



Designing and Validating a Structural Model for Academic Engagement based on Personal, Family, Peer, and Educational Factors with the Mediating Role of Academic Buoyancy in University Students

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Quantitative Study

Abstract

Background: The aim of this study was to design and validate a structural model for academic engagement based on personal, family, peer, and educational factors with the mediation role of academic buoyancy in university students.

Methods: This study was a correlational research based on structural equation modeling. The statistical population included all students of Esfarayn University (Iran). In this research, 304 students (253 boys and 51 girls) were selected as the participants using random cluster sampling. The Academic Engagement Scale (Fredericks, Blumenfeld, & Paris, 2004), Academic Buoyancy Scale (Dehghanizade & Hosseinchari, 2012), Academic Self-efficacy Scale (Owen & Feraman, 1998), Help-seeking Questionnaire (Ryan & Pintrich, 1997), Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1988), Perceived Parenting Style Questionnaire (Baumrind, 1967), Transformational Teaching Questionnaire (TTQ) (Beauchamp et al., 2010), and Perception of Classroom Structure Questionnaire (Blackburn, 1998) were used to measure the variables under study. The significance level in this study was considered to be 0.05. The data analyses were performed using SPSS software.

Results: Data analysis showed that academic self-efficacy, acceptance of help-seeking, perceived social support, authoritative and permissive parenting styles, perception of classroom structure, and transformational teaching have a direct effect on academic engagement ($P < 0.01$). Furthermore, academic self-efficacy, acceptance of help-seeking, perceived social support, authoritative and permissive parenting styles, perception of classroom structure, and transformational teaching have indirect effects through academic buoyancy on academic engagement ($P < 0.01$).

Conclusion: In total, the research variables were able to predict about 55% of the variance of academic engagement.

Keywords: Motivation; Achievement; Students; Models

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Introduction

The professionals of the education and higher learning system have focused for many years on some factors influencing academic performance. One of the most important factors is academic engagement as it is essential to learning in students and university students. It is considered as a significant element in the determination of individual development and academic achievement in university students (Oriol-Granado, Mendoza-Lira, Covarrubias-Apablaza, & Molina-Lopez, 2017; Al-Rashidi, Phan, & Ngu, 2016). Academic engagement is defined as the energy level of a student in performing his/her academic tasks and also the achieved efficiency and effectiveness (Strobel, Tumasjan, & Sporrle, 2011). Those university students who show academic engagement can focus highly on target subjects and problems in learning. Moreover, they tend to work harder, enjoy doing their academic tasks, are more dedicated to following regulations in academic environments, avoid inappropriate and conflicted behaviors, and perform with better results in tests (Closson & Boutillier, 2017).

The theory of academic engagement developed by Astin in 1984 includes some constructs in the research literature including the behavioral, cognitive, and emotional aspects of engagement (Al-Rashidi, Phan, & Ngu, 2016; Dolzan, Sartori, Charkhabi, & De Paola, 2015; Pietarinen, Soini, & Pyhalto, 2014; Gala et al., 2014). Behavioral engagement involves university students' active involvement in social groups, peer relationships, study in the university and at home, participation in extraordinary programs in the university, and showing positive behaviors (Archambault, Janosz, Fallu, & Pagani, 2009). Cognitive engagement refers to individual investment in a learning activity that university students consider including self-regulation, required vocational learning, and applied learning strategies like semantic development or expansion instead of memorization (Sedaghat, Abedin, Hejazi, & Hassanabadi, 2011; Fredricks, Blumenfeld, & Paris, 2004). Emotional engagement is related to engagement, interest, enjoyment, vitality, and willingness regarding participation in classes and generally, it is an attachment to the teacher, peers, learning activities, and university environment (Cho & Cho, 2014).

Academic buoyancy is one of the variables that influenced university students' academic engagement. Academic buoyancy is defined as the successful potential that students show in encountering and overcoming academic barriers and challenges (Comerford, Batteson, & Tormey, 2015). The studies by Pourabdol, Sobhi-Gharamaleki, and Abbasi (2015) and Balkis (2013) indicated that those students who showed higher academic buoyancy were more engaged and interested in their education. Precedent factors are focused in related to academic buoyancy regarding three-dimensional levels including physiological factors, academic factors related to involvement in academic processes, and factors related to family and peers. Different studies have shown that the precedent factors of academic buoyancy may have some effects on academic engagement. The psychological precedents include academic self-efficacy and academic help-seeking involved in academic buoyancy and aspiration.

