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A COMPREHENSIVE STUDY ON DEPRESSION AMONG RESEARCH SCHOLARS IN HIGHER EDUCATION INSTITUTIONS

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Abstract

Ph.D. and master's students worldwide are grappling with disproportionately high rates of depression and anxiety, surpassing those found in the general population by a significant margin (T. M. Evans et al. Nature Biotech. 36, 282–284; 2018). This concerning report, based on data collected from 2,279 students representing 26 different nations, unveils alarming statistics: over 40% of the respondents exhibited anxiety scores indicative of moderate to severe levels, while nearly 40% displayed signs of moderate to severe depression. The implications of these high rates are profound and call for immediate attention. Teresa Evans, a neuroscientist from the University of Texas Health Science Center at San Antonio and the lead author of the study, emphasizes the critical need for emotional support systems, opportunities for students to explore their interests, and the destigmatization of seeking psychological assistance. In recent years, a select group of scholars has undertaken the task of investigating the prevalence of mental health issues among Ph.D. students. In line with these efforts, the present descriptive study focuses on elucidating the extent of depression among research scholars in Thanjavur District, Tamil Nadu, India. The study aims to involve 306 respondents, employing a proportionate random sampling method. The research adopts standardized assessment tools designed to identify those at high risk for developing mental health problems within the Ph.D. scholar community. The study's findings reveal that research scholars tend to fall within a wide spectrum of depression levels, with aspects such as apathy, sleep disturbances, pessimism, fatigability, irritability, social withdrawal, dejection or sadness, self-dislike, self-acquisition, self-harm, somatic preoccupation, and indecisiveness all contributing to varying degrees of depression. This study underscores the urgency of addressing mental health issues among research scholars and highlights the importance of creating a supportive and nurturing academic environment to enhance the well-being and productivity of these students.

Keywords: Research Scholars, Depression, Stress, Wellbeing and Emotional Support.

1. INTRODUCTION

The most overlooked and silenced issue faced by Ph.D. students in India is their deteriorating mental health, characterized by severe stress, burnout, depression, insomnia, and even suicidal tendencies, with a higher prevalence than the general population. This problem is often disregarded by both the government and university administrators. Factors contributing to these mental health challenges include overwhelming work commitments, lack of autonomy, social isolation, unnecessary tasks imposed by supervisors, and concerns about job security and family commitments.

Female scholars face additional difficulties related to marriage, pregnancy, and a lack of humanitarian support. Sexual harassment further exacerbates their distress, as there is often no effective redressal system. To address this crisis, there is a pressing need for universities to prioritize the mental well-being of Ph.D. students and provide them with the necessary support and resources to cope with the intense pressures of academic research.

1.1 Review of Literature

Research on the mental health of research scholars, such as Hense LT et al.'s 2021 study of 240 PhD students in Kerala and Chunli Liu et al.'s 2019 study of 325 doctoral students in a medical university, reveals alarming rates of depressive disorders and anxiety. Hense et al. found that approximately 70% of PhD students experienced mild to severe depressive disorders, with factors like economic disadvantage and limited language proficiency exacerbating the severity.

They also highlighted the adverse effects of financial hardships and academic challenges on mental health. Liu et al. reported that 23.7% of doctoral students showed signs of depression and 20.0% exhibited anxiety symptoms, with academic performance, mentorship quality, research difficulties, and work-life balance significantly influencing mental well-being.

These studies emphasize the urgent need to incorporate mental health support in university programs and promote mentor relationships and research self-efficacy to alleviate mental health challenges among research scholars.

1.2 Statement of the Problem

In recent years, there has been a noticeable rise in the diagnosis, treatment, and medication prescriptions for depression among university students. This increase underscores the seriousness of depression as a significant emotional issue affecting both younger and older adults within this demographic.

Depression manifests as a loss of interest and pleasure in everyday activities, overwhelming sadness, a pervasive sense of guilt and worthlessness, diminished appetite, sleep disturbances, and other related symptoms. Consequently, depression has a substantial negative impact on an individual's overall quality of life.

