



## **Modeling Academic Emotions based on the Quality of Parent-Child Relationships Mediated by the Psychological Capital**

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### **Abstract**

The current study aimed to propose a model for academic emotions based on the quality of parent-child relationships by the mediation of the psychological capital. It was conducted as a descriptive-correlation study and the data were analyzed using the structural equation modeling. The statistical population consisted of all the 10th-grade female students in the 5th district of Tehran during 2016-2017 with a population of about 4,000 students, of which Four hundred of them were randomly selected using multi-stage cluster sampling. Fine, J. Morland and Schubel Parent-Child Relationship Scale (PCRS) (1983), Lutans and Avilo Psychological Capital Questionnaire (PCQ) (2007), and Pekrun, Goetz, and Frenzel Academic Emotion Questionnaire (AEQ) (2005) were used to collect data. The data were analyzed using SPSS and LISREL ( $p < 0.05$ ). The results showed that academic emotions were directly affected by the quality of father-child and mother-child relationships and the psychological capital. Moreover, the quality of parent-child relationships indirectly affected academic emotions by the mediation of the psychological capital. The findings of this study can be applied to increase students' positive emotions and decrease their negative emotions by improving the quality of parent-child relationships and the psychological capital variables (i.e., self-efficacy, hope, resilience, and optimism).

**Keywords:** Academic emotions, Quality of parent-child relationships, Quality of father-child relationships, Quality of mother-child relationships, Psychological capital

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### **Introduction**

Students' feelings and emotions are two dimensions of their personalities that persist throughout their learning processes. They experience different emotions during the process of education. Such emotions are related to their learning approaches, learning self-regulation,

cognitive resources, motivation, and academic achievement and have obvious effects on their psychological and physical health (Pekrun, 2006). However, emotions have shown no significant roles in recent studies.

Pekrun (2006) worked on learning emotions, education, and academic achievement and introduced

them as “academic emotions”. He classified them into positive emotions such as hopefulness, pleasure, and pride, and negative emotions like anxiety, anger, frustration, shame, and tiredness (Pekrun, 2006).

Pekrun et al. (2006) introduced the theory of control-value and the social-cognitive model to analyze the antecedents and consequences of academic emotions. The theory of control-value assumes that the primary resources of academic emotions are the value-oriented and control-oriented evaluations. Therefore, the feeling of control during assignments and situations with higher mental values leads to positive academic emotions by increasing the expectations of students. On the contrary, negative academic emotions like fear are due to the lack of control, meaning that higher mental values and control patterns affect the prediction of negative academic emotions (Pekrun, 2006; Pekrun, Goetz, Frenzel, Barchfeld & Perry, 2011).

Cognitive evaluations in the social-cognitive model were addressed as the interpersonal resources of the antecedents of academic emotions (Goetz, Pekrun, & Hall, 2008; Haug, Pekrun, Goetz, & Hall, 2006). The main factors that form academic emotions in this theory are the cognitive evaluations dependent on control and value, which emphasize the structures related to the cause and effect relationships (Goetz, Frenzel, Hall & Perkun, 2008).

According to the theoretical model of Pekrun et al. (2006), the antecedents and consequences of academic emotions are assessed on different sociocultural (environmental) and personal (cognitive) levels (Hosseini & Khaier, 2011).

Students' academic emotions could be affected by parenting style, teaching style, the academic environments, and other factors (Frenzel et al., 2009). Attitudes of parents' or teachers and expectations toward students' academic performance will influence their academic emotions (Goetz et al., 2006). Without social supports from parents and teachers, it is difficult for students to have a positive academic emotions (Lei, et al., 2018; Sakiz, 2012).

The previous studies have shown that individuals who interpret everything with a positive insight like optimism, hope, resilience, and self-efficacy (i.e., psychological capital) are more likely to experience positive emotions in stressful situations. Generally, optimistic people have positive expectations and experience positive emotions for reaching their goals and coping with changes effectively. Positive emotions lead to the broader pursuit of goals (Fredrickson, 2001; Norman, Hughes, & Luthanz, 2010). Psychological capital is a positive psychological condition and is considered a flexible and realistic approach to life. It consists of four constructs including optimism, hope,

self-efficacy, and resilience. Each of the constructs is a positive psychological capacity (Luthanz, Youssef, & Avolio, 2007).

Avey et al. (2006) found a significant relationship between positive emotions and the variables of psychological capital. Moreover, Youssefvand et al. (2018) pointed to a positive relationship between resilience and academic emotions. Dyvang, Minigming, and Shin (2017) found a positive relationship between resilience and positive academic emotions, as well.