Another variable referred to as academic help-seeking can be effective on students' academic engagement. It is considered as a learning self-efficacy strategy and students who rely on others to overcome their stressful academic emotions can see their help-seeking behaviors cause high advancement of invitations, high self-efficacy, and high academic performance (Karabenick, 2011; Holt, 2014). The study by Halt (2014) showed that help-seeking behavior is associated with academic

buoyancy. Hoyne and McNaught (2013), and Hashemi, Bayrami, Vahedi, and Beyrami (2017) found that help-seeking leads to increased academic engagement.

Parenting styles and perceived social support can be considered as a part of family precedents. Parenting styles are defined as certain behaviors performed by parents individually and in relationships with each other that influence transforming consequences with a child due to involved level of responsiveness and demanding behavior observed about parents (Burke, 2006). Baumrind (1966) specified three parenting styles. Authoritative parents usually expect their children to behave in well-established manners and impose some clear behavioral norms on them, they encourage their children to be independent and interact with their children through an open and flexible relationship system. Authoritarian parents usually have many values to protect their power and suppress any efforts started by their children to challenge their authoritative situation. Their children are not permitted to argue with their parents or make a decision independently. Permissive parents allow their children to regulate their behaviors and make decisions by themselves, and they do not impose any rules to supervise their children's behaviors (Baumrind, 1966). A study by Tajadini, Khezri-Moghadam, Zinali, and Tajadini (2015) indicated that parenting styles are good predictors of academic buoyancy. Researches by Attaway and Bry (2004) and Niemiec, Lynch, Vansteenkiste, Bernstein, Deci, and Ryan (2006) showed that parents' styles have a positive relationship with inner motivation when characterized by supporting self-autonomy, involvement, and warmth.

Regarding academic buoyancy and academic engagement in learning institutes, some precedent factors are addressed including transformational teaching and perception of class structure. Transformational teaching is based on the belief that teachers can make some significant changes in students' lives (Slavich & Zimbardo, 2012). Transformational teaching emphasizes advancement and promotion in a learning environment and individual developments of students through the performance of activities oriented to experiencing learning concepts (Slavich & Zimbardo, 2012).

Academic engagement is among the factors influencing students' academic life. Thus, it is important to determine the factors that influence educational and training practitioners including families and learning institutes; therefore, it is possible to provide some opportunities for adolescents moving toward higher places in their academic life. Previous researches have rarely focused on academic engagement. Therefore, to remove the observed gaps in the literature, this work was conducted with the aim to design and validate a structural model for academic engagement based on personal, family, peer, and educational factors with the mediation role of academic buoyancy in students' of Esfarayen University of Technology, Iran, according to the conceptual model presented in figure 1. Based on the aim of this study, the following research hypotheses were considered: 1) individual, family, and educational factors have positive relationships with academic buoyancy; 2) academic engagement has correlations with individual, family, and school factors through academic buoyancy.

Methods

The present research was performed through a correlation method (path analysis). The statistical population included all undergraduate students of Esfarayen University of Technology during the academic year 2016-17. The total number of undergraduate students in this University was 1,600 individuals.

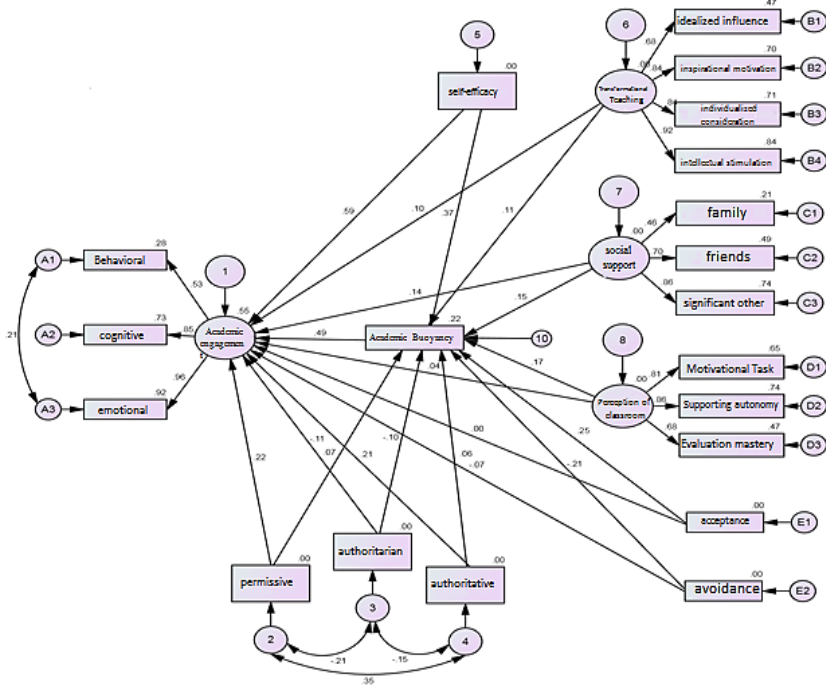


Figure 1. The final model tested with standardized anticipated statistics

According to the statistical population size, 320 subjects were selected as the study sample through the randomized cluster sampling method, and after the consideration of a subject loss, 304 individuals were included in the study sample. The following ethical principles were taken into consideration in the present study. All subjects received written information about the research and participated in the research voluntarily. The participants were assured that all information would remain confidential and would be used for research purposes only. To respect their privacy, the participants' names and surnames were not registered.

