and pressure well, and manage behaviors that can mitigate their academic achievement. Therefore, the emotional stress of students in dealing with stressful situations affects self-handicapping and, consequently, their academic buoyancy.

Keywords: Emotion Cognitive Regulation, Academic Buoyancy, Self-Handicapping, Students

1. Introduction

Academic issues form a significant part of the adolescence’s stress pressures. The difficulty and complexity of the lessons, the heavy competitive atmosphere among learners, weak and inflexible teachers, unconventional evaluation criteria, and the classroom’s cold and non-friendship environment are among these pressures. The existence of these pressures and challenges, along with the rapid social and cognitive change that occurs during this period, provides a difficult situation for adolescent students which may even lead to failure or withdrawal of education (Spear, 2000). On the other hand, it is hard to learn at school and in facing challenges and obstacles, students need to strive, resolve and persevere. In the other words, the student must focus and listen to his teacher, and doing his mental energy to attend in educational works in order to learn in the classroom. In fact, this type of participation in educational works is recognized by researchers and educational staff as necessity for learning and as a precondition for further success (Fredricks, Blumenfeld & Paris, 2004, quoted by Skinner, Pitzer & Brule, 2014). In other words, the studying period is along with occurrence of rapid cognitive and social changes. Therefore, adaptation to challenges and educational opportunities has always been a concern for education. In the different perspectives, the set of internal talents and abilities that are involved in this adaptive manner are considered (Tootichoobar, 2017).

2. literature Review

One of the components that can help students in facing challenges, frustrations and obstacles is the growth of the feeling of academic buoyancy. Academic buoyancy is considered as one of the components of mental well-being in many research systems. It refers to the learners’ successful ability to deal with obstacles and educational challenges (Martin & Marsh, 2008). When a person performs a task spontaneous, he does not only feel tired and frustrated, but he feels his energy and strength have increased (Akbari Boorang & Rahimi Boorang, 2016).

The feeling of buoyancy is a particular psychological experience in which people experience a sense of living. According to Ryan and Frederick (1997, quoted by Sadeghi and Khalili Goshañiani, 2016), the buoyancy of energy comes from the individual himself and this energy comes from internal sources, not the threat of individuals in the environment. In general, internal sense of buoyancy is a significant index of mental health (DuijnRosenstiel, Schats, Smalenbroek & Dahmen, 2011; Solberg, Hopkins, Ommundsen & Halvari, 2012) and academic buoyancy refers to the positive constructive and adaptive response to a variety of challenges and obstacles that are experienced in the ongoing field of education (Putwain, Connors, Symes & Douglas Osborn, 2011).

One of the factors associated with academic buoyancy is cognitive emotion regulation. Cognitive emotion regulation and related strategies are involved in dealing a person with stressful situations. Individuals use different strategies to regulate emotions that can be adapted or non-adapted (Garnefski, Kraaij, & Spinhoven, 2001). According to Craig and Spongebob (2002), individuals are using various cognitive strategies to deal with stressful experiences and situations to maintain their emotional health. Some of the most commonly used cognitive strategies for regulating emotions in the face of adverse conditions are blaming yourself, blaming others, thinking rumination, catastrophic consideration, landscape development, positive re-focusing, positive reassessment, acceptance of conditions and planning (Samani & Sadeghi, 2010). According to Granfeskii and Craig (2006), cognitive emotion regulation strategies are the actions that show ways to cope with stressful situations. Cognitive emotional regulation is the ability to respond to emotional experiences in a socially acceptable way and flexibly in emotional responses; that is, the ability to facilitate emotional self-responding responses and delaying these responses. In fact, the necessity of emotional regulation can also be defined as an external and internal processing whose task is to review, evaluate, and modify emotional reactions. In fact, we can regulate our excitement at different levels such as psychology.
(with interpreting the way of thinking about an event in order to change the way of feeling), behavioral (with choosing not to expose ourselves to an event so that we do not feel bad) and experience (with choosing the aspects of the event to focus on). This ability enables us to maintain or reduce the excitement of the experience (Mahmoodzadeh, 2014).

