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Superstitious Beliefs, Personality Traits, Perceived Stress in University Students

Mahnoor Zahra

Department of Psychology, GC University, Lahore, Pakistan

Fatima Murtaza

Department of Psychology, GC University, Lahore, Pakistan

Muhammad Mussaffa But (Corresponding Author)

Department of Psychology, GC University, Lahore, Pakistan

Email: mussaffa@gcu.edu.pk  [0000-0001-5271](https://orcid.org/0000-0001-5271)

ABSTRACT

This study evaluated the relationships between superstitious beliefs, personality traits, and perceived stress among university students in Lahore, Pakistan. A quantitative survey design was used to gather data from 305 undergraduate and master students. The sample had almost equal numbers of male and female participants. The survey included the Ten Item Personality Inventory, the Perceived Stress Scale, and the Superstitious Belief Scale. Data analysis involved reliability tests, independent sample t-tests, Pearson correlations, and hierarchical multiple regression analyses. All three scales showed acceptable to high internal consistency reliability. The independent t-test results showed that female students had significantly higher perceived stress scores than male students. Female students also scored higher on superstitious beliefs, though this difference was not statistically significant. Pearson correlation results showed that personality traits, perceived stress, and superstitious beliefs had significant positive associations with each other and with participant age. Hierarchical regression showed that demographic variables and personality traits explained 55% of the variance in superstitious beliefs. Conscientiousness and openness to experience were strong predictors of superstitious beliefs. The same predictors accounted for 49% of the variance in perceived stress scores. The findings suggest that personality traits significantly influence how university students experience stress and hold superstitious beliefs.

Keywords: Superstitious Beliefs, Personality Traits, Perceived Stress, University Students, Big Five Personality, Gender Differences

Introduction

In a scientific world, superstitions are regarded as an irrational belief and incompatible with the technological and scientific advancement (Rudski, 2004). However, superstitious beliefs are still prevalent in different cultures and have deep impact in one's mind irrespective of socio economic class and education levels (Corsini, 2002). According to Merriam Webster dictionary "Superstition is a faith or practice resulting from unawareness, fear of unknown, belief in magic or a probability, or a false notion of causation". (Peterson, 1977) gave different dimensions of superstitions to make it an objective view. The researcher classified superstitions as beliefs in uncertain bad outcomes, beliefs in unspecific desirable results, beliefs in specific outcomes associated



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with certain happenings and beliefs in protective rituals. Superstitions can be classified into cultural or personal phenomenon, as they are believed to bring good luck or to move away from bad happenings (Wiseman & Watt, 2004). Moreover, wearing and buying accessories like good luck charms are the examples of personal or ritual superstitions. Superstitious beliefs have a great impact on decision making and daily routine activities like sports, travelling etc. but it did not get much attention on consumer behavior affected by such beliefs (Schippers & Van Lange, 2006).

Personality is a dynamic and organized pattern of traits that influences cognitions, motivations and behaviors of an individual in different situations. Different individuals have different personality traits that may have an effect on their belief system or other domains of life (Scott M. Fluke, 2012). Personality traits is a process of thinking feeling and behaving as it embraces attitude, opinions and mood as interaction with other humans and they have some characteristics that are inherited and that can distinguish them with each other (Michael C. Anyaegbunam, 2020). Decades of research have found that a certain support can resist against adverse effects such as stress. The techniques are said to takeover people's lives, create time and social tensions that risk negative physical stress and a chilling outcome.

Superstitions can be understood from a psychological point of view as irrational beliefs or practices that are based on a perceived relationship between certain actions, objects, or events and their outcomes. They are often driven by the human tendency to seek patterns, impose meaning, and find order in the world (Vyse, 2013). While superstitions may vary across cultures and individuals, they typically involve attributing supernatural or magical powers to specific behaviors or objects, despite the lack of any logical or scientific evidence. Psychological research has explored the origins and mechanisms behind superstitions. One key theory is the concept of "illusory correlation," which suggests that people tend to perceive a relationship between two unrelated events when they occur together, leading to the belief that one event causes the other (Matute, 1996). For example, if someone wears a particular shirt and experiences a positive outcome, they may associate the shirt with the positive outcome, even though there is no logical connection between the two. Studies have also highlighted the role of reinforcement in the formation and maintenance of superstitions. When individuals engage in superstitious behaviors and experience a positive outcome, they are more likely to repeat those behaviors in the future, reinforcing the belief in the superstition (Damisch, Stoberock, & Mussweiler, 2010). This process is known as operant conditioning and can contribute to the persistence of superstitions.