Academic Self-efficacy Scale: This questionnaire was designed by Owen and Feraman (1998). It includes 32 items scored based on a 5-point Likert scale ranging from 1 (very low) to 5 (very high). In an Iranian sample, the internal consistency of this scale was 91% for the whole test including 90% for girls and 91% for boys. Cronbach's alpha of this scale indicated that this tool has good internal consistency. The validity of this questionnaire was verified through exploratory factor analysis and confirmatory factor analysis. Moreover, Cronbach's alpha coefficient of academic self-efficacy was 0.76 in the present work.

Help-seeking Questionnaire: This questionnaire was designed by Ryan and Pintrich (1997). The Help-Seeking Questionnaire has two dimensions, acceptance of help-seeking and avoidance of help-seeking. Each dimension has 7 items scored based on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Ryan and Pintrich (1997) reported a Cronbach's Alpha of 89% for the validity of the avoidance of help-seeking dimension. The validity of this dimension was obtained using varimax rotation indicating that the avoidance of help-seeking

dimension can explain 27% of the total variance. In addition, in the present research, Cronbach's alpha coefficient of the acceptance and avoidance dimensions was 0.74 and 0.72, respectively.

Perception of Classroom Structure Questionnaire: This scale was developed by Blackburn (1998). It includes the 3 subscales of motivational tasks (9 items), autonomy support (5 items), and mastery evaluation (11 items). The questions were scored based on a 5-point Likert scale ranging from 5 (strongly agree) to 1 (strongly disagree). Blackburn reported the validity coefficient values of the motivational tasks, autonomy support, and mastery evaluation subscales to be 0.85, 0.65, and 0.80, respectively. Moreover, we obtained a Cronbach's alpha coefficient of 0.63, 0.70, and 0.91 for the subscales of motivational tasks, autonomy support, and mastery evaluation, respectively.

Transformational Teaching Questionnaire: The Transformational Teaching Questionnaire (TTQ) was designed by Beauchamp et al. (2010). It consists of 16 questions that measure the 4 subscales of intellectual stimulation, inspirational motivation, individualized consideration, and idealized influence. The questions are scored based on a 5-point Likert scale ranging from 1 (never) to 5 (always). Beauchamp et al. (2010) found a general inner consistency of 96% for this tool and confirmed the validity of questionnaire constructs. Moreover, in the present work, Cronbach's alpha coefficients of the subscales of intellectual stimulation, inspirational motivation, individualized consideration, and idealized influence were found to be 0.75, 0.78, 0.74, and 0.73, respectively.

Perceived Parenting Style Questionnaire: The Perceived Parenting Style Questionnaire was developed by Baumrind in 1967. This questionnaire consists of 30 items divided into the 3 subscales of permissive, authoritative, and authoritarian parenting styles. The items are scored based on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Baumrind (1966) reported the validity of this questionnaire to be 81%, 85%, and 92%, respectively, using the test-retest method. Furthermore, in the present research, Cronbach's alpha coefficients of the subscales of permissive, authoritative, and authoritarian parenting styles were 0.83, 0.71, and 0.71, respectively.

Multidimensional Scale of Perceived Social Support: This scale was developed by Zimet, Dahlam, Zimet, and Farley (1988). The Multidimensional Scale of Perceived Social Support (MSPSS) consists of 12 items with 4 items for each dimension of social support (family, friends, and significant other). The items are scored based on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The results obtained from a study by Zimet et al. (1988) showed appropriate reliability and validity for this scale. In the present study, the Cronbach's alpha coefficient of the 3 subscales of family, friends, and significant other was 0.74, 0.69, and 0.80, respectively.

Academic Buoyancy Scale: Dehghanizade and Hosseinchari (2012) developed this questionnaire using a model adapted from the Academic Buoyancy Scale by Martin and Marsh (2006) with 4 items. This tool has 9 items that measure the degree of agreement/disagreement based on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Dehghanizade and Hosseinchari (2012) reported an appropriate validity for their questionnaire. Moreover, they obtained a reliability value of 0.80 and 0.73 for this tool using Cronbach's alpha and test-retest method, respectively. In the present study, a Cronbach's alpha coefficient of 0.69 was obtained for the Academic Buoyancy Scale.

