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Superstitious Beliefs and Health Anxiety in Community Members: A Correlational Study

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Abstract

Background Superstitions affect people's health, luck, and daily decisions. Due to cultural and psychological factors, these beliefs affect people differently based on their experiences and societal norms. Methods: This quantitative study used the correlational method on 312 respondents of both genders. The study used the Superstitious Beliefs Scale, Health Anxiety Scale, and demographic variables. Results: The study findings showed a rather high level (44.51) with a mean score of superstitious beliefs of 1.91 (±0.814). Though popular beliefs had the lowest mean (1.56 ± 0.791), personal superstitious beliefs had the highest mean (2.29 ± 1.109). Belief in good fortune ran from 1.52 to 2.38; "I seek good luck" scored highest (2.38). Belief in bad luck ranged from 1.73–1.93; belief in changing luck ranged from 1.94–2.46; with "I can change events through different actions," scoring the highest (2.37). For health anxiety, the mean was 2.09, with major correlations between superstitious beliefs and health anxiety across all dimensions (0.272–0.401, $p < 0.001$). Sociocultural superstitious behaviors peaked at (1.80). This implies that levels of anxiety in society are much influenced by superstitious ideas. In essence, superstitious beliefs shape attitudes and actions; they also frequently influence emotional well-being and decision-making. Encouragement of critical thinking and awareness-raising will enable people to make more logical decisions and lower unwarranted fear.

Keywords: *Superstitious Beliefs, Health Anxiety, Community Members.*

Introduction

Superstitions are common across cultures and can influence behavior. High-superstitious pupils believed more in supernatural phenomena, including magic, spirituality, and psychic powers, according to one study.(Akbirova et al., 2020) Superstition, dysfunctional health beliefs, and health worry are linked, according to research. Bad death beliefs and superstitions were linked to health anxiety.(James & Wells, 2002). Dysfunctional health-related attitudes were more specific to health anxiety than OCD symptoms. (Fergus, 2014) External loci of control and chance were positively associated with superstition, showing a tendency to regard life as unmanageable. (Stanke & Taylor, 2004)(Fulton et al., 2011) . These results suggest that superstitious beliefs, health-related cognitions, and anxiety interact in complex ways to stretch the spectrum of irrational beliefs connected with health anxiety outside cognitive-behavioral theories. General anxiety mediated irrational health beliefs, which were assessed on the Irrational Health Beliefs Scale linked to health anxiety.(Fulton et al., 2011) Unlike obsessive symptoms, the studies reveal that dysfunctional health-related beliefs are limited to health

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anxiety. These results advance our knowledge of cognitive components of health anxiety and pathological phobia, which could guide next therapeutic approaches.

Human civilization is full of superstitions, which can harm societal well-being by encouraging financial (Chinchanachokchai et al., 2017) Human cognition and behavior are shaped by superstitions, which affect health decisions. (Vyse, 1998). Health anxiety, which involves excessive worry about getting a major illness, has been linked to cognitive biases and superstition. (Abramowitz et al., 2007) . Superstitious people are more prone to have health anxiety and misunderstand seemingly harmless physical sensations as signs of significant medical issues, according to research.(Petersen, 2023). Studies show that 25-30% of the general population has mild to moderate health anxiety and 5-10% has severe anxiety. (Kocsis, 2013)

High-superstition populations also use alternative remedies and shun doctors. (Lindeman & Svedholm, 2012) This suggests psychologically examining superstitious beliefs to treat health anxiety. The Irrational Health Beliefs Scale has not been investigated, in contrast to the cognitive-behavioral model of health anxiety and phobia, which makes use of dysfunctional health assumptions,198 and 295 students took the Irrational Health Beliefs Scale and health anxiety/worry tests, Worry reduced the Irrational Health Beliefs Scale-health anxiety relationship in both cases, This shows that health worry causes more negative beliefs than the cognitive-behavioral model predicted.(Fulton et al., 2011).Popular superstition and health concerns can alter health and behavior, Superstition is linked to psychological distress, notably health issues.(James & Wells, 2002; Pournesaei, 2023)

Research shows that religious and nonreligious people with negative death beliefs and superstitions had higher health anxiety. Population superstitions vary, but surveys show popular belief (Pournesaei, 2023) Furthermore, health anxiety is shaped by various factors, including individual perceptions of risk and comprehension of health matters. (Mohd Salleh Sahimi et al., 2021). This means that superstitions may not always reduce health-related stress. Public health crises relate superstition and health anxiety. Superstitions enhanced COVID-19 pandemic anxiety, but internal locus of control attenuated this.(Hoffmann et al., 2022)

Superstition may alter how people see their health, according to research. Superstitions might cause maladaptive actions like avoiding doctors or using inadequate remedies.(Pennycook et al., 2020) .Anxiety about a serious illness can skew cognition and heighten threat perception. About 25% of people experience significant health anxiety, while 5-10% have severe concerns, according to studies.(Kocsis, 2013) A study found that severe health anxiety sufferers may misinterpret benign bodily sensations as signs of serious illness and be influenced by superstitions (James & Wells, 2002)

Depression and anxiety resulted from superstitions, Recent research links superstition to depression Superstitions and anxiety symptoms vary by gender as believing inclination rises. Research showed a 14% gender gap in very superstitious tribes, This gender gap supports studies that women may be more prone to anxiety disorders and superstition, especially when they feel less in control of their superstitious environment, Depression and anxiety rise.(Futrell, 2011)

Effective psychological interventions must address superstitions and health anxiety's dysfunctional thought processes, and cognitive behavioral therapy may help. Recognizing and addressing illogical beliefs avoids health issues and unneeded medical appointments. Up to 30% of people have occasional health issues, and 3% to 10% have health anxiety. Clinically serious health anxiety has a lifetime prevalence of 0.02% to 7.7%, depending on sample and

environment. One study found that medical clinic health anxiety climbed from 14.9% in 2006-2008 to 19.9% in 2008-2010.(Hannah et al., 2023; Tyrer et al., 2019) This study shows how superstitious beliefs increase community health worry, revealing how irrational beliefs affect health. These relationships may aid mental health professionals in developing cognitive-behavioral therapies for health anxiety-related maladaptive thoughts.

