



The role of family communication patterns in students' academic engagement in online classes

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ABSTRACT

Background and Aim: Academic engagement is one of the key factors affecting student success and one of the most important indicators of the quality and progress of education. With the spread of virtual education, the quality of family performance has been considered as an important element in the academic engagement of students. Based on this, the aim of this research is to determine the role of family communication patterns in the academic engagement of students in online classes. **Methods:** This research is descriptive research of the post-event type. The statistical population of the research included all second-grade high school students in Tehran in 2020-21, and 400 of them were selected using available sampling method. Then, in order to obtain research data, the questionnaires of family communication patterns of Fitzpatrick and Ritchie (1997) and academic involvement of Reeve and Tseng (2011) were used. Data analysis was done using one-way and multivariate analysis of variance with the help of SPSS.26 software. **Results:** The findings confirmed the role of family communication patterns in the academic engagement of students in online classes. The level of academic conflict in students from families with consensual and pluralistic communication patterns was higher than the level of academic conflict among students from families with protective and unrestricted communication patterns ($P < 0.001$). The average scores of students' academic engagement in families with agreeable and pluralistic communication patterns did not have a significant difference from each other. Also, there was no significant difference between students in families with unrestricted and protective communication patterns in terms of academic engagement. **Conclusion:** It can be concluded that family communication patterns are effective in increasing the academic engagement of students in online classes and it is possible to improve the academic engagement of students by modifying the communication patterns of families.



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Introduction

In recent years, with the spread of the COVID-19 virus, the country's education system, by turning to online education and virtual spaces and through the creation of new tools, has been significantly affected, leading to substantial changes in the interactive context of teachers and students and the structures of education and learning. In recent decades, new ideas and operational lines have been implemented regarding this form of education, associated with various types of technologies including virtual learning (Kim, Hong & Sung, 2019). Although virtual education, as a substitute for traditional classroom teaching, enables students to access information without temporal or geographical constraints (Al-Samarrai, 2016), and provides the opportunity for active interaction and learning, one of the challenges of virtual education is the degree of learners' engagement with academic matters and their actual academic progress. Since the inception of virtual education, this issue has always been a concern and a thought-provoking question. Especially with the widespread adoption of virtual education during the COVID-19 pandemic, the issue of academic engagement of learners in the online space has been questioned by officials, parents, teachers, administrators, and all stakeholders in education. The importance of academic engagement becomes clear when research (for example, Kim, Hong & Sung, 2019) has shown the predictive role of interaction and academic engagement of learners in online education spaces in their academic performance. It should be noted that academic engagement is one of the key factors influencing students' success and is one of the most important indicators of the quality and progress of education (Farhadi, Ghadampour, Gheshnigani, Khalili et al., 2016). Active engagement in educational environments is essential for students' academic successes; students need to actively engage with the teachings provided in educational settings to acquire the knowledge and skills required to navigate various educational pathways (Wang & Eccles, 2013). The core of engagement definitions includes focused cognitive involvement in learning activities characterized by desire, eagerness, and participation. Various definitions and models of academic engagement have been proposed; in Finn's model, academic engagement consists of

two components: behavioral (persistence in academic tasks) and motivational-emotional (valuing academic tasks) (Finn, 1993). Agreement on the multidimensionality of students' academic engagement structure is growing (Reeve & Lombardi, 2015). Wang & Fredricks (2014) view academic engagement as a multidimensional structure including behavioral, cognitive, and emotional engagement. Behavioral engagement involves participation in activities related to academic success and occurs when students are physically involved in effective learning methods and activities (Mango, 2015). Behavioral engagement refers to components such as participation in school-related activities, effort in studies, and attention to academic matters and the classroom. Cognitive engagement pertains to students' use of complex engagement strategies and metacognitive strategies like planning and monitoring (Wang & Fredricks, 2014). Emotional engagement occurs when students experience emotions such as excitement and pleasure towards learning and the learning environment, having a positive attitude towards what they do and enjoying it. In early research on academic engagement, this construct was defined as a personality trait necessary for success and advancement in school, but in recent studies, engagement has been introduced as a motivational construct that is dynamic, interactive, and changeable over time (Reeve & Lee, 2019), and this process can be influenced by many external-environmental factors. Among the set of important and significant environmental antecedents in explaining academic engagement, the family can be mentioned. The concept of the family communication pattern is a scientific structure from the apparent world of the family, defined based on the quality of communication among family members and the content, type, work, activity, and space of communications and interactions within the family. Families are interested in improving their children's academic performance and have the greatest influence on moderating their children's learning behaviors (Jensen, 2013). Families, through different parenting methods and interactions, influence their children's futures; children spend much time at home and are influenced by the communicative atmosphere among family members (Seligman, 2012). Family