School Engagement Scale: The School Engagement Scale (SES) was developed by Fredricks et al. (2004). It includes 15 items in the 3 subscales of behavioral, emotional, and cognitive aspects. The items of the SES are scored on a 5-point Likert scale ranging from 1 (never) to 5 (always). Fredricks et al. (2004) report a reliability coefficient of 0.86 for this scale. In addition, in the present research, Cronbach's alpha coefficients of the behavioral, emotional, and cognitive aspects subscales were 0.87, 0.91, and 0.73, respectively.

The significance level in this study was considered to be 0.05. Data analyses were performed using SPSS software (version 22; IBM Corp., Armonk, NY, USA).

Results

The mean (standard deviation) age of the participants in this study was 22.36 (5.13) years. Descriptive characteristics of the research variables are presented in table 1. First, outlier detection was performed using kurtosis, skewness, box-plot, and Kolmogorov-Smirnov test with statistical defaults. Then, they were eliminated using the Mahalanobis distance test. Moreover, after assessing data normalization, the developed model was evaluated and confirmed to measure the two research variables. In addition, the obtained results of average variance extracted (AVE) showed that all subscales, including academic engagement, academic self-efficacy, help-seeking, perception of class structure, transformational teaching, perceived parenting style, perceived social support, and academic buoyancy, showed values higher than 0.5 as a criterion threshold in the measurement model. Thus, there is a convergent validity for the proposed measurement model. The integrated reliability of constructs indicated that the obtained values for the components were higher than 0.07 as criterion threshold, and finally, AVE and CR were confirmed for all questionnaires developed in this study.

The results showed significant correlations between academic engagement and academic self-efficacy, help-seeking, perception of class structure, transformational teaching, perceived parenting style, perceived social support, and academic buoyancy ($P < 0.01$).

The obtained root mean square error of approximation (RMSEA) was 0.049. It is less than 0.1, thus indicating that the mean square error of the model is appropriate and the model can be accepted. Moreover, the freedom degree in chi-square (2.89) is a value between 1 and 3, and GFI, CFI, and NFI indicators are approximately ≥ 0.9 indicating that the model proposed for measuring the research variables is an appropriate model.

According to table 2, the obtained paths for academic self-efficacy, help-seeking, perception of class structure, transformational teaching, perceived parenting style, perceived social support, and academic buoyancy showed some significant direct effects on academic engagement.

Table 1. Fitness testing indexes of present paths model among the research variables

Fit Statistics	Acceptable Domains	Values
χ^2/df	< 3	2.089
RMSEA	< 1.0	0.049
GFI	< 0.9	0.978
NFI	< 0.9	0.941
CFI	< 0.9	0.950
DF	-	0.137

Table 2. Direct effect and path coefficient values in the model

Direct effects of variables	b	B	R ²
Effect of transformational teaching on academic engagement	0.39	0.10	0.039
Effect of perceived social support on academic engagement	0.48	0.14	0.067
Effect of buoyancy on academic engagement	0.14	0.28	0.039
Effect of perception of class structure on academic engagement	0.06	0.04	0.002
Effect of permissive style on academic engagement	0.36	0.22	0.079
Effect of authoritarian style on academic engagement	-0.32	-0.11	0.002
Effect of authoritative style on academic engagement	0.29	0.21	0.035
Effect of acceptance of help-seeking on academic engagement	0.24	0.21	0.050
Effect of avoidance of help-seeking on academic engagement	-0.12	-0.07	0.008
Effect of self-efficacy on academic engagement	0.31	0.59	0.180

As can be observed in table 3, the considered indirect paths were obtained according to the standardized values (β), non-standardized values (b), and R2, and then, confirmed using an estimating method for maximum likelihood (ML).

Discussion

This study was conducted with the aim to design and validate a structural model for academic engagement based on personal, family, peer, and educational factors with the mediation role of academic buoyancy in students of Esfarayen University. In general, study variables explained 0.55 of the variance of the criterion variable (academic engagement). The obtained results about hypothesis 1 suggested that academic self-efficacy, acceptance of help-seeking, perceived social support, authoritative and permissive parenting styles, classroom structure, and transformational teaching positively predicted academic engagement. Regarding the direct and positive relationship of academic self-efficacy with academic engagement, the obtained findings are consistent with those of Oriol-Granado et al. (2017), Bakker, Sanz Vergel, and Kuntze (2015), Rahmati (2015), and Tan and Tan (2014).

The obtained findings suggested that the authoritative parenting style positively predicts academic engagement. This result is consistent with those obtained by Fletcher, Serena Shim and Wang (2012), Attaway and Bry (2004), and Niemiec et al. (2006).