Superstitious Beliefs of Community Members

Superstitious thinking and commitment to superstitious ideas threaten society and educational institutions because they diminish what students can learn in school and university.(Delacroix & Guillard, 2008). Kramer and Block Superstitions affect many daily decisions and actions but have received little scientific study. Superstition has been found in sports, consumer behavior, and psychology.

Superstitions affect consumer behavior and risk taking, and proactive and negative superstitions affect risk taking differently.(Chinchanachokchai et al., 2017). People think of superstition as socially transmitted ideas, unusual rituals, and supernatural concepts, not religion. (Rudski, 2003). Superstitions increase with religious zeal. Superstitions can include unwillingness to change, brand loyalty based on family traditions, preoccupation, and the desire to acquire lucky things.(Sierra et al., 2018). In uncertain market settings, customers may use superstitions to evaluate brand logos and judge items and services without firsthand experience. (Jian Wang et al., 2012). Even though science and technology have advanced rapidly, superstitious beliefs are still prevalent at all social, economic, and educational levels in many civilizations. (Case et al., 2004) Researchers say that superstitious and legendary vestiges in modern Arab social classes—public and private, elite and masses—control them. Arab culture and kids are particularly at risk from superstitious thinking, which damages them, their neighborhood, and their schools.

Health Anxiety Among Community Members

Health anxiety lasts and affects life, unlike stress or natural growth. Adult literature depicts distress as anxious thoughts about pathological repercussions and the experience of typical physical symptoms as intense, unpleasant, and destructive. Many are hypervigilant about symptoms, causes, and treatments. Society is worried about health more.(Rask et al., 2024). Health anxiety entails excessive health concerns and the assumption that one has or may acquire a serious ailment. The COVID-19 epidemic may be increasing health worry in society. (Cathébras et al., 2024; Kosic et al., 2020). Modern classification systems recognize that attitudes and health issues can begin in early childhood with symptoms lasting through infancy and possibly into adulthood(Barbek et al., 2022). Health anxiety is intense worry about a serious illness. This anxiety or obsession, often accompanied by a fear of death or biological signs, causes clinically significant suffering or function impairment. Illness conviction is strong but not delusional.(Sunderland et al., 2013)

Illness anxiety disorder, or health anxiety, causes people to misunderstand typical body experiences as disease symptoms. This can greatly affect daily life and quality. One comprehensive survey found 5.7% lifetime prevalence of health anxiety, showing its prevalence.(Hannah et al., 2023)

Health anxiety lingers cognitively and functionally. Health anxiety seriously affects emotional, cognitive, and behavioral aspects. Those with this syndrome misinterpret physical signs as disease and respond more to stimuli connected to illnesses. Those with severe health anxiety have more extreme health practices and seek more medical attention.(Axelsson, 2018) Studies

show health anxiety is more common in women. A medical student study found 17.5% of women and 13.1% of males reported health anxiety. However, health anxiety affects both genders more.(Terra et al., 2024) .Specialists find health anxiety ambiguous. Health anxiety is a normal response to danger. Clinically significant patients always fear major illness. Patients rarely accept psychological explanations for physical symptoms. Health-anxious patients stupidly and aggressively seek medical and physiological explanations because they cannot believe their health is fine. Instead, they deny that hyperactive fantasies cause most of their bodily problems.(Meeke, 2011). In 2019, the WHO reported 301 million people with anxiety disorders, the most common mental illness. Despite effective treatments, only 25% of anxiety disorder patients undergo therapy, highlighting the need to improve mental health care and reduce stigma.

I found a study(Hoffmann et al., 2022)" Covid-19 Superstition, Control, and Risk Perception (2022) A study indicated that internal locus of control reduced COVID-19 dread whereas superstition enhanced it.(James & Wells, 2002). Death, Superstition, and Health Anxiety." In Roman Catholic and atheist groups, negative death beliefs and superstition were positively associated with health anxiety. The study showed(Roddy, 2016) Myth and stress "Myth exposure under stressful settings reduced anxiety. Study results also showed (Pournesaei, 2023) Superstition and student depression and anxiety (2023) University students (unspecified sample size) Superstition, despair, anxiety Main findings: Superstition is positively correlated with sadness (r=0.52) and anxiety (r=0.38).

Hypotheses

- *Determining the level of superstitious beliefs and health anxiety among university students.*

- *There is a statistically significant relationship at the level (0.05) between superstitious beliefs and health anxiety among university students.*

Methodology

Using a descriptive (correlational) approach among university students using a number of tools (superstitious beliefs scale, health anxiety scale among university students), the current study revealed the relationship between superstition and health anxiety without extensive follow-up, so possibly delaying data delivery.

