



Analysis of the Mediating Effect of Academic Buoyancy on the Relationship between Family Communication Pattern and Academic Buoyancy

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ABSTRACT: The objective of this study was to analyze the mediating effect of self-efficacy on the relationship between family communication pattern and academic buoyancy. A total of 320 students (150 female and 170 male), who were selected using the multi-stage random cluster sampling technique, participated in this study. The participants answered the revised version of the Questionnaire of Family Communication Patterns, the Academic Buoyancy Scale, and the General Self-Efficacy Scale. The results of path analysis affirmed the mediating effect of general self-efficacy. In this study general self-efficacy was used as a mediator between family communication pattern and academic buoyancy. The reasons for the implications are presented in this study.

Keywords: Aspects of Family Communication Pattern, Academic Buoyancy, General Self-Efficacy.

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INTRODUCTION

Recently, the attitudes of mental health and psychopathology have been subjected to criticism and revision. As a result, lack of the symptoms of mental illnesses is not anymore known as an indicator of health and instead of that compatibility, happiness, self-confidence, and such positive characteristics are considered to be the indicators of health. Human being's objective is to utilize his abilities (Carr, 2006). Theories such as Maslow's theory of self-actualization, Rodgers' theory of full functioning, and All ports' theory of adult human or maturity have accepted this fundamental assumption and have utilized it to define the concept of psychological health (Ryan and Deci, 2000). This new branch of psychology is basically concerned with the pragmatic study of man's powers and happiness. One of the issues valued in this approach is the way we can affect chances of growth and challenges with our abilities. The most substantial constructs examined by the positive approach are those that bring about more compatibility between man with his needs and life threats (Carr, 2006). Academic environment is one of the environments that require conformity and compatibility. Academic life is among the most important periods of life that plays a role in the effective and successful education and learning of people. During this period man will be able to obtain merits and capabilities and achieve scientific progress. However, in everyday academic life students are faced with different challenges, obstructions, and period-specific pressures including

poor grades, levels of stress, threats to self-confidence and consequently threats to performance, and reduction in motivation and interactions. Academic buoyancy is among the factors that positively affect the challenges and pressures at school (Putwain et al., 2011). Martin and Marsh (2008) defined academic buoyancy as the student ability to successfully handle usual educational obstructions and challenges. One of the researchers conducted on this issue is the one that investigates the effects of buoyancy and coping on welfare and work-related engagements of teachers (Parker and Martin, 2009). Another research studied the relationship between academic buoyancy and adaptive coping strategies. According to the results of this research, academic buoyancy is different from adaptive coping strategies (Putwain et al., 2011). Martin, Colmar and Marsh (2008) also studied the effect of motivation on academic buoyancy. The literature on academic buoyancy suggests that development of this construct leads to an increase in the immunity of students to issues and challenges raised by everyday academic life. In order to increase academic (or even everyday) buoyancy the researchers should not only identify the risk and stress factors, but also should identify numerous other factors. Learning about these factors and improving the buoyancy capacity of students result in positive consequences and help healthy students to play a role in the development of their societies.

Martin and Marsh (2008) divide the predictor factors of academic buoyancy in the following three categories: psychological factors, school and engagement factors, and family and peers factors. Psychological factors include self-efficacy, control, sense of purpose, and motivation (Finn and Rock, 1997; Masten and Coatsworth, 1998; Shumowet al., 1999; Waxman et al., 1997; Wayman, 2002). School and engagement factors include class participation, educational aspirations, enjoying school, communication with teachers, teachers' response, effective feedback from teachers, roll-call, value placed on school, extracurricular activities, and challenging the curriculum (Alexander et al., 1993; Alva, 1991; Catterall, 1998; Finn and Rock, 1997; Floyd, 1996; Hymel et al., 1996; Masten and Coatsworth, 1998; McMillan and Reed, 1994; Waxman et al., 1997). Finally, family and peers factors include family support, communication with a society-friendly person, informal networks of friends, peers' commitment to education, powerful and caring parents, and joining society-friendly organizations (Alva, 1991; Catterall, 1998; Gonzalez and Padyla, 1997; Masten and Coatsworth, 1998; McMillan and Reed, 1994; Wayman, 2002; Voydanoff and Donnelly, 1999).