Table 3. Direct effect, indirect effect, and path coefficient values in the model

Indirect effects of variables	Direct Effects (B)	Indirect Effects (B)	R ²
The effect of self-efficacy on academic engagement with the mediation role of academic buoyancy	0.20	0.39	0.078
The effect of transformational teaching on academic engagement with the mediation role of academic buoyancy	0.40	0.26	0.104
The effect of perceived social support on academic engagement with the mediation role of academic buoyancy	0.21	0.19	0.039
The effect of perception of class structure on academic engagement with the mediation role of academic buoyancy	0.64	0.23	0.147
The effect of acceptance of help-seeking on academic engagement with the mediation role of academic buoyancy	0.38	0.11	0.041
The effect of avoidance of help-seeking on academic engagement with the mediation role of academic buoyancy	-0.19	-0.13	0.024
The effect of permissive style on academic engagement with the mediation role of academic buoyancy	0.31	0.13	0.04
The effect of authoritarian style on academic engagement with the mediation role of academic buoyancy	-0.37	-0.06	0.022
The effect of authoritative style on academic engagement with the mediation role of academic buoyancy	0.30	0.07	0.021

Social resources like parental support can activate students' self-efficacy, self-esteem, and optimism, and make them feel like they have the ability to control academic settings. Therefore, they are more self-confident as they feel proud about what they do, perceive their tasks to be meaningful, and continue their education with enthusiasm (Xanthopoulou, Bakker, Demerouti, and Schaufeli, 2007). The obtained findings suggest that the authoritarian parenting style negatively predicts academic engagement. This finding is consistent with those obtained by Zakeri et al. (2013) as quoted by Baghaeian (2011), and Mortazanajad, Mostafafi, and Vahedi (2009). The supervision-limitation style increases procrastination tendencies related to the authoritarian parents. Authoritarian parents are not required to justify their commands, and demand absolute obedience and respect from their children. Decreased self-esteem is characteristic of children of authoritarian families as one of the factors for procrastination behaviors. In addition, these parents have learned that they should not start their tasks unless they are going to perform them with high proficiency. This means that idealism and perfectionism lead to procrastination attitudes. Thus, the individual avoids doing tasks because of the fear of failure, and when he/she is required to perform tasks, he/she will do them at the last moment.

The obtained findings suggest that transformational teaching can positively and directly predict academic engagement. These results are in line with the results obtained by Noland and Richards (2014) and Jabari (2017). Transformational teaching is associated with increased attitudes, beliefs, and motivation with greater enjoyment of the classroom and teacher, and high self-regulation. Moreover, it is associated with significant improvements in self-efficacy and intrinsic motivation among students (Beauchamp & Morton, 2011). The application of transformational teaching resulted in higher learning, better understanding levels, more classes involved, and higher persistence and interaction in performing academic tasks (Ebrahimkhani, 2015).

The obtained findings suggest that academic buoyancy can positively predict academic engagement. These results are in accordance with the results obtained by Pourabdol et al. (2015), Balkis (2013), Watson, Deary, Thompson, and Li (2008). Stressors have some roles in academic burnout. In the presence of stress factors, especially when intensified, students may experience a lack of control over environmental conditions and experience helplessness which will lead to reduced self-esteem. Possibly, when a student feels helpless in overcoming stressful situations, he/she postpones his/her homework and academic tasks, and consequently, as expected this trend results in emotional exhaustion, and finally, academic burnout (Schwarzer & Diehl, 2015). As academic buoyancy shows the level of academic resilience, students with high academic buoyancy are more successful in dealing with obstacles, challenges, different levels of stress, etcetera. Therefore, students with academic buoyancy can overcome stressful situations and develop self-efficacy, and thus, do their homework enthusiastically and prevent academic burnout. Furthermore, they show more aspiration and interest in education, and work harder to achieve their academic goals (Pourabdol et al., 2015).

Concerning the predictive power of self-efficacy regarding academic engagement mediated by academic buoyancy, the obtained findings were in line with those of Carroll et al. (2009), Mercer, Nellis, Martinez, and Kirk (2011), and Dehghanizade and Hosseinchari (2012). The felt self-confidence and self-efficiency encourage students to get involved in developmental tasks, undesirable current conditions, and future challenges. Students with high self-confidence can be highly energetic in academic performance and believe that they can overcome problems and challenges.

Such self-confidence is observed with adaptive buoyancy functions regarding personal capabilities when encountering environmental stressors (Dehghanizade & Hosseinchari, 2012).

