Depression, Anxiety, Stress and Resilience among Faculty of Health Sciences Colleges

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ABSTRACT

Background: Most of the people experience mental health issues such as depression, anxiety or stress at some point in life. These issues pose a risk to overall health. Resilience is important in maintaining psychological wellbeing.

Aim: Aim of the study is to assess the depression, anxiety, stress and resilience among faculty of selected health sciences colleges of Punjab and examine their relationship.

Materials and Methods: A quantitative research approach and descriptive correlational research design was used to conduct the study. Total 100 faculty members were selected using convenient sampling technique from selected health sciences colleges of Punjab. A structured questionnaire was used to collect the data regarding socio-demographic and lifestyle factors. DASS 21 and Brief Resilience Scale were used to assess depression, anxiety, stress and resilience. The data collected were analysed using descriptive and inferential statistics.

Results: Of the 100 faculty members, 48% were from nursing, 21% from Ayurveda, 21% from pharmacy and 10% from other streams. Regarding depression, 37% of participants were normal while 18% had mild depression, 20% each had moderate and severe depression and 5% had extremely severe level. About anxiety, 16% of participants were normal while 16%, 15%, 20%, and 33% had mild, moderate, severe and extremely severe anxiety respectively. Regarding stress, 42% of participants were normal followed by 29% having moderate, 17% having severe and 12% having mild level of stress. Normal resilience was present in 50% of participants while 48% were having low resilience. There was statistically significant positive correlation between depression, anxiety and stress. Depression, anxiety and stress were found to be negatively correlated with resilience.

Conclusion: Depression, anxiety and stress are common in majority of the faculty members of health sciences. Many faculty members are having low level of resilience.

Keywords: Depression, Anxiety, Stress, Resilience, Faculty of Health Sciences

INTRODUCTION

Mental health is an important component of health. It is important to people in all walks of life. Around the world today, mental health has become a big issue. Mental health issues increase the risk for many physical problems also. In present times, most of the population experience certain levels of depression, anxiety, and stress. Health care profession is one of the most demanding professions. A study on

depression, anxiety and stress among Indians reported that among different professions, healthcare professionals experience stress, anxiety, and depression more than others [1]. Faculty of selected health sciences colleges also have to deal with many day to day stressors. They get vulnerable to mental health issues like depression, anxiety and stress due to many professional and personal factors. During last two years, whole world have faced the COVID-19 crisis which has had a significant impact on mental health. There has been a lot of burden on the health care system. During this period, faculty in health care field also faced many challenges. They have to conduct online classes as the classroom teaching was suspended. They were also engaged in Covid related duties. Increase in workload and doing many roles added to physical and psychological stress.

Resilience; the ability to cope up is important in maintaining psychological wellbeing. It is considered as a protective factor against depression, anxiety, and stress. In various studies, resilience was found to be having negative correlation with mental health issues [2, 3].

OBJECTIVES

1. To assess depression, anxiety and stress among faculty of selected health sciences colleges.
2. To assess the resilience among faculty of selected health sciences colleges.
3. To determine the relationship between depression, anxiety, stress and resilience.
4. To determine the association of depression, anxiety, and stress with selected socio-demographic variables.
5. To determine the association of resilience with selected socio-demographic variables.

METHODOLOGY

Research Approach & Design: Quantitative research approach & descriptive correlational research design was used to conduct the research study.

Research Setting: Study was conducted at selected health sciences colleges of Punjab.

Study Population: Faculty of selected health sciences colleges of Punjab.

Sample & Sampling Technique: A sample of 100 faculty members was selected by convenience sampling technique from selected health sciences colleges.

Inclusion Criteria:
Faculty members who were
1. Available at the time of data collection.
2. Willing to participate in study.

Exclusion Criteria:
Faculty members who were

1. Undergoing any treatment or therapy related to mental health

Tools for Data Collection: A self-administered structured questionnaire was used to collect the data related to socio-demographic and lifestyle variables. Standardized tools were used to assess depression, anxiety, stress and resilience. Tool consists of following sections:

- **Socio-demographic Data**: It consists of items such as age, gender, faculty, qualification, designation, experience, type of employment, type of appointment, marital status, no. of children, type of family, residence, present living arrangement, and distance of college from present residence, mode of transport, social support, and any stressful event in life. Socio economic status was assessed by Kuppuswamy scale 2021[4].

