



## Research Paper: Superstition and Its Association with Depression and Anxiety among University Students



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### Abstract

Superstitious beliefs and practices have a determining role in culture and society in traditional communities and influence their worldview and value system. The aim of the present study was to investigate the relationship between superstition tendency and depression and anxiety among college students. The present study was descriptive-correlational. The research population consisted of all students who were studying at the Islamic Azad University of Bandar-e Anzali in the academic year 2021-2022. From this population, 335 people were selected as the sample using the convenience sampling method. Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and Superstition Tendency questionnaires were administered to them and the questionnaires were analyzed using correlation and regression statistical methods after collection. The Results showed that there was a significant relationship between superstition tendency and depression and anxiety ( $P < 0.001$ ). As a result, it can be said that superstition tendency can predict depression and anxiety in university students.

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## 1. Introduction

Depression is one of the most common psychological disorders and is characterized by symptoms such as low mood, hopelessness, fatigue, feeling worthless, suicidal thoughts, and sleep and eating disorders (Spriggs et al., 2021). The World Health Organization (WHO, 2023) has declared depression the main cause of disease and disability in the world. Depression is accompanied by symptoms such as severe sadness, avoidance of others, feeling useless and worthless (Anand, 2019).

Depressive disorders are relatively common, regardless of their diversity; this means that about 17% of people experience at least one episode of severe depression in their lifetime (Shim et al, 2020). It is agreed that depression is one of the most disabling diseases that affects a large number of people in the world today and impairs their ability to function, think and feel. On the other hand, the prevalence of depression is such that it is considered the most common disorder and the common cold of mental illnesses (Colomer et al, 2021). Diagnostically, depression is also one of the most common diagnoses in mental disorders that encompasses a large number of people with different backgrounds in the world (Shim et al, 2020).

Another factor that affects mental health is anxiety. Anxiety is a warning that alerts the person, tells them that there is a threat ahead, and helps them to take actions to cope with the threat (Sadoks & Sadoks, 2016). Anxiety is a normal, emotional, logical response to potential danger. However, if the symptoms of anxiety are long, irrational, severe, or

occur in the absence of stressful or stimulating events, it will be problematic (Woldegerima et al., 2018). About 30 to 40 percent of people in Western societies suffer from disorders related to anxiety at some stage of their lives (Ganji, 2017). Anxiety disorders are one of the most common mental health problems. The prevalence of this disorder has been estimated at 28.8% (Osmanagaoglu et al., 2018). The serious and distressing symptoms of anxiety are the most common mental problem in the world, affecting about 5 percent of all adults with disability in the developed world (Mkrtchian et al., 2018).

Since the beginning of existence, humans have used various methods to explain any phenomenon. When their scientific knowledge was limited and flawed about the world's affairs, they attributed every phenomenon to gods, spirits, demons and supernatural things, and in times of fear and insecurity, they relied on various rituals, magic, witchcraft, prayer writing and generally superstitions. Superstitions are an inseparable part of the intangible culture of any society that has survived in different forms and ways throughout history. Just as many beliefs depend on specific time and space conditions, superstitious beliefs are also influenced by time and place; however, it is not incorrect to say that in every class and group, there is a strand of superstitious beliefs with different levels. Today, as technology, media and internet use have increased, superstitions have also spread in these media and social-internet networks (in the form of fortune-telling, prediction) online

and have attracted many people (Dehghani & Ebrahimi, 2019).

Catania and Reynolds (1968) identifies and differentiates three types of superstitions based on their nature: the first type is simple superstitions, which are behaviors that result from a positive outcome or event. This type of superstition can be observed in Skinner's experiment, where pigeons quickly bobbed and rotated their heads, believing that this would make food appear and be accessible. The second type, called concurrent superstitions, are strengthened when a behavior, response or reward happens at the same time, even though the reward has no causal connection to the behavior. The third type is sensory superstitions, which are defined as giving importance to some things and aspects of the individual's environment, such as a hat or lucky socks (Rabiei, 2015). Research confirms the effect of superstitions on mental health. Naghash et al (2020) demonstrated in their research that there is a direct and significant correlation between superstitious beliefs and all dimensions of pathological symptoms, and depressive symptoms have a positive and significant role in explaining superstitious beliefs. Dehghani & Ebrahimi (2019) claimed in their research that there is a negative relationship between the inclination to superstitions and psychological security, and the higher the inclination to superstitions, the lower the psychological security. Hartmann et al (2006) also thinks that there are exaggerated beliefs and perceptions that have influenced ordinary and public human interactions; these beliefs extend to strong beliefs and convictions and affect health behaviors.

According to the points mentioned, the values that each person believes in affect the beliefs related to human needs, health and illness, and directly influence the person's reaction to diseases, treatment choice, and Quality of Life (Lange et al, 2001). The aim of this study was to explore how superstition tendency relates to depression and anxiety among students. This is an important issue because superstition affects the beliefs, attitudes and mental health of people in society (Dehghani & Ebrahimi, 2019) and there is no consistent research on its impact on anxiety and depression.

## 2. Method

The present study had an applied purpose and a descriptive-correlational method. The research population included all students who were studying at the Islamic Azad University of Bandar-e Anzali in the academic year 1401-1402, totaling 2500 people. Based on the table of Krejcie & Morgan (1970), 335 people were selected as the sample using the available sampling method. All participants received oral information about the research and participated if they wished; they were assured that all their information would remain confidential and their personal information was not recorded for privacy reasons. Finally, the researcher administered the Beck Depression Inventory, Beck Anxiety Inventory and Superstition Tendency Questionnaires to them and analyzed the questionnaires using SPSS24 and correlation and regression statistical methods after collection.