The obtained findings suggest that social support is indirectly correlated with academic buoyancy. This result was in accordance with the results obtained by Dawson and Pooley (2013), Shahmoradi, Savari, and Pasha (2013), and Moradi, Dehghanizade, and Soleimanikhashab (2015). Rueger, Malecki, Pyun, Aycocock, and Coyle (2016) proposed the stress-buffering (SB) model of social support, which indicated that social support is regarded as a protective resource that enables people to cope with stress, distress, and depression. In other words, social support is considered to be a facilitator of coping with stress. In addition, social support provides individuals with positive social contacts with others, which contributes to emotional balance and reduces burnout (Boren, 2013). One reason provided for low academic burnout in students with high social support is that self-efficacy, high self-esteem, optimism, resilience, and a sense of control over the academic environment can increase coping abilities in the face of stressful events, and thus, they can effectively encounter stressors. As a result, they are more confident and prouder about their accomplished tasks; they consider meaningful values for their success and continue to study with eagerness (Xanthopoulou et al., 2007).

Regarding the positive predictive power of permissive parenting style regarding academic engagement mediated by academic buoyancy, it can be said that permissive parents consider high values for their children, they allowed them to express themselves, and they expect very little of their children; therefore, they allow their children to monitor their own activities and decide about issues on their own. This means that the children of permissive parents have been allowed to perform trial and error on various issues; thus, they have learned how to deal with their problems and resolve them. In other words, they are used to this strategy, and they have had to resolve their problems on their own and thus, they feel responsible for their own problems.

Concerning the negative predictive power of the authoritarian parenting style regarding academic engagement mediated by academic buoyancy, the obtained findings were in line with those reported by Diaz-Morales, Escribano, Jankowski, Vollmer, and Randler (2014), Ferreira, Nelas, Duarte, Albuquerque, Grilo, and Nave (2013), Farahmand and Fouladchang (2017), and Tajadini et al. (2015). Children of authoritarian parents, who behave according to their parents' will, show suppressed self-esteem, low independence and mental and spiritual stability, high vulnerability to psychological stresses, and a decline in academic success. They expect others to decide their places and lack independence and the ability to face problems and issues on their own.

A limitation of the present study was the lack of a research background about academic engagement as a variable. As this investigation is performed as a correlational study, the causal inference of the findings should be applied with caution. In addition, the data gathering methodology in the present work was designed based on a number of questionnaires, but it is suggested that each variable data should be incorporated using multiple methods to obtain results with higher generalizability.

Conclusion

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Conflict of Interests

Authors have no conflict of interests.

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References

- Archambault, I., Janosz, M., Fallu, J. S., & Pagani, L. S. (2009). Student engagement and its relationship with early high school dropout. *J Adolesc.*, *32*(3), 651-670. doi: S0140-1971(08)00065-1 [pii];10.1016/j.adolescence.2008.06.007 [doi]. Retrieved from PM:18708246
- Attaway, N. M. & Bry, B. H. (2004). Parenting style and black adolescents' academic achievement. *J Black Psychol*, *30*(2), 229–247.
- Baghaeian M. (2011). *Relationship between perceived parenting styles and self-esteem and procrastination [MSc Thesis]*. Tehran, Iran: Allameh Tabataba'i University.
- Bakker, A. B., Sanz Vergel, A. I., & Kuntze, J. (2015). Student engagement and performance: A weekly diary study on the role of openness. *Motiv Emot* *39*(1), 49-62.
- Balkis, M. (2013). The relationship between academic procrastination and students' burnout. *Journal of Faculty of Education*, *28*(1), 68-78.
- Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child Dev*, *37*(4), 887–907.
- Beauchamp, M. R., & Morton, K. L. (2011). Transformational teaching and physical activity engagement among adolescents. *Exerc.Sport.Sci Rev.*, *39*(3), 133-139. doi:10.1097/JES.0b013e31822153e7 [doi]. Retrieved from PM:21552132
- Boren, J. P. (2013). The relationships between co-rumination, social support, stress, and burnout among working adults. *Manag Commun Q*, *28*(1), 3-25.
- Burke, M. U. (2006). *Familial influence on self-efficacy: Exploring the relationship between perceived parenting style, current social support, and self-efficacy beliefs in a sample of nontraditional college students [PhD Thesis]*. Minneapolis, MN: Capella University.
- Carroll, A., Houghton, S., Wood, R., Unsworth, K., Hattie, J., Gordon, L. et al. (2009). Self-efficacy and academic achievement in Australian high school students: the mediating effects of academic aspirations and delinquency. *J Adolesc.*, *32*(4), 797-817. doi:S0140-1971(08)00122-X [pii];10.1016/j.adolescence.2008.10.009 [doi]. Retrieved from PM:19027942
- Cho, M. H., & Cho, Y. (2014). Instructor scaffolding for interaction and students' academic engagement in online learning: Mediating role of perceived online class goal structures. *The Internet and Higher Education*, *21*, 25-30. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1096751613000523>
- Closson, L. M., & Boutilier, R. R. (2017). Perfectionism, academic engagement, and procrastination among undergraduates: The moderating role of honors student status. *Learn Individ Differ*, *57*, 157-162.
- Comerford, J., Batteson, T., & Tormey, R. (2015). Academic Buoyancy in Second Level Schools: Insights from Ireland. *Procedia Soc Behav Sci*, *197*, 98-103.
- Dawson, M., & Pooley, J. A. (2013). Resilience: The role of optimism, perceived parental autonomy support and perceived social support in first year university students. *J Educ Train Stud*, *1*(2), 38-46.
- Dehghanizade, M., & Hosseinchari, M. (2012). Academic vitality and perception of family communication patterns, the mediating role of self-efficacy. *Teach and Learn Studies*, *63*(2), 22-47.
- Diaz-Morales, J. F., Escribano, C., Jankowski, K. S., Vollmer, C., & Randler, C. (2014). Evening adolescents: The role of family relationships and pubertal development. *J Adolesc.*,