Parents are significant who represent young people's most important social relationships (Furrer & Skinner, 2003). previous studies found that the better the relationship between parents and their children, the better the children perform (Bergin & Bergin, 2009; Elmore & Huebner, 2010). More specifically, a good relationship between parents and children in terms of secure attachment, social support, and/or caring relationships is related to academic engagement (Furrer & Skinner, 2003). The explanation for this is that parents through a good relationship with their children (can) satisfy basic needs for acceptance, belonging, thus providing their children with emotional security that allows them to explore their environment and deal with their academic demands (Martin & Dowson, 2009). so positive parent relationships are foster better feelings of positive psychological resources to children such as feeling more hopeful, efficacious, resilient, and optimistic in their school environment (Carmona-Halti, Salanova, & Schaufeli, 2020). Positive involvement of parents leads to the upbringing of children who have a more successful performance in education. Children in low-paying families do not have sufficient mental and psychological readiness to learn and study and are threatened by academic issues (Shokuhi Yekta, Shahaeian, & Parand, 2012).

Goetz et al. (2006) also confirmed the relationship between familial variables and positive/negative emotions. Hosseini and Khaier (2011) showed the mediatory role of cognitive evaluation between the dimensions of parenting, emotions related to learning mathematics, and emotional regulation.

In addition, the type and manner of thinking and family relationships affect individuals' beliefs, abilities, and behaviors. One of the most critical abilities of human beings is the psychological capital that helps them adapt to different life situations (Fakhri & Sabzi, 2015).

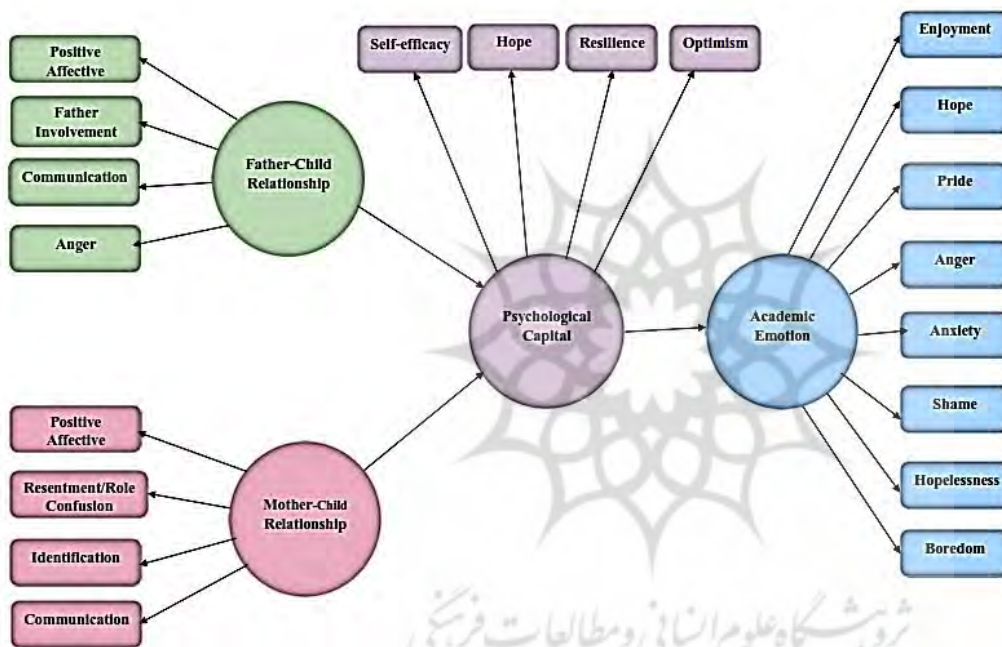
Therefore, one of the most important antecedents of the psychological capital in individuals is the quality of family relationships. Studies have confirmed the relationship between the psychological capital components and family relationships. Bong (2008)

showed the effect of emotional support and parental acceptance on children's self-efficacy. Furthermore, the study by Carmona-Halti, Salanova, and Schwafli (2020) showed a positive and significant relationship between the parent-child relationship and psychological capital.

Finally, based on the theoretical foundations and research results, it seems that the relationship and interaction of family members, the family's emotional atmosphere, and the parent-child relationship affect the

performance of family members in different cognitive and emotional areas. There is a relationship between the quality of the parent-child relationship and the children's psychological capital and academic emotions. The following conceptual model was proposed to show the possible relationship between the three variables. The research intended to fill the gap concerning the detailed study of these relationships and their effects on academic emotions and students' psychological capital.

**Figure 1.**  
*The Conceptual Model of The Study*



**Method**

The present study was an applied one in terms of its goals and a descriptive (non-experimental) (i.e., correlational) study using the structural equation modeling.

**Participants**

The statistical population consisted of all the 10th-grade female students in the 5th district of Tehran in the 2016-17 academic year (around 4000 students). The sample size was determined using the Klein formula (2010) in which each factor (hidden variable) requires 10 to 20 samples. There were 20 factors (hidden variables) in this study; therefore, 200 to 400 samples were needed. Finally, out of 53 female high schools of the district, four schools were selected. Then, 400 students were

selected using the multi-stage cluster sampling out of these four schools.

