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## **Influence of Irrational Belief on Academic Performance among Students in Some Federal Colleges of Education in the North-West Zone, Nigeria**

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**ABSTRACT:** *The paper focused on the influence of irrational beliefs on academic performance of students in Federal Colleges of Education in the North-West Zone, Nigeria. The design employed for the study was descriptive survey. The sample made up of one thousand two hundred (1200) NCE III students. The sample was randomly selected using multistage random sampling technique. The instrument for data collection was a self-designed questionnaire which was validated by an expert each from Guidance and Counselling and Psychology Departments of Federal College of Education, Zaria. The instrument was pilot tested, using split half method the results of the two scores were subjected to PPMC analysis which yielded 0.73 as correlation coefficient. The data were analyzed using Frequency count and Mean Statistics to answer the research questions while the hypotheses were tested using ANOVA and t test statistics. The findings of the study revealed that there is overall prevalence of irrational beliefs among the respondents, that irrational beliefs influence their academic performance and that different types of irrational beliefs held by students. The study further revealed that there were significant differences in the prevalence of irrational beliefs among students based on age, gender and marital status. The paper recommended that interventions to reduce the prevalence of irrational beliefs among students' population should be developed by teachers, counsellors, mental health professionals and that there should be adequate counselling and orientation periodically by counsellors and other stakeholders to educate on the impacts of irrational beliefs on their academic performance among others.*

**KEY WORDS:** irrational beliefs, Academic performance, Federal Colleges of Education.

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## INTRODUCTION

Education plays a crucial role in socio-economic development of a nation and her citizens, it is even considered as fundamental human right. That is the reason why various educational institutions were established. In Nigeria, Federal Colleges of Education (FCEs) serve as institutions pivotal to the preparation and training of teachers for the nation's educational system. These institutions aim to equip students with the necessary knowledge, skills, and attitudes to succeed in the teaching profession. Students in the Colleges of Education are in-school adolescents, which means that they must deal with adolescence, which is a period of transition from childhood to adulthood. Adolescence is a time of change for College students as they go through physical, cognitive, and social changes. In the colleges, students are judged through their academic performance in order to get a job or admission into tertiary institutions. Calvin and Chumba (2011) viewed academic performance as a method of expressing student's scholastic standing usually in grades, for a course or the average of all the courses. They refer to such performance as average scores got from tests which could either be termed good, average or poor. While numerous factors influence academic performance, the role of psychological and belief-related variables remains an area that requires significant attention. One of such variables is irrational beliefs.

Irrational beliefs, as conceptualized by Albert Ellis' Rational Emotive Behaviour Therapy (REBT), refer to irrational thought patterns that individuals hold about themselves, others, and the world around them. These beliefs can be detrimental to one's emotional well-being and, consequently to their academic performance. Tittle (1997) observed that students' irrational beliefs affect their academic life. Harju and Eppler (1997) also documented that students' irrational beliefs have an effect on their level of academic motivation. Kufakunesu (2015) also showed that students' irrational beliefs influence the extent to which they are motivated to achieve academically. In his study, Fasciani (2015) showed that students' irrational beliefs and academic motivation are interconnected. Stanciu, Dumitru, Mocanu, Mihoc, Gradinaru and Panescu, (2014) also found a similar result of irrational beliefs in relation to students' academic life. According to Davies (2008), one of the issues affecting students' academic life is irrational beliefs.

Irrational beliefs, characterized by distorted and irrational thought patterns can significantly influence an individual's cognitive, emotional, and behavioral responses to academic challenges. Ellis (1963) in Kathleen A. Ackerman (1991) defines irrational beliefs as "magical, unrealistic, empirically unvalidated [invalidated] beliefs that usually take the form of rigid, dogmatic should, oughts, musts, and demands". Irrational beliefs are disaster scenarios in the mind of the individual, including mind reading, spending time on things that are or will not happen, generalizing situations, and classifying themselves or other people based on their behaviour. Irrational beliefs may manifest in forms such as self-doubt, fear of failure, and pessimistic outlooks towards learning. There is convincing evidence that students think about learning differently, which results in rational and irrational beliefs (Purdie & Hattie, 2002). These beliefs are shaped by how

Publication of the European Centre for Research Training and Development-UK individuals interpret and reflect on their academic experiences (Lin, Liang and Tsai, 2012). Despite this, school-related irrational beliefs have been found to negatively affect achievement among secondary school learners which indicates an early predisposition to making sense of the world around us (Vezzani, Vettori and Pinto, 2018).

