

Periodic Research

Level of Test-Anxiety Among Adolescent Professional Competitors in Relation to their Mental Health

Abstract

The prime goal of education is to make all and development of one's personality and make his/her good citizen of the nation.

Life in general and for a student in particular has become highly competitive. Almost all the attractive courses like medicine, engineering, management etc. have competitive test for admission. The study of adolescence in the present circumstances becomes more essential in order to prevent, preserve, cure and improve their deteriorating trends in mental health and physical health. Competition also spurs the individual to have better performance. Adolescence is the period when individual develop interest in their future career and they have to go through different competitive entrance tests. If they have not prepared well, they feel mentally disturbed which results stress and test-anxiety. It is considered as a block on an activity.

So, to come out of such problems the present study emphasizes on the facts that affect the mental health of adolescent competitors so that, they develop test anxiety and the study also answers the questions such as up to what level of anxiety is necessary for competitors.

Keywords: Health, Text Anxiety, Adolescent, Professionals, Comptitons, Mental Health.

Introduction

Education plays a very unique and specific role in society as it is directed towards the full development of human personality. Without education we cannot recognize the universality of human aims and aspirations (Kofi Annan, 2002). Education helps realizing the life goals and supposed to fulfill all the wishes of the people.

In this present age of global extension vast revolutionary changes have silently crept into the human life. Modern era is full of competitions and it has now become a part of parcel of the present generation which has become highly conscious of all its future prospects. In every field people try to compete with others, the academic pursuits seems to emerge as the most important and relevant aspects of life where people try to do their best over others.

Another problem which often springs up is the unrealistic level of aspiration of the young competitor's performance and either overestimate underestimate, such unrealistic aspirations often result into the damaging effects on their mental health and overall development of their personalities in future.

Competition in now linked with almost all the fields of career like medical, law, engineering, management,administrative services etc. where the competitors go through the entrance test to get admission in desired courses and colleges.

Need and Importance of Study

The prime goal of education is to make all and development of one's personality and make his/her a good citizen of the nation.

Life in general and for a student in particular has become highly competitive. Almost all the attractive courses have to go through admission test for admission.The study of adolescence in the present circumstances becomes more essential in order to prevent, preserve, cure and improve their deteriorating trends in mental health and physical health. Competition also spurs the individual to have better performance.



Rita Srivastava

Assistant Professor,
Deptt.of Training,
A.N.D.N.N.M.Mahavidyalaya,
Harsh Nagar, Kanpur

If they have not prepared well, they feel mentally disturbed which results stress and test-anxiety. It is considered as a block on an activity. So, to come out of such problems researcher felt the need and importance of present study to highlight the facts that affect the mental health of adolescent competitors so that they develop test anxiety and the study also answers the questions such as up to what level of anxiety is necessary for competitors.

Aim of the Study

Following are the objectives to the present study

1. To study the level of test-anxiety in medical male and female competitors.
2. To study the level of test-anxiety in engineering male and female competitors.
3. To compare the test-anxiety of medical male and female competitors.
4. To compare the test-anxiety of engineering male and female competitors.
5. To compare the test-anxiety of medical female and engineering female competitors.
6. To compare the test-anxiety of medical male and engineering male competitors.
7. To compare the test-anxiety of medical and engineering competitors.
8. To study the relationship between the test-anxiety and mental health of medical competitors.
9. To study the relationship between the test-anxiety and mental health of engineering competitors.
10. To find out the effect of test-anxiety on mental health of competitors.

Hypotheses of the Study

1. There is significant difference in test-anxiety of medical boys and medical girls competitors.
2. There is significant difference in test-anxiety of engineering boys and engineering girls' competitors.
3. There is significant difference in test-anxiety of medical boys and engineering boys competitors.
4. There is significant difference in test-anxiety of medical girls and engineering girls competitors.
5. There is significant difference in test-anxiety of medical and engineering competitors.
6. There is significant relation between test-anxiety and mental health of medical competitors.
7. There is significant relation between test-anxiety and mental health of engineering competitors.