37(4), 425-432. doi:S0140-1971(14)00030-X [pii];10.1016/j.adolescence.2014.03.001 [doi]. Retrieved from PM:24793390

Dolzan, M., Sartori, R., Charkhabi, M., & De Paola, F. (2015). The effect of school engagement on health risk behaviours among high school students: Testing the mediating role of self-efficacy. *Procedia Soc Behav Sci*, 205, 608-613.

Ebrahimkhani M. (2015). *Relationship of teaching transformation with self-efficacy beliefs and student self-regulation learning [MSc Thesis]*. Ardabili, Iran: University of Mohaghegh Ardabili.

Farahmand, S., & Fouladchang, M. (2017). A causal explanation of academic buoyancy based on the family communication patterns: The mediating role of emotional expressiveness. *Developmental Psychology: Journal of Iranian Psychologists*, 13(51), 257-269.

Ferreira, M., Nelas, P., Duarte, J., Albuquerque, C., Grilo, C., & Nave, F. (2013). Family culture and adolescent sexuality. *Aten Primaria.*, 45 Suppl 2, 216-222. doi:S0212-6567(13)70025-8 [pii];10.1016/S0212-6567(13)70025-8 [doi]. Retrieved from PM:23735567

Fletcher, K. L., Serena Shim, S., & Wang, C. (2012). Perfectionistic concerns mediate the relationship between psychologically controlling parenting and achievement goal orientations. *Pers Individ Dif*, 52(8), 876-881.

Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the Concept, State of the Evidence. *Rev Educ Res*, 74(1), 59-109.

Hashemi, T., Bayrami, M., Vahedi, S., & Beyrami, N. (2017). The effectiveness of help-seeking strategies training in the improvement of academic stress, performance and motivation by the moderating role of attributional styles among students. *Biquarterly Journal of Cognitive Strategies in Learning*, 5(8), 139-158.

Holt, L. J. (2014). Attitudes about help-seeking mediate the relation between parent attachment and academic adjustment in first-year college students. *J Coll Stud Dev* 55(4), 418-423.

Hoyne, G. F., & McNaught, K. (2013). Understanding the psychology of seeking support to increase Health Science student engagement in academic support services. A Practice Report. *Int J FYHE*, 4(1), 109-116.

Jabari, J. (2017). *The relationship between classroom management style and teacher transformational teaching with student academic engagement [MSc Thesis]*. Ardabil, Iran: University of Mohaghegh Ardabili.

Karabenick, S. A. (2011). Classroom and technology-supported help seeking: The need for converging research paradigms. *Learn Instr*, 21(2), 290-296.

Mercer, S. H., Nellis, L. M., Martinez, R. S., & Kirk, M. (2011). Supporting the students most in need: academic self-efficacy and perceived teacher support in relation to within-year academic growth. *J Sch Psychol*, 49(3), 323-338. doi:S0022-4405(11)00022-7 [pii];10.1016/j.jsp.2011.03.006 [doi]. Retrieved from PM:21640247

Moradi, M., Dehghanizade, M., Soleimanikhashab, A. (2015). Perceived social support and academic buoyancy: the mediating role of academic self-efficacy beliefs. *Research Educational and Learning*, 7(1), 1-24.

Moradi, M., & Cheraghi, A. (2014). A study of causal relationship between perception of family communication patterns, perception of class structure, motivation and academic self-regulation and academic buoyancy in high school adolescents. *Studies in Learning & Instruction*, 6(1), 113-140.

