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The relationship between Students' Perceptions of Curriculum Components and Their Academic Enthusiasm

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Abstract

Background & Objectives: Given the fact that students' perception of curriculum components and their academic enthusiasm are among the most important factors affecting academic achievement of students in the higher education system, this research aimed to evaluate the relationship between students' perceptions of curriculum components and their academic enthusiasm.

Materials and Methods: This descriptive correlational research was conducted on all students studying in schools of nursing, midwifery, and health of Gonabad University of Medical Sciences, Gonabad, Iran in 2016. The sample size was estimated at 230 using the table by Krejcie & Morgan. In addition, subjects were selected via random sampling, and data were collected applying the questionnaire of students' perception of curriculum components and academic enthusiasm scale. Moreover, data analysis was performed in SPSS version 20 using Pearson's correlation coefficient, multiple regression, and independent t-test.

Results: In this research, a positive and significant association was found between all curriculum components and academic enthusiasm. In other words, academic enthusiasm could be predicted based on curriculum components (f=29.81, P=0.0001). However, no significant relationship was observed between students of different fields in terms of academic enthusiasm. On the other hand, there was a significant difference between male and female students in this regard (t=2.33, P=0.021).

Conclusion: According to the results of the study, a positive and significant relationship was observed between all curriculum components and academic enthusiasm of the subjects. Therefore, it is recommended that applying interesting educational methods, training various evaluation techniques, and designing efficient and up-to-date contents be considered in this respect.

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Introduction

Academic achievement is one of the most important structures of education in the modern era. In this regard, factors affecting the substructures of this area have been considered for maximal improvement of academic achievement (1). Several studies have been conducted in various disciplines and educational levels regarding academic failure and to assess the resulting reduction in the academic achievement of students (2, 3). Meanwhile, various social and individual factors (e.g., lack of motivation and academic enthusiasm) are recognized as causes of academic failure (4, 5).

Academic enthusiasm is rooted in the learning literature. In this regard, academic enthusiasm is interpreted as a constant change of learning and revision and expansion of success in this area by students (6). Supported academic performance, self-efficacy, and self-esteem directly affect academic enthusiasm (7), in a way that learners with special disabilities (e.g., dyslexia) have the low internal motivation and academic enthusiasm, which can be improved by behavioral and cognitive interventions (9). Academic enthusiasm is one of the effective factors in learning and education (10). In addition, this factor has positive and negative impacts on the behavior of learners. The positive effects of academic enthusiasm on the behavior of learners can be observed in learners of technical fields, who have a desire for lifelong learning, continued education, a constant presence in educational courses, and putting efforts into gaining specialty in their fields (11). However, one of the negative impacts of academic enthusiasm is having an academic enthusiasm higher than expected, which can lead to several problems, including a lower level of interaction with the educational environment, high anxiety level, and behavioral-emotional issues (12).

Academic enthusiasm must always be considered by instructors and experts who design the higher education curriculums. Specifically, these individuals must focus on areas such as rich learning opportunities, proper education, rich and challenging contents, mental health, improvement of academic performance, and passion for learning in students (13). Professor's limited knowledge of teaching and learning negatively affects student learning (14). Therefore, research on curriculum components is an inevitable necessity.

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According to Tyler's view, curriculum design leads to the evaluation of education learning results by instructors since the goal of education is helping the growth of students in various areas (15). In the logic of curriculum designing by Tyler, most attention is paid to educational objectives, learning (content) experiences, organization and increasing the effectiveness of learning experiences (teaching methods) and evaluation (16, 17).

Evaluation of curriculum needs has shown that the components of goal, interesting educational activities proportional to the needs and interests of students, content, and assessment and educational strategies have the highest priorities (18). The Tyler's model for curriculum design has been considered due to the "evaluation" of the process of change in the curriculum and preparation of a systematic approach for students in their scientific activities (19). Educational materials and up-to-date technological resources that are provided for curriculum designers in each evaluation of the curriculum are among the advantages of Tyler's curriculum components (20). Development and change of curriculum significantly increase the passion for learning and self-learning skill of learners (21). Studies in Taiwan have shown that positive attitude toward learning skills and being satisfied with the curriculum are among the important factors for recognition of professional self-concept of learners (22).