communication patterns refer to the quality, content, and space of family interactions with each other and with others (Hanson & Olson, 2018). Based on this, there are two approaches to reaching a common reality among family members. The conversation orientation, where discussing beliefs and concepts is the basis of family members' actions, and the conformity orientation, where turning to parents for guidance is the focus. The feature of conversation orientation is the easy expression of opinions and active involvement in discussions, while the characteristic of conformity orientation is the effort to maintain and preserve homogenous parent-child relationships (Sadeghi, Tashak & Fazilatpour, 2017). From the intersection of conversation and conformity orientations, four communication patterns result: A: Consensual families, which have high levels of conversation and conformity. In families with a consensual communication pattern, on the one hand, open interactions and attention to new beliefs are welcomed, and on the other hand, the hierarchy is maintained. Parents, while expressing affection for their children and considering their opinions, are the ultimate decision-makers in the family (Koerner & Fitzpatrick, 2002a and b). B: Pluralistic families, which have high conversation and low conformity. Family members openly discuss various topics and all participate in conversations, but parents do not exert much control over their children. Children have equal opportunities to participate in family decisions and, while maintaining respect for their parents, also maintain their independence (Koerner & McGee, 2004). C: Protective families, which have low conversation and high conformity. In these families, emphasis is placed on obedience to authority figures in the family (parents), and children's opinions and beliefs are not given much attention. Parents often make decisions for their children and do not see the necessity to explain their decisions to their children (Koerner & Fitzpatrick, 2002b). D: Laissez-faire families, which have low levels of both conversation and conformity. There is little interaction among family members, and discussions are limited to specific topics. In these types of families, parents believe that all family members should have the ability to make decisions, but unlike pluralistic families, they do not show much interest in their children's decisions and in communication and

dialogue with them (Koerner & Fitzpatrick, 2002a).

Numerous research studies have been conducted on the role of family factors in enhancing children's academic engagement. For example, Zare & Rahimi (2019) in a study titled "The Role of Personality Traits and Dimensions of the Family Communication Environment in Academic Engagement Mediated by Passion" showed that family expressiveness has a direct and indirect (mediated by passion) positive effect on academic engagement. The traditionalism component of the family communication environment also has only an indirect (mediated by passion) positive effect on academic engagement. This finding indicates that parents who are actively involved in their children's learning activities are strong predictors of the level of academic engagement of their children and increased motivation for learning, and have been shown to play an effective role in motivating and learning their children (Pourseyed, Fouladchang & Pourseyed, 2019). Dong, Wang, Zhao, Li, & Fang (2020) demonstrated this communicative mechanism between the role of parents in children's academic engagement in their research.

Reviewing the above theoretical and research background highlights the importance and role of existing communication patterns and actions in the family in students' academic engagement. However, none of the mentioned research findings have directly examined the impact of this factor on the academic engagement of learners in classes held in the virtual space, while the necessity of global changes, especially in the field of education and learning due to the spread of the coronavirus, has made the role of parents in education more prominent than before and their responsibility in the learning process of their students more complex and active. The above references clearly indicate the unexplored potential family antecedents and how these antecedents affect the academic engagement of students in virtual classes; therefore, the fundamental concern and question in this research is whether the type of parental communication pattern has a different effect on the level of academic engagement of high school students in the context of online education?

