

Want to do a PhD: Think Thrice! A Stressful Cost to Achieving a PhD That Nobody Looks At

Dr. Suhalia Parveen

PDF, Department of Commerce
Aligarh Muslim University, Aligarh- 202002, India
Email id: suha.shamsi@gmail.com
Mobile: +91-8171980888

ABSTRACT

This paper reviewed previous research with key areas of stress, various factors in academic stress and stress management among PhD scholars, their experience and methods of supporting this group. A description of what stress is and which attempt to capture its most essential elements are presented. Attempt has been made to generate factors that highlight and affect stress level and health issues experienced in academia particularly in PhD program. Descriptive research design is used in this study. A survey is performed to collect data from PhD scholars in Aligarh Muslim University (Aligarh). Data was collected using a convenience sampling method. Total of 498 questionnaires were finalized from seven departments (3 faculties) including Faculty of Commerce, Faculty of Management Studies and Faculty of Social Sciences. It was observed that doctoral scholars engage daily in multiple activities which may cause stress and can lead to change in their degree of importance for a particular task from one day to the next. Scholars live within these inherently structural tensions, whether they are aware of them or not. Possibly one of the vital aspects of PhD education and learning in Indian educational institutions is the connection between PhD Scholars and their supervisors, has been the attention of this study. The problems within the theme 'supervision' are often related to a lack of supervision/guidance, lack of proper facilities in the institution, unprofessional attitude of the supervisor and free labour. It was found stressful that supervisor's role had a great impact on work engagement of scholars. Scholars also found the financial factors and institutional facilities problematic.

Key words: Stress, PhD Scholars, Supervisory Roles, Financial Sustenance, Departmental Services, Work Engagement.

INTRODUCTION

In a recent study, Lancet said, *“India is falling behind its neighbours in terms of the health and education of its workforce, which could potentially have long-term negative effects on the economy”* in International Medical Journal ([Sharma, 2018](#)). Overall health is a primary human need but most people in developing nations possess minimal accessibility to healthcare together with so many remain impoverished by only paying for it. By making investment in this crucial category, accessibility is enhanced leading to high-quality sustain for individuals in developing countries.

Requirement for education and learning is rising. The range of higher education learners is estimated to greater than double by 2025. The majority of this development will happen from the growing markets. When the amount of kids away from school around the world might have reduced significantly in the 1990s, it continues to be unacceptably high in several regions, particularly for females. However, youth unemployment persists to grow worldwide, even while employers state problems in identifying personnel with the suitable talents ([World Bank Group, n.d.](#)). Research scholars working in the field of behavioural science conducted several studies on stress and its negative impact and concluded that the field needs more extensive studies. Stress may appear to be highly destructive if not checked. In academic sectors stress has both negative and positive impacts. For the overall development of a nation students' contribution is highly notable. It has been found that students face various kinds of stress during their academic life. The conclusion has been draws through researches conducted on the stress evident among students and direct communication with the, also data collected through students' counselling programmes and individual counsellors exhibit the same kind of result. Moreover, it has been established that the universities did not take proper steps to diagnose the stress related problems and somehow, they are indifferent to this serious problem ([Bataineh, 2013](#)).

Doctoral schedule requires students to follow an active manner in educational writing and look towards improving their writing through the application of quality models and assessment. Doctoral program presents before the research scholars' models and techniques to increase their writing capabilities with keen observation and assessment ([Kamler & Thomson, 2014](#)). Stress in many cases give an account of a feeling of being excessively loaded, injured narrowly, strained and worried. Everyone experiences stress at times. It can sometimes help to encourage as to get a mission completed, or perform well. But stress can also be dangerous if a person becomes overstressed and it hinders with the ability to get on

with a normal life for too long. In relation to practice of medicine or the study of life, stress is a physical, mental, or emotional variable which brings out bodily or mental nervousness, stresses can be from the environment, psychological or from society or can be from illness, form a medical procedure. Completing a PhD successfully is undoubtedly a difficult task. The mental health challenges involved in it must be dealt with correctly and with utmost care (Stoppler, 2018).

REVIEW OF LITERATURE

Prasad & Vaidya (2017) analyzed the causes of stress among PhD Research Scholars concerning Rashtrasant Tukadoji Maharaj Nagpur University. A survey using stress questionnaire consisting of 35 multiple choice statements on 50 Research Scholars who participated in the Pre-PhD Coursework at CP and Berar E.S. College, Nagpur was carried out during December 2016, the coursework period. Six independent stress causing factors Work overload, Role Ambiguity, Role overload, Physiological factors, and Behavioural Approach and Avoidance strategies and their effect on a dependent factor performance were assessed. The statistical analysis revealed medium level stress among the research scholars and behavioural avoidance coping strategies has a significant effect on reducing the stress whereas the physiological factors significantly contributed to the stress among the research scholars.