Participants

The study randomly selected community members from various groups and requested them to complete the study instruments online via Google Forms. Four study instruments were sent to the target group, and (345) responded. Incomplete answers were removed, and (312) participants finished the survey. Study participants met these criteria: 1. Join the study's target group in 1446 AH's second semester. 2. Joined research. 3. Review study objectives and instructions. There were 312 people from diverse demographic, social, and economic backgrounds, with 49.0% men (153 participants) and 51.0% women. Only 14.1% (44 individuals) are single; 85.9% (268) are married. Most participants are 25 or older (97.7%, 295), with 2.3% (7 people) under 25. Middle-income participants are 57.4% (179). In addition, 28.5% (89 participants) are high-income and 14.1% (44) are low-income. The majority (91.3%, 284) hold university degrees, while 8.7% (27 persons) have high school diplomas. Most participants work. Table 1 displays sample demographics.

Variables	Categories	Repetition	ratio
Sex	Male	153	49.0%
	Female	159	51.0%
marital status	Married	268	85.9%
	Single	44	14.1%
the age	Less than 25	7	2.3%
	25 years and over	295	97.7%
Economic level	Average	179	57.4%
	High	89	28.5%
	Low	44	14.1%
Educational level	Secondary	27	8.7%
	University	284	91.3%
Job status	Employee	284	93.1%
	Student	21	96%

Table 1: Characteristics of Study Sample

Instrument

The study tools consist of several sections, each of which targets different aspects:

1. **Demographic Information**: This section collects basic information about the respondent, such as: (marital status, social status, economic level, age, employment status).

2. Superstitious Beliefs Scale Prepared by(Chukkali & Dey, 2020) Spread across six dimensions, it has 24 paragraphs: Popular beliefs, including social superstitions. Good luck belief: Some objects or acts bring good luck. This includes bad luck beliefs and avoiding items that may cause it. Believe in modifying luck: This emphasizes luck control. Personal superstitious behaviors: Rituals or actions based on personal beliefs. Social superstitious behaviors: Individuals obey society or family superstitions.

1. Construct Validity:

In a survey sample of (30) respondents outside the study group, paragraph correlation coefficients were extracted with the pattern's overall score to determine scale construct validity. The table below shows paragraph correlation coefficients larger than 0.30 with the pattern's total score.

M	R With the field	R With the tool	M	R With the field	R With the tool	M	R With the field	R With the tool
1	0.498**	0.485**	9	0.827**	0.787**	17	0.918**	0.859**
2	0.848**	0.529**	10	0.741**	0.703**	18	0.912**	0.841**
3	0.830**	0.841**	11	0.905**	0.824**	19	0.490**	0.481**
4	0.800**	0.481**	12	0.734**	0.705**	20	0.747**	0.545**
5	0.811**	0.814**	13	0.814**	0.770**	21	0.853**	0.725**
6	0.838**	0.849**	14	0.848**	0.837**	22	0.812**	0.535**
7	0.884**	0.854**	15	0.885**	0.735**	23	0.831**	0.502**

8	0.935**	0.855**	16	0.919**	0.874**	24	0.831**	0.502**

Table (2) Paragraph-Pattern Total Score Correlation Coefficients.

*sig(0.05) sig (0.01)**

Not one of these paragraphs was deleted since all correlation coefficients were statistically significant and suitable.

Superstitious Beliefs Scale Reliability

By applying the scale and then reapplying it two weeks later to a group that was not included in the study sample of thirty, after which the Spearman correlation coefficient was computed between their estimates in the two times, it was determined that the study instrument was stable. This was accomplished through the use of the test-retest methodology. In addition, the stability coefficient was computed by employing the internal consistency approach, which was based on the Cronbach alpha equation.

Dimension	Spearman Brown	internal consistency
Folk Beliefs	0.91	0.88
Belief in Good Luck	0.91	0.90
Belief in Bad Luck	0.88	0.88
Belief in Changing Luck	0.90	0.89
Personal Superstitious Behaviors	0.82	0.88
Social Superstitious Behaviors	0.82	0.81
Superstitious Belief Scale	0.92	0.93

Table (3): Superstitious Beliefs' Cronbach's Alpha Internal Consistency Coefficient And Retest Reliability.

Table 3 reveals that all Spearman-Brown correlation coefficients were statistically significant and more than 0.80. These high numbers indicate the scale's internal consistency and stability.

2. **Health Anxiety Scale prepared by**Arnáez et al. (2019) Nine paragraphs were evaluated using a four-point Likert scale from 1 to 4. The survey was administered to four samples for analysis. The author confirmed discriminant validity. The scale has 18 paragraphs on two dimensions: Dimensional scale: 1. Illness possibility: It examines concern about getting a major illness and how people perceive this probability. 2. Disease side effects. 2. It considers how the condition affects daily life, psychology, and society.

3. Validity and Reliability

he researchers confirmed the validity and reliability of the survey through the following means:

Validity

Face Validity.

4. The original version of the study instruments was translated into Arabic by one of the bilingual authors. For a reliable translation, the three study instruments were then back-translated by an independent translator. Subsequently, a research team member, an expert in psychology, compared the back-translated version with the original version.

5. After translating the questionnaire, eight experts in special education, psychology, psychometrics, and transition reviewed and provided feedback on differences in psychological well-being, psychosocial capital, and quality of life for people with disabilities. They were asked to rate the statements' clarity, suitability for the study, and relevance to their field. Experts suggested ways to improve the survey. After collecting input, the survey was revised until it was final.