Delimitations of the Study

1. Population of present study consists of medical and engineering competitors of Kanpur city only.
2. The study is confined to Medical and 2 engineering coaching's of Kanpur.
3. The study has been conducted on adolescent (17⁺ age group) undergraduate competitors only.
4. Due to lack of time and sources, sample of total 200 students were chosen for final analysis, 100 of medical and 100 of engineering.

Review of Literature

Reddy, et. al. (2002) studied school -going children of 9th and 10th grades drawn randomly from private and public schools. Results revealed there was significant impact of the type of school on mental

health status of both girls males and females. The students of co-educational schools were mentally healthier. Jee-Lee, Gary F. Koeske et. al. (2004) studied Buffering of acculturative stress. The researchers conducted the study to find out the symptoms of mental health among Korean International students. The study revealed that stress was strongly correlated with mental health symptoms. Ritu Modi (2006) conducted a research to study the level of aspiration and parental encouragement as related to mental health among the professional competitors.

Dr.K.Vijayakumari (2010) conducted a study focusing on the relationship of academic-anxiety and achievement motivation with Academic Achievements. Findings of the study reveal that academic achievement is negatively related to academic-anxiety and positively related to academic motivation. Carlton S. Gass and Rosie E. Curiel (2011) study test-anxiety in relation to measures of cognitive and intellectual functioning. Test -Anxiety was not related to a global index of neuro psychological performance on the HRNES - R (Average Impairment Scale) Level of education had a collinear relationship with test anxiety in predicting cognitive test performance.

Research Design

A research design is the conceptual structure within which research is conducted. It constitutes the blueprint for the collection, measurement and analysis of data.

Research Method

The nature of the present study is such that it requires survey analysis of relevant phenomenon such as Mental Health and Test- Anxiety. So, Survey Method of research has been used.

Population

Population means the entire mass of observation, which is the present group from which a sample is to be formed. Population of the present study involves the adolescent undergraduate medical and engineering competitors in Kanpur city.

In this study the investigator has used purposive and convenience non-probability sampling method to select the coaching center and students.

Size of the Sample

In the present study, 200 adolescent competitors were selected as sample for the final analysis of data. For this purpose 4 coaching's (2 coaching's of medical and 2 coaching's of engineering) were selected as by saucers and availability.

Variables

Independent variable - Mental Health, Adolescents

Dependent variable - Test - Anxiety

Tools

Mental Health Inventory by : Dr. Jagdish and

Dr. A.K. Srivastava

Test- Anxiety Scale : Dr. V.P. Sharma

Administration of Tools and Data Collection

Researcher had reached the selected coaching's at the time provided and an attempt was made to establish rapport with the students and

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requested the competitors concerned for their kind co-operation. Researcher had provided each students of the sample two Test Booklets respectively Test-Anxiety scale and Mental Health Inventory. After collecting the Booklets scoring was done as instructions given in test manual.

Statistical Analysis

The following statistical techniques have been applied

1. t-test

2. Correlation

Testing of Hypothesis

H₁

There is significant difference in test-anxiety of medical boys and medical girls competitors.

H₀₁

There is no significant difference in test-anxiety of medical boys and medical girls competitors.

To test above hypothesis t-test was used and the results are shown in following table

Table - 1

M,SD, SE and t- ratio of Test-Anxiety of Medical Boys and Girls Competitors

S.No.	Competitors	N	Mean	S.D.	S.E.	SE _{DM}	df	t-Ratio	Level of Significance
1.	Medical Males	50	69.5	9.76	1.38	2.06	98	2.82	> t _{0.05=1.66}
2.	Medical Females	50	75.30	10.80	1.53				> t _{0.01=2.36}

The calculated value of t-ratio is 2.82, which is more than the t-ratio value at both 0.01 and 0.05 level of significance for df 98. The above result shows that the null hypothesis is rejected and research hypothesis is accepted. Hence, we may conclude that there is significant difference in test anxiety of medical males and medical females competitors.