Method

This study is a descriptive post-event research. The statistical population consists of all second-

grade high school students in Tehran in the academic year 2020-2021. According to Cochran's formula, the required sample size for populations ranging from one to ten million is 384 individuals (Habibi & Saraabadi, 2022). In this study, 400 second-grade high school students were selected from the statistical population using a convenience sampling method. The data collection tools used were the Fitzpatrick & Ritchie (1997) Family Communication Patterns Questionnaire and Reeve & Tseng (2011) Academic Engagement Scale.

Materials

1. Family Communication Patterns Questionnaire:

This self-report scale, developed by Ritchie & Fitzpatrick (1997), requires respondents to indicate their level of agreement or disagreement on a five-point scale (5 = strongly agree to 1 = strongly disagree) with its 26 items. This tool assesses two dimensions: conversation orientation (first 15 items) and conformity orientation (next 11 items). Koerner & Fitzpatrick (2002) reported the reliability (Cronbach's alpha coefficient) of the scale as 0.89 (range 0.92 to 0.84) for conversation orientation and 0.79 (range 0.84 to 0.73) for conformity orientation. Kouroshnia (2006) first standardized this questionnaire for the Iranian population, reporting an alpha of 0.87 for conversation orientation and 0.81 for conformity orientation. Also, Koerner & Fitzpatrick (2002) consider this questionnaire to have satisfactory validity from content, criterion, and construct perspectives. Kouroshnia (2006) reported satisfactory validity for this tool using factor analysis and internal consistency methods. In this study, the median scores of each of the conversation and conformity dimensions were used to create a cutoff point and to classify families into four groups: consensual (conversation and conformity above the median), pluralistic (conversation above the median and conformity below the median), protective (conversation below the median and conformity above the median), and laissez-faire (both conversation and conformity below the median).

2. Academic Engagement Scale: This questionnaire, developed by Reeve & Tseng (2011), measures four dimensions of academic engagement (cognitive, behavioral, emotional, and agency) and consists of 22 items rated on a five-point Likert scale from "strongly disagree"

to "strongly agree." Reeve & Tseng (2011) considered 5 items (items 6, 7, 8, 9, and 10) to measure students' behavioral engagement and obtained a reliability of 0.95 using Cronbach's alpha. These items were chosen as they indicate the student's attention to assignments, participation in lessons, and effort as behavioral engagement. Emotional engagement assessment was conducted through four items (11, 12, 13, and 14), reflecting students' emotions during school assignments and classes. Reeve & Tseng (2011) obtained a reliability of 0.78 for these four items using Cronbach's alpha. They designed 8 items related to the cognitive engagement dimension, adapted from the cognitive and metacognitive strategy sub-scales of the Learning Strategies Questionnaire, obtaining a reliability of 0.88 using Cronbach's alpha. Reeve & Tseng assessed agency using five items (items 1 to 5) and obtained a reliability of 0.82 using Cronbach's alpha (Vakili, Naghsh, & Khamsi, 2018).

Implementation

The ethical considerations observed in this research are as follows: In selecting the sample for this study, efforts were made to ensure sampling was based on ethical and accepted scientific and academic procedures. The selection process involved full awareness of the subjects about the research process, obtaining informed consent, maintaining confidentiality, and respecting the dignity and well-being of participants according to ethical and scientific rules mentioned in the sources. Informed consent was obtained from the students and the sample required to complete the questionnaire. None of the participants were forced to participate in the study. The researcher introduced themselves to the participants, explaining the study's purpose, collaboration methods, benefits and drawbacks of participation, and the purpose of completing the questionnaire. Assurances were given to the subjects regarding the confidentiality and privacy of the information collected. For this purpose, instead of recording the names of each subject, a unique code was assigned to each, and names along with assigned codes were confidentially kept by the researcher. Participants were assured of their freedom to withdraw from the study at any stage if they wished. Data collection was conducted at times and locations agreed upon with the participants. Participants were assured that data analysis

would be general, maintaining anonymity in the transcription, analysis, reporting, and dissemination of information. Those participants who wished to be informed of the research results were provided with such information. All legal stages were observed, and necessary permissions for each stage of the research were obtained. The rights and respect of all participating individuals were maintained. Data analysis utilized descriptive and inferential statistics in SPSS 26 software. At the descriptive level, means and standard deviations were used, and at the inferential level, one-way and multivariate analysis of variance along with the Games-Howell post hoc test were used.