**Instruments**

**Parent-Child Relationship Scale (PCRS):** The scale was designed by Moreland and Schewebel (1983) to assess the quality of parent-child relationships. It consists of 24 items to assess children's opinions about their relationships with their parents. The PCRS assesses the mother-child and father-child relationships. For scoring, the scores obtained for negative questions' (9, 13, and 14) are reversed, and the sum of the scores for each factor is divided by the number of the items.

In a study conducted by Fine et al. (1983), the parent-child alpha coefficient in the father-related subscales ranged from 0.89 to 0.94, and the overall alpha coefficient was 0.96. The Alpha coefficients for the mother-related subscales were 0.61 to 0.94, and the

overall alpha was 0.96. These measures point to the appropriate level of reliability in the case of the questionnaire. In this study, the overall alpha coefficients for the father-child and mother-child relationships were 0.85 and 0.83, respectively; thus, the coefficients were at acceptable levels. The confirmatory factor analysis was performed using LISREL to check the validity of the method. The second-order confirmatory factor analysis between the subscales and the scale of the father-child relationship showed an appropriate factor load, and all subscales were accepted with a significance level of 0.05. The same is true for the mother-child scale and its subscales.

**The Psychological Capital Questionnaire (PCQ):** Luthanz et al. (Lutans & Avilo, 2007) developed this questionnaire to measure psychological capital. The questionnaire consists of 24 items, and each subscale includes 6 items. The participants answer it on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). The score of each subscale is calculated separately, and the sum of the scores of the subscales is the total psychological capital score.

Seyed Javadin et al. (2015) assessed and confirmed the reliability of the questionnaire. The calculated alpha value was 0.92, and the total alpha coefficient of psychological capital was 0.88. Moreover, the construct validity of the PCQ was investigated. The second-order confirmatory factor analysis showed a convenient factor load between the subscales and the psychological capital scale, and all subscales were accepted with a significance level of 0.05.

**The Academic Emotion Questionnaire (AEQ):** Pekrun, Goetz, and Frenzel (2005) developed a questionnaire to assess students' academic emotions. This questionnaire consists of 75 items scored developed on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Kadivar et al. (2009) used the Cronbach's alpha coefficient to evaluate the reliability of the questionnaire. The findings of this study are in line with

the findings of Pekrun (2002) that indicates the acceptable internal consistency of the questionnaire. The alpha coefficient obtained by Kadivar et al. for these emotions ranged between 0.75 and 0.86. In the current study, the overall alpha coefficient for academic emotions was determined at 0.88. Moreover, the construct validity of the AEQ was investigated. The second-order confirmatory factor analysis showed a convenient factor load between the subscales and the scale of academic emotions. All the subscales were approved with a significance level of 0.05.

## Procedure

The sample consisted of 400 10th-grade female students in District 5 of Tehran in the 2016-17 academic year. This study was performed in two phases. In the first phase, the participants were asked to respond to questionnaires. In order to ensure confidentiality and reduce the effects of response bias, participants were provided with a cover letter that had a written description of the purpose of the study. They were informed that participation in the study was voluntary and their responses would not be personally identifiable. In the second phase, the analysis of the collected data from questionnaires were calculated in the descriptive and inferential statistics section.

The data obtained from the questionnaires were presented in a table to analyze the statistical data. Then, all the data were analyzed using descriptive and inferential methods in SPSS 24 and LISREL 8.80.

## Findings

Structural equation analysis was used to investigate the relationship between Academic Emotions and Quality of Parent-Child Relationships Mediated by the Psychological Capital. The studied model along with the indicators related to the model fit is presented below.

**Table 1.**

*The Descriptive Statistics of The Research Variables*

Subscale	Min.	Max.	M	Ave.	SD
Positive Affective	9	63	51	48.25	12.41
Father Involvement	5	35	25.5	24.63	6.98
Communication	7	49	32	31.70	9.46
Anger	1	7	4	4.28	1.89
Father-Child Relationship	22	154	115	108.87	27.41
Positive Affective	20	77	68	65.52	10.95
Resentment/Role Confusion	2	14	11.5	10.71	3.23
Identification	3	21	13	13.03	4.12

Subscale	Min.	Max.	M	Ave.	SD
Communication	6	42	35	32.35	7.97
Mother-Child Relationship	45	163	134	128.88	23.03
Self-efficacy	6	36	27	26.25	5.38
Hope	6	36	25	24.09	5.87
Resilience	6	36	23	22.93	5.15
Optimism	6	34	25	24.59	4.67
Psychological Capital	24	141	100	97.87	16.60
Enjoyment	12	50	35	35.36	6.63
Hope	6	52	22	21.89	4.84
Pride	6	30	22	21.79	4.52
Anger	9	45	24	24.52	7.03
Anxiety	11	55	34	33.08	7.14
Shame	11	55	29.5	29.56	8.03
Hopelessness	11	77	27	28.02	9.31
Boredom	11	55	31.5	31.20	8.60
Academic Emotion	131	375	226	225.43	29.13

Table 1 shows the descriptive indicators of the study including the minimum, maximum, mode, median, mean, and standard deviation of the sample.