As it was mentioned, Martin and Marsh (2008) have listed a series of family factors that influence academic buoyancy. Therefore, family is one of the contexts that affect the academic buoyancy of children. Family has many functions that influence the lives of children. It partly determines the behavior of children in different environments. Family communication pattern is one of the functions that can influence the children. It contains the following two key concepts: communication and family. Most theories define communication as a combination of signs and symbols that are created by some and are understood and noticed by some others who also use them to express their feelings (Koerner and Fitzpatrick, 2002). The other key concept is family. Due to universal social changes, the notion of family has various definitions and is defined in terms of the following divisions: construct, dutifulness, and exchange processes. The construct-based definition of family focuses on the legal and biological aspects of the hierarchy of family with regard to age and gender. Dutifulness is concerned with the psycho-social needs of family and exchange processes stress mutual feelings and responses within a family. The definition based on exchange processes introduces family as a group of intimate individuals who have share a sense of oneness and a group identity (Noller and Fitzpatrick, 1993). In fact, the notion of family communication pattern or family communication schema gives the scientific structure of the physical world of family,

which is formed based on the quality of the communications between family members, the contents of communications, and the type, purpose, function and the atmosphere of interactions and connections within the family (Koerner and Fitzpatrick, 2002). Family communication pattern includes the following two aspects: dialogue and conformance. Fitzpatrick and Ritchie (1994) and Ritchie and Fitzpatrick (1990) introduced fundamental aspects of the orientation of the dialogue and conformance components of family communications patterns. Koerner and Fitzpatrick (2002) believe that orientation of dialogues depends on the freedom a family gives to its members to participate in different discussions.

Among the studies conducted on family communication patterns is the one by Raeesie (2011), who found out that dialogue and conformance has a positive and a negative effect on academic buoyancy, respectively. Keshtkaran (2009) states that dialogue leaves a positive effect on tolerance while conformance leaves a negative effect on it.

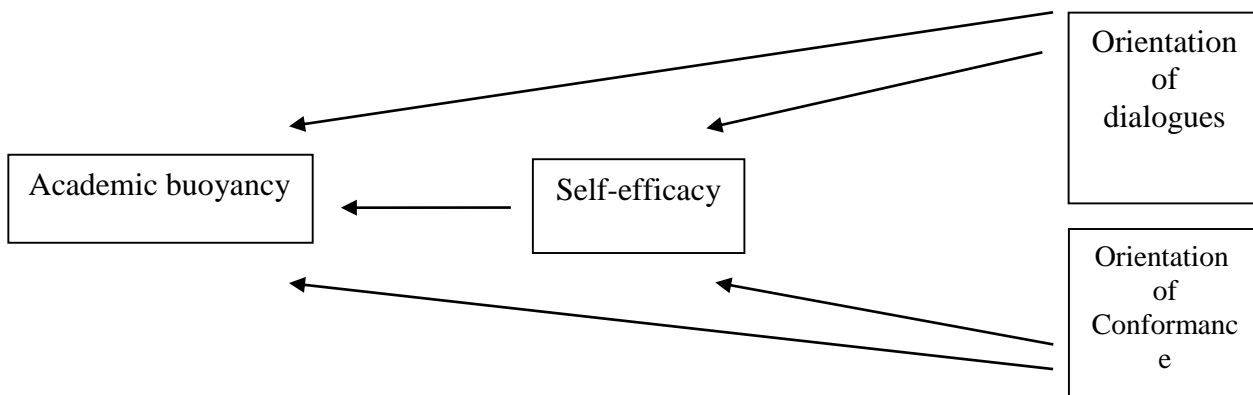
Based on the social cognitive theory Albert Bandura stated that self-efficacy is one of the psychological factors associated with academic buoyancy (Basol, 2010). Self-efficacy refers to the belief of a person in their abilities and capabilities. Bandura (1997) defined self-efficacy as the opinion of people on their abilities to organize and show a type of behavior to achieve the desired goals. Self-efficacy, as a personality variable, plays a significant role in how a person deals with life issues. Since self-efficacy affects a wide range of areas, its absence can add to the costs of academic failure and dropout imposed on educational systems. In addition, low self-efficacy, which is discussed here, can be an important cause of lack of motivation and consequently academic failure (Pajares, 2002). Moreover, Banduar (2001) believes that self-efficacy is based on human agency. According to Banduar, self-efficacy is the most important factor in determining activities we become involved with. It is also the driving force that helps us continue our activities even after experiencing frustration or disappointment.