Tripathi, Sonkar & Rajbanshi (2016) assessed the use and impact of e-resources among research scholars of Agriculture and Technology Universities in Uttar Pradesh. A survey conducted for the collection and interpretation of the data. The study highlighted the purpose of using e-resources, methods used for searching and browsing e-resources, satisfaction level and problems among research scholars. It was found that majority of the users are aware of e-resources and used e-resources in a month for the learning, study, and research. Most of the scholars preferred e-journals due to ease of searching and browsing facilities. They were utilizing print as well as electronic resources for various purposes.

Nazir (2015) surveyed to determine the awareness level of utilizing e-resources provided by the University of Kashmir. For this specific purpose, he collected data from 200 Research scholars (PhD/MPhil) and postgraduate students of Science and Social Science through questionnaires. The study found that want of awareness regarding e-resources and shortcomings in library assistance was mainly responsible for the minimum utilization of e-resources. The findings revealed that comparatively, the users of Science faculty utilize e-

resources better way than the users of social science faculty. The study is helpful in finding out the causes behind the low usage of e-learning.

Singh, Singh & Bala (2014) carried research focussing on the stress, its primary causes and its diverse effects faced by female research scholars. The authors gathered data sheet of BBAU, Lucknow and scrutinized how the factors like dispute, work-pressure, the environment of the institutions, anxieties regarding the job, lack of enthusiasm, relationship with fellow researchers and supervisor, attendance issue affect the psychology of female students. Findings presented that huge work pressure, dispute and lack of freedom badly affect the research work. The outcome of the study was useful to re-think and evaluate the new techniques for female research scholars like the environment of the workplace, scholarship, better economic as well as social status, and create an academic environment which let them the scope for free thinking.

Ram & Karn (2014) demonstrated in their study that in modern time computer and internet perform a key role in the sector of information technology. The study revealed that the development of information technology directly influences the growth of personal lifestyle and in society. Development and innovations in library sectors made the resources available to a vast number of people at minimal cost. The findings of the research revealed that the use of online resources had improved the quality as well as the quantity of education and research. The study found that the majority of the students are well informed about the electronic materials. The work further argued that electronic resources should be made more available for the overall development of the education system.

Pyhalto et al., (2012) examined the problem research scholars go through during their research period. At the same time, it explored the researcher's relationship to his or her research involvement. The present study is just a fraction of the larger study organized on doctoral education. To organize the research responses from 669 research scholars are collected from various streams like Arts, Medicine, and Behavioural Sciences. The study found that the source of the problems the research scholars faced during their work varied according to the individual circumstances. A scholar's mental state and attitude hugely influence his/ her research engagement. The study finally talked about the necessity of more measurements to assist the research scholars to manage their stress during research work.

Hasan et al., (2012) analyzed female and male research scholars in publishing their research in Science Citation Index (SCI) journals. The study revealed that female research scholars have been publishing in quality SCI journals in proportion to their numerical strength and at par with their male counterparts. Majority of SCI research papers published

by both female and male research scholars were in SCI journals. Female research scholars however outperformed male research scholars in the area of Physical Sciences. Whereas, male research scholars outperformed female research scholars in the area of Chemical Sciences in publishing research papers in journals, whereas in the area of Mathematical and Engineering and Technology, Earth and Environmental Sciences and Life Sciences, the performance of female research scholars were at par with male research scholars. Thus, the belief that female researchers were less productive compared to male counterparts was unfounded.

Stubb, Pyhalto & Lonka (2011) handled research on the social and psychological aspects of the research aspects of the research scholars. The study also revealed the association of research engagement with stress, depression, and anxiety. The research is conducted based on the 669 responds of research scholars of the University of Helsinki in Finland. The findings revealed that in Social and Psychological context the experience of the research scholars varied from person to person. Majority of the participant research scholars reported that their stress is primarily due to their research engagement at the same time they positively reported that they got significant encouragements which helped them in advancing research work. The study further reported that inspiration and job prospects reduce the study pressure and increase self-confidence while depression, stress, and frustration badly affect the academic activities. Authors also tried to explore that research scholars' relations to scholars' community.