**Table 2.**

*The Normality Test of The Research Data*

Statistical indicators	z	Sig	P-Value
Positive Affective	8.42	0.00	0.05
Resentment/Role Confusion	3.83	0.00	0.05
Identification	5.83	0.00	0.05
Communication	6.52	0.00	0.05
Mother-Child Relationship	6.75	0.00	0.05
Positive Affective	6.63	0.00	0.05
Father Involvement	3.65	0.00	0.05
Communication	4.80	0.00	0.05
Anger	2.20	0.00	0.05
Father-Child Relationship	5.38	0.00	0.05
Self-efficacy	6.24	0.00	0.05
Hope	4.81	0.005	0.05
Resilience	4.65	0.00	0.05
Optimism	6.70	0.00	0.05
Psychological Capital	6.47	0.008	0.05
Enjoyment	4.43	0.09	0.05
Hope	4.03	0.008	0.05
Pride	4.87	0.057	0.05
Anger	8.49	0.019	0.05
Anxiety	3.85	0.2	0.05
Shame	5.65	0.076	0.05
Hopelessness	8.31	0.00	0.05
Boredom	6.36	0.00	0.05
Academic Emotion	6.69	0.2	0.05



As shown in Table 2, the significance level of most of the research variables was less than 0.05; therefore, the data were not normal, and the null hypothesis was rejected. First, the data were normalized by selecting

the Normal Scores in LISREL; then, structural equation modeling was implemented.

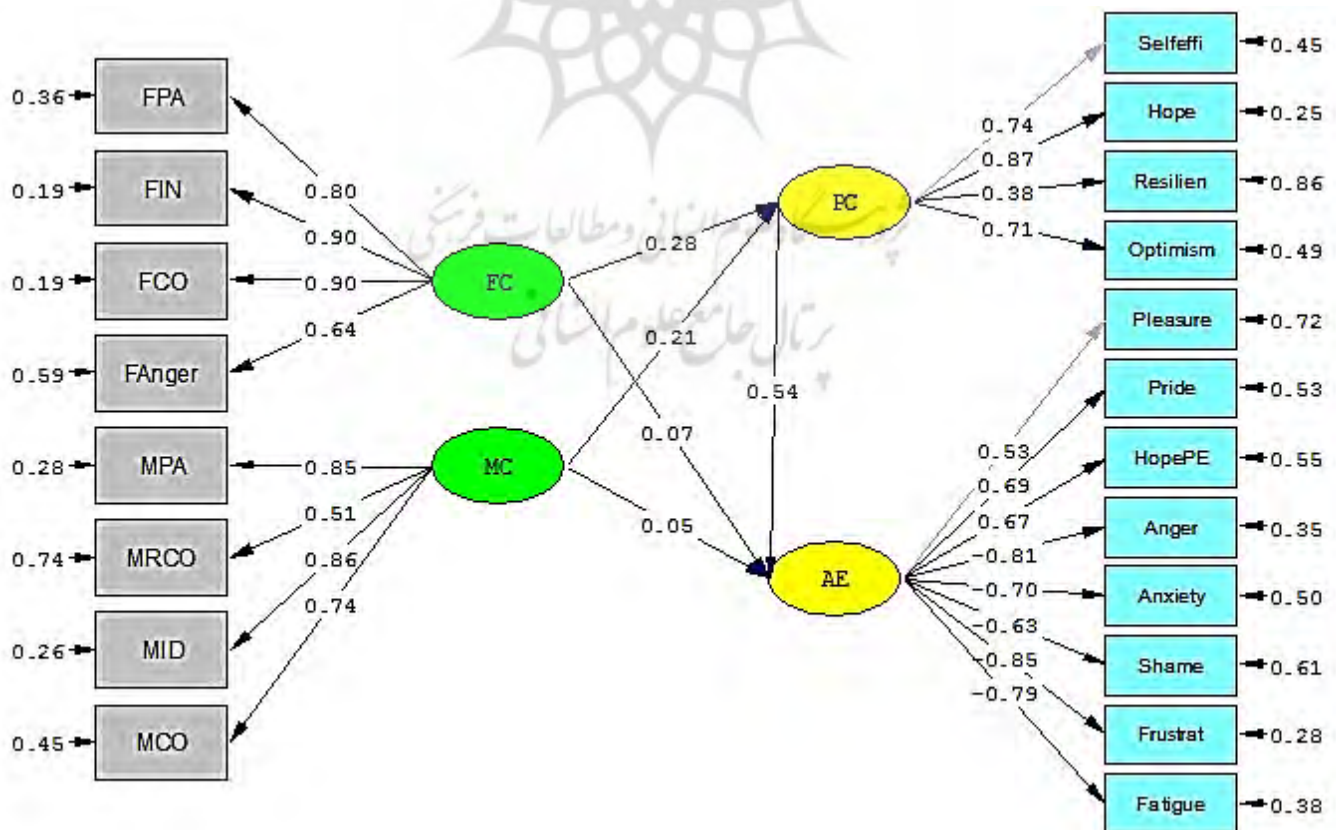
**Table 3.**  
*The Correlation Matrix of The Research Variables*