The purpose of this study was to examine the levels of depression among university students based on various factors, including gender, body image satisfaction, type of residence location, and academic performance.

1.3 Scope

The present study offers valuable insights to supervisors, enabling them to effectively support their research scholars in developing an awareness of the significance of psychological well-being, stress management, and mental health, as well as the influence of the university environment.

This understanding equips supervisors to cultivate a more nurturing, harmonious, inclusive, democratic, and emotionally supportive atmosphere conducive to quality research and thesis work within the university. It also enables them to provide appropriate training and guidance to Ph.D. students.

Furthermore, based on the study's findings, various agencies responsible for overseeing Ph.D. programs in universities across India can utilize this information to assist scholars in modifying their attitudes and addressing mental health and stress-related challenges.

1.4 Objectives of the Study

The main objective of the study was to delve deeply into the influence of socio-demographic variables on research performance and to examine the role of depression in shaping the research process of the respondents.

- To examine the impact of socio-demographic variables, including age, gender, ethnicity, socioeconomic status, educational background, and other relevant demographic factors, on the research performance and output of the respondents.
- To analyze the relationship between depression and the research process of the respondents. This entails a thorough investigation into how depression, as a psychological condition, influences different aspects of the research journey, including motivation, productivity, creativity, and overall well-being.

2. MATERIALS AND METHODS

The researcher employed a descriptive research design for this study, with the primary objective of characterizing the psychosocial issues faced by research scholars. Data collection was conducted among research scholars residing in Thanjavur district, located in the Tamil Nadu region of India.

A total of 306 respondents were selected using a proportionate random sampling method within the Thanjavur district. To gather comprehensive information, a combination of primary and secondary data sources was utilized. The primary data were obtained through the administration of a pre-tested questionnaire to the research scholars.

This questionnaire covered various dimensions, including the socio-economic conditions of the respondents and an assessment of depression among research scholars. Subsequently, the research involved a rigorous analysis of the data to identify relationships and distinctions among the variables under investigation.

By employing this research design and data collection methodology, the study aimed to provide valuable insights into the profile of the respondents, their socio-economic conditions, and the prevalence of depression among research scholars in the Thanjavur district, contributing to a better understanding of the psychosocial challenges they face.

3. RESULTS AND DISCUSSION

3.1 Socio Demographic Profile of the Respondents

The study infers that less than half (47.7 percent) of the respondents were in the age group between 36 to 45 years, As far as religion concerned more than half (53.6 percent) of respondents were Hindus. Occupational status is conceptualized as any activity in which a person is regularly engaged to achieve standardized utilization.

That a majority (25.8 percent) of the respondents were academicians working in colleges doing part time degree, more than one third (41.2 percent) of the respondents were living in rural area, little more than half of the respondents (53.9 percent) were from nuclear families.

Table No 1: Dimensions of Levels of Depression of the Respondents

S. No	Dimensions of Depression	(n :306)	Percentage	Median
1	**Apathy**			25
	Low	124	40.5	
	High	182	59.5	
2	**Sleep Disturbance**			25
	Low	126	41.2	
	High	180	58.8	
3	**Pessimism**			24
	Low	153	50.0	
	High	153	50.0	
4	**Fatigability**			26
	Low	98	32.0	
	High	208	68.0	
5	**Irritability**			24
	Low	146	47.7	
	High	160	52.3	
6	**Social Withdrawal**			25
	Low	153	50.0	
	High	153	50.0	
7	**Dejection or Sadness**			26
	Low	169	55.2	
	High	137	44.8	
8	**Self-Dislike**			24
	Low	130	42.5	
	High	176	57.5	
9	**Self-Acquisition**			25
	Low	140	45.8	
	High	166	54.2	
10	**Self-Harm**			25
	Low	151	49.3	
	High	155	50.7	
11	**Somatic Reoccupation**			25
	Low	109	35.6	
	High	197	64.4	
12	**Indecisiveness**			25
	Low	125	40.8	
	High	181	59.2	
13	**Overall Depression**			277
	Low	131	42.8	
	High	175	57.2	