Finally, cognitive emotion regulation is a self-conscious mechanism used by a person to cope with bad conditions. The difficulty in regulating emotions is often referred to as essential components of many behavioral disorders. Any forms and deficiencies in regulation of emotions can make a person vulnerable to emotional problems such as depression, anxiety and psychological stress and behavioral and cognitive problems (Ehing et al, 2008). In different perspectives, the set of inner abilities and capacities that are involved in this adaptation have been considered. Academic buoyancy is one of these abilities and talents that makes people more comfortable with doubts and pressures in the field of education (Dehghanzadeh, Hosseinchari, Moradi and Soleymani Khashab, 2014).

Self-handicapping can occur in any situation where a person’s ability is threatened. Schools and classrooms provide a good basis for using self-handicapping behavior. In such educational environments, students always face assignments and situations that expose their ability and intelligence to judge others (Midgley & Urdan, 2001). Thompson (2004) regards the self-handicapping as a set of avoidance of defeat behaviors. He believes that the defeat is along with negative consequences such as shame, guilty feelings and suspicion about the person’s abilities. This affects the functions of the person and the person expects the subsequent failures. Therefore, self-handicapping behavior is a way to avoid the failure, so that a person can support his own self-worth feeling. Myers (2002) defines self-handicapping as a defensive strategy to small own failures to the others (quoted Baskanajad, 2009). The research results have shown that the academic self-handicapping is a preventive and self-regulating strategy used to cope with potentially poor performance in homework assignments (Barzegar & Khazari, 2012; Gadbois, S. A., & Sturgeon, 2011). Also, there is a high negative correlation between self-handicapping and students' performance (Mjili & Urdan, 1995).

Phan H.P. & Ng (2014) concluded in their research that there was a positive and significant correlation between academic self-handicapping and the value of assignment. In other words, higher the degree of academic self-handicapping, the more value to the lessons people consider. In addition, Ghasemi-Nik (2015), in a research, studied the prediction of psychological well-being based on the fear of success and self-handicapping in graduated students. The results negatively and significantly predicted the fear of success, total psychological well-being and the components of positive relationships with others, personal growth and environmental dominance, but did not predict the components of self-acceptance and autonomy. Self-handicapping also predicts negatively and significantly the total psychological well-being and its components. Both components predict negatively and significantly self-handicapping including behavioral self-handicapping and self-handicapping of psychological well-being. In general, the results showed that the fear of success and self-handicapping reduced the students' psychological well-being. Regarding the stated issues, it is important to pay attention to students' educational issues for development of society. It should also be said that when people have a mental health and well-being, they will be able to deal with the problems and choose solutions. Hence, providing psychological well-being for all people in the community, especially the teenage group, has the great importance. Because any failure to do so, reduces the abilities of this active group, and thus slowly progresses in society (Emadpoor L. Lavasani G.A. 2016).

In this regard, considering the role of academic buoyancy on students' ability to deal with academic challenges, it is necessary to study the factors affecting students' academic buoyancy. This study can help professionals find suitable educational methods to extend the students' academic buoyancy. On the other hand, it seems that cognitive strategies for regulating emotions in the face with bad conditions are one of the most important determinants of self-handicapping. Considering the mentioned issues and the lack of access studies, this study examines the relationship between cognitive-emotional regulation with academic buoyancy.
and self-handicapping of students. The main issue of the present study is to answer the question of whether self-handicapping affects the relationship between cognitive emotion regulation and academic buoyancy.

3. Method

The method of this study was descriptive-correlational to investigate the relationship between variables in the form of path analysis. The statistical population of the study consisted of female high school students of Sabzevar City who were studying in the academic year 2016-2017. A sample consisted of 323 students were selected randomly by multi-stage cluster sampling. In this way, at the beginning of the random form, schools and classes are selected as sampling clusters and then, from the students in the classes. With attending schools and coordinating with the principals and teachers, questionnaires were provided to each student. The students were asked to read the terms of each questionnaire carefully and select the option they would like to attend and do not leave any of the phrases unanswered. Data analysis was performed using AMOS 18 software.