Research on gender-based stereotypes has consistently supported the notion that women are more likely to hold irrational beliefs than men (Allen & Haccoun, 1976). There is typically a difference between men and women in terms of their overall irrational beliefs, such as intensity of belief or level of expressivity, and in terms of the specific ways in which they express their emotions. The belief that women are more prone to irrational belief is widespread, but researchers disagree over whether there is empirical support for gender differences in irrational belief expression and experience. Research evidence suggests that women demonstrate irrational belief more verbally and non-verbally than men. Women express their fear with greater intensity, more frequently express fear with facial expressions, and are more likely to cry and freeze when frightened (Kring & Gordon, 1998). Göller (2010) concluded that gender is not a distinctive factor related to irrational beliefs. Ekşi (2012) did not find any meaningful results in terms of age in his research on university students on irrational beliefs.

Despite the potential significance of irrational beliefs, there is a paucity of research examining their influence on academic performance, particularly within the context of Federal Colleges of Education in the North-West region of Nigeria.

### **Statement of the Problem**

Education is a cornerstone of societal progress, and its effectiveness is pivotal in shaping the future of any nation. In Nigeria, Federal Colleges of Education (FCEs) in the North-West region serve as critical institutions for training future educators. However, despite their foundational role, there is a dearth of research examining the psychological factors that may impede academic success in this context. Academic performance is influenced by a multitude of factors, including but not limited to cognitive ability, motivation, study habits, socio-economic background, and psychological well-being. One of such psychological factor, irrational belief, characterized by distorted and irrational thought patterns, can significantly impact an individual's cognitive, emotional, and behavioral responses to academic challenges. However, the role of irrational beliefs in this context remains underexplored.

Despite the potential influence of these beliefs, there is a notable absence of empirical studies investigating their prevalence and impact on the academic performance of students in Federal Colleges of Education in the North-West region of Nigeria. This research gap is particularly significant given the unique socio-cultural and economic challenges faced by students in this region. Factors such as limited access to educational resources, financial constraints, and cultural norms may exacerbate the influence of irrational beliefs on academic performance. Therefore, this study aims to address the following key questions:

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What is the prevalence and nature of irrational beliefs among students in selected Federal Colleges of Education in the North-West region of Nigeria? How do irrational beliefs correlate with academic performance in this specific educational context? Are there potential mediating factors, such as socio-economic background or cultural influences that may modulate the relationship between irrational beliefs and academic performance?

By investigating the influence of irrational beliefs on academic performance in Federal Colleges of Education in the North-West region, this study seeks to provide valuable insights that can inform targeted interventions to enhance students' cognitive and emotional well-being, ultimately contributing to improved academic outcomes in the region.

### **Research objectives**

The primary objectives of this study are as follows:

1. To assess prevalence of irrational beliefs among students in selected Federal Colleges of Education in the North-West Zone, Nigeria.
2. To examine the influence of irrational belief and academic performance among students in selected Federal Colleges of Education in the North-West Zone, Nigeria.
3. To identify the most common types of irrational beliefs held by students in selected Federal Colleges of Education in the North-West Zone, Nigeria.
4. To investigate the influence of sociodemographic factors (age, gender, and marital status) on the irrational beliefs of students in selected Federal Colleges of Education in the North-West Zone, Nigeria.

### **Research Questions**

1. How prevalent are irrational beliefs among students in Federal Colleges of Education in the North-West Zone, Nigeria?
2. What is the influence of irrational beliefs on students' academic performance in Federal Colleges of Education in the North-West Zone, Nigeria?
3. What are the common types of irrational beliefs held by students in Federal Colleges of Education in the North-West Zone, Nigeria?

### **Hypotheses**

1. There is no significant age difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in relation to their academic performance.
2. There is no significant sex difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in relation to their academic performance.
3. There is no significant difference between single and married in the prevalence of irrational beliefs among students in Federal Colleges of Education in relation to their academic performance.