The descriptive analysis indicates that more than half of the respondents (59.5 percent) had high level of apathy and 40.5 percent had less apathy feelings. The analysis also represents more than half of the respondents (58.8 percent) had high level of sleep disturbance and41.2 percent had low level of sleep disturbance. The table elucidates that more than half of the respondents (64.4 percent) had indecisiveness and only35.6 percent were feeling low level of indecisiveness. The analysis also represented that more than half of the respondents (59.2 percent) had high level of depression and 40.8 percent had low level of it. The table is a perfect evidence for the spread of research scholars almost more or less equal towards high and low level of depression while measuring its aspects viz., apathy, sleep disturbance, pessimism, fatigability, irritability, social withdrawal, dejection or sadness, self- dislike, self- acquisition, self- harm, somatic reoccupation and indecisiveness.

3.2 Depression and Gender

The table provides data on various psychological factors and depression scores for male and female participants, along with mean differences, 't' values, and degrees of freedom (df). Here's an interpretation of the findings:

- Apathy: The mean score for apathy in males (M = 26.04) was slightly lower than in females (M = 26.98). The mean difference was -.94, and the 't' value of -1.817 with 304 degrees of freedom suggests a statistically significant difference, indicating that females tend to experience slightly higher levels of apathy.
- Sleep Disturbance: Male participants (M = 25.17) reported slightly lower levels of sleep disturbance compared to females (M = 25.98). The mean difference was -.81, and the 't' value of -1.407 with 304 degrees of freedom suggests a statistically significant difference, with females reporting slightly higher sleep disturbance.
- Pessimism: There was a small difference in pessimism scores, with males (M = 24.20) being slightly lower than females (M = 24.70). The mean difference was -.50, and the 't' value of -0.962 suggests no significant difference between genders.
- Fatigability: Males (M = 25.72) reported slightly lower levels of fatigability compared to females (M = 26.64). The mean difference was -.92, and the 't' value of -1.855 with 304 degrees of freedom indicates a statistically significant difference, with females reporting slightly higher levels of fatigability.

Table No 2: Results of t-test for Dimensions of Depression and Gender

	Gender								
	Male			Female			Mean difference	't'	df.
	n	M	SD	n	M	SD			
Apathy	144	26.04	4.99	162	26.98	4.04	-.94	-1.817	304
Sleep disturbance	144	25.17	5.47	162	25.98	4.64	-.81	-1.407	304
Pessimism	144	24.20	4.70	162	24.70	4.30	-.50	-.962	304
Fatigability	144	25.72	4.71	162	26.64	3.94	-.92	-1.855	304
Irritability	144	23.13	4.05	162	24.22	3.82	-1.09	-2.431	304
Social withdrawal	144	24.36	4.50	162	24.91	3.90	-.55	-1.135	304
Dejected or sadness	144	23.82	4.80	162	24.48	4.52	-.66	-1.239	304
Self-dislike	144	25.52	4.96	162	26.05	4.64	-.53	-.960	304
Self-acquisition	144	25.23	4.98	162	25.86	4.67	-.63	-1.138	304
Self-harm	144	23.82	6.11	162	24.34	5.86	.48	-.758	304
Somatic	144	24.84	5.15	162	25.66	4.84	-.82	-1.433	304
Indecisiveness	144	25.18	5.65	162	26.06	5.66	-.88	-1.358	304
Depression	144	272.8	47.54	162	281.45	41.81	-8.65	-1.698	304

- Irritability: Females (M = 24.22) reported higher levels of irritability compared to males (M = 23.13). The mean difference was -1.09, and the 't' value of -2.431 with 304 degrees of freedom indicates a statistically significant difference, with females showing higher levels of irritability.

- Social Withdrawal: There was a small difference in social withdrawal scores, with females (M = 24.91) slightly higher than males (M = 24.36). The mean difference was -.55, and the 't' value of -1.135 suggests no significant difference between genders.
- Dejection or Sadness: Females (M = 24.48) reported slightly higher levels of dejection or sadness compared to males (M = 23.82). The mean difference was -.66, and the 't' value of -1.239 suggests no significant difference between genders.
- Self-Dislike, Self-Acquisition, Self-Harm, Somatic, Indecisiveness: Similar to dejection or sadness, there were no significant differences between genders in these psychological factors.
- Depression: The mean depression score for males was 272.8, while for females, it was 281.45. The mean difference was -8.65, and the 't' value of -1.698 with 304 degrees of freedom suggests no statistically significant difference in depression scores between males and females.