Cognitive Exponential Regulation Questionnaire (CERQ): this questionnaire was developed by Garnovskii, Kraiyev and Spinhaun (2001) in the Netherlands. It has two English and Dutch versions. The questionnaire is a self-report tool with 36 items. The Cognitive Exponential Regulation Questionnaire (CERQ) has a solid experimental and theoretical basis and consists of 9 sub-scales. The subscales mentioned assess 9 cognitive strategies: self-blaming, admission, rumination, positive re-focus, re-focus on planning, positive reassessment, visionary, making catastrophe and blame the others. The domain of scale numbers is from 1 (almost never) to 5 (almost always). Each subscale consists of 4 items. The range of scores for each subscale is between 4 and 20. High scores in each sub-scale indicate the greater use of the strategy in confronting with stressful and negative events (Granfsky et al. 2002).

This questionnaire was translated by Samani and Sadeghi (2010) and its validity has been reported to regulate the emotional cognition in the factor analysis method in the form of seven factors (self-blaming, admission, positive re-focus, re-focus on planning, positive reassessment, making catastrophe and blame the others). The psychometric adequacy for this scale is based on the Cronbach's alpha coefficient as follows: Positive re-focus (0.75), positive reassessment (0.65), blaming others (0.86), self-blame (0.83), intellectual rumination (0.75), making catastrophe (0.73) admission (0.66). In Hassani's research (2010), the results showed that the Persian version of the Cognitive Exponential Regulation Questionnaire (CERQ-P) have a good reputation. The range of Cronbach’s alpha coefficient varied from 0.76 to 0.89 (with a mean of 0.83). Also, all of the re-test coefficients were significant and the range of most correlations of the female population was more than 0.4. These results indicated the desirable validity and homogeneity of the scale and its subscales.

Self-Handicapping Scale (SHS): Jones & Rhodewalt (1982) designed and developed a scale including 25 materials. This scale measures the tendency of individuals to self-handicapping with completely agree answers to completely disagree. Rudolt (1990) obtained 79% the internal consistency of the whole scale. Heydari et al. (2009) with a standardization of the scale concluded that 23 articles of 25 ones of self-handicapping scale fall on three factors: The first factor with 9 items represents negative mood, the second factor with 7 items indicates the effort, and the third factor with 7 items indicates an excuse. According to the scale factors, Cronbach's alpha coefficient for negative mood was 0.72, the effort factor 0.67, the excuse factor 0.60, and the total validity of the scale was reported 0.77. In the present study, Cronbach's alpha coefficient for negative mood was 0.81, effort factor 0.70, excuse factor 0.80 and total score of the scale was 0.78.

Academic Buoyancy Questionnaire (Dehghanizadeh and Hossein Chari, 2012): The questionnaire is based on the English version of the academic buoyancy McGraw-Hill Mental Scale (2006), which has 4 items. The Martin and Marsh scales were consistent with internal consistency and retest (Cronbach’s alpha 0.80 and retest 0.67). The Persian version of this scale was developed in 9 items and based on a 7-point Likert scale (totally disagree 1 to totally agree 7). The Cronbach’s alpha coefficient obtained in Dehghanizadeh and
Hossein Chari (2012) study was equal to 0.80 and the coefficient of re-test was 0.73. Also, the range of correlation of items with total score is between 0.51 and 0.68. These results indicate that the items have satisfactory internal consistency and stability. Also, the researchers confirming the mono-factor structure of the questionnaire in the Iranian sample, reported the structural validity (KMO coefficient, 0.83; Bartlett test value 360.611 and P <0.0001) desirable. In Moradi et al. (2015), Cronbach's alpha coefficient for the whole questionnaire was 0.87. The results of confirmatory factor analysis (KMO coefficient, 0.83; Bartlett test value 360.611 and P <0.0001) indicate that scale validity is desirable. The correlation coefficient of each item with total score was also used to assess the validity of the questionnaire with a range of coefficients ranging from 0.88 to 0.78 at P <0.0001 level. Rahimi and Zareie (2016) reported 0.85 the Cronbach's Alpha of this questionnaire.

