The Quarterly Journal of New thoughts on Education

Faculty of Education and Psychology
Vol.18, No.4, Ser. 64, Winter 2023, p. 1-8
Journal homepage: https://jontoe.alzahra.ac.ir/

10.22051/JONTOE.2022.37086.3395 20.1001.1.1735448.1401.18.4.5.4

Research Paper

Factors affecting academic buoyancy mediated by academic flourishing in female 12th graders in Shiraz, Iran

Seyyed Farrokh Razavi Motlagh[1], Farah Naderi[*2], Fatemeh Sadat Marashian[3], Fariba Zargar Shirazi[4]

1. Ph.D. student, Educational Psychology, Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran
2. Corresponding Author: Professor, Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran
3. Assistant Professor, Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran.
4. Visiting Assistant Professor, Department of Psychology, Ahvaz Branch, Islamic Azad University Ahvaz, Iran and Assistant Professor, Department of Psychology, Abadan Branch, Islamic Azad University, Abadan, Iran.

Received: 2021-08-05 **Accepted: 2022-01-14**

Abstract

Aim: This study examined the relationship between academic meaning, family flexibility, academic support, perceived class environment, and academic buoyancy, mediated by academic flourishing in female 12th graders in Shiraz. This was correlational descriptive research. The statistical population comprised 8681 female students, of whom a sample of 400 was selected via multistage cluster random sampling. Six standard questionnaires were administered: the Meaning of Education Questionnaire (Henderson–King & Smith, 2006), Flexibility of the Family Questionnaire (Shakeri, 2003), the Significant Other Academic Support Scale (Sands & Plunkett, 2005), Understanding the Classroom Environment Questionnaire (Dundee, 2001), the Academic Buoyancy Questionnaire (Martin & Marsh, 2006), and Academic Flourishing Questionnaire (Diener & Biswas-Diener, 2010). Family flexibility, academic support, and perceived classroom environment significantly and positively affected academic buoyancy, mediated by academic flourishing.

***Keywords**: Academic meaning; family flexibility; academic support; perceived classroom environment; academic buoyancy; academic flourishing*

Introduction

Academic buoyancy of all students, especially female high-school students, is a major concern of school managers and authorities (Golestaneh & Behzad, 2019; Farid & Ashrafzadeh, 2021; Azimi, Shahani Yeylagh, & Omidian, 2021). About 20%-40% of students have academic non-buoyancy, and about 5%-10% report severe academic non-buoyancy (Najafipour & Khankashi, 2021). Factors affecting students' academic buoyancy are categorized into three levels of psychological, school- and educational participation-related, and family- and peer-related factors (Farid & Ashrafzadeh, 2021). Academic flourishing is an antecedent of psychological factors affecting academic buoyancy (Abdi & Zandi Payam, 2020). Diener, Wirtz, Tov, Kim-Prieto, Choi, Oishi, and Biswas-Diener (2010) proposed flourishing as a multi-dimensional construct of psychological flourishing encompassing competency, optimism, having goals in life, positive interpersonal relations, and self-esteem. Academic meaning is another antecedent of factors related to school and educational participation (Soltani Banavandi & Khezri Moghaddam, 2017). Meaning refers to the internal implication of education. Career preparation, independence, finding a direction for the future, learning, social connections, the world, self-development, taking the next step, stress, and escape are the components of academic education (Jafari & Hejazi, 2020).

The antecedents related to family- and peer-related factors include academic buoyancy and family flexibility (Soltani Banavandi & Khezri Moghaddam, 2020). Family flexibility refers to the degree of changes to the family's roles, rules, control, and discipline.

Research supports a potential correlation between academic meaning, family flexibility, academic support, perceived classroom environment, academic flourishing, and academic buoyancy. Still, the experimental evidence is limited to Western samples, the generalizability of the results to Iranian female high-school students remains to be seen. Moreover, most Iranian studies on this subject have been conducted on university students and students of medical sciences. The effect of academic meaning, family flexibility, academic support, perceived classroom environment, and academic flourishing on academic buoyancy of female 12th graders remains unknown in Iran and elsewhere. So far, no experimental study in Iran or worldwide has investigated the role of academic flourishing as a possible mediator of the relationship between academic meaning, family flexibility, academic support, perceived classroom environment, academic flourishing, and academic buoyancy in female 12th graders. The current study was conducted to bridge these research gaps.

Methodology

This was an applied descriptive correlational study using structural equation modeling (SEM). The statistical population comprised all (n = 8681) the female 12th graders in Shiraz (Iran) in 2020-2021. A sample of 400 was selected via multistage cluster random sampling. The Department of Education of Shiraz issued the required permits. The statistics on all female 12th graders in Shiraz was obtained, and the city was divided into four districts (with 12, 17, 13 and 10 schools in Districts 1 to 4, respectively). Two districts were randomly selected, and nine all-girls high schools were chosen randomly from each district. Of each school, two 12th-grade classes were selected, and the students responded to the questionnaires. A total of 400 questionnaires were initially distributed, of which 50 incomplete ones were excluded. Finally, 350 complete questionnaires (corresponding to the sample size) were analyzed.