Among the issues expected from a curriculum by learners are attention to self-learning and professional personnel so that the self-confidence of learners could increase in this regard (23). The attitude of learners toward the learning and curriculum contents helps their motivation to learn (24). In studies by Zhao et al. in universities of China, it was concluded that according to the assessment system of higher education courses, students pay attention to curriculum components in the following order:

1. The objectives of the curriculum must be based on the occupation and needs of students (learner-centered).
2. The content of the curriculum must be rich, extensive and up-to-date.
3. Teaching methods must be collaborative, flexible and diverse.
4. The assessment of learners must be carried out with different and logical techniques (by doing so, the learning problems of students will be determined).
5. The curriculum must improve the abilities of learners (25).

Shawer evaluated the perception of teachers

about curriculum contents and showed a gap between the intended and implemented curriculums (26). Other studies have demonstrated that teachers' passion for teaching increases the academic enthusiasm and learning behaviors of students (27-30). In addition, results obtained by Cui et al. were indicative of an increase in the academic enthusiasm of students in the behavior dimension (31). Putting efforts into any curriculum component will significantly change the academic achievement and performance of students. Moreover, attention to the contents and considering the conceptual map will result in a significant learning and academic achievement (32, 33). Effectiveness of different teaching methods on academic achievement and attitude of students has been mentioned in various researches (34, 35).

As expressed, lack of motivation and academic enthusiasm are factors affecting the academic failure. On the other hand, learning itself creates motivation in students (36), which is associated with increased academic enthusiasm. For instance, in the evaluation component, students who were assessed based on old techniques had a better attitude toward creativity (37). In addition, in the teaching methodology component, the attitude and academic progress of students improved with new teaching techniques, compared to conventional teaching methods (38). Literature review revealed the lack of research on the assessment of the relationship between the students' perceptions of curriculum components and their academic enthusiasm. Given the importance of students' perceptions of curriculum components (e.g., goals, contents, teaching methods, and assessment techniques) in their academic performance and learning, conducting studies in this area is of foremost importance. With this background in mind, our researchers aimed to answer the question of: "is there a relationship between students' perception of curriculum components and their academic enthusiasm?".

Materials and Methods

This descriptive correlational research was conducted on all students in the schools of health, and nursing and midwifery in Gonabad University of Medical Sciences, Gonabad, Iran. Subjects were selected through stratified sampling and by using the Krejcie & Morgan Table. The following table provides the number of disciplinarily and gender divided of a total of 230 students:

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Table 1: The number of individuals sampled by academic degree and gender

Nursing	Midwifery	Environmental Health	Occupational Health	Public Health	Total
99	37	34	30	30	230
30	11	10	9	9	69
69	26	24	21	21	161

Data Collection Tools

In this research, two questionnaires were used to collect the data. The first questionnaire was students' perceptions of curriculum components scale developed by Tatari in 2015 (39). This scale has 40 items scored based on a five-point Likert scale (from completely agree=5 to completely disagree=1). However, the items 1, 3, 4, 5, 7, 8, 10, 18, 20, 33, 24, and 36 are scored reversely. In addition, items one-five are related to the subscale of objective, whereas items 3-16, 14-27, and 28-40 are related to the subscales of methodology, content, and assessment, respectively. In the current research, the reliability of this scale was calculated at the Cronbach's alpha of 0.856.

