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Research Article

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Investigating the Relation of Imposter and Defense Mechanisms with Self-concept

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Abstract

Imposter is a motivational syndrome for people who succeed. The present study was aimed at investigating the relation of imposter and defense mechanism with self-concept among M.A./M.SC. Non-medicine male and female students of Tehran University. In so doing, 400 students (218 boys and 182 girls) from different fields of study in the four main branches of humanities, sciences, technical engineering, and art were selected through a stratified random method. They were asked to respond to the imposter syndrome scale of Clancy (1978), the defense mechanisms scale of Andrews, Singh, and Bond, and the 10-item self-concept scale of Pourhosein. Data analysis was conducted through statistics methods including bivariate analysis of variance, Pearson correlation, regression, and t-test. The results of the study indicated that there was a significant relation between imposter variables and defense mechanisms (P<0.0001). They also showed that there was a significant positive relation between imposter and undeveloped defense and neurotic mechanisms and there was a significant negative relation between imposter and developed defense mechanisms. A high level of imposter had a significant negative correlation with self-concept. However, in regard with the genders, t-test indicated no significant correlation between imposter and self-concept in different gender groups.

Keywords: Imposter, Defense mechanisms, Self-concept, Perceived deception, Self- handicapping

Introduction

Everybody at every age and in every career is looking for being successful and efficient. Understanding this feeling is highly effective in enhancing mental health and self-esteem. Its results are also observable in different domains of the society and the family. However, there are a lot of people who are scared of success and avoidance of failure. After attaining success, such individuals will experience an unfavorable feeling because they think that their success is not theirs and that they are pretentious and could have deceive others well into believing that they are successful. Imposter syndrome was first discovered by Clance and Imes [1]. In medical clinics, Clance and Imes encountered with individuals who in spite of reaching high educational, occupational, and scientific levels and attaining various successes did not have a good feeling about their successes. Based on clinical findings of their studies, Clance and Imes called these specific motivational and emotional problems "imposter syndrome" [2]. Imposters believe that external factors, like hard work, others, luck, attractiveness, charm, or coquetry, have played a role in their success [1]. Imposters are highly skilled in internalizing the negative evidence of their abilities and also in discrediting the positive feedbacks and confirmations that they receive from others [3]. Imposters fear that others will finally come to know that they do not really have any abilities. They live with this fear that their deception will soon be revealed. This fear is resulted from their stress [1]. According to scholars, imposters possess various clinical signs like: generalized anxiety, depression, lack of self-confidence, and frustration in meeting progress criteria [1, 4]. The results of the studies conducted by Clance and Imes indicated that imposter is associated with a set of clinical signs and behavioral characteristics like [1]: 1) these individuals consider themselves as deceitful, crooked, and pretentious, 2) they attribute their successes to luck and they cannot internalize the reality, 3) they do not think they deserve applauses and awards, 4) they fear of being known and unique, 5) they fear that others may find out that they are not skilled, and 6) they consider hardworking to attain success as a sign of individual inability. In early basic concept of imposter, accepting oneself as a low self-esteem was introduced as one of the main characteristics of imposters. Different studies have indicated that there is a negative relation between imposter and self-esteem. On the other hand, there is a strong direct relation between imposter and self-handicapping [5]. In a study) Ferrari and Thompson (conducted it was concluded that there was a relation between imposter scores and differentiating self-ideal and self-reality. In their study, also concluded that imposters belittle themselves, which is maybe their aim so that they can deceive other in order to attract their positive interpretations when they reach high positions [6]. Clance et al. state that imposter fears are originated from the child's early experiences like shame and humiliation when the child does not receive his parents' affirmation for success [3]. Defense mechanisms are a set of actions that an organism uses in order to protect itself against motivation and emotions. Defense styles are divided into three groups of developed, undeveloped, and neurotic. Developed defenses are safe and adaptive methods of facing with anxiety that results in satisfaction and emotional contentment [7]. Neurotic defenses are non-adaptive strategies to control anxiety that is

created by hidden repressed desires and is a combination of dependence on others and expressing personal desires. Undeveloped defenses are basic mechanisms that are characterized by isolation, unreal defense performance, inaction, and fantasy. In a longitudinal study conducted by Vaillant, it was concluded that there was a relation between adaptive defenses and mental health, marital stability, occupational success, and satisfaction with life [7]. Various studies have also indicated that imposters gained high scores in neurosis and low scores in variables like extraversion, openness to experience, approval, and conscience [8]. On the other hand, individuals who use undeveloped defense mechanisms have a high level of mental irritation and gain a low score in openness to experience. No research has been conducted on the relation of imposter and defense mechanisms with self-concept. In the present study, the relation of imposter and defense mechanisms with self-concept was investigated and the difference between the two genders was also included in the variables.