Personality is described as distinct variations in distinctive patterns of thought, emotion, and behavior (Alghamdi et al., 2017). These three facets of an individual's makeup make up their personality. The consistency of a personality trait across time (Bleidorn et al., 2013) and in a variety of contexts is a significant aspect of that quality, as it is what distinguishes one person from another (Borkenau et al., 2006). The Five-Factor model, which refers to "extroversion, openness to experience, agreeableness, conscientiousness, and neuroticism," is one of the most extensively used assessment methods for personality characteristics. It is also one of the most widely used assessment techniques. In point of fact, a person's personality qualities have a significant effect on their lives, as well as the academic achievement of pupils and their decision-making (Hazrati-Viari et al., 2012).

A person's understanding of the stressful occurrence and their assessment of its objective presence as an array of psychological and physical tensions and inconveniences are both factors that go into determining an individual's perceived stress (Cohen et al.,



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1983; Yang T. C & Huang H. T, 2003). Perceived stress is a type of stress perception that refers to an individual's perception of the degree of stress caused by an external event. According to O'Connor et al.'s research from 2021, stress is considered to be a significant risk factor for mental health, and elevated stress perceptions may often lead to a variety of mental health disorders (O'Connor D. B et al., 2021). According to the non-homeostatic model of stress, an individual is more likely to experience non-homeostatic states of mind and body, such as excessive emotional arousal, the more stressful events they go through and the longer they go on for (Yan Y. W et al., 2010). This is because there is a correlation between the number of stressful events an individual goes through and the length of time those stressful events go on for. It has been shown via empirical research (Anyan & Hjemdal, 2016; Yang S et al., 2020) that the likelihood of stress leading to depression increases in proportion to the perceived amount of stress. persons' perceptions of stress are increased as a result of stressful experiences, particularly in persons who are more susceptible to the effects of stress. The perception of stress contributes to an increase in negative emotional experiences and a reduction in pleasant emotional experiences. It also contributes to a decline in life satisfaction and psychological well-being, which in turn leads to depression. In addition to this, in comparison to males, women are more sensitive to the perception of stress, who are less robust, have stronger emotional responses to stress, have a more difficult time recovering from negative moods, and are consequently at a higher risk for clinical depression. As a result, it is essential to investigate the psychological processes that lie behind the connection between perceived stress and sadness, and then to establish a scientific foundation for the rational prevention of depression among college students (Liu et al., 2023).

According to the findings of several studies, some characteristics of an individual's personality are linked to a greater propensity to hold superstitious beliefs. A demand for control is an example of one of these characteristics. People who have a high desire for control may be more likely to acquire superstitious beliefs as a method of exercising perceived control over circumstances that are unknown or unexpected (Hoffmann et al., 2022). This may be because superstitious beliefs provide a means of predicting the future. The performance of superstitious rites or actions might provide an individual a sense of order and control, so lowering feelings of worry or unpredictability (Broojerdi et al., 2021).

It is essential to emphasize the fact that the connection between superstitious beliefs and characteristics of personality is a complicated and multi-faceted one. It is possible that some personality features make people more prone to adopting superstitious ideas; nevertheless, this does not mean that there is a clear cause and effect relationship between the two. The emergence and evolution of superstitious beliefs may also be influenced by a variety of environmental variables, personal experiences, and cognitive biases throughout the course of time.

According to the findings of several studies, there is a correlation between certain personality characteristics and elevated levels of the experience of stress. One of these characteristics is called neuroticism, and it's defined by a predisposition to experience negative emotions like worry, despair, and irritation more often than positive ones. People who are high in neuroticism have a greater propensity to see normal, daily occurrences as stressful and have a tendency to exaggerate the effect that stressors have on their health and wellbeing. It's also possible that they have trouble efficiently dealing with stress, which may lead to increased levels of perceived stress (Morris, 2015; Roohafza et al., 2016).