- **Lifestyle Factors**: It included structured questionnaire about physical activity level, substance use and daily sleep hours.

- **Assessment of Depression, Anxiety, and Stress:** Depression, Anxiety and Stress Scale (DASS-21) was used to assess depression, anxiety and stress [5]. The Depression, Anxiety and Stress Scale - 21 is a set of three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. DASS 21 is the shorter 21 items version scale containing seven items for each of the three subscales. For each scale (depression, anxiety and stress) scores are summed separately and the final score of each subscale is to be multiplied by two. Each subscale is divided into normal, mild, moderate, severe and extremely severe as depicted in Table 1.

Table 1: Scores for DASS- 21 Subscales

Level	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

- **Assessment of Resilience:** Brief Resilience Scale (BRS) was used to assess resilience. This scale assesses the one's ability to bounce back or recover from stress. The score range on the BRS is from 1 to 5 [6]. BRS score interpretation is presented in Table 2.

Table 2: Scores for BRS Scale

BRS Score	Interpretation
1.00 - 2.99	Low resilience
3.00 - 4.30	Normal resilience
4.31 - 5.00	High resilience

Ethical Considerations:

1. Prior permission was taken from concerned authorities of health sciences colleges.
2. Informed written consent was taken from each study subject.

Data Collection: Data was collected after getting permission from the authorities of selected colleges. Data collection was done during Nov.-Dec. 2021. Written consent was obtained from the study participants who were available and willing to participate in study.

Data Analysis: Analysis of data was done based on the study objectives by descriptive and inferential statistics such as frequency and percentage distribution, mean, standard deviation, correlation coefficient and chi square test using SPSS 26 software.

RESULTS:

Socio-Demographic Data and Lifestyle Factors:

Socio-demographic data and lifestyle factors of study participants are presented in Table 3. Of the 100 faculty members, 38% were males and 62% were females. 48% of participants were from nursing, 21% from Ayurveda, 21% from pharmacy and 10% from other streams including physiotherapy, radiography and medical lab technology. 33% were working in Government sector while 67 were in private sector. 32% were professors or associate professors or assistant professors and 68% were demonstrators or tutors. 52% of employees were having less than 5 years of job experience, 17% had 5-10 years of experience and 31% had more than 10 years of experience.

Table 3: Frequency and Percentage Distribution of Subjects according to Socio-demographic and Lifestyle Variables

N=100

S. No.	Variables	Frequency/ Percentage
1.	**Age (in years)**	
	20-30	28
	30-40	51
	40-50	21
2.	**Gender**	
	Male	38
	Female	62
3.	**Faculty**	
	Nursing	48
	Ayurveda	21
	Pharmacy	21
	Others	10

4.	**Qualification**	
	Post-graduation	44
	Graduation	56
5.	**Designation**	
	Professor/Assoc. Prof. / Asst. Prof.	32
	Tutor/Demonstrator	68
6.	**Experience**	
	<5 years	52
	5-10 Years	17
	>10 years	31
7.	**Employment**	
	Govt.	33
	Private	67
8.	**Appointment**	
	Regular	82
	Contractual	18
9.	**Marital Status**	
	Married	19
	Unmarried	75
	Divorced/Separated	5
	Widowed	1
10.	**No. of Children**	
	None	35
	One	38
	Two or more	27
11.	**Type of Family**	
	Nuclear	54
	Joint	46
12.	**Socioeconomic Status**	
	Upper (I)	25
	Upper Middle (II)	31
	Lower Middle (III)	32
	Upper Lower (IV)	12
13.	**Residence**	
	Urban	42
	Suburban	30
	Rural	28
14.	**Present Living Arrangement**	
	In campus	31
	Outside	69
15.	**Distance from Residence**	
	<15	30(43.5%)
	≥15	39(56.5%)

16.	**Mode of Transport**	
	Car	18(26.1%)
	Bus	29(42%)
	Bike/ Scooty	22(31.9%)
17.	**Social Support**	
	Poor	6
	Moderate	70
	Strong	24
18.	**Stressful Event in life**	
	No	77
	Yes	23
19.	**Physical Activity Level**	
	Sedentary	11
	Light	48
	Moderate	34
	Vigorous	7
20.	**Substance Use**	
	No	86
	Yes	14
21.	**Daily Hours of Sleep**	
	<7 hours	43
	7-9 Hours	52
	>9 hours	5

Prevalence of Depression, Anxiety and Stress & Resilience:

Table 4 shows the mean values for depression, anxiety, stress and resilience. As per study findings, Mean ± SD of depression was 13.52 ± 8.3, Mean ± SD of anxiety 15.05 ± 7.2, and Mean ± SD of stress was 17.5 ± 7.23 and Mean ± SD of resilience was 2.90 ± 0.643.

