

---

DOI: <https://doi.org/10.53555/ephijer.v1i2.13>

---

## EXAMINING THE RELATIONSHIP BETWEEN AFFECTIVE CONTROL AND MENTAL HEALTH WITH ACADEMIC PERFORMANCE OF STUDENTS

Farhad Pirzad<sup>1\*</sup>, Mahnaz Movaghar<sup>2</sup>,

<sup>1</sup>*Department of Educational Science and Psychology, Islamic Azad University, Bandar Lengeh Branch, Hormozgan, Iran.*

<sup>2</sup>*Department of Nursing, Islamic Azad University, Abadan Branch, Abadan, Iran.*

**\*Corresponding Author: -**

---

### **Abstract:-**

**Background:** *The purpose of the study was to determine the relationship between affective control and mental health with academic performance of second grade high school students.*

**Materials and Methods:** *The study was applied regarding purpose, and its method was descriptive its correlation design. The population was all second-grade high school students. In this study, 170 people were selected using cluster sampling. Data collection tools were general health, affective control, and academic performance questionnaires.*

**Results:** *The results indicated a significant and positive relationship between components of affective control and mental health with academic performance. Moreover, students' academic performance can be predicted through affective control and mental health, and overall about 28.2% of variance in the academic performance of students is predictable by affective control and mental health.*

**Conclusion:** *By relying on the findings of this study, teachers and education officials can play a significant role in academic improvement of the students by presenting strategies for affective control and improving mental health of students.*

**Keywords:-***General health, affective control, academic performance, students*

## **BACKGROUND**

The World Health Organization (WHO) raised the three dimensions of health as complete physical, mental and social well-being in 1948, which are both necessary and complementary to each other (Bagheriyazdi, Bolhari et al. 1994). Mental health is one of the most important issues for students, and a student's success in studying does not depend so much on his/her extraordinary talent but on how he/she naturally passes through the complex and critical stages of adolescence affectively and mentally. Success in education depends on many factors that might affect the activities of the most intelligent students. Very often, it has been seen that students experiencing high levels of psychopathology have a lower ability to perform do their homework (Vidourek, King et al. 2014; Bazrafshan, Sharif et al. 2015; Bazrafshan, Sharif et al. 2016). Studying the relationship between mental health and academic status has brought about different results. Some researchers have concluded that mental health is related to the students' academic achievement and by increase in mental health the students' academic achievement increases as well (Bagheriyazdi, Bolhari et al. 1994; Vidourek, King et al. 2014; Bazrafshan, Sharif et al. 2015; Bazrafshan, Sharif et al. 2016). To prevent the severe mental illnesses in recent years, in Iran, as in other countries, government authorities and people have shown a special interest in mental health. Although this interest has emerged short time ago, its effects on improving the status of mental hospitals and using the right methods in prevention are evidently seen. Despite these tangible improvements, we can still say that Iranians still do not have a correct understanding of the nature and causes of mental disorders, and unfortunately, there is no accurate and precise statistics on this (Tomaras, Ginieri-Coccosis et al. 2011; Kotter, Tautphaus et al. 2014; Rafi Bazrafshan, Sharif et al. 2016). Thus, studying the mental health of students, as the country's future prospects, is of great importance because by improving their mental health, one can expect them to take effective steps in science.

### **Purpose**

Thus, given the role of mental health in ensuring the efficacy and dynamism of individuals at education and prevention of education failure and the differences between the different results in past studies, this study was conducted to determine the relationship between affective control and mental health with academic performance of high school students.

### **Materials and Methods**

In this study, the population consisted of all high school students of Lar in the academic year 20162017 who were 511 students according to the available statistics. Sampling method was cluster sampling. In doing so, 2 girls and 2 boys' high school were selected from among the high school in Lar. After referring to schools and getting support and cooperation from school authorities, we asked them to distribute questionnaires among students. Overall, the sample size was 170 people who were selected according to Cochran formula to study, of whom 85 girls and 85 boys completed the questionnaires. The tools used in this study were General Health Questionnaire (GHQ), 28questions form, affective control scale, and academic performance questionnaire.

GHQ is a self-report questionnaire used in a clinical setting with the purpose of tracking those with mental disorders. GHQ can be considered as a set of questions that comprise the lowest levels of common symptoms associated with various mental disorders. Therefore, it can distinguish mental patients as a general category of those who are healthy. The questions in this questionnaire deal with the psychological state of a person in a recent month and include symptoms such as abnormal thoughts and feelings, and aspects of visible behavior. This questionnaire has 28 four-option questions and has four scales, each of which has seven questions. The scales of GHQ include Somatic Symptoms Scale (SSS), anxiety scale, social dysfunction, and severe depression. In scoring, at all gets zero, at the normal level gets 1, more than normal gets 2, and much more than the normal get a score of 3. Individual scores for each dimension are obtained by adding the corresponding answers. The range of scores for each dimension is from zero to twenty.