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Not much research is done to find the relationship between superstitious beliefs, personality traits and perceived stress together, specifically in educational settings. This research aims to fill this gap in literature and reveal the relationship between these variables which will help to understand how these variables interaction and it can provide insights into how university students cope with stress. By examining the relationship between superstitious beliefs, personality traits, and perceived stress, researchers can identify the specific mechanisms students employ to manage stress. This knowledge can inform interventions and support services designed to help students effectively cope with the demands of university life.

Literature Review

Personality contributes in shaping the belief system of an individual, Seeger et al., (2003), suggested that paranormal beliefs have a relationship with the aggressive and defending behavior of an individual (Mowen, 2003). On the other hand, found negative relationship between superstitious beliefs and attitude toward genetic engineering of the food. (Rudski, 2004), found that pessimistic people belief more on superstitions as compare to optimist and pessimism was positively related to superstitious beliefs.

Anyaegbunam et al. (2021) conducted research on the relationship between superstitious beliefs and personality traits. The research looked at how views like these relate to characteristics of people's personalities. The Big Five Personality Inventory (BFPI) and the Culture Superstitious Belief Scale were the tools that the researchers used. In all, there were 250 people that took part in the research study. An approach based on multiple regressions was selected. According to the findings presented above, openness to new experiences and neuroticism had a substantial relationship with the tendency to believe in superstitions, but extraversion, agreeableness, and conscientiousness did not. According to this, the only two factors that had a significant link with superstitious beliefs were neuroticism and openness to experience.

In order to determine the correlations between personality qualities, superstitious beliefs, and locus of control in female students, Broojerdi et al. (2021) performed research. 350 female students were subjected to the NEO-PI-R personality trait scale, RLCS (Rutter Locus of Control Scale), and Afshani's Beliefs in Superstitions Scale. The findings demonstrated that the model was fit, and personality factors and locus of control could account for 66% of superstitious beliefs. At the level of $p = .01$, personality qualities and locus of control were particularly related with superstitious beliefs. While other personality factors were shown to be negatively related with superstitious beliefs, neuroticism was found to be positively connected with them.

A study was carried out by Sehar et al. (2023). The purpose of this study was to evaluate the association between participants' superstitious beliefs and the five-factor model personality characteristics. They experimented with questionnaires, a scale to assess superstitions, and the Mini International Personality Item Pool scale. The findings indicated that the participants' superstitious beliefs had a favorable influence, with a score of 0.36 for extroversion and 0.10 for neuroticism being assigned to those personality qualities. Researchers came to the conclusion that participants' levels of extroversion and neuroticism, two personality qualities, were positively correlated with their levels of superstitious beliefs.

In a research, Jacob et al. (2022) investigated the relationship between developing adult coping strategies, perceived academic stress, and the big-five personality characteristics. 203 college students' data were gathered using the snowball sampling approach, and a correlational study design was used to analyse the results. The findings



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demonstrated that the extraversion personality component was substantially and favourably associated to academic self-perception variables ($r = .200^{**}$), workload perceptions ($r = .153^{*}$), and performance demands ($r = .248^{**}$). While agreeableness and academic self-perception showed a positive and significant association, openness to experience had a positive and significant link with pressure to perform ($r = .193^{**}$) and academic self-perception ($r = .261^{**}$). Conscientiousness and emotional stability were found to be significantly and positively correlated with all four aspects of academic stress, including pressure to perform ($r = .143^{*}; .436^{**}$), workload perceptions ($r = .159^{*}; .287^{**}$), academic self-perceptions ($r = .303^{**}; .499^{**}$), and time constraints ($r = .140^{*}; .297^{**}$).