As depicted in Table 5 and Figure 1, in case of depression 37% of participants were normal while 18% had mild depression, 20% each had moderate and severe level and 5% had extremely severe level of depression. About anxiety, 16% of the participants were normal. 33% had extremely severe anxiety followed by 20%, 16% and 15 % having severe, moderate and mild anxiety respectively. Regarding stress, 42% of participants were having normal and 12% having mild, 29% having moderate, 17% having severe level of stress.

**Table 4: Mean and Standard Deviation of Depression, Anxiety, Stress and Resilience**

N = 100

	Mean	Standard Deviation
Depression	13.52	8.30
Anxiety	15.05	7.21
Stress	17.5	7.23
Resilience	2.905	0.643

Table 5: Frequency and Percentage Distribution of Subjects according to Levels of Depression, Anxiety and Stress

N = 100

Level	Depression	Anxiety	Stress
Normal	37	16	42
Mild	18	16	12
Moderate	20	15	29
Severe	20	20	17
Extremely Severe	5	33	Nil

Figure 1: Bar Diagram showing Frequency/Percentage Distribution of Subjects according to Levels of Depression, Anxiety and Stress
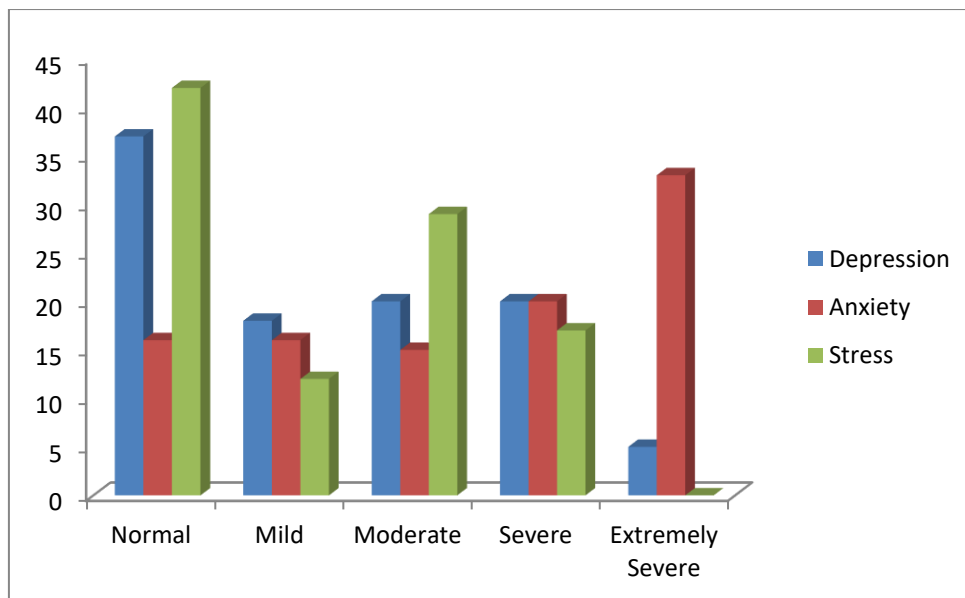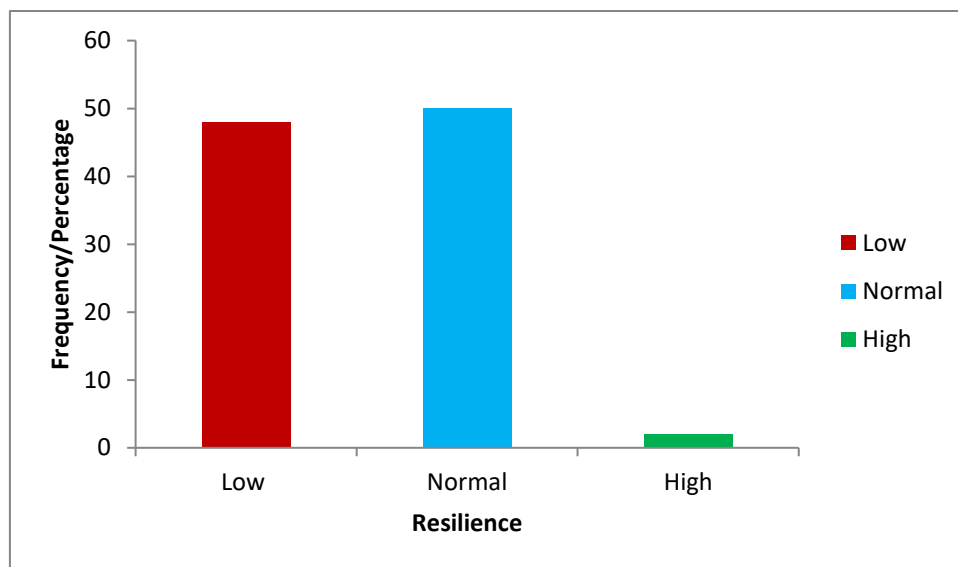
Table 6: Frequency and Percentage Distribution of Subjects according to Levels of Resilience