Study hypotheses

- There is a significant relation between imposter and defense mechanisms and self- concept.
- There is a positive relation between imposter and undeveloped defense mechanisms.
- There is a negative relation between imposter and self-concept.
- Imposter is higher in female students compared to male students.

Methodology

Method, population, and sample

The present research is a correlation study. The statistical population consists of all Tehran University M.A./M.SC. Non-medicine students in the four main branches of humanities, sciences, technical engineering and art. Based on the nature of the study, the number of the variables, the total number of M.A./M.SC. Students of Tehran University, and Morgan table, the sample size was determined to be 375 participants. To come up with more precise results, 400 (218 boys and 182 girls, 192 humanities students, 96 sciences students, 80 technical engineering students, and 32 art students) participants were included. Stratified random sampling was utilized while bearing in mind the proportion of the final sample and the number of the students in different faculties. Individuals who responded to the questionnaire were Tehran University M.A./M.SC. Non- medicine students and had no disorders or psychological diseases [9, 10].

Instruments

Imposter Scale

This scale included 20 questions and uses a five-item Likert rating beginning from 1=never, hardly ever, often, sometimes, and ending with 5=a lot. An increase in the score indicates an increase in imposter experiences. The results of the study conducted by Holmes et al. indicated a high internal consistency with an alpha coefficient of 0.96 for this scale [11]. Researcher reported its Cronbach's alpha as 0.94. The imposter scale has been verified in two samples: a clinical sample with Cronbach's alpha of 0.84 and a non-clinical sample with Cronbach's alpha of 0.96 [11]. Clance's imposter scale measures hesitation about one's wisdom and ability (being fake), thoughts like success is the result of luck or other factors rather than ability (luck), and inability to accept applause, praise, and good performance (disbelief). The calculated variance for these three factors was respectively 0.42/2, 0.6/6, and 0.6/1. Reliability of the scale was 0.96 [11]. Reliability of the scale in the present study was calculated at a significance level of P<0.0001 to be 0.87.

The defense style questionnaire

The participants' defense mechanism was measured through the Persian version of *The Defense Style Questionnaire* [12]. This questionnaire is a 40-question instrument that has 9-item Likert rating (from completely agree to completely disagree). It measures 20 defense mechanisms based on 3 defense styles: developed, neurotic, and undeveloped. Cronbach's alpha has been reported to be acceptable for all of the defense style questionnaires. The Cronbach's alpha of all of the questions of the three defense mechanism in the Persian form for a students' population was respectively 0.75, 0.73, and 0.74, for boy students it was 0.74, 0.74, and 0.72 and fro girls it was 0.75, 0.74, and 0.74, which indicates the acceptable internal consistency of the Persian version of the questionnaire [13]. In the present study, the reliability of the questionnaire was calculated as 0.85 (P<0.0001).

Self-concept questionnaire

The self-appreciation test (10 questions) was designed by Pourhosein according to Damon and Hart's cognitive transformation theory. Cronbach's alpha and Pearson coefficient were utilized to measure the reliability of the test. The results indicated that the 10-sentence test based on its 30-sentence criterion had a high validity, internal consistency (0.483), and a high significant structural accuracy. The test also has two factors of self-mental and self-social. The results showed that the first and the second factors specify 0.31 and 0.23 of the total variance, respectively. And 0.54 of the total variance is calculated through these two factors [14]. Cronbach's alpha for this scale was calculated at a significance level of P<0.0001 to be 0.87.

Data analysis

To analyze the collected data of the present study, statistical inferential tests like z, t, and chi-square were applied. F test was used to determine the significance correlation and consistency. ANOVA was utilized to see whether the regression equation is significant. And parametric and non-parametric tests were applied to compare the independent groups.

Results

To test the first hypothesis, i.e. there is a significant relation between imposter and defense mechanisms and self-concept, multivariate regression coefficient was applied. The results of this test are presented in Table 1 below.

Table 1: Multivariate regression coefficient (First Hypothesis)

Scores	R	R_2	Adapted R_2	Regression equation significance test (F)	sig.
	0.5	0.25	0.24	66.6	0.0001

The results of this table indicated that there is a correlation of 0.5 between the criterion factor (self-concept) and the two predicting variables (defense mechanisms and imposter). That is, the variables of imposter and defense mechanisms can predict the variations of self-concept.