Luo et al. (2023) conducted a meta-analytic review. With a total of 1,575 effect sizes derived from 298 samples, the present research provided a preliminary meta-analytic examine on the relationships among the Big Five personality traits and stress measured under various conceptualizations (stressor contact, mental, and physiologic answers). Overall, extraversion, agreeableness, conscientiousness, and openness were shown to be inversely correlated with stress, but neuroticism was found to be favourably correlated with stress. Only neuroticism, agreeableness, and conscientiousness were associated to stressor exposure when stress was measured under several conceptualizations. While the Big Five personality qualities revealed minimal to no relationships with physiological stress response, all of the Big Five personality traits were strongly connected with psychological stress perception. Additional moderation studies provided evidence that the relationships between personality traits and stress under various conceptualizations depended on various aspects of the sample, research design, and measurements. The findings confirmed the significance of personality factors in determining how stressed out an individual is.

Overall, these studies suggest that personality traits, particularly neuroticism and extraversion, play a significant role in individuals' perceived stress levels. Neuroticism is consistently associated with higher perceived stress, while extraversion is linked to lower perceived stress. Other personality traits such as agreeableness, conscientiousness, and openness to experience also contribute to individuals' stress experiences and coping mechanisms. Understanding these relationships can help in developing interventions and strategies to manage stress effectively.

Research was carried out by Sheng, Z (2021). The researcher was interested in determining whether or whether a person's sense of self-efficacy acts as a moderating factor in the relationship between perceived stress and superstition among Chinese students and postgraduates. He enlisted the help of 228 individuals to fill out the Superstitious Beliefs Questionnaire (SBQ), the Perceived Stress Scale (PSS), and the General Self-efficacy Scale (SES). The findings showed that superstition had a positive correlation with felt stress ($r = 0.16$, $p 0.05$), which suggests that those who have beliefs in superstitions are more likely to experience stress than those people who do not believe in superstitions.

In summary, studies suggest that there is a relationship between superstitious beliefs and perceived stress. In the first study, the presence of a 'lucky' pen (a superstition) reduced participants' state anxiety and influenced their perceived performance during a stressor exposure. In the second study, individuals with superstitious beliefs were found to be more likely to experience higher levels of stress. However, the second study did not directly explore the role of self-efficacy in this relationship, only investigating whether it acts as a moderating factor, which means further research is needed to understand the potential interplay between self-efficacy,



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superstition, and perceived stress.

Another Lee and Kim (2018) research looked at how university students' superstitious beliefs, coping mechanisms, and psychological wellbeing were related. The results showed that superstitious beliefs were detrimental to psychological health. Additionally, problem-focused coping techniques were adopted by students who had lower levels of superstitious beliefs and better psychological well-being. The association between superstitious beliefs, personality characteristics, and perceived stress among university students from various cultural backgrounds was further investigated in a cross-cultural research by Chen et al. (2019). According to the study's findings, superstition was positively correlated with felt stress across all cultural subgroups, and neuroticism was shown to be a cross-culturally significant predictor of both superstition and perceived stress.

Rationale

In societies with a significant Asian influence, it is observed that superstitious beliefs are widespread (Antipov & Pokryshevskaya, 2020). Superstition is a cognitive phenomenon that involves the attribution of causal relationships between events, often in the absence of empirical evidence or logical reasoning (Hirshleifer et al., 2018). According to the data, a notable proportion of students, specifically 45.1%, have been observed to exhibit occasional engagement in superstitious beliefs or behaviours (Ahmed & Ali, 2018). According to empirical evidence, it has been observed that there exists a disparity in the prevalence of superstitious beliefs between genders in Pakistan, with women exhibiting a higher inclination towards such beliefs compared to men (Maqsood et al., 2018). The present research explores the potential association between individual personality traits and the propensity to engage in superstitious beliefs or behaviours. The findings of a study conducted by Anyaegbunam et al. (2021) revealed a noteworthy association between the personality traits of neuroticism and openness to experience, and the inclination towards superstitious beliefs. In a study conducted by Swami et al. (2011) it was determined that individuals with higher levels of openness to experience exhibit certain characteristics, including increased flexibility, an impulse for seeking new experiences, and enhanced creativity, among other attributes. Additionally, these individuals were found to have a greater inclination towards holding superstitious beliefs.