Gul, Shah & Baghwan (2010) carried a survey in the University of Kashmir in 2008 to explore research scholars' knowledge, outlooks, stance and viewpoints about the open access campaign. For that specific purpose, a pre-planned and close-ended 14 item based 84 questionnaires were distributed among research scholars of science and Social Science faculties. The findings revealed that the research scholars used both the open access and library- subscribed materials. Among the open access users, four-fifths used journals, and two-fifths went for books.

OBJECTIVES OF THE STUDY

This research evaluated: firstly, it explored what factors create the stress in academic functioning of PhD scholars; and their health issues during this program. Following objectives were developed for this research:

1. To identify stress factors affecting PhD scholars work.
2. To evaluate the impact of stress factors on PhD scholars' work engagement.

3. What health issues have PhD scholars experienced in the past year?

RESEARCH METHODOLOGY

Descriptive research design is used in this study to describe the characteristics of PhD scholars. This specific plan of the investigation is employed for frequencies, averages along with other statistical methods. Usually the perfect technique, ahead of writing the descriptive examination, a survey is performed. To achieve the objectives of the study a survey was conducted through a questionnaire among PhD scholars in Aligarh Muslim University (Aligarh). Data was collected using a convenience sampling method. The survey device was split into 3 segments. The instrument requested the PhD scholars to rate their over-all stress stage on a Likert's Scale of 1 to 5 with 1 "No Stress" and 5 being "Highly Stressful".

Table 1: Response Rate for Questionnaires Distributed - AMU

Departments	Distributed Questionnaires	Questionnaires Returned	Response Rate (%)
Department of Commerce	130	120	92.30
Department of Business Administration	90	55	61.11
Department of Economics	70	46	65.71
Department of Psychology	90	53	58.88
Department of History	100	74	74
Department of Political Science	120	98	81.66
Department of Sociology	50	42	84
Department of Social Work	15	10	66.66
Total	665	498	74.88

Aligarh Muslim University, 498 of PhD scholars supported and cooperated in the data collection process. Some scholars denied information, and some tools were not completed too.

HYPOTHESES

Keeping research questions in mind, the following null hypotheses were formulated to check the significant level of factors. A multiple regression analysis (step-wise) using PhD Scholars' Work Engagement as the outcome and sources of stress (Financial Sustenance, Departmental Services, Supervisor Role) as the predictors were taken into consideration:

Ho1: There will be no significant prediction of PhD Scholars' Work Engagement by "Financial Sustenance" in AMU, India.

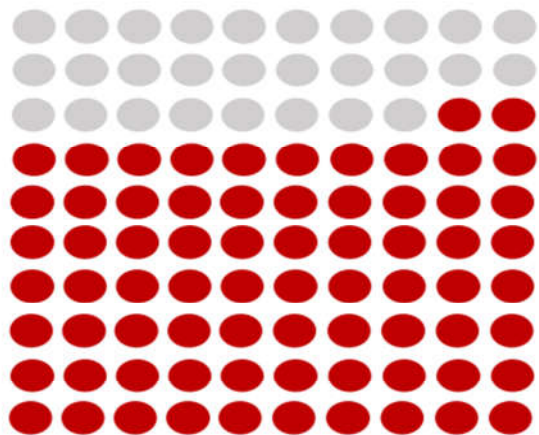
Ho2: There will be no significant prediction of PhD Scholars' Work Engagement by "Departmental Services" in AMU, India.

Ho3: There will be no significant prediction of PhD Scholars' Work Engagement by "Supervisor's Role" in AMU, India.

RESULTS

The feeling of disappointment is woven into the feelings that lead to stress. Uncertainty in future job prospects, financial problems, isolation during this course, lack of clear academic progress, not feeling valued, strained relationship with supervisor, health and sleep deprivation, all these add fuel to the fire. This study found that 72 per cent PhD scholars experienced stress during their PhD program.

Are You Stressed In PhD?



Descriptive Statistics for PhD Scholars' Stress Factors Financial Sustenance

Financial concerns may not be completely avoidable. But this stress can sometimes weigh heavily on PhD scholars during their work and impact their career choices afterwards. In the table 2, descriptive statistics in terms of mean values are shown. In the dimension "Financial Sustenance", mean values in terms of these variables: 'the way I support my family with my scholarship ($\mu = 2.42$)' and 'my scholarship is enough for my research tenure ($\mu = 2.65$)' showed highest stress level in AMU.

Table 2: Mean: Comparison on the basis of Financial Sustenance

	Factor 1: Financial Sustenance	AMU
1	My financial condition.	3.00
2	The way my family helps me financially.	2.93
3	The way I support my family with my scholarship.	2.42
4	My comfort in doing all expenses.	3.25
5	My scholarship is enough for my research tenure.	2.65

Departmental Services

In the table 3, descriptive statistics in terms of mean values for ‘Departmental Services’ are calculated. In the dimension “Departmental Services”, mean values in terms of the variables: ‘Working atmosphere ($\mu = 3.36$)’ and ‘Assistance by staff ($\mu = 3.41$)’ showed highest stress level in AMU.