4. Findings

Before fitting of the proposed model, the descriptive indices and correlation coefficients of the model were examined first. Table 1 shows the mean and standard deviation of each variable in the research and its correlation coefficients. As shown in the table, the mean and standard deviation of positive cognitive emotion regulation strategies are 62.98 and 8.69, respectively. Also, the mean and standard deviation of negative cognitive emotion regulation strategies were 32.13 and 5.11, self-handicapping was 55.14 and 7.45 and the academic buoyancy 33.43 and 3.10, respectively. In addition, the correlation coefficients between variables indicate that the relationship between variables is significant at 0.01 level. The highest correlation coefficient is related to the relationship between positive cognitive emotion regulation and academic buoyancy (0.88).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies of positive cognitive emotion regulation</td>
<td>62.98</td>
<td>8.69</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategies of negative cognitive emotion regulation</td>
<td>32.13</td>
<td>5.11</td>
<td>-0.79**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic self-handicapping</td>
<td>55.14</td>
<td>7.45</td>
<td>-0.82**</td>
<td>0.81*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Academic buoyancy</td>
<td>33.43</td>
<td>3.10</td>
<td>0.88**</td>
<td>-0.74**</td>
<td>-0.80*</td>
<td>1</td>
</tr>
</tbody>
</table>

**≤ 0.01

In the inferential statistics section, the proposed model was tested using the AMOS 18 software in order to establish the causal relations of independent variables with dependent variables.

**Figure 1.** The standard coefficients of the proposed model of academic buoyancy (Strategies of positive cognitive emotion regulation, strategies of negative cognitive emotion regulation, Academic self-handicapping, academic buoyancy)
According to the tested conceptual model (Fig. 2), as can be seen, all possible paths are plotted among the variables in the model. Since the degree of freedom is zero in the saturation path diagram, therefore it is not possible to estimate the fitting of the model. However, the path coefficients are estimated by AMOS and their statistical significance is also determined. Finally, after a significant study of the direct path coefficients, the non-significant paths are removed from the chart and the fitting of the model is repeated (Mears, Gamest and Garin, 2012).

Table 2. Standard and non-standard regression coefficients along with significant levels of variables in the model

<table>
<thead>
<tr>
<th>path</th>
<th>Estimate</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard</td>
<td>non-standard</td>
</tr>
<tr>
<td>positive cognitive emotion regulation ---&gt; academic self-handicapping</td>
<td>-0.49</td>
<td>-0.42</td>
</tr>
<tr>
<td>positive cognitive emotion regulation ---&gt; academic buoyancy</td>
<td>0.66</td>
<td>0.24</td>
</tr>
<tr>
<td>negative cognitive emotion regulation ---&gt; academic self-handicapping</td>
<td>0.42</td>
<td>0.62</td>
</tr>
<tr>
<td>negative cognitive emotion regulation ---&gt; academic buoyancy</td>
<td>-0.03</td>
<td>-0.02</td>
</tr>
<tr>
<td>academic self-handicapping ---&gt; academic buoyancy</td>
<td>-0.23</td>
<td>-0.10</td>
</tr>
</tbody>
</table>

Table 2 shows estimates of path coefficients for the saturation model. As it can be seen, the coefficients related to the positive cognitive emotion regression paths to academic self-handicapping and academic buoyancy, negative cognitive emotion regression to academic self-handicapping and academic self-handicapping to academic buoyancy are significant at 0.01 level regardless of their direction. The only path related to negative cognitive emotion regression to academic buoyancy is insignificant. Therefore, according to Mears, Gamst and Garin (2012), unpaved paths should be eliminated from the path model and the model re-fitted.

Figure 2. The standard coefficients of the proposed model of academic buoyancy after applying the reform

Figure 2 shows the path analysis diagram after removing the path of negative cognitive emotion to regulation to academic buoyancy along with standard estimates.
Table 3. Indices of the path analysis model after applying reform

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Acceptable level</th>
<th>Three-factor model</th>
</tr>
</thead>
<tbody>
<tr>
<td>chi-square/degree of freedom ratio (CMIN / DF)</td>
<td>lower than 2</td>
<td>0.413</td>
</tr>
<tr>
<td>goodness-of-fit index (GFI)</td>
<td>Above 0.9</td>
<td>0.999</td>
</tr>
<tr>
<td>Normed Fitting index (NFI)</td>
<td>Above 0.9</td>
<td>1</td>
</tr>
<tr>
<td>Incremental fitting index (IFI)</td>
<td>Above 0.9</td>
<td>1</td>
</tr>
<tr>
<td>Comparative fit index (CFI)</td>
<td>Above 0.9</td>
<td>1</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>lower than 0.08</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 3 shows the fitting indices of the path analysis model after applying reform. As it can be seen, the value of absolute chi-square fitting index to the degree of freedom is equal to 0.413, which is less than 2. The value of goodness-of-fit index (GFI) is equal to 0.999 as well as NFI, IFI and CFI indices are equal to one and the maximum value. Also, the value of RMSEA is 0.000 and has the minimum value.