Scores below average in each dimension show a high level of mental health in that dimension. The lower the scores of an individual, the higher mental health he will have and vice versa. Affective control scale (ACS) is a tool for measuring the level of control of individuals over their emotions. It has four sub-scales: anger, depressed mood, anxiety, and positive emotions. The implementation of this questionnaire is through self-assessment and the answers of the items are designed in a seven-scale level from "strongly disagree=1" to "strongly agree=7." Academic Performance Questionnaire (APQ) with 48 questions can measure five areas related to academic performance including self-efficacy, affective impact, planning, lack of outcome control, and motivation. Each of these factors receives a score of 5, 4, 3, 2, and 1, respectively. Accordingly, a score less than 53 showed poor self-efficacy and a score higher than 85 strong self-efficacies. A score of less than 28 indicates weak planning and a score more than 23 indicates strong planning. A score of less than 11 indicates poor planning and a score higher than 23 indicates a strong planning. A score less than 6 indicated a poor outcome control and a score higher than 13 lack of strong outcome control. A score less than 14 indicated weak motivation and a score higher than 24 strong motivations. A score less than 120 showed weak academic performance and a score over 175 a strong academic performance and a score of 121-174 indicated a moderate academic performance. Descriptive statistics (frequency distribution table, graph, mean and standard deviation) and inferential statistics (Pearson correlation coefficient and multiple regressions) were used for data analysis.

### **Results**

In the study, 85 students (50%) were boys and 85 students (50%) were girls. Pearson correlation coefficient test was used to study the relationship between affective control components and academic performance. In testing this hypothesis, a positive relationship was found between affective control components and academic performance according to Pearson

correlation coefficient. All results for the components are positive and significant at high level of  $P < 0.01$ . The highest correlation between these dimensions is between positive and affective planning with a degree of correlation of 0.335, showing that with 99% confidence one can claim that with increase in planning, positive effect of students will have the greatest increase and vice versa with its decrease, positive emotion will decrease. Moreover, the lowest correlation observed was between motivation and positive affection – 0.252 (Table 1).

**Table 1: Correlation matrix between affective control dimensions and students' academic performance**

Dimensions	Positive affect	Anxiety	Depression mood	Anger
Self-efficacy	0.332	0.320	0.309	0.443
Emotional effects	0.255	0.284	0.277	0.287
Planning	0.335	0.319	0.317	0.467
Lack of consequence control	0.324	0.282	0.337	0.437
Motivation	0.252	0.292	0.244	0.319

Pearson correlation coefficient was used to study the relationship between mental health components and academic performance. In testing this hypothesis, a positive relationship was found between the components of mental health and academic performance based on Pearson correlation coefficient. All results for the components were observed to be positive and significantly high at the level of  $P < 0.01$ . The greatest correlation between these dimensions was between motivation and social function at a correlation of 0.412. This shows that with 99% confidence, one can state that the increase in motivation will bring about the highest social performance of students and vice versa. Moreover, the lowest correlation was between affective effects and physical symptoms as 0.226 (Table 2).

**Table 2: Matrix of correlation between mental health dimensions and students' academic performance**

Dimensions	Depression symptoms	Social function	Anxiety and sleep disorder	Somatic symptoms
Self-efficacy	0.345	0.289	0.395	0.332
Emotional effects	0.391	0.334	0.333	0.226
Planning	0.382	0.332	0.347	0.368
Lack of consequence control	0.295	0.381	0.385	0.337
Motivation	0.259	0.412	0.228	0.345

Pearson correlation coefficient was used to study the relationship between affective control and mental health with academic performance. This section calculated the Pearson correlation coefficient between the control affective control and academic performance of the students. The significance level of the test also shows a significant relationship between affective control with students' academic performance at 95% confidence level ( $P < 0.05$ ), and the correlation coefficient was equal to 0.539. These numbers are positive and represent a direct correlation between the variables. Furthermore, Pearson correlation coefficient between mental health and students' academic performance was calculated in this section. The significance level of the test showed a significant relationship between mental health and students' academic performance at 95% confidence level ( $P < 0.05$ ), and the correlation coefficient was 0.536. These numbers are positive showing a direct correlation between the variables (Table 3).