Table 3: Showing Comparison on the basis of Departmental Services

	Factor 1: Departmental Services	AMU
1	Working atmosphere.	3.36
2	Assistance by staff.	3.41
3	Research Training Programs.	2.95
4	Computer Lab/Digital Library facility.	3.19
5	Open access to Study Material/E-Journals.	3.29

Supervisory Role

In the table 4, descriptive statistics in terms of mean values are shown. In the dimension “Supervisory Role”, mean values in terms of these variables: ‘the way my supervisor gives me time ($\mu = 3.73$)’, ‘my supervisor’s capability to guide me ($\mu = 3.80$)’, ‘the way my supervisor assists me in my publications ($\mu = 3.67$)’, ‘the way my supervisor cares about me as a whole person not just as a scholar ($\mu = 3.26$)’ and ‘the way my supervisor treats me as a free labour ($\mu = 3.84$)’ is given in AMU.

Table 4: Showing Comparison on the basis of Supervisory Role

	Factor 1: Supervisory Role	AMU
1	The way my supervisor gives me time.	3.73
2	My supervisor's capability to guide me.	3.80
3	The way my supervisor assists me in my publications.	3.67
4	The way my supervisor cares about me as a whole person, not just as a scholar.	3.26
5	The way my supervisor treats me as free labour.	3.84

All these variables showing more than average values with the highest value, 3.84 (The way my supervisor treats me as free labour) and it can be said that this factor is stressful. Next, variable 'My supervisor's capability to guide me ($\mu = 3.80$)' is showing highest mean value in AMU which was a common complaint observed during interviews also.

In model 1, one of the stressors, 'Supervisory Role' with R Square (.548) significantly predicted PhD Scholars' Work Engagement ($F(1, 496) = 1352.735, p < .001$), accounting for 55 per cent of the variance. Supervisory Role continued to make a significant contribution as a stress factor at all levels. The simultaneous multiple regression analysis is statistically significant ($p = .000$). In model 2, two stressors, 'Supervisory Role' and 'Financial Sustenance' with R Square (.571) significantly predicted PhD Scholars' Work Engagement ($F(1, 495) = 743.835, p < .001$), accounting for 57 per cent of the variance. Supervisory Role along with Financial Sustenance together continued to make a significant contribution as a stress factor. The simultaneous multiple regression analysis is statistically significant ($p = .000$). In model 3, three stressors, 'Supervisory Role', 'Financial Sustenance' and 'Departmental Services' with R Square (.585) significantly predicted PhD Scholars' Work Engagement ($F(1, 494) = 524.369, p < .001$), accounting for 59 per cent of the variance. Supervisory Role along with Financial Sustenance and Departmental Services together continued to make a significant contribution as a stress factor.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	F	Sig.
1	.740 ^a	.548	.547	1352.735 (1, 496)	.000 ^b
2	.756 ^b	.571	.570	743.835 (1, 495)	.000 ^c
3	.765 ^c	.585	.584	524.369 (1, 494)	.003 ^d

a. Dependent Variable: WE
b. Predictors: (Constant), Supervisory Role
c. Predictors: (Constant), Supervisory Role, Financial Sustenance
d. Predictors: (Constant), Supervisory Role, Financial Sustenance, Departmental Services