Results

The father's occupation in 54.25% (217 individuals) of the sample was self-employed,

and 45.75% (183 individuals) were employees. Regarding mothers' occupations, 63.25% (253 individuals) were homemakers, and 36.75% (147 individuals) were employed. In terms of fathers' education level, 22.25% (89 individuals) had a diploma or less, 8.75% (35 individuals) had an associate degree, 48.5% (194 individuals) had a bachelor's degree, and 20.5% (82 individuals) had a master's degree or higher. Regarding mothers' education level, 16.75% (67 individuals) had a diploma or less, 10.5% (42 individuals) had an associate degree, 53.75% (215 individuals) had a bachelor's degree, and 19% (76 individuals) had a master's degree or higher. In terms of social class, 23.5% (94 individuals) were high, 64.25% (257 individuals) were middle, and 12.25% (49 individuals) were low.

Table 1. Descriptive statistics findings

Academic engagement	Consensual		Pluralistic		Protective		Laissez-faire	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
Agency	16/82	3/69	16/62	3/85	14/86	4/11	15/24	5/16
Behavioral	18/83	3/52	17/60	3/23	16/42	3/57	15/76	3/49
Emotional	13/09	3/27	13/74	3/13	12/18	2/66	12/34	3/18
Cognitive	29/19	5/96	28/24	5/30	26/28	4/58	24/78	5/49
Total	77/94	13/45	76/19	11/44	69/74	10/87	68/13	14/57

Table 1 presents the means and standard deviations of students' academic engagement scores and its components (agency, behavioral, emotional, and cognitive) in families with consensual, pluralistic, protective, and laissez-faire communication patterns. According to the results in the table, the mean academic engagement of students in consensual families (77.94) is higher. Students in pluralistic families (76.19) rank next. The mean academic engagement of students in protective families (69.74) is higher than the mean for students in laissez-faire families (68.13) and lower than the mean for students in pluralistic and consensual families. A similar pattern is observed for the components of academic engagement.

To verify the homogeneity of variance hypothesis, the Levene's test was used. The homogeneity of variance hypothesis was violated for the variables of agency engagement and the

overall score of academic engagement ($p < 0.01$) and was maintained in other cases ($p > 0.05$). Additionally, to verify the homogeneity of covariance matrices hypothesis, Box's M test was conducted. The results showed the homogeneity of covariance matrices hypothesis was violated ($p < 0.01$).

Given the violation of the homogeneity of variance in some cases and the violation of the homogeneity of covariance matrices hypothesis, data analysis was conducted using one-way and multivariate analysis of variance along with the Games-Howell post hoc test, which is robust to the mentioned violations. The table below presents the results of the one-way analysis of variance for comparing students in families with consensual, pluralistic, protective, and laissez-faire communication patterns regarding overall academic engagement.

Table 2. One-way analysis of variance to examine the role of communication patterns of family in academic engagement

Source	SS	df	MS	F	P	η^2
Communication patterns	8105/80	3	2701/93	14/80	0/0001	0/10
Error	72281/71	396	182/53			
Total	80387/51	399				

Based on the results in Table 2, it can be concluded that family communication patterns have a significant effect on the level of students' academic engagement, significant at the 0.0001 level. Family communication patterns explain 10% of the variance in students' academic

engagement. Subsequently, the role of family communication patterns on the components of students' academic engagement was examined using multivariate analysis of variance, with the results presented in the table below.

