The role of the authentic personality in anticipation anxiety, depression, stress and feeling lonely in medical sciences students

Zahra Shafiee¹; Amir Ghamarani²

¹MA. student in Family Counseling, University of Isfahan, Isfahan, Iran
²Assistant professor in psychology, University of Isfahan, Isfahan, Iran

Abstract
Introduction: People with authentic personality versus psychological adversity and psychological trauma more resistance. The aim of this study was evaluation the predictive role of the authentic personality in anticipation anxiety, depression, stress and feeling lonely in medical sciences students.

Materials and Methods: In this correlational study, 203 medical sciences students of Isfahan University in academic year of 2015-2016 were selected through convenient sampling method and they fulfilled inventory of authentic personality, Anxiety, Depression, Stress Scale and inventory of feeling lonely. Data were analyzed using multiple regression by stepwise method.

Results: The results showed that the relationship between self-alienation and accepting external influences with psychological health (anxiety, depression, stress) was significant (P=0.001). On this basis self-alienation and accepting external influences play greater role in anticipation of anxiety, depression and stress. In addition self-alienation and authentic-living play greater role in anticipation emotional feeling lonely. Also social feeling lonely and the total feeling lonely were the best predictors for self-alienation.

Conclusion: It seems that students' mental health and feeling lonely can be explained by their personality traits.

Keywords: Anxiety, Authentic personality, Depression, Feeling lonely, Stress

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Introduction
Mental health is one of the important aspects of the health of students, the ones who are the future of the nation. Specific conditions such as being away from home, separation from family, entry to a new environment, educational problems, competition with other students, tests, financial problems, future career, inability to make decisions, and high volume of classes and lessons, subject students to enormous psychological pressures which can increase mental disorders and illness (1).

On the other hand, it is important to establish social relations in all stages of growing up (2). People who frequently have difficulties in establishing and maintaining relationships with others would experience psychological disturbances such as feeling lonely (3). Some research shows that there is a relationship between feeling lonely and physical and mental health (4). It has been found that feeling lonely has a relationship with the increased risk of cardiovascular disease and strokes (5), high blood pressure (6), tendency to unhealthy behaviors such as smoking and alcohol consumption (7), depression (8), anxiety(9) and increased level of stress (10) as well. On the other hand, studies show the prevalence of disorders such as stress, anxiety and depression among students (11). Depression is a disorder that causes loss of interest in life. Sadness, decreased energy, disordered concentration, disturbed sleep and appetite pattern, physical pains, headaches and digestive problems are the symptoms of depression which can hinder personal and social performance (12,13). In addition to depression, anxiety can also lead to psychological and mental problems. Anxiety is an unpleasant and vague feeling, often in the form of concern, which is defined as skepticism towards an unknown factor and which manifests itself in the form of an intense emotional feelings (14,15).

In addition to anxiety and depression, different types of stress also decrease individual strength by their negative impact on the individual and social
coping resources of the person. Research show that stress can lead to physical and mental illnesses, dysfunction and adaptability problems, and finally decreases students’ quality of life (16,17).

As a result, in recent decades, researchers and clinicians have focused their attention to the concept of authenticity with an aim to prevent mental disorders (18,19). Based on definitions, authenticity refers to the tendency of the person to behave according to his/her real feelings, thoughts and attitudes (20). Individual differences are considered very important in authenticity since they lead to the understanding of the meaning of healthy life and becoming free from psychological disorders (19).

Studies indicate that authenticity has a positive relationship with well-being, and a negative relationship with distress. Authenticity can, thus, predict self-actualization, vitality (21), well-being (22), higher life satisfaction (23), higher positive emotions, less negative emotions (24), mental well-being (25), lower stress (26), and lower depression and anxiety (27) among students.

Considering the fact that most studies conducted in the field of students’ mental health in Iran have been limited to studying the status of students’ mental health and the prevalence of disorders such as anxiety, stress and depression in this population and being aware of the necessity of identifying the factors affecting students’ mental health and the need to design appropriate interventions have made the present study to focus its aim on the determination of the role of authentic personality in anticipating anxiety, depression, stress, and feeling lonely in the students of Isfahan University of Medical Sciences.