## 2.1. Instruments

**Beck Anxiety Inventory (BAI):** This Inventory was developed by Beck and Steer (1990) and consists of 21 items that cover common symptoms of anxiety. The subjects, in order to answer, mark their distress level in the past week in the column opposite it. The scoring method of the answers is as follows: none (0), mild (1), moderate (2) and severe (3). In this way, the individual's score range can vary from zero to 63. The reliability and validity of the test were obtained by Beck above 0.9 respectively by Cronbach's alpha and split-half methods (Beck, 1990). The reliability of the Iranian version by Cronbach's alpha method was 0.83 and the validity by correlation method was 0.92 (Kaviani & Mousavi, 2008).

**Beck Depression Inventory (BDI):** Beck (1961) developed this Inventory, which has 21 items. It includes cognitive, physical and emotional subscales. The questions of this scale have 4 options from zero to 3 points. The total depression scores can range from 0 to 63. Beck et al (1988)' research obtained the reliability coefficient of the questionnaire

by the retest method 0.86. The questionnaire's validity in Rajabi's (2005) research was 0.80 and the reliability by Cronbach's alpha method was 0.89.

**Superstition Tendency Questionnaire:** Afshani and Sheikhalishahi (2022) designed this questionnaire, which has 10 items with 5 options from completely agree (4 points) to completely disagree (0 points). Therefore, the highest score is 40 and the lowest score is 0. The more the score obtained, the more the person's superstition tendency. Afshani and Sheikhalishahi's (2021) research obtained the reliability of this questionnaire by the retest method 0.80 and the reliability by Cronbach's alpha method was 0.86.

## 3. Results

This study involved 335 students of Islamic Azad University of Bandar-e Anzali. Of these, 232 (68.3 percent) were female and 123 (31.7 percent) were male. Table 1 shows the mean and standard deviation of the scores on the superstition tendency, depression and anxiety questionnaires.

Table 1

*Mean and standard deviation of superstition, depression and anxiety*

Factors	Mean	Standard deviation
Superstition tendency	5.83	2.11
Depression	3.55	2.4
Anxiety	5.51	4.4

Table 2

*Correlation between tendency to superstitions scales with depression and anxiety*

	Depression	Anxiety
Superstition tendency	0.52*	0.38*

\*P<0.01

\*\*P<0.05

Table 2 shows the correlation between tendency to superstitions with depression and anxiety. The data showed that there was a significant relationship between tendency to superstitions with depression ( $r=0.52$ ,

$P<0.01$ ) and anxiety ( $r=0.38$ ,  $P<0.01$ ), and this meant that with increasing tendency to superstitions, depression and anxiety also increased.

Table 3

*The degree of explanation of the superstition tendency variable by the variables of anxiety and depression*

Predictor variables	B	Standard error	$\beta$	T	R2	Significance level
Depression	0.239	0.155	0.421	2.28	0.028	>0.000
Anxiety	0.253	0.176	0.488	2.99	0.033	<0.000

Since the significance level of the test is less than the standard level of 0.01, the test results are significant. This means that there is a significant relationship between superstition tendency and depression and anxiety. If superstition tendency increases, depression ( $B=0.239$ ,  $>0.000$ ) and anxiety ( $B=0.253$ ,  $<0.000$ ) also increase.

#### 4. Discussion

The aim of this research was to investigate the relationship between tendency to superstitions and anxiety and depression in university students. The findings showed that there was a significant positive correlation between tendency to superstitions and depression and anxiety. That is, as tendency to superstitions increased, depression and anxiety also increased. The findings were consistent with the results of Naghash et al. (2020), Dehghani and Ebrahimi (2019), Rabiei (2015) and Hartmann et al. (2006).

To explain these results, the findings of Inglehart (2016) were referred to, who stated that the lack of mental health increases the

amount of traditional values and actions of individuals and under psychological pressures and sense of danger, these values and actions have more manifestations. In addition, according to Maslow, if human needs, such as physical, security, love, self-esteem and self-actualization, are met, their impact on beliefs, thoughts, actions and behaviors will be seen. Accordingly, tendency to superstitions, which is one of the values, traditional and irrational actions of any society, is influenced by psychological pressures and as a result, lack of social security, which increases the beliefs and behaviors of individuals with unfulfilled needs. In fact, tendency to superstitions is a mechanism for soothing and calming people who do not have the necessary confidence in their lives (Zare-Shahabadi & Torkan, 2015).

Tendency to superstitions is shaped by sources such as ambiguity of position, including personal and social situations. High levels of stress, pressure, anxiety, depression and social distrust lead to doubt and helplessness among people. Women are more

exposed to these ambiguous situations and tend to use superstition as a coping strategy. This, in turn, results in more mental and emotional problems among women, who then engage in more superstition and superstitious behaviors to alleviate these problems (Dehqani & Ebrahimi, 2019).

There were some limitations in conducting the above research, including that this research was conducted on college students of Islamic Azad University, Bandar-e Anzali Branch and in generalizing the results to other groups and other cities and cultures, caution should be exercised. Another limitation of the present research was the lack of control of acute mental problems. Therefore, participants entered the research with any mental and behavioral problems. It is suggested that in the future and when conducting similar research, using purposive sampling, people who have acute mental problems should be identified and excluded from the research.

## 5. Conclusion

This research's results suggest that superstition tendency is a significant predictor of depression and anxiety among university students.

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## Conflict of interest

The Author declares that there is no conflict of interest with any organization. Also, this research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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