In light of the intensifying competition in contemporary society, it is evident that college students are experiencing a notable and ongoing rise in their subjective perception of stress (Kerr et al., 2004). Superstitious beliefs tend to manifest prominently amidst individuals experiencing heightened levels of stress, challenges, and uncertainty. This is primarily attributed to the tendency of individuals to experience a diminished sense of control in such circumstances (Burger & Lynn, 2005; Lasikiewicz & Teo, 2018b). In the context of academic activities, it has been observed that college students tend to display a higher frequency of superstitious behaviours when confronted with stressful situations, such as challenging examinations, as compared to situations that are deemed less significant, such as insignificant tests (Rudski & Edwards, 2007).

Insufficient empirical investigation has been conducted thus far to comprehensively explore the complex relationship between superstitious beliefs, perceived stress, and personality traits within the context of Pakistan. Therefore, the primary objective of this study is to address the existing gap in the literature by examining the interconnectedness between superstitious beliefs, perceived stress, and personality traits within the context of university students in Pakistan.



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Hypotheses

H₁ There would likely to be a gender difference in superstitious belief and perceived stress

H₂ Personality traits would likely be predicting superstitious beliefs and perceived stress.

Method

This chapter provides a detailed account of the research methods used in this study, including the research design, the target population and sample, measures, collection of data, and analysis of data. The objectives of this study was to access the relations among personality traits, superstitious beliefs and perceived stress in university students. The Quantitative survey design was used and a sample of 305 university students.

The demographic characteristics of the sample are presented below in Table 1.

Table 1

Demographic Characteristics of Sample (N=305)

Variables	f(%)	M(SD)
Age		21.46(1.941)
Gender		
Male	152(49.8)	
Female	153(50.2)	
Education (in years)		1.06(.236)
Bachelors	287(94.1)	
Masters	18(5.9)	
Name of University		2.46(1.085)
GCU	78(25.6)	
UMT	71(23.3)	
UCP	93(30.5)	
FC	63(20.7)	

Sample

The sample consisted of 305 university students, male = 152, female = 153. The target and accessible population for the study were university students with age rank 18-25 years ($M = 21.46$, $SD = 1.941$) in Lahore, Pakistan. The sample consisted of 305 university students. Participants were purposefully selected to participate in the study based on specific characteristics and criteria that align with the research objectives. In purposive sampling, those participants are selected which have characteristics that you need in your sample (Nikolopoulou., 2023). The data were composed by the means of questionnaire methods using hybrid mode to collect data i.e., Google form and in – person.

Measures

Perceived Stress Scale (Cohen, 1983)

The Perceived Stress Scale (PSS) is a widely used psychological tool to measure stress perception. It is a measure of the level at which conditions in a person's life are considered stressful. Things are designed to affect how unexpected, uncontrolled, and overloaded responders experience their lives. The scale also includes many direct questions about current levels of stress occurring (Cohen, 1994). The stress experienced is the feelings or thoughts a person has about how much stress they are under at a certain



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time or at a particular time. Visual stress includes feelings about the uncontrollability and uncertainty of a person's health, how often he or she is coping with irritating problems, how often a change in a person's life occurs, and confidence in his or her ability to cope with problems or difficulties. It is not a reflection of the types or waves of depressing events that have befallen a person, but rather how a person feels about the general anxieties of his or her health and his or her ability to cope with such stress. People can experience the same negative events of life but express the different effects or intensity of these things as a result of factors such as personality, coping resources, and support (Phillips, 2015). It is a 10-item questionnaire to measure the self-reported level of stress in the respondents by measuring emotional state and feelings throughout the last month on a 5 point Likert scale (0 = *never*, 1 = *almost never*, 2 = *sometimes*, 3 = *fairly often*, 4 = *very often*). The scale reliability shown via Cronbach's alpha .78 (Manzar, et al., 2019).