## **METHODOLOGY**

The design employed for this study is descriptive survey. The population of the study consisted of all registered NCE III for 2022/2023 academic session among students in the Federal Colleges of Education in the North-west zone, Nigeria. The sample was made up of one thousand two hundred (1200) students. The sample was randomly selected from four colleges of education in the North-West Zone, Nigeria using multistage random sampling technique. The instrument used for data collection was a self-designed questionnaire titled "Questionnaire on Influence of Irrational Beliefs on Academic Performance among Students in Federal Colleges of Education in the North-West Zone, Nigeria. The questionnaire was divided into four sections of A, B, C and D. Section A sought for the background information of the respondents, section B itemized ten (10) items designed to collect information on prevalence of Irrational Beliefs among students. The respondents were required to indicate to each of the item statement through the Likert scale of Very true of what I believe (**VT**), True of what I believe (**T**), Untrue of what I believe (**UT**), Very untrue of what I believe (**VU**). Section C contained information on Relationship between the Level of Irrational Belief and Academic Performance among students. This is done through Likert scale of Strongly Agree -**SA**, Agree- **A**, Disagree- **D**, Strongly Disagree- **SD**. Section D requested for information on types of Irrational Beliefs held by students.

The instrument was validated by an expert from Guidance and Counselling and one from Psychology Departments of Federal College of Education, Zaria. The instrument was pilot tested in one College of Education different from the targeted colleges using split half method to ascertain its internal consistency. The results of the two scores were subjected to Pearson Product Moment Correlation analysis which yielded 0.73 as correlation coefficient. The instrument was administered to the respondents with the assistance of class representatives and some lecturers who were given orientation on what the research is all about and how to administer the instrument. The data collected were analyzed using Frequency count and Mean Statistics to answer the research questions. The Mean cut off point was 2.50 which means all items with Mean of 2.50 and above were accepted while those with less than 2.50 were rated as having no influence and were rejected. The hypotheses were tested using ANOVA and t test statistics.

## **RESULTS**

The results of the influence of irrational beliefs on the academic performance of students in selected Federal Colleges of Education in North-West Zone, Nigeria were presented on the basis of research questions posed for the study as well as hypotheses tested. Each of the research questions has a number of items that attempted to answer the question. Respondents' view on every section of the questionnaire is hereby analyzed below.

**Research Question One**

How prevalent are irrational beliefs among students in Federal Colleges of Education in the North-West Zone, Nigeria?

In an attempt to answer the research question, subjects' responses to the items that attempt to answer the question are hereby described as it appears in table 1 below:

Table 1

*Means and Standard Deviations on the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone, Nigeria*

S/N	Item statement	Mean	SD	Remarks
1	I must always excel in every academic task or else I'm a failure.	2.43	1.006	Not prevalent
2	If I make a mistake in my studies, others will think less of me.	3.05	.675	Prevalent
3	I should never ask for help; I should be able to do everything on my own.	3.24	.745	Prevalent
4	If I'm not the best in my class, it means I'm not intelligent.	2.57	1.260	Prevalent
5	I can't handle failure; it's the end of the world for me.	2.56	.907	Prevalent
6	If a teacher or lecturer criticizes my work, it means I'm incompetent.	2.87	.618	Prevalent
7	I must be liked by all my lecturers.	2.69	.896	Prevalent
8	If I don't get the highest grade, I'll disappoint my family.	2.95	1.127	Prevalent
9	I believe that a single mistake will ruin my academic record.	3.08	1.134	Prevalent
10	My future success entirely hinges on my academic performance.	2.55	.905	Prevalent
<b>Weighted mean = 2.80</b>				

The findings from the analysis of the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone, Nigeria revealed that except for item 1 (M= 2.43, SD=1.006) there is overall prevalence of irrational beliefs among the respondents. The mean scores for all other items are above 2.5, indicating that, on average, students in Federal Colleges of Education tend to hold irrational beliefs related to their academic performance. The mean scores range from 2.55 to 3.24, indicating that students generally agree or strongly agree with these statements. That was why the weighted mean stood at 2.80.

**Research Question Two**

What is the influence of irrational beliefs on students' academic performance in Federal Colleges of Education in the North-West Zone, Nigeria?