Materials and Methods

The statistical population of the current study is the students of Isfahan University of Medical Sciences in the academic year 2014-2015. In this study, the final sample was 203 people (87 girls and 116 boys) who were selected through convenience sampling. The inclusion criteria for the study comprised the consent of the person to participate in the study and being a student of Isfahan University of Medical Sciences in one of the majors of medical sciences. Exclusion criteria entailed last-semester students, failure to complete the questionnaire, and unwillingness to participate in the study. With regards to the observance of research ethics, it is worth to note that the participants participated in the research voluntarily and they needed not to write their first name and surname on the questionnaire. Furthermore, it was agreed to report the results to the participants after the study was completed. The selection criterion for sample size was the minimum sample size for correlational research which is 100 people (28).

Research instruments

- Authentic Personality Scale – 12-question Form: Authentic personality scale is designed by Wood et al. It is comprised of 12 items that are scored as follows: 1 = it does not describe me at all to 7 = it perfectly describes me. This scale is a self-report three-factor scale which includes self-alienation (4 items), accepting external influences (4 items), and authentic-living (4 items). The reliability coefficient in Wood et al.’s research was between 0.78 to 0.91. In Shamsi et al.’s research which was conducted in Iran, Cronbach's alpha for the total scale, subscales of self-alienation, authentic living and accepting external influences was at an optimal level and was obtained as 0.82, 0.80, 0.77 and 0.81 respectively. Moreover, the half-split reliability coefficient for authentic personality scale was estimated 0.74 (19,29).

- Depression, Anxiety, Stress Scale (DASS-21): This scale was provided by Lovibond and Lovibond. It is a collection of three self-report scales which evaluates negative emotional states of depression, anxiety, and stress. Each subscale included 7 items. In Antoni et al.’s research, alpha coefficient for depression, anxiety and stress was 0.97, 0.92, 0.95 respectively and the correlation between depression and stress was 0.48, the correlation between anxiety and stress was 0.53, and the correlation between anxiety and depression was 0.28 (30). The reliability and credibility of this questionnaire in Iran has been examined by Samani and Jokar. The test-retest reliability for depression, anxiety and stress scales was 0.80, 0.76, 0.77 respectively and the validity of the scale in confirmatory factor analysis has been favorable (13,31).

- Loneliness Scale: This scale is designed by Asher, Hymel and Renshaw and consists of 24 items eight of which are fillers which are related to the favorite subjects of the participants, but which are not used in scoring loneliness scale. The main questions of the scale are, thus, 16 questions. The purpose of the fillers is that participants express their attitudes with a sense of relief and comfort and avoid oriented answers. Scoring was done on the basis of a five-degree scale from “always true” to “not true at all”. This scale is a self-report two-factor scale which includes emotional loneliness and social loneliness. The validity of loneliness scale of Asher et al. has been investigated in various other studies. In the research of Vellymalay, a validity of 0.88 was obtained. Hussain Chari and Khayer’s
research aimed at the evaluation of the validity and reliability of Asher et al.’s 24-item loneliness scale in Iran. This evaluation was done on 369 students (186 girls and 183 boys) in their secondary school. The two researchers found that the discussed scale has an acceptable validity and reliability (32-35).