Superstitious Belief Scale

Superstitions though considered as irrational beliefs are widely prevalent in all cultures. Most of the existing work on superstitions are predominantly based on traditional western beliefs. The present study aims at developing a new self-report measure of superstitious beliefs scale. The 24-item Superstitious Belief Scale (SBS) developed distinguishes a six-factor structure namely, Popular Beliefs, Belief in Good Luck, Belief in Bad Luck, Personal Superstitions and Social Superstitions. The six-factor structure was evaluated. The internal consistency values of the new SBS over studies 1 and 2 indicated high reliability.

Ten Item Personality Inventory (TIPI)

The Ten Item Personality Inventory (TIPI), developed in the USA by Gosling, Rentfrow and Swan (2003) was designed to measure five aspects of personality (1) Extraversion, (2) Agreeableness, (3) Conscientiousness, (4) Emotional Stability, and (5) Openness to Experience. Duration 3 to 5 mint (ten items) reverse-scored items (i.e., recode a 7 with a 1, a 6 with a 2, a 5 with a 3, etc.). The reverse scored items are 2, 4, 6, 8, & 10 (Gosling, 2003).

Procedure

Data collection strategies in this study included questionnaires with voluntarily participation. The informed consent from the authors of the respective scales was taken to carry out the study i.e., Perceived Stress Scale (PSS), Ten-item personality inventory (TIPI), Superstitious belief scale (SBS). The authority letter was generated from the Department of Psychology of Government College University, Lahore. The participants were purposively selected to take part within the research study. The permissions were taken from every of the participant earlier than supplying the questionnaire. The set of instructions were narrated out to them for each scales and the researcher was available to answer any questions about the instrument, to check the questionnaire per submission in case the participant provided an instrument with missing data, and to remind the participant if an item was not filled out. The data were entered through IBM SPSS 21. And proposed analysis was carried out. Ethical considerations as per APA code of ethics were followed in letter and spirit.



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Results

The reliability of the scales being used in the study was determined before in depth analyses of data while computing cronbach's alpha (α). The results are reported in Table 2.

Table 2

Psychometric properties of variables

Variable	<i>M</i>	<i>SD</i>	α	No of items
TUPI	45.89	9.44	.784	10
PSS	24.61	6.87	.797	10
SBS	75.78	20.21	.940	24

Note. *TUPI* = ten item inventory scale, *PSS* = perceived stress scale, *SBS* = superstitious belief scale

Reliability analysis was conducted to see the reliabilities of the ten item personality inventory, perceived stress and superstitious belief. Superstitious belief had the highest reliability of .940, perceived stress with a reliability of .797 and ten item personality inventory with the reliability of .784.

Mean scores of the men on all variables (perceived stress and superstitious beliefs) were compared with mean score of women by using independent sample t-test. The results are shown in table 3.

Table 3

Independent Sample t-test, with regard to gender on perceived stress and superstitious belief

Variables	men (<i>n</i> = 152)		women (<i>n</i> =153)		<i>t</i> (303)	<i>p</i>	95% of <i>CI</i>		Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>	
Perceived stress scale	23.73	6.11	25.50	7.48	-2.267	.007	-3.31	-.23	.025
Superstitious belief scale	74.02	19.38	77.53	20.91	-1.520	.488	.805	1.03	.17

Independent sample t-test was run to assess mean differences of participants on the variables including superstitious belief, perceive stress scale The results showed that there were significant mean differences between males and female participants with regard to their scores on perceived stress scale, Moreover, females scored higher on perceived stress ($M=25.50$, $SD=7.48$), then male scores ($M = 23.73$, $SD = 6.11$), result shows there were non-significant mean difference between male and female participants with regards to superstitious belief scale, moreover female scores higher on superstitious belief scale ($M=77.53$, $SD=20.91$), then male ($M=74.02$, $SD=19.38$).

Correlation analysis was carried out to explore the relationship between ten item personality inventory, perceived stress, superstitious beliefs and age. The results are shown in Table 4.

