The Relation between Defence Styles and Test Anxiety among High School Female Students

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Abstract: The present study aimed at investigating the relation between defence styles and test anxiety among high school female students. The research method was correlational and the sample included 150 high school female students who were selected by cluster sampling. Defence styles and test anxiety questionnaires were used for data collection. Pearson's correlation coefficient was used to analyze the data. The results showed that there was correlation coefficient 0.32 between mature defence style and test anxiety, correlation coefficient 0.24 between immature defence style and test anxiety and correlation coefficient 0.39 between neurotic defence style and test anxiety. In other words, there was a negative and significant relationship between mature defence style and test anxiety, while on the other hand, there was a positive and significant relationship between immature defence style and test anxiety.

Keywords: Defense Styles, Test Anxiety, High School Female Students

INTRODUCTION

A common phenomenon in the area of education, which is related to the educational failure, is test anxiety. Test anxiety refers to an excitement or a stimulate that it's too much amount will have destructive effects on the students operation, so that it causes the students not to obtain the results corresponding to their abilities despite of trying hard and desirable learning of the lessons. Educational failure or loss is the reduction of students' educational and learning operation from a satisfactory level to a non-satisfactory level. It means, during an educational season and after a period of educational achievements, the learning capacity of a student gradually reduces and he or she should repeat the course and this is such a behavioural problem caused by the test anxiety.

Test anxiety as a phenomenon, refers to a set of behavioural, physiological and perceptual responses that accompanies with the concern about possible failures or negative consequences of a test or similar evaluative situations.
Anxiety as a common and important educational phenomenon is closely tied with educational operation. One of the methods that can be effective in reducing the test anxiety is the use of defence styles. Defence styles are those methods and mechanisms, which indirectly enable a student to face an anxiety-causing factor and reduce it so; it increases the confidence in that person.

According to the definitions by Afzali, defence styles are psychological self-efficacy processes, which defend the individuals against anxiety and awareness of internal and external risks. These styles are the intermediaries between the individuals’ reaction to emotional conflicts and internal and external stressful factors. Andrews et al. distinguished 20 defence mechanisms based on three defence styles. Those defence mechanisms whose responsibility is to protect me against facing different forms of anxiety, may be efficient or inefficient or even normal or abnormal based on the type of operation. Mature defence mechanisms are considered as efficient, normal, and adaptive exposure methods while, immature and neurotic defensive mechanisms are considered as inefficient and unreasonable exposure methods.

MohammadPour Yazdi et al. in a study, investigating the relation between anxiety and defence styles, concluded that the use of mature defence style was significantly high in non-patient group while somatization, suppression and denial humouring defence style was used mostly in patient group. There was a significant average reverse correlation between state-based anxiety grade and mature defence style grade. The correlation between immature defence style and state-based anxiety was low and there was no relation between neurotic defence style and state-based anxiety. Matthews et al. showed the relationship between metacognitive beliefs and tension, anxiety, irrelevant thinking to exam and the physical symptoms associated with anxiety. The three components of metacognition, cognitive awareness, positive beliefs about concern and negative beliefs about the uncontrollability of thoughts were also associated with test anxiety. They also showed that the individuals with less cognitive tension are more vulnerable toward test anxiety. Dietz in his research reports that high test-anxiety is related to depressive disorders, social phobia, and aggression. Champell et al. research displayed the negative relation between test anxiety educational achievements. Test anxiety is reduced with age in boys.

Cramer and Jones reported in his research that the individuals who have less self acceptance and are not satisfied enough by themselves and their appearance, mostly use immature defence style and the individuals who reflect more self control, decisiveness and positive emotions, use more mature defence style such as assimilation.

Dietz found in their study that students with high test-anxiety are more chaotic and unresponsive than students with low test-anxiety. This state causes a drop in anxious examinees’ operation and reduces their achievements. There are many variables related to the test-anxiety among which the role of general anxiety is of more importance. The general anxiety has a significant relationship with test anxiety.
According to the findings of previous researches and the role of defence styles in reducing test anxiety, in the present study an attempt has been to investigate the relation between mature and immature defence styles and anxiety.