	Mother-Child Relationship	Father-Child Relationship	Psychological Capital	Academic Emotion
Mother-Child Relationship	1			
Father-Child Relationship	0.47	1		
Psychological Capital	0.34	0.38	1	
Academic Emotion	0.27	0.29	0.58	1

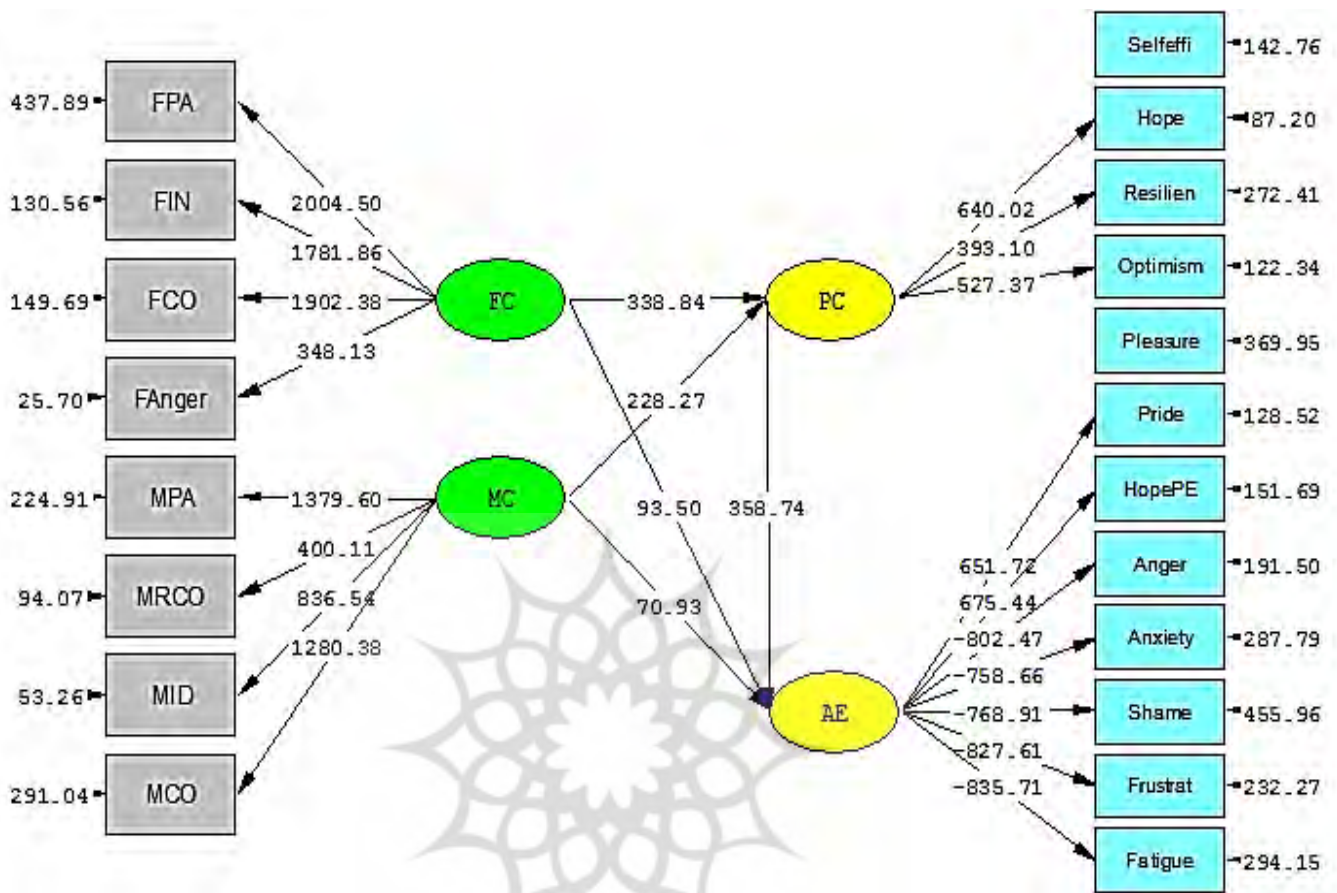
According to Table 3, all the variables had a linear relationship with each other, and there was a significant correlation between them ( $P < 0.05$ ). The most significant correlation was between academic emotions and psychological capital with  $r = 0.58$ .