Internal Validity and Consistency

To verify the psychometric properties and internal consistency of the three study instruments, they were administered to a pilot sample of individuals with disabilities similar to the original study sample (42 participants) to assess the instruments' validity and reliability. The results were as follows:

Construct validity: Health anxiety scale

A thirty-person survey sample that was not part of the research sample was used to extract the correlation coefficients of each paragraph, as well as the total score, as well as each paragraph and its field. This was done in order to evaluate the construct validity of the scale. 0.4-0.8 correlations were found between the tool and the paragraphs, while 0.5-0.9 correlations were found between the field and the tool.

M	R With the field	R With the tool	M	R With the field	R With the tool	M	R With the field	R With the tool
1	0.496**	0.455**	9	0.825**	0.585**	17	0.916**	0.669**
2	0.646**	0.529**	10	0.541**	0.503**	18	0.912**	0.641**
3	0.530**	0.541**	11	0.905**	0.824**			
4	0.600**	0.451**	12	0.534**	0.505**			
5	0.611**	0.614**	13	0.816**	0.550**			
6	0.835**	0.549**	14	0.868**	0.835**			
7	0.654**	0.654**	15	0.885**	0.535**			
8	0.935**	0.855**	16	0.919**	0.854**			

Table (4) Paragraph, Total Score, and Field Correlation Coefficients

* sig (0.05) ** sig (0.01)

It is worth noting that all correlation coefficients were acceptable and statistically significant, and therefore none of these paragraphs were deleted.

Health Anxiety Scale Reliability

Applying the scale to a group outside the research sample two weeks later and computing the Spearman correlation coefficient between their estimations confirmed the test-retest approach. Table No. (-) shows the stability coefficient computed with the Cronbach alpha equation by means of the internal consistency method.

The field	Spearman Brown	internal consistency
Possibility of disease	0.81	0.84
Negative consequences of the disease	0.84	0.85
Health Anxiety Scale	0.90	0.92

Table (5): Cronbach's Alpha Internal Consistency Coefficient and Domain and Total Score Retest Reliability.

Table 5 shows that all Spearman-Brown correlation coefficients were statistically significant and greater than 0.80, confirming the scale's internal consistency and stability.

Data Collection and Analysis

Google Drive was utilized to collect, analyze, and validate survey data after participants consented. After hearing the study was voluntary and confidential, participants read the instructions. Survey data was input, processed, and interpreted in SPSS 27.

Results

The Level of Superstitious Beliefs and Health Anxiety Among Community Members

A comparison of the participants' superstitious beliefs was carried out with the help of descriptive statistics, which were utilized to compute the means and standard deviations of the participants. Based on the findings that are presented in Table 6, it can be seen that the overall mean score on the superstitious beliefs scale was 1.91, with a standard deviation of 0.814, which indicates a high level of average (44.51). Additionally, the personal superstitious behaviors received the highest score, with a mean of 2.29 and a standard deviation of 1.109, indicating a moderate level of involvement. With a mean score of 2.18 and a standard deviation of 0.958, both of which are considered to be moderate, the belief that luck can change came in second place. This belief received a mean score of 2.18. The average was 1.86, and the standard deviation was 0.907, which indicates that the level of belief in bad luck ranged from moderate to moderate. The difference between the two values is 0.907. The average number of people who believe in the superstition of good luck was 1.80, and the standard deviation was 0.860. With a standard deviation of 1.024, the superstitious social behaviors were investigated and found to have a mean value of 1.79. It was discovered that the traditional popular beliefs have a mean value of 1.56, and their standard deviation is 0.791, which indicates that they are relatively low. What is shown in Table 6 is it:

Rank	n	The field	Arithmetic mean	Standard deviation	Level
1	5	Personal superstitious behaviors	2.29	1.109	middle
2	4	Belief in the possibility of changing luck	2.18	.958	middle

3	3	Belief in bad luck	1.86	.907	middle
4	2	Belief in good luck	1.80	.860	middle
5	6	Social superstitious behaviors	1.79	1.024	middle
6	1	Popular beliefs	1.56	.791	a little
		Superstitious Beliefs Scale	1.91	.814	middle

Table 6. Superstitious Beliefs' Arithmetic Means and Standard Deviations in Descending Order.

The arithmetic means and standard deviations of the study sample individuals' estimates on the paragraphs of each dimension were calculated separately, as follows:

First Dimension: Popular Beliefs

Rank	n	Paragraphs	Arithmetic mean	Standard deviation	Level
7	1	I find that adding an amount of money to the total amount while giving money as a gift brings good luck.	1.75	1.104	middle
5	2	I think misfortunes usually come in threes.	1.68	1.036	middle
2	3	I feel unlucky when a black cat crosses my path.	1.62	.998	middle
4	4	I see that looking in a broken mirror brings me bad luck.	1.54	.948	middle
1	5	I feel unlucky if someone sneezes before I travel or start a mission.	1.46	.859	middle
6	6	arents should place a small black mark on their children's forehead to ward off bad luck.	1.45	.832	middle
3	7	I see that cutting nails on certain days brings me bad luck.	1.44	.800	middle
		First dimension: popular beliefs	1.56	.791	middle

Table 7: Popular Belief Arithmetic Means and Standard Deviations, Sorted by Mean.

Table 7 shows that the arithmetic means ranged from 1.44 to 1.75, with the paragraph "I see that adding an amount of money to the total amount when giving money as a gift brings good luck." in first place and "I see that cutting nails on certain days brings me bad luck." in last place.