As it was mentioned, self-efficacy is known as the belief in abilities. It is a mental and process variable that forms subsequent deeds of a person. Some researches study role of academic Self-Efficacy Beliefs in academic achievement (Samavi, et al. 2012). Numerous researches have been conducted by Ezhey, Lavasani, Mal Ahmadi and Khedri Azar (2011) as well as Khayyer et al., (1999) that confirm the role of self-efficacy as a mediator between the aspects of family communication patterns and positive psychological variables.

Based on the basics of self-efficacy (as a process variable) the main objective of a researcher is to study the mediating effect of self-efficacy on the relationship between family communication pattern and academic

buoyancy. The theoretical model for the mediating role of self-efficacy in the relationship between family communication pattern and academic buoyancy is depicted in Diagram 1.

Diagram 1. The theoretical model for the mediating role of self-efficacy in the relationship between family communication pattern and academic buoyancy



MATERIALS AND METHODS

Statistical population, sample, and sampling method: The statistical population included 320 students (150 girls and 170 boys) who had passed the 2011/2012 academic year in Shiraz city. The population size was determined according to the Morgan sampling table. The samples for this study were selected using the multi-stage random cluster sampling technique.

Measuring Scales: The measuring scales used for the purpose of this research included: the Academic Buoyancy Scale (ABS), the family communication patterns scale, and the General Self-efficacy Scale (GSS).

The Academic Buoyancy Scale (ABS): It contains 9 items ranked from “completely agree” to “completely disagree” based on a 5-degree Likert scale. There is a total score to this scale as well. The validity coefficients of the scale were calculated to be 0.80 and 0.73 using the Cronbach’s alpha method and re-test method, respectively. Moreover, the convergence validity coefficients of academic buoyancy and Martin’s academic tolerance scale were equal to 0.73. The validity of the structure of the scale was also confirmed by performing an exploratory factor analysis.

The family communication patterns scale: The revised version of the Questionnaire of Family Communication Patterns (RFCP) for children (Ritchie and Fitzpatrick, 1990; quotes from Koerner and Fitzpatrick, 2002) was used to assess different aspects of family communication patterns. This questionnaire is 26-question self-assessment tool that assesses the orientations of conformance and dialogue using a 5-degree Likert scale (ranked from “completely agree” to “completely disagree”).

Latifian and Kouroshnia (2007) from Iran also examined the validity of this questionnaire by calculating the correlation of each item and factor using the total score. The results revealed the satisfactory validity of the questionnaire used for the Iranian sample. Furthermore, the validity coefficients of dialogue and conformance were obtained to be equal to 0.87 and 0.81 using the Cronbach’s alpha method. The validity coefficients obtained by the re-test method were also 0.84 and 0.78, respectively (Latifian and Kouroshnia, 2007). Raeesie (2011) also studied the structure of the questionnaire for students using the factor analysis method. The results of this analysis, which was consistent with two-factor structure of the original questionnaire, revealed the existence of 2 factors.

The General Self-efficacy Scale (GSS): It was developed in 1979 by Schwarzer and Jerusalem (1995). It originally had 20 items and two subscales: the general self-efficacy scale and the social self-efficacy scale. However, it was reduced to a 10-item scale in 1981. This questionnaire uses ranks 1 (completely the opposite of me) to 4 (completely like me) to determine the score obtained by each responder. Therefore, the minimum score that can be obtained by each person is 10 and the maximum score is 40 (Fouladchang, 2003).