Table 4. The standard coefficients of the direct path, indirect path, total effect and the explained variance of the variables in the reformed model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Direct effect</th>
<th>Indirect effect</th>
<th>Total effect</th>
<th>Explained variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>On academic buoyancy</td>
<td></td>
<td></td>
<td></td>
<td>0.79</td>
</tr>
<tr>
<td>Strategies of positive cognitive emotion regulation</td>
<td>0.67**</td>
<td>0.12**</td>
<td>0.79**</td>
<td></td>
</tr>
<tr>
<td>Strategies of negative cognitive emotion regulation</td>
<td>-</td>
<td>-0.10**</td>
<td>-0.10**</td>
<td></td>
</tr>
<tr>
<td>academic self-handicapping</td>
<td>-0.25**</td>
<td>-</td>
<td>-0.25**</td>
<td></td>
</tr>
<tr>
<td>On academic self-handicapping</td>
<td></td>
<td></td>
<td></td>
<td>0.74</td>
</tr>
<tr>
<td>Strategies of positive cognitive emotion regulation</td>
<td>-0.49**</td>
<td>-</td>
<td>-0.49**</td>
<td></td>
</tr>
<tr>
<td>Strategies of negative cognitive emotion regulation</td>
<td>0.42**</td>
<td>-</td>
<td>0.42**</td>
<td></td>
</tr>
</tbody>
</table>

**≤ 0.01

Table 4 shows the standard coefficients of direct path, indirect path, total effect and the explained variance of the variables in the reformed model. According to the table, direct, indirect effects and the total effect of all paths are significant at 0.01 level. So that the direct effect of the strategies of cognitive emotion regulation on academic buoyancy (0.67) and the direct effect of academic self-handicapping on academic buoyancy (-0.25) are significant at 0.01 level. However, the direct effect of the strategies of negative cognitive regulation on academic buoyancy was excluded from the model because it was not significant in the first stage of fitting the model. Also, the direct effect of the strategies of positive cognitive emotion regulation on academic self-handicapping (-0.49) and the direct effect of the strategies of negative cognitive emotion regulation on academic self-handicapping (0.42) is significant at 0.01 level. In addition to direct effects, the indirect effects of the strategies of positive cognitive emotion regulation and the strategies of negative cognitive emotion regulation on academic buoyancy were calculated through academic self-handicapping. Their coefficients are -0.12 and -0.10 respectively, which is significant at the 0.01 level. That is, the students use the more strategies of positive cognitive emotion regulation, the less they tend to academic self-handicapping strategies and as a result, they feel more buoyancy in their studies, but if they tend to strategies of negative cognitive emotion regulation, the use of self-handicapping strategies will be less and they feel less academic buoyancy.

The explained variance in the last column of Table 3 indicates that 0.79 Academic buoyancy changes can be explained through positive and negative cognitive emotion regulation and academic self-handicapping. Also, 0.74 of academic self-handicapping changes are explained through the strategies of positive and negative cognitive emotion regulation.
5. Discussion

In the current study, the relationship between emotional cognitive regulation and academic buoyancy with the mediating role of self-handicapping was investigated among students. The findings showed that the path of modified model (after eliminating the cognitive path from negative excitement to academic buoyancy) in determining the role of positive and negative emotional and cognitive behavioral strategies and academic self-handicapping on students' academic buoyancy fit perfectly and favorably with experimental data and self-handicapping has the mediating role in emotional cognitive regulation and academic buoyancy. In other words, the more students use cognitive strategies for positive emotions, they tend to lessen self-handicapping strategies and therefore feel more academic buoyancy, but if their tendency to negative cognitive strategies are more negative, the use of strategies will be more self-handicapping and less academic buoyancy. Also, 0.79 changes in academic buoyancy are explained through the positive and negative emotional and emotional adjustment strategies and self-handicapping education, and 0.74 of self-handicapping changes are explained through positive and negative emotional cognitive management strategies. These results are somewhat consistent with Sharifi and Sae'idi (2015), Ghasemi-Nik (2015), Fan and Nego (2014), Barzegar and Khezri (2012) Gadibiusos and Strejen (2011) and Mijli and Ordan (1995).