To answer the research question, subjects' responses to the items that attempt to answer the question are hereby described as it appears in table 2 below:

Table 2

*Means and Standard Deviations on the influence of irrational beliefs on students' academic performance in Federal Colleges of Education in the North-West Zone, Nigeria*

S/N	Item statement	Mean	SD	Remarks
1	If I don't excel in academics, I'm a failure.	2.71	1.039	Influential
2	I'm terrified of receiving a grade lower than expected.	2.39	1.174	Not influential
3	A single academic setback means I'll never succeed.	2.56	.905	Influential
4	I believe that my worth is solely determined by my grades.	2.94	.741	Influential
5	I constantly fear disappointing my teachers or parents with my academic performance.	3.22	.776	Influential
6	I tend to overthink and worry about my academic results.	2.42	1.268	Not influential
7	I feel stressed when I receive feedback that points out areas for improvement.	2.88	1.085	Influential
8	My academic success is closely tied to my personal happiness.	3.00	1.031	Influential
9	I am afraid of disappointing myself and others with my academic performance.	2.99	.742	Influential
10	I often compare my academic achievements to those of my peers.	2.73	1.036	Influential
<b>Weighted mean = 2.78</b>				

Result from Table 2 above indicated that the respondents agreed that all the items stated on irrational beliefs have influence on their academic performance. The mean scores for all the items are above 2.5, indicating that, on the average, irrational beliefs hold by students in Federal Colleges of Education influence their academic performance. The mean scores range from 2.56 to 3.22, indicating that students generally agree or strongly agree with these statements. However, the students disagreed on items 2 and 6 of irrational beliefs as having influence on their academic performance. This implied that those items have rating scores (M=2.39, 2.42) respectively which are not up to or above 2.50 which is the acceptance level. However, the weighted mean of the items stood at 2.78 indicating that respondents generally agree or strongly agree with those statements.

### Research Question Three

What are the common types of irrational beliefs held by students in Federal Colleges of Education in the North-West Zone, Nigeria?

To answer the research question, subjects' responses to the items that attempt to answer the question are hereby described as it appears in table 3 below:

Table 3

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*Means and Standard Deviations on the common types of irrational beliefs held by students in  
 Federal Colleges of Education in the North-West Zone, Nigeria*

S/N	Item statement	Mean	SD	Remarks
1	I believe that my work must be perfect	2.85	1.124	Accept
2	I believe that one bad grade will ruin my entire academic record	2.6	.634	Accept
3	I take criticism on my academic work personally as an attack on me	2.25	.835	Reject
4	I often take a single academic failure and apply it to all future academic endeavours	2.56	1.160	Accept
5	I tend to believe that I know what others are thinking about my abilities	2.42	.873	Reject
6	I often believe that my peers are secretly discussing my academic struggles behind me	2.93	.746	Accept
7	I often use my emotional discomfort as evidence that I am not performing well	3.25	.764	Accept
8	I often use my emotional state as the sole basis for determining my academic success	2.78	1.048	Accept
9	I tend to downplay my academic success by attributing them to luck	2.55	0.889	Accept
10	I often use negative words to describe myself when I compare my achievements to others	3.06	0.918	Accept
<b>Weighted mean = 2.73</b>				

From Table 3, item mean scores of the common types of irrational beliefs held by students in Federal Colleges of Education in the North-West Zone, Nigeria were presented. Out of the ten items considered, eight were accepted by the respondents. This implied that those items have rating scores which are up to or above 2.50 which is the acceptance level. However, the table shown mean rating scores of 2.25 and 2.42 for item numbers 3 and 5 respectively which are below the acceptance level of 2.50, they were thereby rejected. Overall, the weighted mean of 2.73 posited that respondents generally agree or strongly agree with those statements.

**Research Hypothesis 1:** There is no significant age difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone.

In order to test this hypothesis, the information collected from the students on the age and prevalence of irrational beliefs among students were analyzed using One Way Analysis of Variance (ANOVA). The result is presented in table below:



Table 4

*Result on One Way Analysis of Variance (ANOVA) on age difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone.*

Sources of variation	Sum of squares	df	Mean square	F Ratio	Sig.	Decision
Between groups	104.619	14	7.473	4.628E29	.000	H <sub>0</sub> is rejected
Within groups	.000	1119	.000			
Total	104.619	1133				

In Table 4, the calculated F-value of 4.628 is greater than the critical F-value of 3.02 at 0.05 level with 14 and 1119 degree of freedom. The result is therefore significant and the null hypothesis is rejected. This means that students' age significantly influences the prevalence of irrational beliefs among them in Federal Colleges of Education in the North-West Zone.