Questionnaires

The four-item Academic Buoyancy Questionnaire (Martin & Marsh, 2008) is scored on a five-point Likert scale from totally agree (5) to totally disagree (1) and has a Cronbach's alpha of 0.85. The Meaning of Education Questionnaire (Henderson-King & Smith, 2006) has 86 items with the following 10 components: career preparation (11 items), independence (5), finding a direction for the future (3), learning (10), self-development (11), taking the next step (3), making social connections (12), changing the world (8), stress (12), and escape (11). The scale has a Cronbach's alpha of 0.83.

The 16-item Flexibility of the Family Questionnaire was developed by Shakeri (2003) based on Olson’s (1999) circumplex model of the family. Children respond to this questionnaire to show the family’s flexibility. The items are scored on a five-point Likert scale from totally agree to totally disagree, and the scale has a Cronbach's alpha of 0.86. The 24-item Academic Support Questionnaire (Sands & Plunkett, 2005) is scored on a four-point Likert scale from totally disagree to totally agree (1 to 4, respectively). It comprises four subscales of academic support from peers, mothers, fathers, and teachers, each evaluated with six questions. The scale has a Cronbach's alpha of 0.84.

Dundee (2001) developed the 49-item Understanding the Classroom Environment Questionnaire to assess different dimensions of educational quality (students’ perception of learning, the professor, their own scientific ability, the educational atmosphere, and social conditions) on a five-point Likert scale from very low (1) to very high (5). The scale has a Cronbach's alpha of 0.83.

The eight-item Academic Flourishing Questionnaire (Diener et al., 2010) is scored on a seven-point Likert scale from totally disagree (1) to totally agree (7). The scale has a Cronbach's alpha of 0.82.

Results

Table 1: Correlation coefficients between the variables in the entire sample

	Variables	1	2	3	4	5	6	7
1	Academic buoyancy	1						
2	Academic meaning	0.004*	1					
3	Family flexibility	0.544*	0.642*	1				
4	Academic support	0.461*	0.498*	0.384*	1			
9	Perceived classroom environment	0.543*	0.374*	0.634*	0.435*	1		
10	Academic flourishing	0.446*	0.477*	0.537*	0.365*	0.469*	1	

* = significant at 95%

The correlation coefficients between all the variables were significant ($p < 0.05$), suggesting the appropriate selection of variables based on the literature (Table 2). This correlation analysis provides insights into the relationships between the studied variables. SEM was applied to simultaneously test the hypothesized relationships.

Table 2: Direct path coefficients between the studied variables in the primary and final standard models

Paths	Primary model			Final model		
	Type of path	Standard path coefficients (β)	p	Type of path	Standard path coefficients (β)	p
Academic meaning - academic buoyancy	Direct	0.037	0.630	Direct	-	-
Academic meaning - academic flourishing	Direct	0.173	0.027	Direct	0.170	0.029
Family flexibility - academic buoyancy	Direct	0.199	0.023	Direct	0.219	0.004
Family flexibility - academic flourishing	Direct	0.262	0.002	Direct	0.263	0.002
Academic support - academic buoyancy	Direct	-0.002	0.983	Direct	-	-

Academic support - academic flourishing	Direct	0.142	0.039	Direct	0.149	0.030
Perceived classroom environment - academic buoyancy	Direct	0.276	0.0001	Direct	0.271	0.0001
Perceived classroom environment - academic flourishing	Direct	0.184	0.013	Direct	0.182	0.014
Academic flourishing - academic buoyancy	Direct	0.134	0.044	Direct	0.140	0.030

All the direct paths in the final model were significant (Table 5). Therefore, a significant and positive correlation existed between academic meaning, flexibility, academic support, perceived classroom environment, and academic flourishing on the one hand, and academic buoyancy on the other.

Table 3: Results of the bootstrap test (Preacher and Hayes' macro) for all the indirect paths

Indirect relationships						
Independent variable	**Mediator variable**	**Dependent variable**	**Primary model**		**Final model**	
			Bootstrap	**P**	**Bootstrap**	**P**
Academic meaning	Academic flourishing	Academic buoyancy	0.007	0.111	0.008	0.091
Family flexibility	Academic flourishing	Academic buoyancy	0.075	0.061	0.084	0.046
Academic support	Academic flourishing	Academic buoyancy	0.155	0.069	0.174	0.040
Perceived classroom environment	Academic flourishing	Academic buoyancy	0.015	0.053	0.016	0.050

A bootstrap test was run to determine the significance of indirect relationships between the variables and investigate the mediating role of academic buoyancy (Table 6). The overall effect from the exogenous variable to the endogenous variable without the mediator was first determined, showing a significant relationship between academic meaning, flexibility, academic support, perceived classroom environment on the one hand, and academic buoyancy on the other, without academic flourishing. The mediator test (Table 6) revealed that, despite the significance of the indirect relationships, the direct relationships between academic meaning, flexibility, academic support, perceived classroom environment one the one

hand, and academic buoyancy on the other, was still significant, without academic flourishing; therefore, academic flourishing was a slight mediator of these relationships.