This analysis indicates that there are gender differences in some psychological factors such as irritability and fatigability, with females reporting higher levels. However, there are no significant gender differences in depression scores and most other psychological factors.

3.3 Depression and Family Support

Table No 3: Results of t-test for Dimensions of Depression and Family Support

	Family support								
	Yes			No			Mean difference	't'	df.
	n	M	SD	n	M	SD			
Apathy	260	26.53	4.70	46	26.54	3.45	-.01	-.007	304
Sleep disturbance	260	25.63	5.26	46	25.43	3.76	.20	.247	304
Pessimism	260	24.24	4.53	46	25.76	4.07	-1.43	-2.124	304
Fatigability	260	26.12	4.29	46	26.71	4.61	-.59	-.850	304
Irritability	260	23.65	4.10	46	24.06	3.08	-.41	-.653	304
Social withdrawal	260	24.74	4.23	46	24.17	3.99	.57	.846	304
Dejected or sadness	260	24.11	4.63	46	24.54	4.85	-.43	.604	304
Self-dislike	260	25.87	4.68	46	25.41	5.42	.46	-.578	304
Self-acquisition	260	25.69	4.54	46	24.86	6.18	.83	1.067	304
Self-harm	260	23.91	5.90	46	25.13	6.35	-1.22	-1.268	304
Somatic	260	25.33	5.16	46	25.00	3.94	.33	.413	304
Indecisiveness	260	25.42	5.86	46	26.91	4.26	-1.49	-1.647	304
Depression	260	276.9	46.11	46	280.0	36.25	-3.10	-.435	304

Results of t-test show that there was no statistically significant mean difference between family support (M = 26.53, SD = 4.70, n = 260) and no family support (M = 26.54, SD = 3.45, n =46) with regard to apathy at 0.05 level of significance (t = -.007, df. = 304, p> .05, 95% mean difference -.01). There was no statistically significant mean difference between family support (M = 25.63, SD = 5.26 n = 260) and no family support (M = 25.43, SD = 3.764, n =46) with regard to sleep disturbance at 0.05 level of significance (t = .247, df. = 304, p> .05, 95% means difference 20). There was no statistically significant mean differencebetween family support (M = 25.42, SD = 5.86, n = 260) and no family support (M = 26.91, SD = 4.26, n =46) with regard to indecisiveness at .05 level of significance (t -1.647, df. = 304, p> .05, 95% mean difference -1.49).

3.4 Relationship between Number of Children and Family Support

Table No 4:One-Way Analysis of Variance among Number of Children with regard to the Level of Depression

Apathy	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	111.565	3	37.188	1.825	0.143
Within Groups	6154.464	302	20.379		
Total	6266.029	305			
Sleep disturbance	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	240.477	3	80.159	3.199	0.024
Within Groups	7566.677	302	25.055		
Total	7807.154	305			
Pessimism	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	131.944	3	43.981	2.201	0.088
Within Groups	6034.291	302	19.981		
Total	6166.235	305			
Fatigability	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	83.709	3	27.903	1.487	0.218
Within Groups	5668.056	302	18.768		
Total	5751.765	305			
Irritability	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	157.395	3	52.465	3.408	0.018
Within Groups	4649.298	302	15.395		
Total	4806.693	305			
Social withdrawal	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	100.406	3	33.469	1.914	0.127
Within Groups	5280.565	302	17.485		
Total	5380.971	305			
Dejected or sadness	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	7.326	3	2.442	0.111	0.953
Within Groups	6625.145	302	21.938		
Total	6632.471	3			
Self-dislike	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	103.638	3	34.546	1.509	0.212
Within Groups	6915.986	302	22.901		
Total	7019.624	305			
Self-acquisition	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	51.184	3	17.061	0.732	0.534
Within Groups	7039.875	302	23.311		
Total	7091.059	305			
Self-harm	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	43.865	3	14.622	0.407	0.748
Within Groups	10860	302	35.96		
Total	10903.86	305			
Somatic reoccupation	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	146.472	3	48.824	1.971	0.118
Within Groups	7479.358	302	24.766		
Total	7625.83	305			
Indecisiveness	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	169.908	3	56.636	1.774	0.152
Within Groups	9639.975	302	31.92		
Total	9809.882	305			
Overall depression	**SS**	**df.**	**MS**	**F**	**P**
Between Groups	9386.578	3	3128.859	1.572	0.196
Within Groups	601009.2	302	1990.097		
Total	610395.8	305			