**Results**

Multiple regression analysis was used in a stepwise method to investigate the significant relationship between variables. For this purpose, first, the correlation matrix between the research variables was investigated. The data is indicated in Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self alienation</td>
<td>1</td>
<td>.323</td>
<td>.371</td>
<td>.817</td>
<td>.533</td>
<td>.503</td>
<td>.472</td>
<td>.404</td>
<td>.360</td>
<td>.421</td>
</tr>
<tr>
<td>2. accepting external influences</td>
<td>.323</td>
<td>1</td>
<td>.138</td>
<td>.678</td>
<td>.321</td>
<td>.328</td>
<td>.352</td>
<td>.184</td>
<td>.122</td>
<td>.176</td>
</tr>
<tr>
<td>3. authentic-living</td>
<td>.371</td>
<td>.138</td>
<td>1</td>
<td>.666</td>
<td>.262</td>
<td>.228</td>
<td>.217</td>
<td>.312</td>
<td>.100</td>
<td>.257</td>
</tr>
<tr>
<td>4. authentic personality(Total)</td>
<td>.817</td>
<td>.678</td>
<td>.666</td>
<td>.817</td>
<td>.533</td>
<td>.503</td>
<td>.472</td>
<td>.404</td>
<td>.360</td>
<td>.421</td>
</tr>
<tr>
<td>5. Depression</td>
<td>.533</td>
<td>.321</td>
<td>.262</td>
<td>.526</td>
<td>1</td>
<td>.609</td>
<td>.688</td>
<td>.598</td>
<td>.423</td>
<td>.581</td>
</tr>
<tr>
<td>6. Anxiety</td>
<td>.503</td>
<td>.328</td>
<td>.228</td>
<td>.500</td>
<td>.609</td>
<td>1</td>
<td>.711</td>
<td>.380</td>
<td>.348</td>
<td>.400</td>
</tr>
<tr>
<td>7. Stress</td>
<td>.472</td>
<td>.352</td>
<td>.217</td>
<td>.491</td>
<td>.688</td>
<td>.711</td>
<td>1</td>
<td>.464</td>
<td>.357</td>
<td>.462</td>
</tr>
<tr>
<td>8. emotional loneliness</td>
<td>.404</td>
<td>.184</td>
<td>.312</td>
<td>.420</td>
<td>.598</td>
<td>.380</td>
<td>.464</td>
<td>1</td>
<td>.673</td>
<td>.958</td>
</tr>
<tr>
<td>9. social loneliness</td>
<td>.360</td>
<td>.122</td>
<td>.100</td>
<td>.281</td>
<td>.423</td>
<td>.348</td>
<td>.357</td>
<td>.673</td>
<td>1</td>
<td>.856</td>
</tr>
<tr>
<td>10. loneliness(Total)</td>
<td>.421</td>
<td>.176</td>
<td>.257</td>
<td>.402</td>
<td>.581</td>
<td>.400</td>
<td>.462</td>
<td>.958</td>
<td>.856</td>
<td>1</td>
</tr>
</tbody>
</table>

The results of Table 1 reveal the correlation between the scores of authentic personality and its subscales with depression, anxiety, stress, and loneliness. As noted in Table 1, there is a significant relationship among authentic personality and depression, anxiety, stress, and loneliness ($P<0.01$). In order to evaluate the aforementioned relationships more accurately and to investigate the predictive power of self-alienation, accepting external influences, and authentic living in mental health (depression, anxiety, stress, emotional loneliness and social loneliness), multiple regression analysis was used in a stepwise method. For this purpose, self-alienation, accepting external influences and authentic living were entered in the regression equations as independent variables (predictors) and mental health indicators (depression, anxiety, stress, emotional loneliness and social loneliness) were entered as dependent variable (criteria) separately. The results of these analyses are indicated in Table 2.

<table>
<thead>
<tr>
<th>Criterion variable</th>
<th>variable Predictive</th>
<th>R2</th>
<th>b</th>
<th>Beta</th>
<th>T</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Self alienation</td>
<td>0.284</td>
<td>0.366</td>
<td>0.533</td>
<td>8.926</td>
<td>79.669</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Self alienation</td>
<td>0.307</td>
<td>0.329</td>
<td>0.479</td>
<td>7.677</td>
<td>44.339</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>accepting external influences</td>
<td>0.127</td>
<td>0.162</td>
<td>2.595</td>
<td>2.595</td>
<td>1.196</td>
<td>0.276</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Self alienation</td>
<td>0.253</td>
<td>0.300</td>
<td>0.503</td>
<td>8.253</td>
<td>68.114</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Self alienation</td>
<td>0.282</td>
<td>0.264</td>
<td>0.443</td>
<td>6.976</td>
<td>39.311</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>accepting external influences</td>
<td>0.123</td>
<td>0.181</td>
<td>2.846</td>
<td>2.846</td>
<td>1.000</td>
<td>0.316</td>
</tr>
<tr>
<td>Stress</td>
<td>Self alienation</td>
<td>0.223</td>
<td>0.342</td>
<td>0.472</td>
<td>7.595</td>
<td>57.685</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Self alienation</td>
<td>0.266</td>
<td>0.289</td>
<td>0.399</td>
<td>6.216</td>
<td>36.241</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>accepting external influences</td>
<td>0.182</td>
<td>0.220</td>
<td>3.423</td>
<td>3.423</td>
<td>1.000</td>
<td>0.077</td>
</tr>
</tbody>
</table>
Based on the results of the stepwise regression analysis, the relationship among self-alienation and accepting external influences with mental health indicators (depression, anxiety, stress) was significant. Accordingly, self-alienation and accepting external influences have the most effective role in predicting depression, anxiety, and stress. Furthermore, self-alienation and authentic living have the most effective role in predicting emotional loneliness. Furthermore, self-alienation was the best predictor for social loneliness and (total) loneliness.