H₂

There is significant difference in test-anxiety of engineering males and engineering females competitors.

H₂

There is no significant difference in test-anxiety of engineering males and engineering females competitors.

To test above hypothesis t-test was used and the results are shown in following table

Table - 2

M, SD, SE and t-ratio of Test-Anxiety of Engineering Boys and Engineering Girls Competitors

S.No.	Competitors	N	Mean	S.D.	S.E.	SE _{DM}	df	t-Ratio	Level of Significance
1.	Engineering Males	50	71.7	11.55	1.63	1.66.	98	3.07	>t _{0.05=1.66}
2.	Engineering Females	50	76.8	2.35	0.33				>t _{0.01=2.36}

In the above table the calculated value of t-ratio (critical ratio mean) is 3.07 and df is 98. Which is greater than the critical value of t-ratio at both 0.01 and 0.05 level of significance for df 98.

The above result shows that the null hypothesis is rejected and research hypothesis is accepted. Hence, we may conclude that there is significant difference in test-anxiety of engineering males and females competitors.

H₃

There is significant difference in test-anxiety of medical females and engineering females competitors.

H₃

There is no significant difference in test-anxiety of medical females and engineering females competitors.

To test above hypothesis t-test was used and the result are shown in following

Table - 3

M,S,D,S.E. and t-ratio of Test -Anxiety of Engineering Gils and Medical Girls Competitors

S.No.	Competitors	N	Mean	S.D.	S.E.	SE _{DM}	df	t-Ratio	Level of Significance
1.	Engineering Females	50	76.8	2.53	0.33	1.56	98	0.96	>t _{0.05=1.66}
2.	Medical Females	50	75.30	10.8	1.53				>t _{0.01=2.36}

In the above table the calculated value of t-ratio is 0.96 and df is 98. The value is much less than the critical value of t-ratio at both 0.01 and 0.05 level of significance for df 98.

The above result shows that the null hypothesis is selected and research hypothesis is rejected. Hence, we may concluded that there is no significant difference in test-anxiety of engineering femalesand medical females competitors.

H₄

There is significant difference in test-anxiety of engineering males and medical males competitors.

H₀₄

There is no significant difference in test-anxiety of engineering males and medical males competitors.

To test above hypothesis t-test was used and the results are shown infollowing table-

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Table - 4

M,S.D., S.E. and t-ratio of Test Anxiety of Engineering Boys and Medical Boys Competitors

S.No	Competitors	N	Mean	S.D.	S.E.	SE _{DM}	df	t-Ratio	Level of Significance
1.	Engineering Males	50	71.7	11.55	1.63	2.14	98	1.02	$t_{>0.05}=1.66$
2.	Medical Males	50	69.5	9.76	1.38				$t_{>0.01}=2.36$

In the above table calculated value or t-ratio is 1.02 and df is 98, which is less then the critical value of t-ratio at both 0.01and 0.05 level of significance for df 98.

The above result shows that the null hypothesis is accepted and research hypothesis is rejected. Hence, we may conclude that there is no significant difference in test-anxiety of engineering males and medical males competitors.

H₅

There is significant difference in test-anxiety of Medical and Engineering Competitors.

H₀₅

There is no significant difference in test-anxiety of Medical and Engineering competitors.

To test above hypothesis t-test was used and the results are shown in following table

Table - 5

M,S.D., S.E. and t-ratio of Test-Anxiety of Engineering and Medical Competitors

S.No.	Competitors	N	Mean	S.D.	S.E.	Se _{dm}	Df	T-Ratio	Level of Significance
1.	Medical	100	72.4	10.7	1.07	1.59	198	1.35	$t_{>0.05}=1.65$
2.	Engineering	100	74.55	11.85	1.18				$t_{>0.01}=2.35$

In the above table the calculated value or t-ratio is 1.35 and df is 198,which is less then the critical value of t-ratio at both 0.01 and 0.05 level of significance for df 198. The above result shows that the null hypothesis is accepted and research hypothesis is rejected. So, we may conclude that there is no significant difference in test-anxiety of medical and engineering competitors

H₆

There is significant relation between test-anxiety and mental health of Medical competitors.

