Correlation between anxiety and early maladaptive schemas in female students of third year of high school in Minudasht

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ABSTRACT
The current research aim is studying the correlation between anxiety and the early maladaptive schemas and predicting this disorder with early maladaptive schemas. To this aim two questionnaires of Schema Questionnaire-Short Form (SQ-SF) designed by Young and Kettle’s Anxiety Questionnaire were conducted on 144 female students of third year of high school in Minudasht. Research results analyses were conducted through the use of SPSS20 software and the Pearson’s correlation coefficient, one-way ANOVA test and stepwise regression. Results indicate a significant correlation between the early maladaptive schemas and the symptoms of anxiety, and they predict that the early maladaptive schema of defectiveness/shame predicts anxiety, and the early maladaptive schema of self-sacrifice has an inverse correlation with students’ anxiety, and the current survey results were consistent with the previous surveys, and it is possible to recognize the maladaptive schemas related to those in other disorders and use them for solving the problems.

Keywords: Early Maladaptive Schemas, Anxiety, Female Students of Third Year of High School.

INTRODUCTION
Anxiety disorders especially the separation anxiety disorder has high rates among children and adolescence, and some studies have reported the rate of separation anxiety disorder up to 42% [19]. All of us have an overall picture about the meaning of anxiety and our feelings when we say we are anxious. To some extent we can be similar to each other about the internal experience of such feelings. Apart from the theories made for anxiety, the anxiety plays the role of a danger signal for the individual indicating that the process is not going well [15], however anxiety could disturb the cognitive performance, and it is necessary to consider this phenomenon in institutions. A student’s performance during an exam is influenced by anxiety, and this should not cause others to think that no learning has taken place. Maybe this student has learned the questions well but anxiety caused him/her to be unable to completely answer the questions [22]. Anxiety is considered as an emotional arousal and during the recent decades surveys about the anxiety the clinical and educational experts have considered the academic failure as one of the results of high levels of anxiety, and since then researches have been conducted in this field, and researchers such as Dark (1989) have studied this field, and they have studied the effect of anxiety on intelligence, memory, academic progress, self-esteem and ... As a part of human beings’ life anxiety exists in all individuals to a moderate level and at this level it is considered as an adapted response, in other words f there was no anxiety we would have been fallen
also an accepted fact that schemas have a correlation with life negative events and mental pressures. When an early
significant effect on all of the personality aspects, activity and also their reactions to all of the life events. Yet this is
not consider any special schema related to the anxiety factor, but they reached a higher level of activation of early
the healthy individuals concluded that generally the anxious individuals’ early maladaptive schemas are more active.

The word schema has been used in different research fields and it has been defined as a structure, model or
framework [6]. Young (1998) believed that some of these schemas, especially those mainly formed as a result of
adverse experiences during childhood may be the main core of personality differences, minor cognitive disposition
problems, and many chronic disorders that are called early maladaptive schemas. Early maladaptive schemas are
self-destructing emotional and cognitive patterns formed at the early stages of growth and they repeat during life and
an individual’s behavior is not considered as a schema, but behaviors originate from schemas, but they are not
considered as a part of schema [14]. These schemas took their form during individual’s childhood experiences (that
mostly have an internal impact on the child’s life) and they control the individual’s response to the environmental
events [25]. Young states that although factors related to the society, school and peers are effective in formation of
these schemas, their effects do not have the extent and stability of effects of family factors [24]. The origin of these
schemas is basic emotional needs including 6 areas of: Secure attachment to others (such as feeling of security,
stability and acceptance), autonomy, competition, and sense of identity, freedom of expression of needs and
emotions, games, and spontaneity, and reasonable limits, self-control, early life experiences (failure to satisfy the
basic needs, over satisfaction, and identification of improper behavior of parents), and child’s emotional
temperament (child’s affective characteristics that are intrinsic and distinguish child’s initial personality) [25]. These
schemas create a fundamental change in relation to 5 tasks, and they are used as a framework for processing
information and they determine the individuals’ emotional reactions toward life situations and interpersonal
relationships. Regarding the mentioned subjects schemas could have a correlation with individual’s adaptation [14].
In conducted researches [18], the schema of mistrust, vulnerability, and insufficient discipline are the important
predictors of anxiety. Researches being conducted by Dayan and et al showed that there is a correlation between
anxiety and depression and the anxiety background in the family. When an individual within a family uses an
undesirable procedure such as anxiety or depression during confronting problems, others who have contact with that
person learn to use the same response and also they will use the same procedure in the future when they confront a
problem and they do not concentrate on solving the problem [7]. Based on the researches of Cousineau (2004) in a
study they predicted that the correlation between the schemas, anxiety, and symptoms of anxiety are significant.
They theoretically divided the early maladaptive schemas into three categories. 1st group: schemas having anxiety
factor within their definition. 2nd group: Schemas related to their lack of cohesion. 3rd group: schemas detected by
communication crises and shortcomings. Ball and Cecero (2001) studied the symptoms of anxiety and the early
maladaptive schemas in adolescence and they found a significant correlation. In a study Kisch and et al (2005) did
not consider any special schema related to the anxiety factor, but they reached a higher level of activation of early
maladaptive schemas compared to the healthy individuals. In surveying the schemas of anxious visitors compared to
the healthy individuals concluded that generally the anxious individuals’ early maladaptive schemas are more active.
Most of the researchers in the field of mental health have a consensus about the fact that mental health has a
significant effect on all of the personality aspects, activity and also their reactions to all of the life events. Yet this is
also an accepted fact that schemas have a correlation with life negative events and mental pressures. When an early
Materials and Methods