The results of the proposed model in its standard mode, the T-values, and the most important fit indices of the path analysis of the model are shown in the following figures and tables.

**Figure 2.**  
*The Research Model with Standardized Coefficients*



**Figure 3.**  
The Research Model with T-Value



**Table 4.**  
The Fit Indices of The Research Primary Path Analysis

Indicator	The fit indices of research model	
	Value	Permissible limit
$\frac{\chi^2}{df}$	8.9	<3
RMSEA	.16	<0.1
CFI	1.00	0.9<
NFI	1.00	0.9<
NNFI	1.03	0.9<
GFI	0.97	0.9<
AGFI	0.97	0.9<

In LISREL, none of the fit indices alone makes a model fit, and the indices have to be interpreted in a combined way. The indices that are shown in Table 4 point to the convenient fit of the primary model, and there is no need for any modification. Therefore, the main hypothesis of the study (i.e., the model fit to explain academic emotions based on the quality of

parent-child relationships mediated by psychological capital) was confirmed.

Based on Figures 2 and 3,  $t=263.24$  and  $\beta=0.21$ , indicating the positive and direct effects of the psychological capital on the quality of mother-child relationships. Therefore, hypothesis 1 was confirmed with 95% confidence.

Based on Figures 2 and 3,  $t=377.48$  and  $\beta=0.28$ , indicating the positive and direct effects of the psychological capital on the quality of father-child relationships. Therefore, hypothesis 2 was confirmed with 95% confidence.

Based on Figures 2 and 3,  $t=47.88$  and  $\beta=0.05$ , indicating the positive and direct effects of academic emotions on the quality of the mother-child relationship. Therefore, hypothesis 3 was confirmed with 95% confidence.

Based on Figures 2 and 3,  $t=99.03$  and  $\beta=0.07$ , indicating the positive and direct effects of academic emotions on the quality of the father-child relationship. Therefore, hypothesis 4 was confirmed with 95% confidence.

Based on Figures 2 and 3,  $t=358.63$  and  $\beta=0.54$ , indicating the positive and direct effects of academic emotions on the psychological capital. Therefore, hypothesis 5 was confirmed with 95% confidence.

Based on Figures 2 and 3,  $t=222.41$  and  $\beta=0.11$ , indicating the positive and indirect effects of academic emotions mediated by the psychological capital on the quality of mother-child relationships. Therefore, the first exploratory question was confirmed with 95% confidence.

Based on Figures 2 and 3,  $t=272.15$  and  $\beta=0.15$ , indicating the positive and indirect effects of academic emotions mediated by the psychological capital on the quality of father-child relationships. Therefore, the second exploratory question was confirmed with 95% confidence.

## Discussion

Emotions and feelings are among the most important personality dimensions that accompany students throughout their learning processes. The role of these emotions in the learning process, their positive and negative effects, and their nature have attracted much attention in recent years; therefore, this study aimed to investigate and evaluate the effects of the quality of parent-child relationships on academic emotions mediated by the psychological capital using the path analysis.

The results of the structural equation modeling using the experimental data showed that academic emotions were directly and indirectly affected by the predictor variables of the parent-child relationships (mother-child and father-child relationships) and the psychological capital. In this study, all fitting indices except  $\frac{x^2}{df}$  and RMSE (the root of mean estimation error) were reported to be highly convenient, and the model had a good fit; this indicated that there was a significant relationship

between the latent variables and constructs. Therefore, the main hypothesis of the research was confirmed.

Regarding the first hypothesis, it was shown that there was a direct relationship between the quality of the mother-child relationship and the psychological capital; therefore, the higher and more desirable the quality of the mother-child relationship, the higher would be the students' psychological capital. These results were in line with the findings of Kheirmandi and Omidi (2016), Farokhi and Sabzi (2015), Mirzaei and Ashrafi (2011), Gharedaghi Ghahremanloo (2012), Ghanbari (2013), Barin and Rezaei et al. (2015), Karmona-Halti, Salanova and Shwafli (2020), Bong (2008), Jokar and Hashemi (2013), Mooliadi, Rahardjoo, and Basooki (2016), and Yuan, Vizer, and Fisher (2016). The researchers believe that psychological capital is a positive structure that includes four perceptual-cognitive components based on the theories and conducted research to clarify this hypothesis. Different studies claimed that family and, consequently, parents have the primary and most significant influences on forming these components. On the other hand, other studies represent the difference in the attachment style to parents. Bowlby believes that the child should have a warm, intimate, and continuous relationship with their mother. A supportive mother disciplines a consistent and confident child with high self-efficacy.