Fouladchang (2003) obtained a validity coefficient of 0.83 for this questionnaire using the Cronbach’s alpha coefficient. Rajabi (2006) also has reported validity coefficients of 0.82 and 0.84 for the questionnaire used for studying university students at two different universities. In the research by Rajabi (2006) the convergent validity coefficients for the general self-efficacy scale and the Rosenberg self-esteem scale used on samples of 318 people and 267

people were reported to be 0.30 and 0.20, respectively.

Data Analysis Method: In the present study it was tried to use the path analysis method in order to study the mediating effect of regulated emotions on the relationship between family communication patterns and academic adjustment of students. Path analysis for this research was performed based on the model proposed by Barron and Kenny (1986). According to this model, aspects of family communication pattern were treated as independent or exogenous variables, self-efficacy was considered to be a mediating or dependent intermediate variable, and academic buoyancy was processed as a final dependent variable or an endogenous variable. In addition, the simultaneous regression method was also used for the analysis of path coefficients.

RESULTS

Table 1 shows the correlations among research variables. It also presents the descriptive statistics related to this variable.

Table1. The matrix of the correlations among research variables

Variables	Dialogue	Conformance	Buoyancy
Dialogue	1		
Conformance	-0.06	1	
Buoyancy	0.02	0.08*	1
Self-efficacy	0.03	0.30*	0.22*

As seen in Table 1, dialogue is an aspect of family communication patterns that is not significantly related to any other research variables (buoyancy and self-efficacy). However, there is a significant and positive relationship between conformance, as an aspect of family communication pattern, and other research variables (buoyancy and self-efficacy). Since there is not significant relationship between the aspect known as dialogue and other research variables, it is not included in regression analysis.

In order to perform the path analysis conformance and academic buoyancy were included in the regression equation as the predictor variable and the dependent variable, respectively. The results of this analysis are presented in Table 2.

Table 2. Prediction of buoyancy based on conformance

variable	P	t	B	sig	F	R ²	R
conformance	0.01	2.38	0.18	0.01	5.67	0.03	0.19

As seen in the above table, conformance, as an aspect of family communication patterns, can predict academic buoyancy. The whole model predicts 3% of the variation of academic buoyancy. In the second

step of the analysis, conformance and self-efficacy were subjected to regression analysis as the predictor variable and the dependent variable, respectively. The results of this analysis are also presented in Table 3.

Table 3. Prediction of self-efficacy based on conformance

variable	P	t	B	sig	F	R ²	R
variable	0.001	3.97	0.30	0.001	15.80	0.09	0.30

According to the results, conformance, as an aspect of family communication patterns, can positively and significantly predict the level of self-efficacy. Besides, the total variance revealed by conformance is 9%.In the third step conformance and self-efficacy were at

the same put into the regression equation as the predictor variable and academic buoyancy was used as the dependent variable. The results of this analysis are presented in the following table.

Table 4. Prediction of buoyancy based on conformance and self-efficacy

variable	P	t	B	sig	F	R ²	R
variable	N.S	1.61	0.13	0.005	5.50	0.06	0.26
self-efficacy	0.02	2.27	0.18				

Barron and Kenny (1986) suggest by their proposed path analysis method that reduction in the values of Beta coefficient for the endogenous variables from the first step to the third step points to the mediating role of the intermediate dependent variable. Furthermore, Table 4 shows the results of the

regression analysis performed in the third step for predicting the total score obtained by academic buoyancy based on conformance (as an aspect of family communication pattern) and self-efficacy. Comparison of Beta coefficients obtained for conformance (as an aspect of family communication

pattern) in the first (Table 1) and third (Table 4) steps showed a decrease in the Beta coefficient of the orientation of conformance. Therefore, it can be concluded that self-efficacy has a mediating effect on the relationship between conformance orientation and the total score obtained by academic buoyancy.