Mortazanajad, H., Mostafafi, F., & Vahedi, S. (2009). Self-regulation and dimensions of parenting styles predict psychological procrastination of undergraduate students. *Iranian Journal of Psychiatry*, 4(4), 147-154.

Niemiec, C. P., Lynch, M. F., Vansteenkiste, M., Bernstein, J., Deci, E. L., & Ryan, R. M. (2006). The antecedents and consequences of autonomous self-regulation for college: a self-determination theory perspective on socialization. *J Adolesc.*, 29(5), 761-775. doi:S0140-1971(05)00166-1 [pii];10.1016/j.adolescence.2005.11.009 [doi]. Retrieved from PM:16412502

Noland, A., & Richards, K. (2014). The relationship among transformational teaching and student motivation and learning. *Journal of Effective Teaching*, 14(3), 5-20. Retrieved from ERIC.

Oriol-Granado, X., Mendoza-Lira, M., Covarrubias-Apablaza, C. G., & Molina-Lopez, V. M. (2017). Positive emotions, autonomy support and academic performance of university students: The mediating role of academic engagement and Self-efficacy. *Revista de Psicodidáctica (English ed.)*, 22(1), 45-53.

Pietarinen, J., Soini, T., & Pyhalto, K. (2014). Students' emotional and cognitive engagement as the determinants of well-being and achievement in school. *Int J Educ Res*, 67, 40-51.

Pourabdol S., Sobhi-Gharamaleki, N., Abbasi, M. (2015). A comparison of academic procrastination and academic vitality in student with and without specific learning disorder. *Journal of Learning Disabilities*.4(3). 22-38.

Rahmati, Z. (2015). The study of academic burnout in students with high and low level of self-efficacy. *Procedia Soc Behav Sci*, 171, 49-55.

Rueger, S. Y., Malecki, C. K., Pyun, Y., Aycock, C., & Coyle, S. (2016). A meta-analytic review of the association between perceived social support and depression in childhood and adolescence. *Psychol Bull*, 142(10), 1017-1067. doi:2016-37833-001 [pii];10.1037/bul0000058 [doi]. Retrieved from PM:27504934

Ryan, R. M., & Grolnick, W. S. (1986). Origins and pawns in the classroom: Self-report and projective assessments of individual differences in children's perceptions. *J Pers Soc Psychol*, 50(3), 550-558.

Schwarzer RSG, & Diehl M. (2015). Compensatory health beliefs. Scale Development and psychometric properties. Available from: www.Psycho. 2000; Meglill.ca/perpg/fac/knaeuper/ehb.

Sedaghat, M., Abedin, A., Hejazi, E., & Hassanabadi, H. (2011). Motivation, cognitive engagement, and academic achievement. *Procedia Soc Behav Sci*, 15, 2406-2410.

Shahmoradi H., Savari K, & Pasha R. (2013). The relationship between family connection patterns and religious orientation with academic buoyancy. *International Journal of Management and Humanity Science*, 2, 1106-1113.

Slavich, G. M., & Zimbardo, P. G. (2012). Transformational teaching: Theoretical underpinnings, basic principles, and core methods. *Educ Psychol Rev.*, 24(4), 569-608. doi:10.1007/s10648-012-9199-6 [doi]. Retrieved from PM:23162369

Strobel, M., Tumasjan, A., & Spörle, M. (2011). Be yourself, believe in yourself, and be happy: self-efficacy as a mediator between personality factors and subjective well-being. *Scand J Psychol*, 52(1), 43-48. doi:SJOP826 [pii];10.1111/j.1467-9450.2010.00826.x [doi]. Retrieved from PM:20497398

Tajadini, S., Khezri-Moghadam, A., Zinali, S. & Tajadini, S. (2015 26 Sep). *Prediction of educational vitality based on parenting styles and religious beliefs*. Proceedings the 2nd Scientific-Research Conference on Educational Sciences and Psychology of Social and Cultural Injuries in Iran; Tehran, Iran.

Tan, C., & Tan, L. S. (2014). The role of optimism, self-esteem, academic self-efficacy and gender in high-ability students. *Asia-Pac. Educ. Res*, 23(3), 621-633.

Watson, R., Deary, I., Thompson, D., & Li, G. (2008). A study of stress and burnout in nursing students in Hong Kong: A questionnaire survey. *Int J Nurs Stud*, 45(10), 1534-1542. doi:S0020-7489(07)00284-2 [pii];10.1016/j.ijnurstu.2007.11.003 [doi]. Retrieved from PM:18241870

Xanthopoulou, D. Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *Int J Stress Manag*, 14(2), 121-141.