To test the hypothesis that there is a positive relation between imposter and undeveloped defense mechanisms, bivariate regression coefficient was applied. The results of this test are indicated in Table 2 below.

Table 2. Bivariate regression coefficient (Second hypothesis)

Scores	R	R_2	Adapted R_2	Regression equation significance test (F)	sig.
	0.39	0.15	0.51	72.06	0.0001

As the results presented in Table 2 indicate, there is a correlation of 0.39 between the criterion factor (undeveloped defense mechanism) and the predicting variable (imposter). That is, high imposter has a direct significant relation with undeveloped defense mechanisms.

To test the third hypothesis, i.e. there is a negative relation between imposter and self- concept, bivariate regression coefficient was applied. The results of this test are indicated in the following table.

Table 3. Bivariate regression coefficient (Third hypothesis)

Scores	R	R_2	Adapted R_2	Regression equation significance test (F)	sig.
	- 0.46	0.21	0.21	109.6	0.0001

The results of the study indicated that imposter could predict self-concept. That is, there is a negative significant relation between high imposter and self-concept.

Independent samples t-test was applied to test the fourth hypothesis, i.e. imposter is higher in female students compared to male students. The results of this test for the two variables of imposter and self-concept are indicated in Tables 4 and 5.

Table 4: Independent samples t-test for the research variables

Index		N.	Mean	SD	T	df	sig.
Imposter scores	Female	184	53.81	12.38	- 0.247	375.3	0.27
	Male	216	54.11	11.36			

Table 5: Independent samples t-test for self-concept difference of the two genders

Index		N.	Mean	SD	T	df	Sig.
Self-concept scores	Female	184	37.15	7.36	0.112	365.5	0.04
	Male	216	37.07	6.4			

As was observed in Tables 4 and 5, there was no significant difference between the imposte and self-concept scores of the two genders.

Discussion and conclusion

The results of the study indicated that self-concept has a significant correlation with imposter and defense mechanisms. Maybe this is because imposter is a series of irrational feelings that an individual gains from attaining success. Such feelings are in correlation with a decrease in positive self-concept. In encountering with stress and protecting the self, an often uses undeveloped defense mechanisms. The results of the study also proved the second hypothesis. Since this correlation is positive and significant, it seems that imposters use undeveloped defense mechanisms while facing with stress. No studies have yet been conducted on the relation between imposter and defense mechanisms. However, the results of the studies conducted on imposter indicate that there is a significant relation between imposter and personality traits. In studies where the relation between imposter and these variables has been investigated, it is indicated that based on five factor of personality scale, imposter has a positive correlation with intense neurosis and poor extraversion [8]. On the other hand, defense mechanisms predict the personality changes of adulthood in five major personality characteristics. Imposters have an inadaptable personality and show a high level of neurosis, extraversion, and low conscience. They have a low self-concept and a poor self-esteem. Their mental and emotional health is also in a poor condition. Moreover, those who use undeveloped defense mechanisms indicate intense neurosis, poor conscience, and low openness to experience. Based on these reasonable conclusions, the significant result of the second hypothesis seems rational. The results of the present study indicated that there is a negative relation between imposter and self- concept. That is, as imposter feelings rise, the level of positive self-concept drops. This finding is in agreement with previous studies, which can be due to the fact that imposters attribute their success and achievements to external factors and this distorted belief about oneself causes self-esteem and self-importance to decrease; therefore, these individuals' positive self-concept will drop a lot. Some studies indicated that there is a strong relation between imposter and the level of self-esteem [15]. The study conducted by Clance et al (1985) also indicated that imposters receive their self-perception from self-abasement and their wrong self-perception from their self-criticism. They develop their self-perception with perceptions of incompetence and deception although there is evidence against such perceptions. For the fourth hypothesis, there was no significant difference between the two genders. This finding is in line with those of the previous studies. In their early studies, Clance and Imes concluded that prevalence of this phenomenon is more likely among women; however, later studies indicated that its prevalence is the same among men and women [16]. However, the result of this hypothesis is in agreement with other studies. Nowadays, since in developed societies women are participating in social and scientific domains and attaining excellent academic positions, such differences have decreased considerably, which can be a reason for the equality between the two opposite genders. In general, analyzing the findings of the present study indicated that there is a negative significant relation between imposter and self-concept. That is, as the level of imposter and its experiences increase in the individual, his low self-concept and those who have a low level of imposter will have a more positive self-concept.

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