MATERIALS AND METHODS

The present study is a correlational descriptive research. The participants of the research included all the high school female students of Bandar Abbas (District 2) from which the sample was selected. According to the population and based on the Morgan table, 150 students were selected as a sample and the multi-stage cluster sampling method was used for sampling. For data collection in this study, two types of questionnaires, defence styles questionnaire and test anxiety questionnaire, were used. Spielberger test-anxiety questionnaire was used for test-anxiety assessment. This questionnaire included 20 questions, which described responses before, during, and after the exam. Test-anxiety questionnaire comprised of two worrying and emotional sub-tests, which assessed the personal differences of examinees in test anxiety. This questionnaire was self-reported and each examinee answered to each question based on a multiple choices scale (never, somewhat, moderately, very much). These options are grading respectively based on 1, 2, 3 and 4. This questionnaire has two aspects of test emotion and worries about test. The reliable coefficient for internal consistency, weakening and retest of the questionnaire in a research conducted by Abolghasemi 3 in Ahvaz, have been reported consequently 0.92, 0.92, 0.90.

Bond et al. 11 provided DSQ-40 defense styles questionnaire for the first time according to the hierarchical pattern styles. The new version of this questionnaire was established by Andrews et al in 1993, which included 40 questions and assessed 20 defence mechanisms on immature, mature, and neurotic levels 5. Scoring is Likert scale and each participant for each question announces his success rate in a 9-degree scale. DSQ-40 has been evaluated in countries such as Japan, France, Brazil, Portugal, and Iran. The research results showed that this questionnaire is a useful and helpful tool, which has desirable reliability and validity 12.

To analyze the data in descriptive statistics, mean and standard deviation, and in inferential statistics, correlation coefficient were used.

RESULTS

Table No. 1 provides the mean and standard deviation of the studied variables in the present research.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>standard deviation</th>
<th>Minimum</th>
<th>Median</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test anxiety</td>
<td>96.41</td>
<td>450</td>
<td>0.21</td>
<td>42.00</td>
<td>54.00</td>
</tr>
</tbody>
</table>
To test the first hypothesis, which stated the relation between mature defence style and the test anxiety, Pearson's correlation coefficient was used. According to table No. 2 the amount of correlation coefficient between mature defence styles and test anxiety is -0.32, which is at the one-thousandth level of significance. In addition, to test the second hypothesis stating the relationship between immature defence styles and test anxiety, Pearson's correlation coefficient was used. According to table No. 2, the amount of correlation coefficient between immature defence styles and test anxiety is 0.24, which is at the one-thousandth level of significance. Furthermore, to test the third hypothesis, stating the relationship between neurotic defence styles and test anxiety, Pearson's correlation coefficient was used. According to table No. 2, the amount of correlation coefficient between neurotic defence styles and test anxiety is 0.39, which is at the one-thousandth level of significance.

**Table 2.** Correlation coefficients of defence styles and test anxiety

<table>
<thead>
<tr>
<th>Variable</th>
<th>R</th>
<th>N</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mature defence style</td>
<td>-0.32</td>
<td>150</td>
<td>P&lt; 0.001</td>
</tr>
<tr>
<td>Immature defence style</td>
<td>0.24</td>
<td>150</td>
<td>P&lt; 0.001</td>
</tr>
<tr>
<td>Neurotic defence style</td>
<td>0.39</td>
<td>150</td>
<td>P&lt; 0.001</td>
</tr>
</tbody>
</table>

**DISCUSSION**

According to the Table 2, the negative and significant relation between mature defence style and the test anxiety was confirmed. The results of this section of the study are consistent with the results of the research conducted by Rahimi \(^ {13} \). She concluded in his study that one of the reasons for test anxiety is immature defence styles. In another words, immature defence style is one of the causes of test anxiety. Furthermore, the results of a research conducted by Elman (2004) showed that those individuals with mature defence style experience less anxiety in their test.

In addition, according to table No.2 there is a significant relationship between immature defence style and test anxiety. The results of this section of the study are consistent with the results of the research conducted by Mohammadpour Yazdi et al. \(^ {6} \). They concluded in a study that students with an anxiety disorder especially test anxiety use immature defence mechanism. As seen in table No. 2 there is a positive and significant relation between neurotic defence style and test anxiety. The results of this section of the study are consistent with the results of the research conducted by Rahimi \(^ {13} \). He found in a research on test anxiety that the students with neurotic defence styles have more test anxiety in comparison
with normal students. Further, Smith and Danielson in the research related to anxiety and defence styles found that one of the causes of teenagers’ test anxiety is neurotic defence styles. The results of the present study can aid teachers and consultants to help the students with test anxiety and can provide psychologists and consultant with a suitable insight toward the solutions regarding the reduction of test anxiety in the students.

REFERENCES
The Relation between Defencee Styles ...