Dimension Two: Belief in Good Luck

Rank	n	Paragraphs	Arithmetic mean	Standard deviation	Level
4	4	I actively seek good luck.	2.38	1.370	middle
2	2	When given a choice to pick a number, I tend to pick the lucky number.	1.88	1.192	middle
1	1	I find that amulets help bring good luck.	1.62	1.042	middle

3	3	Lucky charms can change the outcomes of random events.	1.59	1.001	middle
5	5	I see that touching wood brings good luck	1.52	.882	middle
		Dimension Two: Belief in Good Luck	1.80	.860	middle

Table 8: Good Luck Belief Means and Standard Deviations, Descending:

Table 8 shows that the arithmetic means ranged between (1.52-2.38), where the paragraph "I actively seek good luck" came in first place with the highest arithmetic mean of (2.38), while the paragraph "I see that touching wood brings good luck" came in last place with an arithmetic mean of (1.52).

The Third Dimension: Belief in Bad Luck

Rank	n	Paragraphs	Arithmetic mean	Standard deviation	Level
1	1	It is important to avoid unlucky actions.	1.93	1.131	middle
2	2	I avoid situations that are perceived as unlucky.	1.93	1.081	middle
3	4	I prefer to postpone my actions when I encounter a bad omen.	1.84	1.081	middle
4	3	I see odd numbers as unlucky numbers.	1.73	1.076	middle
		The third dimension: belief in bad luck	1.86	.907	middle

Table 9: Bad Luck Belief Means and Standard Deviations, Descending.

Table 9 shows that the arithmetic means ranged from 1.73 to 1.93, with the paragraphs "It is important to avoid unlucky actions." and "I avoid situations that are thought to be unlucky." ranking highest and "I see odd numbers as unlucky numbers." ranking last.

The Fourth Dimension: The Belief That Luck Can Be Changed

Rank	n	Paragraphs	Arithmetic mean	Standard deviation	Level
1	1	I find trying to change luck a waste of time.	2.46	1.429	middle
2	3	I find that doing things a certain way can change your luck, for better or worse.	2.13	1.258	middle
3	2	I often try to change my luck.	1.94	1.122	middle
		The fourth dimension: the belief that luck can be changed.	2.18	.958	middle

Table 9: Means And Standard Deviations of Belief in the Possibility of Changing Luck, Arranged in Descending Order of Means

Table 9 shows that the arithmetic means ranged from 1.94 to 2.46, with the paragraph "I see that trying to change luck is a waste of time." in first place and "I often try to change my luck." in last place.

The Fifth Dimension: Personal Superstitious Behaviors

Rank	n	Paragraphs	Arithmetic mean	Standard deviation	Level
1	2	I believe that I can change the outcomes of events if I do some different behaviors.	2.37	1.274	middle
2	3	If a certain action, even if it is unrelated to the task, helped me in a previous situation, I will repeat it in the belief that it will lead to positive results.	2.34	1.305	middle
3	1	I practice certain habits and behaviors that are not related to the task, if they have previously yielded positive results.	2.16	1.226	middle
		The Fifth Dimension: Personal Superstitious Behaviors.	2.29	1.109	middle

Table 10: Personal Superstition Arithmetic Means and Standard Deviations, Sorted by Mean.

Table 10 shows that the arithmetic means ranged between (2.16-2.37), where the paragraph "I believe that I can change the outcomes of events if I do some different behaviors." came in first place with the highest arithmetic mean of (2.37), while the paragraph "I practice certain habits and behaviors that are not related to the task, if they have previously yielded positive results." came in last place with an arithmetic mean of (2.16).

The Sixth Dimension: Social Superstitious Behaviors.

Rank	n	Paragraphs	Arithmetic mean	Standard deviation	Level
1	2	I practice some customs related to good or bad luck because they are prevalent in my society.	1.80	1.118	middle
2	1	I follow certain customs and traditions to bring good or bad luck because my family expects me to do so.	1.78	1.063	middle
		Dimension 6: Social Superstitious Behaviors	1.79	1.024	middle

Table 10: Arithmetic Means and Standard Deviations for Social Superstition, Sorted by Mean.

Table 10 shows that the arithmetic means ranged from 1.78 to 1.80, with the paragraph "I practice some customs related to good or bad luck because they are widespread in my community" ranking first and "I follow certain customs and traditions to bring good or bad luck because my family expects me to do so" ranking last.

Second: Health Anxiety

Health Worries Table 11: Social Health Anxiety Scale Arithmetic Means and Standard Deviations, Sorted by Mean.

Rank	n	The field	Arithmetic mean	Standard deviation	Level
1	1	Possibility of disease	2.09	.592	middle
2	2	Negative consequences of the disease	2.09	.820	middle
		Health Anxiety Scale	2.09	.663	middle

Table 11 shows the two dimensions' arithmetic means (2.09), with sickness probability and negative consequences having (0.592), (0.820) standard deviations. The arithmetic means and standard deviations of study sample individuals' paragraph estimates on each field were calculated separately:

First: Possibility of Disease

Rank	n	Paragraphs	Arithmetic mean	Standard deviation	Level
1	8	I feel relieved if the doctor tells me there is nothing wrong.	2.89	1.146	middle
2	3	I am very aware of changes or sensations in my body.	2.64	.975	middle
3	4	I resist thinking about illness	2.25	1.012	middle
4	2	I notice minor aches or pains.	2.24	.947	middle
5	9	I feel anxious when I hear news about an illness.	2.23	1.038	middle
6	10	I wonder what the physical sensations I'm feeling might mean.	2.10	1.071	middle
7	1	I am worried about my health.	2.05	.958	middle
8	5	I'm afraid I have a serious illness.	2.04	1.065	middle
9	14	I care about how my family and friends perceive my concerns about my health.	1.97	1.011	middle
10	7	I find it difficult to get rid of thoughts about my physical health.	1.91	.996	middle
11	13	I find it difficult to think about other things when I feel physical sensations.	1.88	1.008	middle
12	6	I have a mental picture of myself being sick.	1.76	.941	middle
13	11	I consider myself at risk for developing a serious illness.	1.68	.941	middle
14	12	I think I have a serious illness.	1.57	.908	a little
		Possibility of disease	2.09	.592	middle

Table 12: Salience Means and Standard Deviations, Descending.