**Research Hypothesis 2:** There is no significant gender difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone. In order to test this hypothesis, the information collected from the students on the prevalence of irrational beliefs among students and their sex were analyzed using t-test statistics. The result is presented in Table 5 below

Table 5

*Result of t test analysis of sex difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone*

Respondents	N	Mean	SD	Df	T. Cal.	T. Crit.	Sig.	Decision
Male	670	2.9061	0.28137	1132	15.689	1.96	.011	H <sub>0</sub> is rejected
Female	464	2.6450	0.26685					

Table 5 shows that the P value of .011 is greater than 0.05 alpha level of significance with a t-calculated 15.689 and df 1132. This shows that there was significant gender difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone. Therefore, the null hypothesis which stated that there is no significant gender difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone is hereby rejected.

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**Research Hypothesis 3:** There is no significant difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone based on marital status. To test this hypothesis, the information collected from the students on and prevalence of irrational beliefs among students and marital status was analyzed using t test statistic. The result is presented in Table 6 below

Table 6

*Result of t test analysis of significant difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone based on marital status.*

Respondents	N	Mean	SD	Df	T. Cal.	T. Crit.	Sig.	Decision
Single	745	2.8711	0.29966	1132	11.656	1.96	.001	H <sub>0</sub> is rejected
Married	389	2.6617	0.26183					

Table 6 shows that the P value of .001 is lesser than 0.05 alpha level of significance with a t-calculated 15.689 > 1.96 and df 1132. This shows that there was significant difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone based on marital status. Therefore, the null hypothesis which stated that there is no significant difference in the prevalence of irrational beliefs among students in Federal Colleges of Education in the North-West Zone based on marital status is hereby rejected.

## DISCUSSION

Items 1, 2, 5, and 8 reflect a strong concern about performance, fear of failure, and the need to meet high standards. This suggests that a significant portion of students may have high academic expectations of themselves and feel pressured to excel. Item 3 indicated that a considerable number of students believe they should not ask for help and should be able to handle everything independently. This belief may be indicative of a reluctance to seek assistance when needed. Item 4 indicated that a notable number of students tie their sense of intelligence to being the best in their class. This belief may lead to undue pressure and self-criticism. Item 6 suggested that many students associate criticism with incompetence. This may indicate a fear of evaluation and a potential impact on self-esteem. Item 7 showed that a significant number of students feel the need to be liked by their lecturers. This may indicate a desire for external validation. Item 8 revealed that a substantial portion of students believe that not achieving the highest grade would disappoint their family. This indicates a perceived connection between academic performance and familial approval. Item 9 indicated that many students believe a single mistake could have a catastrophic impact on their academic record. This suggests a tendency to exaggerate the consequences of errors. Item 10 showed that a significant number of students believe their future success depends entirely on their academic performance. In summary, the data suggested that irrational beliefs related to academic performance are prevalent among students in Federal Colleges of Education. These beliefs can have implications for their mental well-being and academic performance. It may

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be important for educational institutions to consider interventions or support mechanisms to address and mitigate these irrational beliefs.

Items 4, 5, 8, and 9 indicate that a significant number of students strongly believe that their self-worth, personal happiness, and fear of disappointing themselves and others are closely tied to their academic performance. This suggests that for these students, their academic success has a substantial impact on their overall well-being and self-esteem. Furthermore, items 1, 2, 3, 5, and 9 highlight a prevalent fear of academic setbacks and lower grades, with students expressing concerns about being labeled as failures or disappointing themselves, teachers, and parents. This fear may lead to high levels of stress and anxiety related to academic performance. In addition, item 7 indicates that a significant number of students feel stressed when they receive feedback that points out areas for improvement. This suggests that constructive criticism may be perceived as a source of anxiety and pressure. Also, item 10 suggested that a notable number of students engage in comparative thinking, frequently comparing their academic achievements to those of their peers. This behaviour may contribute to a competitive mindset and potentially increase feelings of inadequacy. Lastly, item 6 indicates that a considerable number of students tend to overthink and worry about their academic results. This behavior may lead to heightened levels of stress and anxiety.

In summary, the data suggested that irrational beliefs play a substantial role in influencing students' academic performance in Federal Colleges of Education. These beliefs can have significant implications for their mental well-being and overall academic success. It may be crucial for educational institutions to implement interventions that address and challenge these irrational beliefs, providing students with the tools to cultivate a healthier and more balanced approach to their academic pursuits. Additionally, providing resources for managing stress and constructive feedback may also be beneficial for students' overall well-being.