**Table 3: Studying the correlation between affective control and mental health with academic performance**

VARIABLES		MENTAL HEALTH	AFFECTIVE CONTROL
EDUCATIONAL FUNCTION	PEARSON CORRELATION	0.536	0.539
	SIGNIFICANCE	0.000	0.000
	NUMBER	170	170

Finally, stepwise regression equation (Table 4) was used to determine which of the variables - affective control and mental health - predicted academic performance more. The results of Table 4 show that the predictive regression model of academic performance is done in two steps. In the first step, affective control enters the equation with the coefficient of determination ( $R^2$ ) as 0.236. In other words, affective control alone determines 23.6% of the variance in academic

performance. In the second step, besides the affective control, mental health was included in the equation. With the entry of this variable, the coefficient of determination ( $R^2$ ) increased to 0.282. In other words, affective control and mental health together determine 28.2% of variance in academic performance.

**Table 4: Prediction of students' academic performance based on affective control and mental health**

model	Estimated criterion error	Adjusted coefficient of determination	Coefficient of determination ( $R^2$ )	The correlation coefficient
1	0.497	0.216	0.236	0.495 <sup>a</sup>
2	0.488	0.244	0.282	0.526 <sup>b</sup>
a. Predictors: affective control				
b. Predictors: affective control, mental health				
Dependent variable: educational function				

## Discussion

The development of science and the expansion of the range of different sciences make obtaining more information with more durability in a shorter time indispensable. Thus, one of the duties of educators is identifying the appropriate ways for students to learn faster and better, and the optimal use of learners at a limited time of instruction. In addition to learning the officially taught contents, learners learn how to communicate with others and perceive their views in the school environment (Bazrafshan, Jahangir et al. 2014; Vidourek, King et al. 2014; Farahangiz, Mohebpour et al. 2016; Bazrafshan, Jahangir et al. 2017). Researchers say that it is very fruitful that in addition to acquiring the skills and information they are formally provided with, the learners learn and experience communication with others as well as creating a positive outlook on the school. Educationalists try to provide appropriate methods for the optimal use of opportunities and facilities for better, deeper and wider learning, and while opposing the previous definitions of teaching as mere information transfer, they consider teaching as helping the students to understand and comprehend the content. Students' participation in the learning process is so important that some educators have introduced the extent of student participation in learning activities as a criterion for evaluation of teachers. If we want to introduce and describe a teacher or a good class in a phrase, we can say that the good teacher is the one who provokes students to curiosity and further questions (Irwin, McClelland et al. 1989; Poorkiani, Sheikhalipour et al. 2016). After extensive studies in this regard, Benjamin Bloom has concluded that student participation in class is the clearest indicator of educational effectiveness (Saif 2013). New and advanced participatory learning theories of group research state that learning is effective when the learner assumes the central role. The teacher should be guided and directed and try to participate in the class activities in more ways in different ways (Saif 2007). The teachers who teach indirectly are more effective than the ones who do not use this method. This is because students are more active in the indirect teaching method where the teacher tries to make students think and engage them with learning situations, whereas in the direct teaching, the teacher only presents the contents to the students (Mesquita, Coutinho et al. 2015). Involving students in the learning process is not limited to asking them some questioning, but the teacher must actively engage the student's in the learning process, in the beginning, the presentation of the lesson, and summarizing of it. Moreover, the teacher must consult the students in different ways about the class, teaching and even the evaluation method, and include their comments and suggestions because giving students the opportunity to provide feedback will satisfy students' need for self-reflection and prevent many behavior abnormalities (Irwin, McClelland et al. 1989; Saif 2007; Jahangir, Bazrafshan et al. 2009; MacDonald-Wicks and Levett-Jones 2012; Saif 2013; Shankar, Dubey et al. 2013; Bazrafshan, Jahangir et al. 2014; Adams 2015; Farahangiz, Mohebpour et al. 2016; Poorkiani, Sheikhalipour et al. 2016; Bazrafshan, Jahangir et al. 2017). Given the specific demographic structure, a large class of Iran population is made up of students. Attention to this point raised the aspects of cultural and educational needs that should be considered as a national and religious duty in children's and juvenile rights, student's health and their developmental tools. Undoubtedly, the students will have the ability to show their talents and God given ingenuity when they are healthy, and being aware of their health would be one of the critical steps in nurturing their talents. Certainly, the timely diagnosis of physical and mental-behavioral disorders can prevent subsequent complications and progression of complications (Tomaras, Ginieri-Coccosis et al. 2011; Shankar, Dubey et al. 2013; Kotter, Tautphaus et al. 2014; Bazrafshan, Sharif et al. 2015).