Table 4

Pearson product moment correlations between superstitious beliefs, personality traits and perceived stress in university students, (N=305)

Variable	<i>M</i>	<i>SD</i>	I	II	III	IV
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1 TIPI	45.89	9.44	—	.631*	.623*	.204*
2 PSS	24.61	6.87		—	.691*	.189*
3 SBS	75.78	20.21			-	.266*
4 Age	21.46	1.94				-

Note. TIPI = Ten item personality inventory, PSS = Perceived stress scale, SBS = Superstitious belief * $p < 0.01$

Pearson Product Moment Correlation was conducted to assess the relationship among personality traits, perceived stress, superstitious beliefs and age. Personality traits was significantly and positively associated with perceived stress, superstitious beliefs, and with age. Perceived stress was significantly and positively associated with superstitious beliefs and age. Moreover, superstitious beliefs were significantly and positively associated with age.

Hierarchical multiple regression was conducted to determine if TIPI is the predictor of superstitious beliefs, the results are as follows.

Table 5

Predictors	Model 1			Model 2			CI	
	<i>B</i>	<i>SE</i>	β	<i>B</i>	<i>SE</i>	β	LL	UL
Gender	2.08	.678	.151**	1.585	.578	.115**	.548	2.825
Age	.375	.201	.106	.145	.173	.041	-.221	.457
Education	-4.01	1.582	-	-2.484	1.353	-.085	-4.812	.564
Name of University	2.99	.329	.470**	1.75	.302	.277**	1.128	2.328
Extraversion				.509	.138	.197**	.238	.781
Agreeableness				-.052	.152	-.019	-.351	.246
conscientiousness				.547	.159	.199**	.234	.859

Regression to access the predictor of superstitious belief (SBS)



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Emotionality		.250	.163	.089	-.070	.570
Openness to experience		.250	.163	.089**	.276	.862
R^2	.275		.492			
ΔR^2	.265		.477			

Note. Model 1: $F(4, 16.66) = 36.83, p = .000$, Model 2: $F(5, 13.73) = 29.35, p = .000$.

Hierarchical Regression was performed to assess whether gender, age, education, name of university, extraversion, agreeableness, conscientiousness, emotionality and openness to experience significantly predicted superstitious belief. Normality checks, assessment of autocorrelations and multicollinearity were analyzed and all assumptions were met. The results showed that in first Model, gender, age and name of university are carried out to investigate the effect on Superstitious belief. In second Model, extraversion, agreeableness, conscientiousness, emotionality and openness to experience is carried out to access the effect of the dependent variable i.e. superstitious belief. While controlling the effect of age, gender, education and name of university. Moreover, R^2 shows that the gender, age, education, name of university, extraversion, agreeableness, conscientiousness, emotionality and openness to experience accounted for 55% of the variance being observed in the dependent variable i.e. superstitious beliefs.

Hierarchical multiple regression was conducted to determine if TIPI is the predictor of PSS, the results are as follows.

Table 6

Regression to access the predictor of perceived stress (PSS)

Note. Model 1: $F(4, 5.89) = 28.39, p = .000$, Model 2: $F(5, 4.97) = 25.28, p = .000$.

Hierarchical Regression was performed to assess whether gender, age, education, name of university, extraversion, agreeableness, conscientiousness, emotionality and openness to experience significantly predicted perceived stress. Normality checks, assessment of autocorrelations and multicollinearity were analyzed and all assumptions were met. The results showed that in first Model, gender, age, education and name of university are carried out to investigate the effect on perceived stress. In second Model, extraversion, agreeableness, conscientiousness, emotionality and openness to experience are carried out to access the effect of the dependent variable i.e. superstitious belief. While controlling the effect of age, gender, education and name of university. Moreover, R^2 shows that the gender, age, education, name of university, extraversion, agreeableness, conscientiousness, emotionality and openness to experience accounted for 49% of the variance being observed in the dependent variable i.e. perceived stress.