Table 3. One-way analysis of variance to examine the role of communication patterns of family in the components of academic engagement

Source	Academic engagement	SS	df	MS	F	P	η^2
Communication patterns	Agency	258/42	3	86/14	4/27	0/01	0/03
	Behavioral	732/17	3	244/06	20/11	0/0001	0/13
	Emotional	101/05	3	33/68	3/41	0/02	0/03
	Cognitive	1555/64	3	518/55	17/03	0/0001	0/11

Based on the results in the above table, family communication patterns affect all components of students' academic engagement, with this effect being significant for the components of agency, behavioral, and cognitive engagement at the 0.01 level and for the emotional engagement component at the 0.05 level. Family

communication patterns explain 13% of the variance in behavioral engagement, 11% in cognitive engagement, and 3% in agency and emotional engagement. To investigate which family groups showed significant differences in overall academic engagement, the Games-Howell post hoc test was used.

Table 4. The results of Games-Howell post-hoc test to compare the means of academic engagement considering different communication patterns of family

Communication patterns	Laissez-faire	Protective	Pluralist
Protective	-1/61	0	
Pluralist	-8/07*	-6/45*	-1/75
Consensual	-9/81*	-8/20*	0

*p<0.01

According to the results in the above table, in terms of overall academic engagement, there is no significant difference between laissez-faire and protective families. There is also no significant difference between pluralistic and

consensual families. However, the level of academic engagement of students in consensual and pluralistic families is significantly higher than that of students in laissez-faire and protective families.

Table 5. The results of Games-Howell post-hoc test to compare the means of the components of academic engagement considering different communication patterns of family

Academic engagemtn	Communication patterns	Laissez-faire	Protective	Pluralist
Agency	Protective	0/38	0	
	Pluralist	-1/37	-1/76	-0/20
	Consensual	-1/58*	-1/96*	0
Behavioral	Protective	-0/66	0	
	Pluralist	-1/84*	-1/18	-1/24
	Consensual	-3/08*	-2/41*	0
Emotional	Protective	0/16	0	
	Pluralist	-1/40*	-1/56*	0/64
	Consensual	-0/75	-0/91	0
Cognitive	Protective	-1/50	0	
	Pluralist	-3/46*	-1/96	-0/95
	Consensual	-4/41*	-2/92*	0

*p<0.01

According to the results presented in Table 5, students from families with consensus communication patterns achieved higher averages in the factor of educational engagement

compared to students from permissive and protective communication families. No significant differences were observed in other comparisons. In the behavioral dimension of

educational engagement, students from consensus and pluralistic families scored higher compared to those from permissive families. Additionally, the average scores of students from consensus families were higher than those from protective families. In the emotional dimension of engagement, students from pluralistic families outperformed those from permissive and protective families. Finally, in the cognitive dimension of engagement, students from consensus families scored higher than those from permissive and protective families. Furthermore, the average scores of students from pluralistic families exceeded those from permissive families.

Conclusion

The aim of the current research was to examine the effectiveness of emotion-focused couple therapy in reducing marital burnout and depression among couples. The results indicated that emotion-focused couple therapy significantly reduced marital burnout, aligning with the findings of Greiman & Johnson (2022), Marn et al. (2022), Goodarzi et al. (2021), and Mirlouhian et al. (2021). In explaining these results, it can be said that in emotion-focused couple therapy, emotional skills, defined as the ability to recognize and express emotions as well as empathize with others, increase intimacy and security, and enhance positive receptiveness to criticism in individuals. This contributes to restoring peace in conflicting marital lives and maintaining and continuing marital relationships. Furthermore, emotion-focused therapy helps couples in marital conflicts to reconnect and strive to reduce turmoil by intervening at the emotional level to foster closeness interactions leading to greater affection and intimate relationships (Greenberg, 2017; cited by Hosseinzadeh et al., 2021). Additionally, emotion-focused couple therapy, by affecting the way couples effectively communicate and familiarizing them with couples' interaction cycles; developing emotional bonds; identifying fears, beliefs, values, and attachment history of couples; recognizing emotions and understanding the relationship between behavior, thoughts, emotions, and attachment needs; creating realistic expectations about marital life, teaching responsible marital life, and ultimately understanding the importance of sexual relations in marital life, especially after marital problems, enhances and improves marital intimacy between