The purpose of education is not only the teaching of the lesson but also raising the student's body and mind. The issue of mental health of children has not yet been taken into consideration by the school and due to this negligence; the school has indirectly contributed to the increase in the mental disorders of children. We have to admit that the responsibility of school principals is not summarized to raising awareness and familiarizing students with cognitive, social and ethical values, but they are responsible for changing and correcting inconsistent behaviors and providing mental maturity and health for children and adolescents. Like many other studies in the field of human sciences, the present study had some limitations that make generalization of the result to be done cautiously. Some of the limitations were lack of interest of some students in participation in the study, lack of the generalizability of the results to other institutions and academic and educational organizations as well as different characteristics of teachers and learners.

## References:

- [1]. Adams, N. E. (2015). "Bloom's taxonomy of cognitive learning objectives." *J Med Libr Assoc* **103**(3): 152-153.
- [2]. Bagheriyazdi, A., J. Bolhari, et al. (1994). "An Epidemiological Study of Psychological Disorders on a Rural Area (Meibod, Yazd) in Iran." *Iranian Journal of Psychiatry and Clinical Psychology* **1**(1): 32-41.
- [3]. Bazrafshan, M., F. Jahangir, et al. (2017). "What Protects Adolescents from Suicidal Attempt: A Qualitative Study." *Shiraz E-Medical Journal* **18**(9): e57574.
- [4]. Bazrafshan, M. R., F. Jahangir, et al. (2014). "Coping strategies in people attempting suicide." *Int J High Risk Behav Addict* **3**(1).
- [5]. Bazrafshan, M. R., F. Sharif, et al. (2015). "Cultural concepts and themes of suicidal attempt among Iranian adolescents." *Int J High Risk Behav Addict* **4**(1).
- [6]. Bazrafshan, M. R., F. Sharif, et al. (2016). "Exploring the risk factors contributing to suicide attempt among adolescents: A qualitative study." *Iran J Nurs Midwifery Res* **21** (1): 93-99.
- [7]. Farahangiz, S., F. Mohebpour, et al. (2016). "Assessment of Mental Health among Iranian Medical Students: A Cross-Sectional Study." *Int J Health Sci* **10**(1): 49-55.
- [8]. Irwin, W. G., R. McClelland, et al. (1989). "Communication skills training for medical students: an integrated approach." *Med Educ* **23**(4): 387-394.
- [9]. Jahangir, F., M. R. Bazrafshan, et al. (2009). "Comparison of coping mechanisms used by suicidal attempt patients, and those without suicidal history." *Hormozgan Medical Journal* **13**(2): 109-113.
- [10]. Kotter, T., Y. Tautphaus, et al. (2014). "Health-promoting factors in medical students and students of science, technology, engineering, and mathematics: design and baseline results of a comparative longitudinal study." *BMC Med Educ* **14**(134): 1472-6920.
- [11]. MacDonald-Wicks, L. and T. Levett-Jones (2012). "Effective teaching of communication to health professional undergraduate and postgraduate students: A Systematic Review." *JBI Libr Syst Rev* **10**(28 Suppl): 1-12.
- [12]. Mesquita, I., P. Coutinho, et al. (2015). "The Value of Indirect Teaching Strategies in Enhancing Student-Coaches' Learning Engagement." *J Sports Sci Med* **14**(3): 657-668.
- [13]. Poorkiani, M., Z. Sheikhalipour, et al. (2016). "The General Health Level of Bachelor Degree of Nursing and Operation Room Students." *Research Journal of Medical Sciences* **10**(7): 822827.
- [14]. Rafi Bazrafshan, M., F. Sharif, et al. (2016). "The Effect of Paternal Addiction on Adolescent Suicide Attempts: A Qualitative Study." *Int J High Risk Behav Addict* **5**(3).
- [15]. Saif, A. A. (2007). "Educational psychology (teaching and learning)." *Tehran, publishing aware*.
- [16]. Saif, A. A. (2013). "Modern educational psychology: psychology of learning and teaching." *Tehran: Doran*.
- [17]. Shankar, P., A. Dubey, et al. (2013). "Student attitude towards communication skills learning in a Caribbean medical school." *Australas Med J* **6**(9): 466-475.
- [18]. Tomaras, V. D., M. Ginieri-Coccosis, et al. (2011). "Education in mental health promotion and its impact on the participants' attitudes and perceived mental health." *Ann Gen Psychiatry* **10**(33): 10-33.
- [19]. Vidourek, R. A., K. A. King, et al. (2014). "Students' benefits and barriers to mental health helpseeking." *Health Psychol Behav Med* **2**(1): 1009-1022.