H₀₆

There is no significant relation between test-anxiety and mental health of Medical competitors.

To test above hypothesis 'Product-Moment Correlation Coefficient' was calculated from bivariat frequency distribution method.

Table - 6

Correlation Coefficient of the Variables Mental Health and Test-Anxiety of Medical Competitors

S.No.	Var.1	Var.2	$\sum Fdx$	$\sum Fdy$	$\sum Fdx^2$	$\sum Fdy^2$	$\sum Fdx dy$	R	Level of Significant
100	Mental Health	Test-Anxiety	-97	30	557	312	-337	-0.93	<0.01

The result shows that the mental health is significantly (<0.01) negative related with test-anxiety. The negative correlation means that there is inverse relationship between mental health and test- anxiety of Medical competitors

H₇

There is significant relation between test-anxiety and mental health of engineering competitors.

H₀₇

There is no significant relation between test-anxiety and mental health of engineering competitors.

To test above hypothesis 'Product -Moment Correlation' was calculated from bivariat frequency distribution method.

Table - 7

Correlation Coefficient of the Variables Mental Health and Test-Anxiety of Engineering Competitors

S.No	Var.1	Var.2	$\sum fdx$	$\sum fdy$	$\sum fdx^2$	$\sum fdy^2$	$\sum fdx dy$	r	Level of Significance
100	Mental Health	Test-Anxiety	-49	106	587	412	-444	-0.95	<0.01

The result shows that the mental health is significantly (<0.01) negative related with test-anxiety. The negative correlation means that there is inverse relationship between mental health and test- anxiety of Engineering competitors.

Results and discussion

1. The significant in test-anxiety of medical boys and medical girls competitors is found.
2. The significant difference in test-anxiety of engineering girls and engineering boys competitors is found.
3. No significant difference in test-anxiety if medical girls and engineering girls Competitors is founds.
4. No significant difference in test-anxiety of medical boys and engineering boys competitors is found.
5. No significant difference in test- anxiety of medical and engineering competitors is found.

6. Negative significant correlation between test-anxiety and mental health of medical competitors is found.

7. Negative significant correlation between test-anxiety and mental health of engineering competitors is found.

According to results and usually girls have high test-anxiety in comparison to boys as the girls scored more than boys in test-anxiety scale. But, when we compere either girls, or boys of both the competitive stream or all the competitors of medical and engineering, no diffrence in test-anxiety is found. The results of the study also show that mental health is inversely (negatively) correlated with test-anxiety in both the cases medical and engineering competitors.

Conclusion

A significant difference in test-anxiety of male and female competitors is found but no difference in test-anxiety of all the medical and engineering competitors is found separately. Generally, the mental health is significantly negatively correlated with test-anxiety of medical and engineering competitors but test-anxiety induces due to several factors which leads to poor mental health.

Educational Implications

The significance of the present study is to develop sound mental health and reduce the test-anxiety and attitude of realistic aspiration to the competitors. So that they increase their capacity to resolve the problems of struggling in competitive era and increase their performance in competitive exams.

Suggestion

1. This research work has been carried out on the sample of 200 subjects, which is not sufficient for the overall analysis. It is suggested that further researches should be carried out on a large sample.
2. This research work has been carried out only on two fields of competitors like medical and engineering. It is suggested that further researches should be carried out on the other fields of competitive exams.
3. The research had conducted the study only on those competitors, who belong to science background. It is suggested that the competitors belonging to Art's group may also be included for the further research.

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