Discussion and conclusion

The first finding was the direct effect of family flexibility on female 12-grade Shirazi students' academic buoyancy. This relationship was significant and positive in the present study. The second salient finding was the significant relationship between perceived classroom environment and academic buoyancy mediated by academic flourishing in these students. This finding is important because it expands the current knowledge about the meditating role of academic flourishing in the relationship between perceived classroom environment and academic buoyancy by proving credible evidence. The third finding was the direct effect of academic support on academic buoyancy of female 12th graders in Shiraz. This relationship was significant and positive in the current study.

The fourth finding was the direct effect of academic flourishing on academic buoyancy of female 12th graders in Shiraz. This relationship was also significant and positive.

A major finding was the mediating role of academic flourishing in the proposed conceptual model. As the conceptual model was confirmed, the following practical recommendations can be made:

1) Based on the significant and positive effect of academic support on academic buoyancy, authorities in teacher training sessions should recommend that teachers increase their support of students to promote their academic buoyancy.

2) Based on the significant and positive effect of the perceived classroom environment on academic buoyancy, school managers should create an open and intimate atmosphere for teachers and students in class without undue strictness.

3) Based on the significant and positive effect of family flexibility on academic buoyancy, parents must be informed of free communication management styles, and democratic leadership in the family, and respect their children's independence.

Despite these significant findings, the results should be generalized with caution due to the following limitations: The statistical population was limited to female 12th graders; SEM cannot confirm cause-effect relationships; and the accuracy of the participants' responses could not be guaranteed due to the self-report nature of the instruments. Future studies should examine class management as a school- and educational participation-related factor, as well as parenting style as a family- and peer-related factor affecting academic buoyancy. By testing the hypotheses put

forward in relevant theories, the share of each factor can be identified, and the outcomes of academic flourishing for the academic buoyancy of students and other groups can be examined from different angles. To test similar models and generalize the findings, different samples with different age groups and academic levels should be recruited.

Reference

Abdi, A., & Zandi Payam, A. (2019). Predicting academic performance based on dimensions of academic identity, academic buoyancy, and flourishing in students of medical sciences. *Journal of Medical Education Development, 12*(35), 17-15.

Jafari, L., Hejazi, M., & Sobhi, A. (2020). The relationship between students' academic resilience and academic performance mediated by academic meaning. *School Psychology, 9*(3), 35-49.

Soltani Banavandi, A., Khezri Moghaddam, N., & Baniasadi, H. (2017). Exploring the constructs of positive psychology: Predicting academic buoyancy based on the meaning of life. *Academic Strategies in Medical Sciences, 10*(4), 277-287.

Shakeri, S. (2003). *The effect of family flexibility on high-school students' mental health in Shiraz.* Unpublished master's thesis in psychology, Shiraz University.

Azimi, K., Shahani Yeylagh, M., & Omidian, M. (2021). The effect of the best personal goals, socio-emotional learning, and academic buoyancy on the commitment to education mediated by academic buoyancy: Developing and proposing a structural model for Iranian adolescents. *Quarterly Journal of New Thoughts on Education, 17*(2), 179-201.

Fari, A., & Ashrafzadeh, T. (2021). Causative explanation of academic buoyancy based on teacher-student interaction, self-efficacy, and academic hope. *Quarterly Journal of New Thoughts on Education, 17*(2), 203-227.

Golestaneh, M., & Behzadi, A. (2019). Effectiveness of positive psychology intervention in enhancing female students' well-being, buoyancy, and academic achievement. *Applied Psychology, 2*(5), 187-208.

Najafipour, S. A., Khanekashi, A., & Homayouni, A. R. (2021). Modeling the relationship between meta-cognitive beliefs and academic buoyancy mediated by the perceived classroom environment. *Education Strategic in Medical Sciences, 14*(2), 1-9.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D. W., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: short scales to assess flourishing and positive and negative feelings. Social indicators research, 97(2), 143-156.

Martin, A. J., & Marsh, H. W. (2008). Academic buoyancy: Towards an understanding of students' everyday academic resilience. Journal of school psychology, 46(1), 53-83.

Sands, T. & Plunkett, S. W. (2005). A New Scale to Measure Adolescent Reports of cademic Support by Mothers, Fathers, Teachers, and Friends in Latino Immigrant Families. Hispanic Journal of Behavioral Sciences, 27: 244-253.

Henderson-King, D., & Smith, M. N. (2006). Meanings of education for university students: Academic motivation and personal values as predictors. Social Psychology of Education, 9(2), 195-221.