To explain these findings, we can mention the events of academic buoyancy, including psychological factors, school factors, participation, family and peer factors (Martin & Marche, 2008). The psychological factors can include academic resilience, motivation, self-regulation and academic self-efficacy. Family and peer education factors can include cognitive and emotional support of family and friends and communicative patterns with family and peers, and the factors of school education and participation can be the structure of the classroom, the quality of time spent in class, the positive attitude to the class, and participation in improving the classroom atmosphere. Academic buoyancy is one of the key indicators in successful and fruitful learning that proves the academic abilities and advancements (Freelich & Shichtman, 2010).

Another point is that some students are successful in dealing with educational obstacles and challenges and others fail. On the other hand, the academic buoyancy refers to the positive, constructive, and adaptive response to a variety of challenges and educational barriers (such as poor grades, stress levels, loosing academic motivation.). Buoyancy is one of the components of mental well-being, and when a person spontaneously performs a task, he does not only feel tired and disappointed, but also feels an increase in energy and strength that this feeling for education increases the effort and perseverance and ultimately improves academic performance (Fooladi et al., 2016). In line with this, as Thomson's (2004) findings show, if we put self-handicapping in our set of self-assertiveness strategies or put it in the set of failing avoidable behaviors, in both cases self-handicapping is a way of protecting self-respect and self-reflection. Adjusting cognitive emotion is also a tool to understand how a person can organize his or her own attention and activities and gain strategic and persistent actions to overcome obstacles and solve problems. Any forms and deficiencies in regulating emotion can make a person vulnerable to emotional problems such as depression, anxiety, psychological stress and behavioral and cognitive problems (Ehring et al., 2008).

As a result, students' inappropriate responses to challenges can be the result of incorrect excitement strategies that negatively affect their self-handicapping and reduce their academic buoyancy and ultimately reduce their academic performance. In contrast to the appropriate responses of students to these challenges, the result of appropriate emotion management strategies that have a positive effect on self-handicapping and lead to academic buoyancy and ultimately increase their academic performance. As a result, it can be deduced that emotional regulation and self-handicapping strategies can play an important role in the student's academic buoyancy.

Another explanation, based on Martin and Marche's (2008) theory, is that there are many educational challenges that require attention, reflection, and thinking, and that these challenges are the stable truth of the student's educational life, and that students with academic buoyancy are more resistant to solving these
challenges. They show that they are more attentive to their solution and are probably more successful when these factors are created as a result of emotional cognitive regulation.

As a result, it should be acknowledged that students who grow up to develop strong emotions could handle social barriers and pressure well, and manage behaviors that can mitigate their academic achievement. Therefore, the emotional stress of students in dealing with stressful situations affects self-handicapping and, consequently, their academic buoyancy.

Regarding the results of this study based on the mediating role of academic self-handicapping in the relationship between emotional cognitive adjustment and academic buoyancy, efforts to improve the cognitive emotion of students through support of families, educational institutions and teaching factors, most likely, led to reducing self-handicapping and as a result, they will increase their academic buoyancy. The gender and the grade of subjects (female students in second grade of secondary school) and the methodology of research (correlation) and the data collecting tool (questionnaire) cause some limitation on the extensions of findings, and evidence for the cognitive cause of the examined variables, which should be considered. In conclusion, this study is considered to be expanding in the field of little studies about academic buoyancy in students, and it is suggested that other comprehensive tools of experimental and qualitative research methods such as interview be used to explore more comprehensively and precisely. In addition, repeating the same research in boys’ sample and other educational grades in future researches will allow the generalization of the findings.
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