Table 12 shows that the arithmetic means ranged between (1.57-2.89), where the paragraph "I feel relieved if the doctor tells me that there is nothing wrong." came in first place with the highest arithmetic mean of (2.89), while the paragraph "I think I have a serious illness." came in last place with an arithmetic mean of (1.57).

Second: The Negative Consequences of the Disease

Rank	n	Paragraphs	Arithmetic mean	Standard deviation	Level
1	2	I believe there could be a cure if you have a serious illness.	2.35	1.051	middle
2	4	I fear that I will lose my mental and physical health due to contracting a serious illness.	2.08	1.108	middle
3	1	I wonder if I would be able to enjoy life if I had a serious illness.	1.99	1.022	middle
4	3	I see a serious illness that could destroy many aspects of my life.	1.95	1.070	middle
		Negative consequences of the disease	2.09	.820	middle

Table 12: Disease Adverse Outcomes, Means and Standard Deviations, Descending.

Table 13 shows that the arithmetic means ranged between (1.95-2.35), where the paragraph "I believe that there can be a cure if I have a serious illness." came in first place with the highest arithmetic mean of (2.35), while the paragraph "I see that a serious illness could destroy many aspects of my life." came in last place with an arithmetic mean of (1.95).

Community Members' Superstitions and Health Anxiety

Superstitious beliefs (popularity, belief in good luck, belief in bad luck, belief in the possibility of changing luck, personal superstitious behaviors, and social superstitious behaviors) all correlated positively with health anxiety in students, as shown in Table 13. The correlation coefficients between dimensions and the health anxiety scale ranged from 0.272-0.401, with p-values < 0.001 for all dimensions. This suggests that superstitions profoundly impact health anxiety in society.

Dimensions	Possibility of di disease disease	negative consequences	Health Anxiety Scale
Popular beliefs	.309(**)	.272(**)	.307(**)
belief in good luck	.384(**)	.335(**)	.379(**)
belief in bad luck	.357(**)	.368(**)	.387(**)

belief in the possibility of changing luck	.343(**)	.297(**)	.337(**)
Personal superstitious behaviors	.343(**)	.315(**)	.348(**)
Personal superstitious behaviors	.344(**)	.340(**)	.364(**)
Superstitious Beliefs	.401(**)	.372(**)	.410(**)

Table 13, Student Health Anxiety and Superstition Pearson Correlation Coefficients

(**) Sig (0.05)

Discussion

Superstitious attitudes were prevalent among participants, with a mean score of 1.91 (±0.814). The highest mean score (2.29 ± 1.109) was for personal superstitious practices, which may impact outcomes. Conventional folk beliefs (culturally transmitted superstitions) had a lower mean score of 1.56 (±0.791).This pattern suggests personal superstitions outnumber traditional ones. This may be a desire to control uncertainty. Research suggests superstitious behavior, which incorporates personal practices to manage anxiety, can result from stress or lack of control..(Chukkali & Dey, 2020). Cultural changes and better science may explain the reduction of folk beliefs. A study on a superstitious beliefs scale found numerous dimensions of superstitions, including personal and social behaviors, demonstrating their complexity.(Block & Kramer, 2009; Dudley, 1999; Maller & Lundeen, 1933; Wiseman & Watt, 2004). Arithmetic average differences between paragraphs and social superstitions were identified, Thus, cultural ideas strongly influence perception and behavior, Cultural self-beliefs alter how people interpret and react to luck, according to research, Cultural neuroscience argues that brain processes and cultural traits affect belief development and maintenance, explaining luck-related culture variations. Bulgarian and French luck-based culture influence behavior. recognizing luck-related activities across countries requires recognizing these cultural variances.(Akbirova et al., 2020; Chukkali & Dey, 2020; Dichoso, 1967; Santisteban & Galay, 2023; Žeželj et al., 2009). Brazilian perception and belief in sickness are comparable since the general arithmetic mean (2.09) predicts a standard deviation between (0.592 – 0.820), indicating medical reassurance in dread. "I feel it is unnecessary if the doctor tells me there is nothing serious" (1.57-2.89), making sense as people trust doctors to assess their health. They also believe "there can be a cure if I have a serious illness" (1.95-2.35), like modern medicine,This reinforces evidence indicating doctor-patient engagement improves health security and medical knowledge reduces stress, The mathematical analysis showed that optimism about treating significant diseases changed between (1.95-2.35), affecting beliefs and efficacy, Some distrust medicine's disaster reaction despite advances and treatment, Personality, medicine, and culture impact psychosocial impacts. Study and others may confirm. (Ataç et al., 2024; Shnier et al., 2022) People with a greater health awareness tend to believe in different variations, while others may have doubts due to personal experiences or inaccurate information (Chinchanachokchai et al., 2017; Fulton et al., 2011; Hoffmann et al., 2022; James & Wells, 2002; Kramer & Block, 2008; Meeke, 2011) These findings encourage health awareness programs to foster trust in medical advances by refuting disease and cause myths.