The current research is a descriptive study and also it is considered as a descriptive (non-experimental) research. The correlation between variables is analyzed based on the research aim. The descriptive researches are a set of methods with the aim of describing a situation or the phenomena. The current research population includes all of the female students of third year of high school in Minudasht during academic year 2012-2013 and their number is 225 individuals. By the use of Krejcie and Morgan table (1970) 144 individuals were calculated, but 180 questionnaires were distributed among the students since some of the questionnaires were not returned or they were incomplete, and 180 questionnaires were considered in order to avoid any error in research data. The measuring tools include Young’s SQ-SF which is a 75-item questionnaire by Young (1998) formed for evaluating 15 early maladaptive schemas. These schemas consist of abandonment/instability, mistrust/abuse, social isolation/alienation, defectiveness/shame, and emotional deprivation, and dependence/incompetence, vulnerability to harm or illness, enmeshment/undeveloped self, failure, entitlement/grandiosity, insufficient self-control, subjugation, self-sacrifice, emotional inhibition, and unrelenting standards / hyper-criticalness. Grading for each question is based on a 6-degree scale (1 for completely incorrect, 6 for completely correct). In this questionnaire each 5 questions evaluate one schema. If the mean of each subscale is higher than 25 that schema is inefficient. The other measuring tool is Kettle’s anxiety questionnaire. This 40-item questionnaire designed by Kettle in 1962 and it is written about the problems individuals usually feel in their life. The kettle’s scale score is one of the most reliable tools provided in the form of a questionnaire, and it could complete the clinical diagnoses. Its other advantage is that it is run in 5 minutes, and there is no need for watching the respondent, and it is used for measuring the state-trait anxiety of individuals older than 14 years old [22]. The schema questionnaire validity and reliability has been confirmed in several researches [13]. In Iran this questionnaire has been normalized by Lotfi (2006) and it has been conducted in the universities of Tehran, the internal consistency has been achieved by the use of Cronbach’s Alpha in the female population of 0.97 and in the male population of 0.98. Sadoughi and et al (2008) studied the factor analysis of Young’s SQ-SF in the Iranian non-clinical sample, and the research findings confirmed the psychometric properties of Young’s SQ-SF in the intercultural validity and reliability. The validity and reliability of Kettle’s anxiety questionnaire has been confirmed all over the world including Iran. This questionnaire has been normalized in 1988 in an Iranian sample including 977 students of University of Tehran in the age range of 18 to 30, and it has standard or normalized scores for trait anxiety, state anxiety and generalized anxiety [21]. In order to analyze the statistical data the frequency tables, mean, SD, and also for measuring the research variables the Pearson’s correlation coefficient, one-way ANOVA test and stepwise regression have been used.

Results

As it is observable in table 1, the variable of unrelenting standards has the highest mean and the variable of covert anxiety has the lowest mean. Also the highest dispersion belongs to the variable of emotional inhibition and the lowest dispersion belongs to the variable of defectiveness/shame. The research main hypothesis was that there is a correlation between anxiety (overt and covert) and the early maladaptive schemas of female students of third year of high schools and the hypothesis is surveyed in table 2.

According to the Pearson’s correlation test results in table 2 a significant and direct correlation(r>0) exists between the anxiety (overt & covert) and the early maladaptive schemas (except for self-sacrifice schema) of students at 99%
level (Sig. <0.01). On the other hand, an inverse correlation (r<0) exists between anxiety (overt & covert) and the self-sacrifice schema.