The second questionnaire was the academic enthusiasm scale (AES) by Fredericks et al. (40). This 15-item scale has three behavioral, emotional and cognitive subscales, where items 1-4 are related to the subscale of behavioral enthusiasm while the items 5-10 and 11-15 are related to the subscales of emotional and cognitive enthusiasm, respectively. Each item is scored based on a five-point scale from never to always, where mean and maximum scores and the cut-off point of the whole AES scale are 15, 75, and 45, respectively. In addition, the mean and maximum scores and the cut-off point of the behavioral enthusiasm subscale are 4, 20, 12, respectively, whereas they are 6, 3, and 18 for the emotional enthusiasm subscale, respectively. These scores are 5, 25, and 15 for the cognitive enthusiasm subscale, respectively. In this regard, lower scores are indicative of low academic enthusiasm while higher scores demonstrate a high academic enthusiasm. Reliability of the total scale was estimated at the Cronbach's alpha of 0.72 in a research by Ajam et al., whereas the reliability of the academic, behavioral and cognitive subscales were obtained at the Cronbach's alphas of 0.73, 0.71, and 0.69, respectively (41).

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The research was initiated after consulting with experts of the field, collecting the necessary information, and ensuring the competence of measuring instruments. Researchers selected the subjects from Gonabad University of Medical Sciences without any bias and specific interests. In addition, the questionnaires were provided for students through a friendly interaction and after receiving a written consent. In addition, participation in the research was voluntary, and the students were ensured of the confidentiality terms regarding their personal information. Moreover, the scales were randomly distributed among the participants (male and female, married and single) from different disciplines. It is notable that this study was approved by the research deputy of Payam-e Noor University of Mashhad, Iran with the code of D/1/12/1534. Furthermore, data analysis was performed in SPSS version 20 using descriptive statistics, mean and standard deviation, Pearson's correlation coefficient and multiple regression to assess the research items.

Results

In this research, Pearson's correlation coefficient was applied to evaluate the relationship between students' perceptions of curriculum components and their academic enthusiasm, results of which are presented in the table below.

As shown in Table 2, a positive and significant relationship was observed between the curriculum components and academic enthusiasm of students in Gonabad University of Medical Sciences. In addition, the multiple regression model was used to predict the academic enthusiasm of students through the variable of students' perceptions of curriculum components. Moreover, the Kolmogorov-Smirnov test was exploited to assess the normal distribution of the data, which was confirmed in the research ($Z=0.89$, $P>0.05$). Durbin–Watson statistic was equal to 1.63 and below four, which was indicative of independence of errors. Furthermore, in most cases, the maximum of Vif was 3.45 and it was significantly below 10. Therefore, there was no collinearity problem in changes, and the assumptions of normal distribution, collinearity and independence of errors from each other were established for the multiple regression. In the mentioned model, variables that had a significant relationship with the academic enthusiasm of students based on the table below entered the equation and the level ofeffectivenessofeachofthem was determined. The results are presented in the table below.

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Table 2: Correlation between students' perceptions of curriculum components and their academic enthusiasm

name Variable	Target	Content	Teaching method	Evaluation	Total score of curriculum components	Academic enthusiasm
Content	0.57**	1				
Teaching method	0.31**	0.36**	1			
Evaluation	0.50**	0.42*	0.44**	1		
Total score of curriculum components	0.67**	0.69**	0.79**	0.81**	1	
Academic enthusiasm	0.55**	0.49**	0.55**	0.41**	0.53**	1

****.correlation is significant at the 0.01 level (2-tailed).**

***.correlation is significant at the 0.05 level (2-tailed).**

According to Table 3, the F amount was significant, and 34.6% of the variance of academic enthusiasm of students was determined based on the students' perception of the curriculum components. In this research, the independent t-test was applied to evaluatethedifferencebetweenmale and female participantsregardingacademic enthusiasm.

Table 3: Descriptive statistics of regression model to predict students' academic enthusiasm through student's viewpoints on curriculum components.

Forecast variables	Std.Error	Beta	t	Sig.
Target	0.15	0.27	3.89	0.0001
Content	0.12	0.41	5.10	0.0001
Teaching method	0.15	0.28	3.92	0.0001
Evaluation	0.10	0.43	5.17	0.0001
Total score of curriculum components	0.075	1.41	10.72	0.0000

$F_{(254,5)}$ =29.81 , P value<.0.0001, R^2= 0.346

According to the results shown in the table above, the value of t was 2.32 at the alpha level of 0.021. In this regard, a significant difference was observed between the male and female subjects in terms of academic enthusiasm. In this research, the one-way analysis of variance (ANOVA) was exploited to assess the difference in the academic enthusiasm of students based on their field of study.