This strongly links superstition to health issues, Superstitions regarding luck, rituals, or group practices increase health anxiety, according to the study, A moderate but significant correlation

coefficient (0.272-0.401) links all superstitious beliefs to health anxiety ($p < 0.001$). This shows superstitions promote health anxiety, because superstitions include uncertainty and lack of control, they may raise anxiety. Even without medical evidence, a belief in bad luck or external forces can make someone feel sick. This risk perception can increase health anxiety by producing tension and worry .(Wong, 2009; Wu et al., 2023) Superstitious thinking is linked to cognitive biases including overgeneralization and catastrophic thinking, which can raise anxiety, according to psychological study. When people think random events or personal rituals can affect their health, they may develop compulsive actions to "protect" themselves, which increases anxiety. These findings emphasize the necessity of critical thinking and scientific literacy to control anxiety and reduce superstitious coping (Futrell, 2011; Taher et al., 2020; Wells & Hackmann, 1993)

Strengths and Limitations

The Superstitious Beliefs Scale and Objective and Measurable Health Scale are validated measures that analyze superstitious beliefs and health anxiety. Self-reported responses may be influenced by social desirability or personal bias, making this study valuable. Longitudinal studies can reveal progression and the incapacity to generalize.

Recommendations

1. Use science and critical thinking to teach the public how superstitions affect health anxiety.

2. Mental health psychological support program creation Therapeutic programs for superstitious anxious people.

3. Encourage scientific literacy and media responsibility by sharing fact-based content and dispelling myths online.

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References

References

Abramowitz, J. S., Olatunji, B. O., & Deacon, B. J. (2007). Health anxiety, hypochondriasis, and the anxiety disorders. Behavior Therapy, 38(1), 86-94.

Akbirova, R. R., Abitov, I. R., Gorodetskaya, I. M., & Velieva, S. V. (2020). The Study of Stress Coping and Basic Beliefs of Students Depending on their Superstition Level. ARPHA Proceedings, 35-45.

Arnáez, S., García-Soriano, G., López-Santiago, J., & Belloch, A. (2019). The Spanish validation of the Short Health Anxiety Inventory: Psychometric properties and clinical utility. International journal of clinical and health psychology, 19(3), 251-260.

Ataç, Ö., Küçükali, H., Farımaz, A. Z. T., Palteki, A. S., Çavdar, S., Aslan, M. N., Atak, M., Sezerol, M. A., Taşçı, Y., & Hayran, O. (2024). Family physicians overestimate diagnosis probabilities regardless of the test results. Frontiers in Medicine, 10, 1123689.

Axelsson, E. (2018). Severe health anxiety: novel approaches to diagnosis and psychological treatment Karolinska Institutet (Sweden)].

Barbek, R. M., Makowski, A. C., & von dem Knesebeck, O. (2022). Social inequalities in health anxiety: A systematic review and meta-analysis. Journal of psychosomatic research, 153, 110706.

Block, L., & Kramer, T. (2009). The effect of superstitious beliefs on performance expectations. Journal of the Academy of Marketing Science, 37, 161-169.
Case, T. I., Fitness, J., Cairns, D. R., & Stevenson, R. J. (2004). Coping with uncertainty: Superstitious strategies and secondary control 1. Journal of applied social psychology, 34(4), 848-871.
Cathébras, P., Kohout, É., Savall, A., & Goutte, J. (2024). Health anxiety: Another epidemic to prepare for. La Revue de Medecine Interne, S0248-8663 (0224) 00082.
Chinchanachokchai, S., Pusaksrikit, T., & Pongsakornrungsilp, S. (2017). Exploring different types of superstitious beliefs in risk-taking behaviors: What we can learn from Thai consumers. Social marketing quarterly, 23(1), 47-63.
Chukkali, S., & Dey, A. M. (2020). Development and validation of superstitious beliefs scale. Rupkatha Journal on Interdisciplinary Studies in Humanities, 12(1), 1-12.
Delacroix, E., & Guillard, V. (2008). Understanding. Defining and measuring the trait of superstition, Paris: Dauphine University.
Dichoso, F. (1967). Some Superstitious Beliefs and Practices in Laguna, Philippines. Anthropos(H. 1./2), 61-67.
Dudley, R. T. (1999). The effect of superstitious belief on performance following an unsolvable problem. Personality and Individual Differences, 26(6), 1057-1064.
Fergus, T. A. (2014). Health-related dysfunctional beliefs and health anxiety: Further evidence of cognitive specificity. Journal of Clinical Psychology, 70(3), 248-259.
Fulton, J. J., Marcus, D. K., & Merkey, T. (2011). Irrational health beliefs and health anxiety. Journal of Clinical Psychology, 67(6), 527-538.
Futrell, B. (2011). A closer look at the relationship between superstitious behaviors and trait anxiety. Rollins Undergraduate Research Journal, 5(2), 5.
Hannah, K., Marie, K., Olaf, H., Stephan, B., Andreas, D., Wilson Michael, L., Till, B., & Peter, D. (2023). The global economic burden of health anxiety/hypochondriasis-a systematic review. BMC Public Health, 23(1), 2237.
Hoffmann, A., Plotkina, D., Roger, P., & D'Hondt, C. (2022). Superstitious beliefs, locus of control, and feeling at risk in the face of Covid-19. Personality and Individual Differences, 196, 111718.
James, A., & Wells, A. (2002). Death beliefs, superstitious beliefs and health anxiety. British Journal of Clinical Psychology, 41(1), 43-53.
Jian Wang, Y., Hernandez, M. D., Minor, M. S., & Wei, J. (2012). Superstitious beliefs in consumer evaluation of brand logos: Implications for corporate branding strategy. European journal of marketing, 46(5), 712-732.
Kocsis, R. N. (2013). Book review: diagnostic and statistical manual of mental disorders: (DSM-5). In: Sage Publications Sage CA: Los Angeles, CA.
Kosic, A., Lindholm, P., Järvholm, K., Hedman-Lagerlöf, E., & Axelsson, E. (2020). Three decades of increase in health anxiety: Systematic review and meta-analysis of birth cohort changes in university student samples from 1985 to 2017. Journal of anxiety disorders, 71, 102208.
Kramer, T., & Block, L. (2008). Conscious and nonconscious components of superstitious beliefs in judgment and decision making. Journal of Consumer Research, 34(6), 783-793.
Lindeman, M., & Svedholm, A. M. (2012). What's in a term? Paranormal, superstitious, magical and supernatural beliefs by any other name would mean the same. Review of General Psychology, 16(3), 241-255.
Maller, J. B., & Lundeen, G. E. (1933). Sources of superstitious beliefs. The Journal of Educational Research, 26(5), 321-343.
Meeke, H. J. (2011). Hypochondriasis (Health Anxiety) Reformulated: Similarities With Generalized