Table 1: Results achieved from describing variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Variance</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional deprivation</td>
<td>1.000</td>
<td>5.800</td>
<td>2.727778</td>
<td>1.671</td>
<td>1.2928228</td>
</tr>
<tr>
<td>Abandonment</td>
<td>1.000</td>
<td>6.000</td>
<td>3.295833</td>
<td>1.888</td>
<td>1.3740795</td>
</tr>
<tr>
<td>Mistrust/abuse</td>
<td>1.000</td>
<td>6.000</td>
<td>2.937500</td>
<td>1.492</td>
<td>1.2215933</td>
</tr>
<tr>
<td>Social isolation/alienation</td>
<td>1.000</td>
<td>5.600</td>
<td>2.590278</td>
<td>1.264</td>
<td>1.1242601</td>
</tr>
<tr>
<td>Defectiveness/shame</td>
<td>1.000</td>
<td>5.400</td>
<td>2.086111</td>
<td>0.937</td>
<td>0.9682087</td>
</tr>
<tr>
<td>Failure</td>
<td>1.000</td>
<td>6.000</td>
<td>2.268056</td>
<td>1.287</td>
<td>1.1347441</td>
</tr>
<tr>
<td>Dependence/incompetence</td>
<td>1.000</td>
<td>5.200</td>
<td>1.940278</td>
<td>0.999</td>
<td>0.9996027</td>
</tr>
<tr>
<td>Vulnerability to harm or illness</td>
<td>1.000</td>
<td>5.400</td>
<td>2.504861</td>
<td>1.575</td>
<td>1.2548830</td>
</tr>
<tr>
<td>Enmeshment / Undeveloped Self</td>
<td>1.000</td>
<td>5.600</td>
<td>2.611111</td>
<td>1.172</td>
<td>1.0828033</td>
</tr>
<tr>
<td>Subjugation</td>
<td>1.000</td>
<td>5.600</td>
<td>2.468056</td>
<td>1.602</td>
<td>1.2658314</td>
</tr>
<tr>
<td>Self-sacrifice</td>
<td>1.000</td>
<td>6.000</td>
<td>3.616667</td>
<td>1.272</td>
<td>1.1279662</td>
</tr>
<tr>
<td>Emotional inhibition</td>
<td>1.000</td>
<td>6.000</td>
<td>3.158333</td>
<td>1.955</td>
<td>1.3982757</td>
</tr>
<tr>
<td>Unrelenting standards</td>
<td>1.400</td>
<td>6.000</td>
<td>4.090278</td>
<td>1.185</td>
<td>1.0887421</td>
</tr>
<tr>
<td>Entitlement</td>
<td>1.000</td>
<td>6.000</td>
<td>3.797972</td>
<td>1.235</td>
<td>1.1111211</td>
</tr>
<tr>
<td>Insufficient self-control/self-discipline</td>
<td>1.000</td>
<td>6.000</td>
<td>2.979167</td>
<td>1.395</td>
<td>1.181</td>
</tr>
<tr>
<td>Depression</td>
<td>1</td>
<td>8</td>
<td>1.95</td>
<td>1.613</td>
<td>1.270</td>
</tr>
<tr>
<td>Overt anxiety</td>
<td>1</td>
<td>4</td>
<td>1.81</td>
<td>1.053</td>
<td>1.026</td>
</tr>
</tbody>
</table>

Table 2: Pearson’s test results between the variable of anxiety (overt & covert) and the early maladaptive schemas of students