## **CONCLUSION**

This study seeks to shed light on the influence of irrational beliefs on the academic performance of students in selected Federal Colleges of Education in North-West Nigeria. By addressing this gap in the literature, the findings will provide valuable insights for educators, policymakers, and mental health professionals to develop targeted interventions that enhance students' cognitive and emotional well-being, ultimately contributing to improved academic outcomes in the region. With the prevalence of irrational beliefs among students in Federal Colleges of Education in North-West Nigeria, it can be concluded that irrational beliefs can impede academic success and can significantly impact an individual's cognitive, emotional, and behavioral responses to academic endeavours.

### **Recommendations**

1. Interventions aiming to reduce the prevalence of irrational beliefs among students' population which influence their academic performance should be developed by teachers, counsellors, mental health professionals.
2. There should be adequate counselling and orientation periodically by counsellors and other stakeholders to educate them on the impact of irrational beliefs on their academic performance.
3. School counsellors should assist students on how to use positive re-verbalization skill on those irrational beliefs that lead to worry and anxiety.
4. Awareness on the importance of self-confidence should be created as a means of reducing the level of irrational beliefs in students.

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### **REFERENCES**

- Allen, J. G., & Haccoun, D. M. (1976). Sex differences in emotionality: A multidimensional approach. *Human Relations*, 29 (8), 711-722.
- Calving, S. U. & Chamba M.J. (2011). Role of Emotional Intelligence in academic performance of Deviant Behaviour at School. Retrieved from <http://jobfunctionsbn.net/abstract.aspx?.decid>
- Ekşi, F. (2012). Kişilerarası ilişkiler: Psikolojik danışmanlık ve halkla ilişkiler öğrencilerinin karşılaştırılması. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 11(2): 79-94.
- Fasciani, L. M. (2015). The interrelations between academic motivation, irrational beliefs, and test anxiety in predicting achievement among high school students. [Unpublished doctoral dissertation]. St. John's University.
- Davies, M. F. (2008). Irrational beliefs and unconditional self-acceptance. III. The relative importance of different types of irrational belief. *Journal of Rational-Emotive & Cognitive Behavior Therapy*, 26(2), 102-118
- Göller, L. (2010). Ergenlerin akılcı olmayan inançları ile depresyonumutsuzluk düzeyleri ve algıladıkları akademik başarılar arasındaki ilişkiler. Yayınlanmış Yüksek Lisans Tezi. Atatürk Üniversitesi. Erzurum.
- Harju, B. L., & Eppler, M. (1997). Achievement motivation, flow and irrational beliefs in traditional and nontraditional college students. *Journal of Instructional Psychology*, 24(3), 147.

Publication of the European Centre for Research Training and Development-UK

- Kring, A. M., & Gordon, A. H. (1998). Sex differences in emotion: Expression, experience, and physiology. *Journal of Personality and Social Psychology*, 74(3), 686-703.
- Kufakunesu, M. (2015). The influence of irrational beliefs on the mathematics achievement of secondary school learners in Zimbabwe. [Doctoral dissertation, University of South Africa]. Unisa. Institutional Repository. <https://uir.unisa.ac.za/handle/10500/20072>
- Lin, Y. H., Liang, J. C., & Tsai, C. C. (2012). Effects of different forms of physiology instruction on the development of students' conceptions of and approaches to science learning. *Advances in Physiology Education*, 36(1), 42-47
- Purdie, N., & Hattie, J. (2002). Assessing students' conceptions of learning. *Australian Journal of Educational and Developmental Psychology*, 2, 17-32.
- Stanciu, M. M., Dumitru, H., Mocanu, D., Mihoc, A., Gradinaru, B. G., & Panescu, C. (2014). The connection between gender, academic performance, irrational beliefs, depression, and anxiety among teenagers and young adults. *Romanian Journal of Cognitive Behavioral Therapy and Hypnosis*, 1(2), 1-13.
- Tittle, M. (1997). The effects of foreign and second language students' irrational beliefs and anxiety on classroom achievement. <https://files.eric.ed.gov/fulltext/ED411674.pdf>
- Vezzani, C., Vettori, G., & Pinto, G. (2018). Assessing students' beliefs, emotions and causal attribution: Validation of learning conception questionnaire. *South African Journal of Education*, 38(2), 1-18.