Since the path coefficients of the first step are smaller than the path coefficients of the third step and lost their significance, the link between conformance and academic buoyancy is deleted and the final form of the theoretical model is mapped as follows.

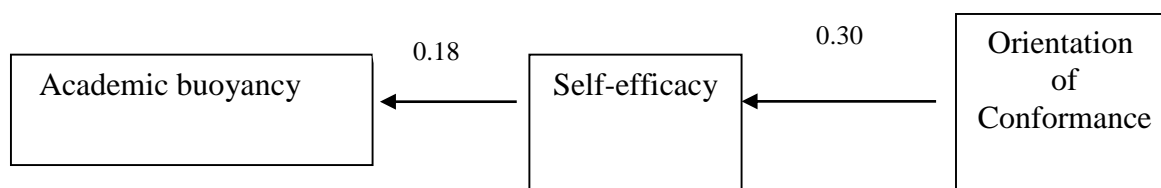


Diagram 2. The final model of the mediating effect of self-efficacy on the relationship between family communication pattern and academic buoyancy

DISCUSSION

The present study is aimed for analyzing the mediating effect of self-efficacy on the relationship between family communication pattern and academic buoyancy. Results of the analyses indicated that self-efficacy completely acted as an intermediate variable mediating between conformance (as one of the aspects of family communication pattern) and academic buoyancy. According to previous studies, conformance (as one of the aspects of family communication pattern) positively predicts constructs such as depression and anxiety as well as academic nonconformity (Raesie, 2011). However, further studies have reported different findings about the effect of conformance on positive psychological variables. For example, Moradi & Soleiman Khashab (2012) conducted a study titled “the relationship of family communication pattern, social support, and gender with psychological well-being”. The results of the research indicated that conformance is positively and significantly able to predict psychological well-being of people.

In order to elaborate on the results of the present study it can be said that since collectivist societies strongly tend to follow the norms, parents dictate a set of norms to the children and consequently children imitate their parents instead of searching for new ways of living. Several theorists such as Markus and Kitayama (1991) believe that collectivist cultures find integration by communicating with the social world. This process results in adaptive outcomes such as conformance within families with the role it plays in the lives of family members.

According to Bandura, self-efficacy originates from different sources such as personal successes and failures, observing the successes and failures of others, and verbal persuasion. Hence, children can observe the behavior of parents and utilize their support to develop self-efficacy (Bandura, 2001). It seems that children in families that follow

conformance patterns also develop self-efficacy by observing and imitating the behavior of parents and utilizing their support. Therefore such children do not need a high level of family interactions to achieve self-efficacy. Increase in self-efficacy also invokes academic buoyancy in children. That is to say, as people put more belief in their abilities, they will be able to deal with academic problems with more confidence and experience a higher level of academic buoyancy.

In order look differently at the effect of conformance on positive psychological abilities the research by Koerner and Eis (2001) can be used. Koerner and Eis state that in families with dominant conformance the verbal communication between children and parents is reduced. In such families the words of parents are confirmed by children without any dispute or discussion and children do not participate in discussions and make decisions without consulting others (Koerner and Eis, 2001). This type of interaction does not necessarily cause destruction because in these families children accept that the majority of the decisions made by the parents are correct and useful for their lives. Therefore, instead of arguing with their parents they prefer to use the support of their families and believe that they are individuals with different efficiencies who can handle school time problems without experience the sense of disability or self-inefficacy. Such children can do their academic tasks without failing and can have happy and lively time at school.

One of the constraints of this research is that its results cannot be extended to a society other than a high school or it should be done with care.

However, the results of the present study can be used to make parents, academic consultants, and practitioners of education and formal training familiar with the effects of self-efficacy and conformance on the academic buoyancy of students. It is recommended to use this research as the basis for studies of higher education. In addition, in order to

clarify the actual role of conformance it is necessary to conduct more studies on the aspects of family communication patterns.

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