<table>
<thead>
<tr>
<th>Schema</th>
<th>Overt anxiety</th>
<th>Covert anxiety</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional deprivation</td>
<td>r = .289</td>
<td>r = .470</td>
<td>.000</td>
</tr>
<tr>
<td>Abandonment</td>
<td>r = .273</td>
<td>r = .229</td>
<td>.000</td>
</tr>
<tr>
<td>Mistrust/abuse</td>
<td>r = .337</td>
<td>r = .300</td>
<td>.000</td>
</tr>
<tr>
<td>Social isolation/alienation</td>
<td>r = .322</td>
<td>r = .456</td>
<td>.000</td>
</tr>
<tr>
<td>Defectiveness/shame</td>
<td>r = .330</td>
<td>r = .478</td>
<td>.000</td>
</tr>
<tr>
<td>Failure</td>
<td>r = .314</td>
<td>r = .421</td>
<td>.000</td>
</tr>
<tr>
<td>Dependence/incompetence</td>
<td>r = .350</td>
<td>r = .371</td>
<td>.000</td>
</tr>
<tr>
<td>Vulnerability to harm and illness</td>
<td>r = .276</td>
<td>r = .322</td>
<td>.000</td>
</tr>
<tr>
<td>Enmeshment</td>
<td>r = .232</td>
<td>r = .295</td>
<td>.000</td>
</tr>
<tr>
<td>Subjugation</td>
<td>r = .230</td>
<td>r = .390</td>
<td>.000</td>
</tr>
<tr>
<td>Self-sacrifice</td>
<td>r = .229</td>
<td>r = .410</td>
<td>.000</td>
</tr>
<tr>
<td>Emotional inhibition</td>
<td>r = .232</td>
<td>r = .345</td>
<td>.000</td>
</tr>
<tr>
<td>Unrelenting standards</td>
<td>r = .225</td>
<td>r = .460</td>
<td>.000</td>
</tr>
<tr>
<td>Entitlement</td>
<td>r = .227</td>
<td>r = .317</td>
<td>.000</td>
</tr>
<tr>
<td>Insufficient self-control/self-discipline</td>
<td>r = .293</td>
<td>r = .354</td>
<td>.000</td>
</tr>
</tbody>
</table>

Another research hypothesis was that anxiety (overt & covert) can predict the early maladaptive schemas of female students of third year of high schools in Minudasht. Results of variance analysis test showed that both overt and covert anxiety could predict the early maladaptive schemas of students, and based on the coefficients achieved from the regression equations they could be written as followed:

**Overt anxiety** = 0.036 (overall early maladaptive schemas) + 0.383

**Covert anxiety** = 0.040 (overall early maladaptive schemas) + 0.079

Also based on the achieved coefficient of determination it has been identified that the early maladaptive schemas have the ability to explain 32.5% of changes of covert anxiety and 14.9% of changes of overt anxiety.

**DISCUSSION**

This research subject has been limited to studying the correlation between anxiety and the early maladaptive schemas and the research main issue was that is there any significant correlation between anxiety and the early maladaptive schemas of female students of third year of high schools of Minudasht? Results showed that a significant and direct correlation exists between the anxiety and the early maladaptive schemas, which means by increasing the anxiety the individuals will have more maladaptive schemas, but there was an inverse correlation...
between the anxiety and the self-sacrifice schema. In a study Calvete and et al (2005) found a significant correlation between the signs of emotional disorders (depression, anxiety and aggression) and the early maladaptive schemas. Heidgerken (2004) studied the signs of depression and the early maladaptive schemas in adolescence and he found a significant correlation between them. In a study Griffith (2003) does not consider any special schema related to the anxiety factor, but Griffith has reached a higher level of activation of early maladaptive schemas compared to the healthy individuals. Having compared the schemas of anxious visitors to the healthy individuals they concluded that generally the early maladaptive schemas are more active in anxious individuals. Also other results of this study showed that the predictive variables (dependence/incompetence, emotional deprivation) are effective on the students’ criterion variable (overt anxiety) and the predictive variables (defectiveness/shame, unrelenting standards, and emotional deprivation) are effective on students’ criterion variable (covert anxiety). Based on the research results that the defectiveness/shame schema can be a good predictor of depression and anxiety this schema is a kind of cognitive schema based on the fact that the individual is undesirable and bad and he/she does not deserve others’ affection. This schema is put in the 1st group related to cutting out and being rejected, and this issue of the schema predictably happens due to lack of satisfying needs such as security and empathy, and the result is consistent with the research results of GhamiTak (2011). In addition to that, this result is consistent with the research of Kapfhammer (2001). Three schemas of subjugation, insufficient self-control/self-discipline and defectiveness/shame are significant in relation to the predictive symptoms of anxiety. Based on the research of Cousineau (2004) about studying the correlation between schemas and anxiety, they predicted that the anxiety symptoms are significant. In researches conducted by FathiAshtiyani (2010) the schemas of mistrust, vulnerability, and insufficient self-control/self-discipline are the important predictors of anxiety.

According to the research results it seems that studying the schemas in other age groups and from both genders and awareness about their differences is useful for the therapists in the fields of schema therapy, couple therapy and family therapy. Also parents should coordinate their expectations with their children’s real potencies. In addition to having reasonable expectations from adolescence, encouraging positive points and their capabilities, boosting their confidence, providing a secure environment full of peace could be effective in reducing the students’ anxiety and depression. Also at the end as a research suggestion regarding the importance of schemas it is suggested to survey the existence of schemas in parents and the relationship of schemas with insecure families.

REFERENCES