Moreover, an appropriate relationship between mother and children provides more dialogue and interaction among the members. In addition, such a relationship develops the person's abilities and skills, leading to an increase in psychological capital indicators. In families with support, acceptance, and dialogue between parents and children, secure attachment and positive self-concept are formed, and the children feel competence and self-efficacy. In this vein, they think of the assignments and problems as challenges they should overcome and solve in an optimistic and hopeful way. Further, they restrain the potential threats and manage the events and situations resiliently.

Regarding the second hypothesis, it was shown that there was a direct relationship between the quality of the father-child relationship and the psychological capital; therefore, the higher the quality of the father-child relationship, the higher would be the students' psychological capital. These results were in line with the findings of Kheirmandi and Omidi (2016), Farokhi and Sabzi (2015), Ghanbari (2013), Mirzaei and Ashrafi (2011), Gharedaghi Ghahremanloo (2012), Barin and Rezaei et al. (2015), Karmona-Halti, Salanova and Shwafli (2020), Bong (2008), Mooliadi, Rahardjoo, and Basooki (2016), and Yuan, Vizer, and Fisher (2016).



The findings of this hypothesis confirm the psychological capital components.

Flouri (2005) stated that father-child relationships are different from mother-child relationships to clarify this hypothesis and consider the previous studies and theories. Thus, fathers have more critical roles in changing some aspects. For example, fathers encourage their children to be competitive and independent, and they devote more time to playing games and having physically stimulating interactions. Besides being supportive, these fathers expect to meet their goals by trying, and they discipline their girls with higher self-efficacy that highly hopes to achieve their goals.

Moreover, the confirmation that the girl receives from her father is accounted as a supportive factor and more possibly leads to forming a secure attachment to her father, having more ability to manage difficult situations, and appropriately reacting to the stressful conditions. Therefore, they are more resilient. In addition to devoting time and paying attention to the child's feelings in the family, the child receives an optimistic and positive look. The optimistic person's positive expectance gives them a proper perspective that can be achieved by themselves, others, and external factors. Hope is an expandable psychological capacity such as self-efficacy and optimism that can be expanded and actuated to follow personal purposes and be generalized to other situations. Therefore, by generalizing it to learning and educating situations, the person encounters positive feelings.

Regarding the third research hypothesis, it was shown that there was a direct relationship between the quality of mother-child relationships and academic emotions. In other words, the more desirable the quality of the mother-child relationship, the higher would be the students' positive academic emotions, and the lower their negative academic emotions. These findings were in line with the findings of McCarthy et al. (2004), Isenburg et al. (2005), Hosseini et al. (2001), Peleg and Papco (2002), and Kashefi and Hamidi Toghchi (2016). To clarify this hypothesis, the researchers highlight that emotions come from the personal and mental evaluations of the environment based on the research and theories. When the disciplining method and the kind of the individual's perspective result from their kind of relationship in the family and the quality of the parent-child relationship, estimating positive evaluations from the environment, the person experiences positive feelings and emotions. However, when it comes to negative emotions, the story changes, and by increasing the quality of these relationships, the negative emotions get weaker. Family relationships influence the growth and development of the children's emotions. Further, the supportive parents and accepting children by them cause

strong emotional relationships among the family members and facilitate the learning process. Various researches have shown that supportive mothers who respond properly and on time to their children's requests and have free dialogue and discussion with them provide a high quality of the mother-child relationship. These positive maternal emotions influence the person's personal evaluations with increasing motivative and cognitive components. Therefore, feelings of control, subjective value, and positive self-concept are created for the adolescent. According to Pekrun's Control-Value Theory (CVT), a sense of control and high subjective value help the person to create and keep positive emotions. On the other hand, the low experience of family rejection and neglect causes a high ability to control and decrease negative emotions.

Regarding the fourth hypothesis of the research, it was shown that there was a direct relationship between the quality of father-child relationships and academic emotions. In other words, the more convenient quality of the father-child relationship increased positive academic emotions and decreased negative academic emotions. These findings were in line with Isenburg et al. (2005), Peleg and Papco (2002), McCarthy et al. (2004), Farrokhi and Sabzi (2015), Hosseini and Khayer (2011), Azadi and Farzad et al. (2015), and Kashefi and Hamidi Toghchi (2016). The relevant researches claim that if children have proper attachments to their parents, they learn how to express their emotions, and consequently, they understand their emotions better. Fathers behave differently from the mothers, and they encourage their children to have competition, physical interaction and play games. Thus, they are a stronger stimulant for emotions. According to Social Learning Theory about emotions, parents' feedback and their behavioral style teach children how to manage and control their emotions. Therefore, the father's physical interactions and actions create emotion and train the children to encounter these emotions and manage them.

Moreover, when the father-child attachment style is secure, the child shows more positive feelings. The reflection of an inappropriate father-child relationship is observed in externalized behaviors of the children in the forms of anger, anxiety, and other negative emotions. Therefore, the father can create more positive emotions in his child through emotional support, acceptance, and continuing the dialogue to prevent negative emotions. Consequently, expecting positive emotions and controlling negative emotions can be expected from the children during their learning.

