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Designing an Academic Self-Regulation Model based on Basic Psychological Needs and Family Communication Pattern with the Mediation of Academic Engagement

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Research Paper

Abstract

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Purpose: Self-regulation has an effective role in other academic performance of students and can cause their academic success. Therefore, the aim of this study was designing an academic self-regulation model based on basic psychological needs and family communication pattern with the mediation of academic engagement.

Methodology: This research in terms of purpose was applied and in terms of implementation method was descriptive from type of survey. The statistical population of the current study was male senior students of Hamedan city in the academic years of 2020-2021 and about 4000 people. The samples of this study were 420 people who were selected by cluster sampling method and answered to the academic self-regulation questionnaire (Savari and Arabzade, 2013), basic psychological needs questionnaire (Gagne, 2003), revised family communication patterns scale (Koerner and Fitzpatrick, 2002) and academic engagement questionnaire (Schaufeli et al., 2002). For data analysis were used from Pearson correlation coefficients and structural equation modeling methods in SPSS-20 and Smart-PLS-3 software.

Findings: The findings showed that the academic self-regulation model based on basic psychological needs and family communication pattern with the mediation of academic engagement had a good fit. Other findings showed that basic psychological needs and communication patterns of conversation and conformity had a direct and significant effect on students' academic engagement and basic psychological needs, communication patterns of conversation and conformity and academic engagement had a direct and significant effect on their self-regulation ($P < 0.05$). In addition, basic psychological needs and communication patterns of conversation and conformity with the mediation of academic engagement had an indirect and significant effect on students' academic self-regulation ($P < 0.05$).

Conclusion: According to the results of the present research, to improve students' self-regulation can be met their basic psychological needs and can be improved their communication patterns and academic engagement through educational workshops.



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Detailed abstract

Purpose: In any educational system, more than anything else, improving the quality of education and empowering students is very important, and it is these students who cause the growth or decline of society in the future. One of the important issues in the education of students is the issue of academic self-regulation. Self-regulation is an active and constructive process which based on the learner sets a series of goals for him and then manages his efforts and behaviors, cognitions and motivations to achieve them. In the other words, self-regulation is the active and dynamic process of maintaining behaviors, cognitions, and motivations to achieve goals. Academic self-regulation means that learners know how to properly control and manage their learning processes during teaching and learning, specify goals for their learning, plan for their realization and use appropriate strategies for this purpose. People with academic self-regulation choose targeted assignments, use appropriate learning strategies, maintain and improve their motivation to learn, monitor their academic progress, and evaluate the consequences of doing assignments and achieving progress. One of the factors related to academic self-regulation is the basic psychological needs, which provide the necessary energy to perform various academic and non-academic activities and can become the basis for the growth and development of skills. According to the theory of self-determination, there are three categories of need of autonomy, competence and relatedness; So that autonomy means having a sense of choice in starting, maintaining and adjusting activities, competence means being effective in interacting with the environment and trying to use talents and abilities in performing activities and mastering them, and relatedness means establishing attachment and an emotional and intimate bond with others. Another factor related to academic self-regulation is the family communication pattern, which is one of the effective patterns in the discussion of the family, which deals with the interaction in the family and its role and impact in adapting to the environment and improving the quality of life. The way family members communicate when exchanging information has a great impact on their behavior in the family environment, and accordingly there are two communication patterns of conversation and conformity in the family. The conversation communication pattern refers to the extent to which families create an open and comfortable space for family members to participate in various issues, and the conformity communication pattern emphasizes the similarity of attitudes, values, and beliefs and avoiding conflict in various family interactions and issues. Another factor related to academic self-regulation is academic engagement, which refers to the amount of energy and time learners spend on purposeful academic activities. In the other words, academic engagement is defined as the quantity and quality of effort and physical and mental energy of learners during education and investment in this field to achieve academic success. Academic engagement has three parts: vigor, absorption and dedication; So that vigor refers to the high levels of energy and flexibility of the learners' mind when doing academic work, absorption refers to concentration and immersion of learners in academic activities, and dedication refers to the intense psychological involvement of learners towards academic tasks and assignments. Self-regulation has an effective role in other academic performance of students and can cause their academic success. Therefore, the aim of this study was designing an academic self-regulation model based on basic psychological needs and family communication pattern with the mediation of academic engagement.

Methodology: This research was applied in terms of purpose and descriptive in terms of survey type. The statistical population of the current study was about 4000 male students of the second year of secondary school in Hamedan city in the academic year of 2019-2020. The samples of this study were 420 people who were selected by cluster sampling method. The process of conducting the research was that after the approval of the proposal and the preparation of the research tools, the necessary coordination was made with the officials of the Hamedan City Education Department and the implementation staff of boys' schools of the second year of high school. For the sampled students, the importance and necessity of the research was explained and they were assured about observing ethical points. In the next step, the samples were asked to answer the research tools and the researcher thanked them after the students completed the tools. The samples responded to the academic self-regulation questionnaire (Savari and Arabzade, 2013), the basic psychological needs questionnaire (Gagne, 2003), the revised

scale of family communication patterns (Koerner and Fitzpatrick, 2002) and the academic enthusiasm questionnaire (Schaufeli et al., 2002). In this study, the reliability coefficient of the academic self-regulation questionnaire was 0.81, the reliability coefficient of the basic psychological needs questionnaire was 0.86, the reliability coefficient of the revised scale of conversational communication patterns and conformity was 0.95 and 0.96, respectively, and the reliability coefficient of the academic enthusiasm questionnaire was 0.89.. For data analysis, Pearson correlation coefficients and structural equation modeling were used in SPSS-20 and Smart-PLS-3 software.

Findings: The findings showed that the academic self-regulation model based on basic psychological needs and family communication pattern with the mediation of academic engagement had a good fit. Other findings showed that basic psychological needs and communication patterns of conversation and conformity had a direct and significant effect on students' academic engagement and basic psychological needs, communication patterns of conversation and conformity and academic engagement had a direct and significant effect on their self-regulation ($P < 0.05$). In addition, basic psychological needs and communication patterns of conversation and conformity with the mediation of academic engagement had an indirect and significant effect on students' academic self-regulation ($P < 0.05$).

Conclusion: Overall, the results of the present study showed that the academic self-regulation model based on basic psychological needs and family communication pattern with the mediation of academic engagement of male students had a good fit. As a result, academic engagement can strengthen the relationship between basic psychological needs and family communication pattern with academic self-regulation. Based on this, it is suggested that the mediating effect of the academic engagement variable is considered in designing the intervention to improve the educational situation. For this purpose, teachers and counselors can provide the basis for improving academic self-regulation by satisfying basic psychological needs and improving the family communication pattern while paying attention to academic engagement. In the other words, to improve students' self-regulation can be met their basic psychological needs and can be improved their communication patterns and academic engagement through educational workshops.