couples. Thus, couples experiencing greater intimacy in their marital life feel less burnout and are more sensitive to each other's psychological, sexual, and emotional needs, striving to meet these needs. Therefore, it is logical to say that emotion-focused couple therapy is effective in reducing marital burnout among couples.

Another part of the results showed that emotion-focused couple therapy significantly reduced depression. This finding is consistent with the results of Greiman & Johnson (2022), Marn et al. (2022), Goodarzi et al. (2021), and Mirlouhian et al. (2021). In explaining this result, it can be said that emotion-focused therapy is a therapeutic approach emphasizing the involvement of emotions in persistent maladaptive patterns in distressed couples. This therapy aims to make vulnerable emotions in each partner apparent and facilitate the ability of couples to express these emotions in safe and loving ways. It is believed that processing these emotions in a safe context creates healthier and newer interaction patterns, leading to calmer levels of turmoil, increased affection, intimacy, and ultimately more satisfactory relationships. As emotion is a primary factor in the attachment approach, emotional structures help us predict, explain, react to, and control life experiences. Emotions are not stored in our memory but are revived through the assessment of situational triggers that activate specific emotional frameworks, leading to particular sets of behaviors. During emotion-focused therapy, such situations are redesigned to allow couples to explore and expand their emotions and then modify their emotions through this new experience. In this way, their emotions become accessible, matured, and reconstructed, used to rebuild their moment-to-moment experiences and behaviors towards each other and others. By undergoing this phase of therapy, couples become aware of their emotions and, in a safe space, express genuine emotions in various life situations, showing new behaviors, thereby increasing their marital satisfaction (Babaei Garmkhani et al., 2017). Having marital satisfaction in the lives of couples means that they meet each other's needs timely and pay less inattention to each other's needs, and this companionship and responsiveness to each other's needs, learned in emotion-focused couple therapy sessions, results in experiencing less depression. Therefore, it is logical to say that emotion-focused couple therapy is effective in reducing depression among couples.

Since this research was conducted only on couples visiting counseling and psychological service centers in Kermanshah, caution should be exercised by researchers and users of these research results in generalizing the findings to couples in other cities due to cultural, ethnic, and social differences. Future research should explore the effectiveness of emotion-focused couple therapy on reducing other couples' problems such as marital incompatibility, divorce requests, conflict management, etc. Research comparing the effectiveness of emotion-focused couple therapy and cognitive-behavioral couple therapy with other couple therapy methods such as integrative systemic couple therapy, acceptance-commitment couple therapy, etc., can yield significant results in understanding treatments and interventions important for improving marital and sexual problems in couples. The follow-up phase in this research was two months; hence, it is recommended that future studies with longer follow-up periods (more than six months or even a year) examine the continuity and sustainability of emotion-focused couple therapy on couples. Theoretically, the results of this research can confirm previous research findings on the effectiveness of emotion-focused couple therapy. Practically, the findings of this research, considering the greater effectiveness of emotion-focused couple therapy, can be used to develop family-centered therapeutic programs in counseling centers and couple therapy centers. In this regard, it is suggested that counseling and psychological service centers conduct psychological workshops focusing on emotion-focused couple therapy to strengthen the foundation of the family and reduce couples' problems. Additionally, as a practical result, it is suggested that counseling and therapeutic centers, aiming to enhance marital resilience and reduce couples' problems and increase intimate relationships, implement emotion-focused couple therapy courses in group or individual formats for couples, enabling them to be resilient and persistent against marital problems, engage less in problematic marital behaviors, and thus strengthen their quality of life, leading to reduced depression and marital burnout.

Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

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