Regarding the fifth hypothesis of the research, it was shown that there was a direct relationship between the quality of psychological capital and academic emotion. Therefore, increasing the psychological capital

increased the participants' positive academic emotions and decreased their negative academic emotions. These findings were in line with Badri Gargari and Ghare Aghaji (2015), Neisi et al. (2011), Avi et al. (2006), Yousefvand et al. (2018), Dyvang, Minigming, and Shin (2017), and Hayat et al. (2020).

To clarify this hypothesis, the factors of personal, cognitive, and psychological capital components influence educational emotions' precedents. According to CVT, Pekran defines the control-based and value-based evaluations from the original resources of the educational emotion experience. It means that the sense of control has provided positive educational emotions when encountering learning situations and high subjective value. On the other hand, a sense of control, absence, or low subjective value evokes negative emotions. In this regard, since the psychological capital components are effective factors in controlling feeling and the person's subjective value, they are considered precedent factors of educational emotions. The social-cognitive pattern of the emotions confirms this perspective as well. The social-cognitive pattern defines the experience of positive emotion as the result of evaluations based on subjective value and high sense of control and defines the experience of negative emotion as the result of subjective value and low sense of control.

Regarding the first exploratory question, as shown earlier, an indirect relationship was found between the quality of mother-child relationships and academic emotions mediated by the psychological capital. In explaining this hypothesis, the mother's affectionate relationships associated with recognizing feelings, thoughts, choices, actions and giving autonomy-supportive permission to the children reinforce their self-confidence, self-Initialization, and self-regulated, leading to increasing children's self-efficacy. Changing the home to a secure place for the children help them to overcome stressful events and not pay attention to the pressures and exhaustive consequences. This issue results in increasing resilience among the children. Further, influencing the individual's documents will affect their hope and optimism, and consequently, their psychological capital will increase.

Based on the CVT, people with high psychological capital understand and experience more positive events due to having more positive resources. These positive events perform as a stimulus and precedent for the positive emotions and form their base. Positive emotions increase the powers and the psychological resources via developing the thought breadth. In addition, high levels of the psychological capital components (self-efficacy, hope, resilience, and optimism) prevent the person from understanding and receiving the desires and requests of the external environment that are beyond their ability to

resist. Correspondingly, negative emotions such as anxiety, anger, etc., are decreased. Based on what was said, psychological capital affects educational emotions after being influenced by the mother-child relationships.

Regarding the second exploratory question, it was shown that there was an indirect relationship between the quality of father-child relationships and the psychological capital. In explaining this question, trust, acceptance, and paternal control cause improvement in the father-child relationship. These feelings of trust and confidence increase self-efficacy among the children. Lack of authoritarian treatment of the father with his child prevents fear and disability in the child, and forming secure attachment improves resisting skills, self-worth feeling, and personal competence. Further, it decreases anxiety and increases compromise capacity with stressful and difficult situations; therefore, the child's resilience will increase.

Students who interpret the events positively and have positive documents such as hope, optimism, resilience, and self-efficacy (psychological capital) probably experience more positive emotions when learning, even when stressful potential events occur, and they stay away from negative emotions. These people have mostly secure attachment and expect positive experiences due to their previous positive experiences. Processing and positive evaluation of life are associated with excitements and positive emotions that prevent overcoming excitements and negative emotions.

According to what was said, psychological capital can create stable positive educational emotions after getting reinforced due to the father-child relationship power. In addition, when happening a fault, this psychological capital gets weaker, and the negative educational emotion will increase.

## Conclusion

Emotion management in the learning process is one of the most significant issues in teenagers' education that is influenced by family relationships and the psychological variables of students. Students who enjoy acceptance, mutual understanding, and good emotional relationships at home are more likely to deal with complex and stressful situations successfully. In other words, with the increase of self-efficacy, they will have more hope and optimism. Psychological capital is potentially a source of positive emotions and repels negative emotions.

Finally, based on the theoretical studies in this field, a relationship was envisaged between the quality of parent-child relationships, the psychological capital, and academic excitement.

One of the limitations of this study was the research population as it was limited to the 10<sup>th</sup>-grade female

students; thus, age and gender were limited. This reduced the generalizability of the results. In addition, the study did not control psychological variables like personality traits and influential external variables such as the socio-economic status and the number of children that might affect the quality of parent-child relationships. Therefore, it is suggested that both sexes and a wider age range be included in future studies. In addition, controlling psychological variables and the influential external variables will make future research studies more generalizable. In this study, as only students were asked to evaluate the quality of parent-child relationships, it is suggested that children and parents should be examined simultaneously in future studies.

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### Conflicts of Interest

No conflicts of interest declared.

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