N = 100

Resilience	Frequency/Percentage
Low	48
Normal	50
High	2

Figure 2: Bar Diagram Showing Frequency /Percentage Distribution of Subjects according to Level of Resilience

Data related to frequency distribution of subjects according to level of resilience is presented in Table 6 and Figure 2. Among all participants, 50% had normal resilience, while 48% had low resilience. Only 2% were having high level of resilience.

Correlation between Depression, Anxiety, Stress and Resilience:

About relationship between depression, anxiety and stress, there was statistically significant moderately positive correlation (<0.01) between depression, anxiety and stress. Depression, anxiety and stress were negatively correlated with resilience which was also significant at 0.01 level (Table7).

Table 7: Correlation between Depression, Anxiety, Stress and Resilience

N=100

	Depression	Anxiety	Stress	Resilience
Depression	-			
Anxiety	.678**	-		
Stress	.652**	.709**	-	
Resilience	-.260**	-.238**	-.346**	-

Association of Depression, Anxiety, Stress, and Resilience with selected Socio-demographic and Lifestyle Variables:

For association of depression, anxiety, stress, and resilience with socio-demographic and lifestyle factors, chi square test was used. There was statistically significant association of type of employment with level of stress at 0.05 level of significance. No other variable was found to be significantly associated with depression, anxiety, stress or resilience.

DISCUSSION:

The present study was conducted to assess the depression, anxiety, stress and resilience among faculty of health sciences. Relationship between depression, anxiety, stress and resilience was also examined. Varying levels of depression was found to be present in 63%, anxiety in 84% and stress in 58% of study participants. Low resilience was found in 48% of the participants. Findings of the study are supported by a study conducted by Lizana PA and Lera L, which has reported high rates of depression (67%), anxiety (73%), and stress (86%) symptoms among teachers [7].

In a study conducted by Vinodhini RG, etal, it was reported that during Covid 19, 17%, 67% and 15% of medical teachers had high and moderate and low perceived stress respectively. Regarding anxiety, 28%, 39% and 46% of participants had mild, moderate and severe anxiety respectively. Of all participants, 72% had high depression while 18% had low depression [8]. Lacomba-Trejo L, etal also reported high level of anxiety (mean = 13.84, SD= 10.67), depression (mean = 13.63, SD = 10.19), and stress (mean = 29.80, SD = 10.40) among teachers. 39.90% of participants suffered from severe or very severe anxiety symptoms while 23.20% from depressive symptoms and 46.60% from stress [9].

In the present study, statistically significant positive correlation was found between depression, anxiety and stress. These findings are in line with the findings of the study conducted by Ratanasiripong P, et al, which have reported significant positive correlation between depression, anxiety and stress [10]. Findings of present study showed that depression, anxiety and stress were negatively correlated with resilience. These findings are consistent with previous research studies conducted by Ratanasiripong P, et al and Yasien S, etal, that have found negative association of depression, anxiety, and stress with resilience [10, 11].

There was statistically significant association of type of employment with level of stress at 0.05 level of significance. Verma S has reported that employment status was associated with depression and anxiety [12].

CONCLUSION

Findings of the study show that mental health issues like depression, anxiety and stress are common among faculty of health Sciences Colleges. Many of them are having the psychological distress. Low resilience was also present in many of them. Finding of this study are especially significant, as issues like depression, anxiety and stress are the indicators of psychological health. Appropriate interventions need to be developed and implemented for faculty to improve their psychological well-being.

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