Table 4: T-test results for meaningful differences in the student's enthusiasm for male and female students

Sex	N	Mean	Std.deviation	df	t	Sig.
women	172	45.40	6.76	228	2.32	0.021
men	58	43.00	6.92			

Table 5: The results of one way variance analysis test to examine the students' academic enthusiasm differentiation with regard to the field of study

	Sum of Squares	df	Mean Square	f	Sig.
Between Groups	473.358	4	109.34	2.37	0.053
Within Groups	10381.442	225	46.14		
total	10818.80	229			

As observed in the table above, no significant difference was found between the academic enthusiasm of students and their field of study.

Discussion

The present study was conducted to evaluate the relationship between the students' perception of curriculum components and their academic enthusiasm in Gonabad University of Medical Sciences. According to the results of the study, a positive and significant relationship was observed between all curriculum components (objectives, contents, methods, assessments) and academic enthusiasm of the participants, which is in line with the results obtained by Rowe (42), Maranali (43), and Abiri et al. (34). The mentioned researchers showed that determining goals is not only important for content preparation, but it is also crucial for the active participation of students. In addition, psychological needs of each study level provide a proper foundation for activities of students.

Various teaching methods have different effects on the perception and academic enthusiasm of students. To explain this finding, it could be noted that the education system affects the quality and quantity of academic enthusiasm of students by using efficient curriculums and transferring knowledge to students by professors. As such, attention to changes and more updating of

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curriculums based on the needs, learning theories and economic and cultural situations of students could have a direct impact on learning and passion for learning. It seems that focusing on the curriculum components must be put on the agenda of education planners and decision-makers.

Results have demonstrated a significant difference between academic enthusiasm of students and their gender since there was a higher level of academic enthusiasm among female students, compared to male students. In this regard, our findings are in congruence with the results obtained by Rahimi et al. (3), Ebrahimzadeh et al. (2), and Vahedi et al. (44). These researchers reported a higher rate of unsuccessful male students, compared to the female students. Moreover, female students had a higher academic enthusiasm, compared to male individuals. It seems that participation in learning increases academic enthusiasm of students.

Due to the higher focus on finding a job and establishing a family, male students less attempt to learn the academic contents. In addition, studies have shown that there is a greater tendency to learn in male students in more competitive educational environments (44). Learning might be regarded as a simple task if there is no competitive learning environment. On the other hand, there is a higher level of educational facilities and incentives for continued education of female students, which leads to a higher academic enthusiasm in these individuals, compared to male students.

In the current research, no significant association was found between academic enthusiasm and field of study, which is consistent with the results obtained by Rahimi (3). In the mentioned study, no significant difference was observed between different medical disciplines in terms of level of academic failure, which is in accordance with the results of Rahimi (3), who showed no significant difference between all medical disciplines regarding the level of academic failure. This could be justified by different curriculums existing for each medical field designed by the ministry of health. Professors of each field aim to provide a content in coordination with the curriculums of the ministry of health. Moreover, there are some mutual courses between various medical fields that must be passed by all medical students, which has led to a uniformity among all medical disciplines.

Conclusion

According to the results of the current

research, a significant and positive relationship was observed between all curriculum components (objectives, contents, methods, assessments) and academic enthusiasm of students. These results demonstrated that any measure taken to increase the academic enthusiasm and progress must provide a proper educational foundation in all curriculum components. Therefore, it is recommended that educational goals, which are gathered from various resources of individuals, society and experts to discover the skills of students, be directly followed up by professors through proper content production and teaching methods in the university environment. By doing so, we can assess the usefulness of the program and contents by accurate assessment of students' progress. In addition, it is suggested that interesting educational methods, various evaluation techniques and design of efficient contents be put on the agenda of education system planners of universities. One of the major drawbacks of this research was an only assessment of health and nursing and midwifery students, which limited the generalizability of the results.

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