Anxiety Disorder in A Routine Setting Single Case Pacific University].
Mohd Salleh Sahimi, H., Azman, N., Nik Jaafar, N. R., Mohd Daud, T. I., Baharudin, A., Ismail, A. K., Abdul Malek, A. Z., Hassan, M. R., & Mohammed Nawi, A. (2021). Health anxiety and its correlations with self-perceived risk and attitude on COVID-19 among Malaysian healthcare workers during the pandemic. International journal of environmental research and public health, 18(9), 4879.
Pennycook, G., McPhetres, J., Zhang, Y., Lu, J. G., & Rand, D. G. (2020). Fighting COVID-19 misinformation on social media: Experimental evidence for a scalable accuracy-nudge intervention. Psychological science, 31(7), 770-780.
Petersen, J. M. (2023). Telehealth Acceptance and Commitment Therapy for Adolescents With Transdiagnostic Health-Related Anxiety: A Randomized Controlled Trial.
Pournesaei, G. S. (2023). Superstition and Its Association with Depression and Anxiety among University Students. Journal of Modern Psychology, 3(2), 41-48.
Rask, C. U., Duholm, C. S., Poulsen, C. M., Rimvall, M. K., & Wright, K. D. (2024). Annual Research Review: Health anxiety in children and adolescents—developmental aspects and cross-generational influences. Journal of Child Psychology and Psychiatry, 65(4), 413-430.
Roddy, S. (2016). The Effects of Superstition on Stress Levels and the Relationship between Superstition and Religion.
Rudski, J. (2003). What does a "superstitious" person believe? Impressions of participants. The Journal of general psychology, 130(4), 431-445.
Santisteban, C. A. V., & Galay, M. J. (2023). Superstitious Beliefs Unveiling Truth.
Shnier, N. L., Burton, A. L., Rapee, R. M., Modini, M., & Abbott, M. J. (2022). Psychometric properties of the state Probability and Consequences Questionnaire for social anxiety disorder. Journal of anxiety disorders, 92, 102636.
Sierra, J. J., Hyman, M. R., & Turri, A. M. (2018). Determinants and outcomes of superstitious beliefs: A multi-study approach. Journal of Marketing Management, 34(15-16), 1397-1417.
Stanke, A., & Taylor, M. (2004). Religiosity, locus of control, and superstitious belief. Journal of Undergraduate Research, 7(1), 1-5.
Sunderland, M., Newby, J. M., & Andrews, G. (2013). Health anxiety in Australia: prevalence, comorbidity, disability and service use. The British Journal of Psychiatry, 202(1), 56-61.
Taher, M., Pashaeypoor, S., Cheraghi, M. A., Karimy, M., & Hoseini, A. S. S. (2020). Superstition in health beliefs: Concept exploration and development. Journal of family medicine and primary care, 9(3), 1325-1330.
Terra, M., Baklola, M., Mansour, L. S., Darwish, N. E., Badr, M. E., Alghazali, A. A., Almumtin, J. A. A., Fahmy, F. M., & El-Gilany, A.-H. (2024). The association of health anxiety with quality of life among medical students in Egypt: Myth or Menace? BMC psychiatry, 24(1), 1-9.
Tyrer, P., Cooper, S., Tyrer, H., Wang, D., & Bassett, P. (2019). Increase in the prevalence of health anxiety in medical clinics: possible cyberchondria. International Journal of Social Psychiatry, 65(7-8), 566-569.
Vyse, S. A. (1998). Believing in Magic: The Psychology of Superstition. In.
Wells, A., & Hackmann, A. (1993). Imagery and core beliefs in health anxiety: Content and origins. Behavioural and Cognitive Psychotherapy, 21(3), 265-273.
Wiseman, R., & Watt, C. (2004). Measuring superstitious belief: Why lucky charms matter. Personality and Individual Differences, 37(8), 1533-1541.
Wong, S. H. (2009). Does superstition help? A study on the relationships among superstitions, death beliefs, personality, and death anxiety of university students in Hong Kong.
Wu, Y.-W., Lai, W.-S., & Chen, Y.-C. (2023). Superstitious Beliefs Among Healthcare Providers: A Concept Analysis. Hu Li Za Zhi, 70(3), 85-93.

Žeželj, I., Pavlović, M., Vladisavljević, M., & Radivojević, B. (2009). Construction and behavioral validation of superstition scale. Psihologija, 42(2), 141-158.