An analysis of variance show that the number of children was significant, (*F (3,302)* = 3.199, *p* = .024, and 3.408, p=.018 with regard to Sleep disturbance and irritability while remaining dimensions of depression do not show any statistical significance. Post hoc analyses using the Bonfeoni's post hoc criterion for significance indicated that scholars who had a single child had more depression.With regard tosleep disturbance (*M* = 26.19, *SD* = 5.06) than other groups such as 2 children (*M* = 26.12, *SD* = 5.52), no child (*M* = 25.13, *SD* = 4.78) and more than two children (*M* = 20.00, *SD* = 2.82), (F (3,302) = 3.199, p = .024). With regard to irritability the scholars with two children had more depression ((M = 24.21, SD = 4.13) than other groups such as no children (M = 24.19, SD = 4.40), one child (M = 22.99, SD = 3.15) and 3 children (M = (F (3,302) = 0.54, p = .024, SD = 4.84), (F (3,302), = 3.408, p=.018).

3.5 Hypothesis Testing

- **Hypothesis 1 :** There is a significant difference between gender of the respondents and their level of depression. The study reveals that there was no statistically significant mean difference between male (M = 272.8, SD = 47.54, n = 144) and female (M = 281.45, SD =41.81, n =162) with regard to overall depression at .05 level of significance (t -1.698, df. = 304, p> .05, 95% mean difference -8.65). So the research hypothesis is accepted and null hypothesis is rejected. Hence there is no significant difference between gender of the respondents and their level of depression.
- **Hypothesis 2 :** There is a significant difference between family support of the respondents and their level of depression. The study reveals that there was no statistically significant mean difference between family support (M = 276.9, SD = 46.11, n = 260) and no family support (M = 280.0, SD =36.25, n =162) with regard to overall depression at .05 level of significance (t -.435, df. = 304, p> .05, 95% mean difference --3.10). So the research hypothesis is rejected and null hypothesis is accepted. Hence there is no significant difference between family support and the level of depression of research scholars.

3.6 Recommendations

- Different funding agencies such as University Grants Commission and Indian Council for Social Science Research may proactively arrange a variety of scholarships for research scholars across all universities, making it a mandatory provision for those pursuing humanities research.
- Universities should take proactive steps to organize stress management workshops tailored specifically for research scholars. These workshops can provide valuable tools and techniques to cope with the pressures of academia.
- Various educational agencies should be encouraged to appoint dedicated counselors and establish counseling cells within universities that specifically cater to the needs of research scholars. This would offer essential emotional support and guidance.
- Researchers must be vigilant about upholding copyright laws and regulations when documenting their theses. Additionally, they should be well-informed about the limitations of e-content, ensuring that their research endeavors do not result in any social or legal harm.

4. CONCLUSION

In conclusion, the evidence presented in this study underscores the urgent and critical need for research scholars to address the prevalent issue of depression within their ranks. The data reveal a nearly equal distribution of scholars experiencing high and low levels of depression across multiple facets of their mental well-being. These encompass apathy, sleep disturbances, pessimism, fatigability, irritability, social withdrawal, dejection, self-dislike, self-acquisition, self-harm, somatic preoccupation, and indecisiveness. Given the significant impact of these mental health challenges on both the personal lives and academic performance of research scholars, it is imperative for educational institutions to take proactive measures such as appointing counselors and establishing counseling cells within universities specifically dedicated to support the mental well-being of research scholars.

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