The results of the present study indicate that self-alienation predicates 27 percent and the combination of self-alienation and accepting external influences predicates 30 percent of depression. Moreover, the results show that self-alienation variable predicates 25 percent and the combination of self-alienation and accepting external influences predicates 28 percent of anxiety. Furthermore, self-alienation predicates 22 percent and self-alienation and accepting external influences predicate 26 percent of stress. In addition, self-alienation predicates 16 percent, and self-alienation and authentic living predicate 19 percent of emotional loneliness. It was also found that only self-alienation variable had a significant role in social loneliness and the total score of loneliness and respectively predicates 13 and 17 percent of the variance in the mentioned variables.

**Discussion**

The present study aimed to investigate the role of authentic personality for the prediction of psychological health indicators (depression, anxiety, and stress) and feeling lonely in the students of Isfahan University of Medical Sciences. The results suggested that there was a significant relationship between self-alienation and accepting external influence with psychological health (depression, anxiety, and stress). As a result, self-alienation and accepting external influence had the most effective role in the prediction of depression, anxiety, and stress. Studies indicate that authenticity is a strong and positive predictor for mental health and has a positive correlation with psychological well-being and mental well-being and a negative relationship with psychological symptoms such as anxiety, stress, and depression (36). Wood et al. believe that self-alienation and accepting external influence are associated with anxiety, depression and other negative emotions, and can affect self-confidence, life satisfaction, positive emotions, autonomy, environmental mastery, positive relation with others, personal growth, and self-acceptance (37 and 38).

Furthermore, the findings showed that self-alienation and authentic living had the most important role in predicting emotional loneliness. The best predictor for social loneliness and total score for loneliness was self-alienation. One possible explanation could be that social relations have a negative relationship with self-alienation and a positive relationship with authentic living (39). As a result, it seems plausible that people who have high self-alienation and low levels of authentic living, experience more emotional loneliness. On the other hand, since self-alienation is described by a sense of lack of identity and self-knowledge (29 and 19), some research has shown that self-knowledge and personal identity formation can help people to apply problem-oriented methods against stress and crisis ahead, to be more resistant than others when faced with problems, and to have higher resilience and mental health (40). Therefore, the higher self-knowledge the person has, the less psychological problems such as feeling lonely he/she would have.

The significance of this research would be revealed more by considering the numerous effects of having an authentic personality in personal aspects (mental health, self-image, self-esteem, hostility), family aspects (life satisfaction, intimate relationships, quality of romantic relationships), social and vocational aspects (relationship with friends, social support, satisfaction with job roles) (29,41-44).

These findings highlight the attention to personality factors in mental health, so it is recommended that future plans provide programs for educating people, especially students. This would make people aware of their personality traits and their effects on their mental health and would consequently reduce the effects as much as possible.
According to the findings of this study, the applied suggestions are as follows: the current study suggests the organization of workshops focusing on self-discovery and self-knowledge considering the effects of self-knowledge has on mental health. On the other hand, it seems that marriage and family counselors as well as career counselors could take advantage of authentic personality scale in identifying and predicting job and marital satisfaction (44) of students. Moreover, this study suggests researchers to conduct experimental studies in order to investigate the effect of authentic personality on mental health in other groups and individuals. Regardless of the foregoing, some of the limitations the present study faces is that the results should be generalized with caution. This study was faced with sampling limitation and, therefore, the generalization of the results to other groups should be done cautiously.

Conclusion
According to the results of this study, the mental health of medical students is predictable on the basis of personality characteristics (self-alienation, accepting external influences, and authentic living).

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