Discussion

Based on the initial hypothesis, it suggested the likelihood of observing differences between genders in both superstitious beliefs and perceived stress levels. The findings of the study revealed significant differences between genders in terms of perceived stress levels and the adoption of superstitious beliefs. The findings of the study indicated that female exhibited higher levels of perceived stress, whereas male demonstrated lower levels of perceived stress. This observation suggests that there may be a higher susceptibility to perceived stress among females when compared to males. Furthermore, an observation was made indicating that females exhibited higher scores in the realm of superstitious beliefs when compared to their male counterparts. This finding suggests that females may possess a greater inclination towards embracing superstitious beliefs in comparison to males. The results obtained were found to be in line and verified



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by previous research efforts. Research suggests that there may be a gender difference in the tendency to believe in superstitions, with women exhibiting a higher likelihood of endorsing superstitious beliefs compared to men. This particular observation gained considerable recognition within the academic community, as evidenced by its extensive presence in scholarly literature. Furthermore, its validity has been substantiated through the replication of research endeavors undertaken across different countries and cultural contexts. In a recent empirical investigation conducted by Ward and King (Ward & King, 2020), it was observed that female participants exhibited an increased tendency towards endorsing superstitious beliefs when compared to their male counterparts. This finding emerged from a carefully selected sample of university students from the United Kingdom. In relation to the construct of perceived stress, an investigation conducted by Graves et al. (2021) yielded noteworthy findings pertaining to the presence of significant gender differences in the perception of stress. The results of the study revealed that, on the whole, females exhibited elevated levels of stress in comparison to their male counterparts. The presence of differences in gender was apparent in both the dimensions of coping and the specific coping strategies employed by individuals. Both of these researches support and validate the findings of the present research.

The second hypothesis stated that personality traits would likely be predicting superstitious beliefs and perceived stress. The findings of the study indicate that there exists a significant relationship between certain personality traits, namely extraversion, agreeableness, conscientiousness, emotionality, and openness to experience, and the likelihood of holding superstitious beliefs. Additionally, these same personality traits were found to be predictive of perceived stress levels. The findings of this study indicate that there is a significant relationship between personality traits and both superstitious beliefs and perceived stress. Specifically, it was observed that personality traits accounted for 55% of the variance in superstitious beliefs and 49% of the variance in perceived stress. These results suggest that individual differences in personality play a substantial role in shaping an individual's tendency to hold superstitious beliefs and experience perceived stress. The results of this study align with previous research in the field. In a recent investigation conducted by Chen et al. (2019), it was discovered that certain personality traits, specifically neuroticism, exhibited significant ability for predicting both superstitious beliefs and perceived stress levels within the population of university students. In the study conducted by Anyaegbunam et al. (2021), it was found that there is a significant association between personality traits and superstitious beliefs. Specifically, the traits of neuroticism and openness to experience exhibited the strongest correlation with superstitious beliefs. In a recent empirical investigation conducted by Luo et al. (2023), it was discovered that there exists a positive association between neuroticism and stress. Conversely, extraversion, agreeableness, conscientiousness, and openness were found to exhibit negative correlations with stress levels. In the study examining stress under various conceptual frameworks, it was found that only neuroticism, agreeableness, and conscientiousness exhibited significant associations with stressor exposure. This finding suggests that there exists a significant association between personality traits and the perception of stress. These findings further strengthen the results of the present research.

Conclusion

The results showed that there is a significant difference between genders in terms of perceived stress, females exhibited higher levels of perceived stress. Secondly, results revealed that there is a significant relationship between certain personality traits which



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are, extraversion, agreeableness, conscientiousness, emotionality and openness to experience with holding superstitious beliefs. These same personality traits were found to be predictive of perceived stress. The findings indicate that there is a significant relationship between personality traits and both superstitious beliefs and perceived stress. All these findings are also supported by literature.

Limitations and suggestions

The sample was restricted to the universities of Lahore, if this sample would be taken from the universities of other cities or countries may change the result.

The sample size should be increased to have more generalized data.

Qualitative analysis should be done to explore the reasons behind superstitious beliefs.

Implications

Enhance public understanding of the intricate relationship between beliefs, personality, and stress management.

Encourage collaboration between psychology, sociology, and education researchers for a holistic perspective on the topic.

Initiate discussions about the ethical implications of promoting or discouraging superstitious beliefs among students.

Pave the way for longitudinal studies to discover connection between superstitious beliefs, personality traits, and stress levels.

Uncover cultural influences on superstitious beliefs and their interaction with personality traits and stress perception

Investigate whether certain personality traits amplify the stress-reduction effects of superstitious beliefs.

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