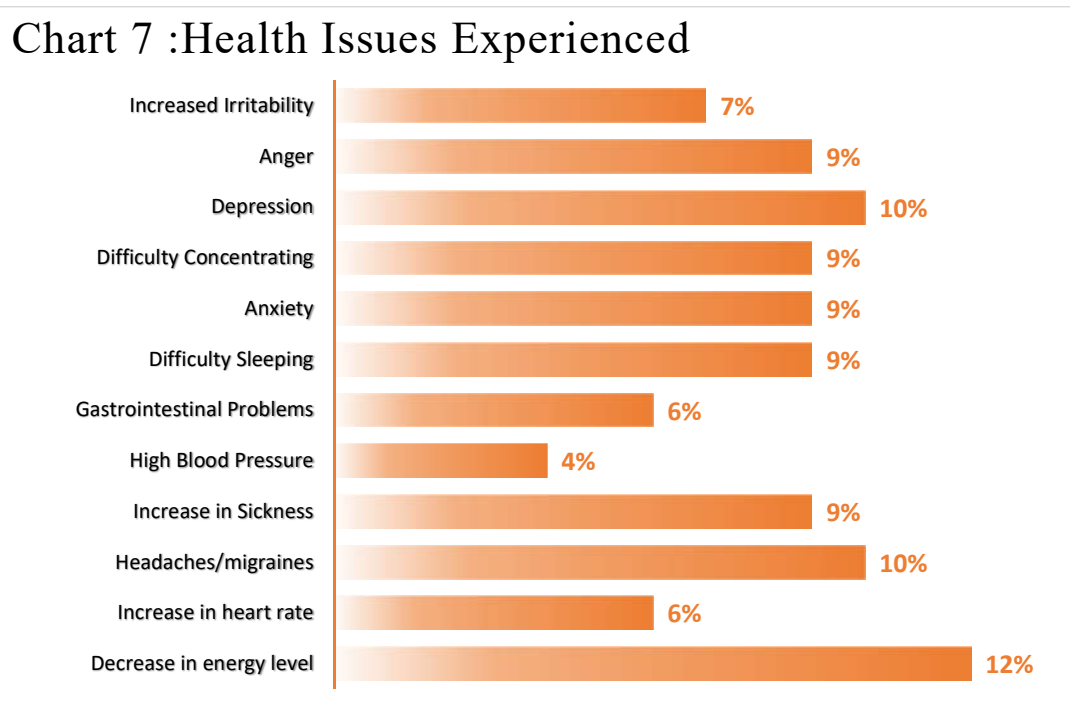
Table 6: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.499	.077		6.477	.000
	Supervisory Role	.830	.023	.740	36.780	.000
2	(Constant)	.119	.089		1.329	.184
	Supervisory Role	.774	.023	.690	33.499	.000
	Financial Sustenance	.169	.021	.162	7.849	.000
3	(Constant)	-.165	.099		-1.664	.096
	Supervisory Role	.805	.023	.718	34.545	.000
	Financial Sustenance	.136	.022	.130	6.215	.000
	Departmental Services	.120	.020	.123	6.100	.000

Supervisory Role along with Financial Sustenance and Departmental Services together continued to make a significant contribution as a stress factor. The simultaneous multiple regression analysis is statistically significant. Therefore, hypotheses summary is as follows: H₀1: There will be no significant prediction of PhD Scholars' Work Engagement by 'Financial Sustenance' in AMU, India is rejected H₀2: There will be no significant prediction of PhD Scholars' Work Engagement by 'Departmental Services' in AMU, India is rejected. H₀3: There will be no significant prediction of PhD Scholars' Work Engagement by "Supervisor's Role" in AMU, India is rejected.

Health Issues Experienced

The most common health factors PhD scholars reported experiencing in the past year were depression (10 per cent of PhD scholars), anxiety (9 per cent) and headaches/migraines (10 per cent). Furthermore, difficulty sleeping (9 per cent), anger (9 per cent), increase in sickness (9 per cent), difficulty concentrating (9 per cent) and increased irritability (7 per cent) followed by decrease in energy level as highest (12 per cent) were among the common health factors experienced by PhD scholars in Aligarh Muslim University.



Sometimes a scholar is wasting time and he/she themselves not aware of it. So, it's not possible and scholar cannot to go back all the way to and fix that waste but what should need to be done is to make a list of what should a scholar achieve this week and make a to-do-list of every today. And don't underestimate the value of to-do-list.

DISCUSSION

While a genuine concern for individual well-being is probably the most important reason why policymakers should pay attention to mental health problems, we argue that mental health of PhD students should be of concern for three additional main reasons. First, the work of PhD students themselves constitutes a major source of scientific advancement, as a doctoral dissertation requires an original contribution to the scientific knowledge base. Furthermore, the publication of dissertation results is a prerequisite for an academic career, making dissertation work a major contributor to academic output. Given the compelling evidence for the effects of mental health problems on individuals' research output, it is to be expected that a sizable cohort of PhD students suffering from mental health problems may affect the overall quality and quantity of individuals' research output.

Second, as most PhD students are part of larger research teams, whose composition determines scientific impact, PhD students with mental health issues may pose a considerable

cost to research institutions and teams. To date, research policy efforts seemed to have focused more on 'hard outcomes' such as publications, impact factors and patents, while ignoring the health effects of 'soft' policy outcomes, such as stress. However, soft outcomes may create serious financial costs for research institutions, and they will impact the functioning of the larger research teams that the individual researchers are part of, thus also determining 'hard' outcomes.

Third, mental health problems of PhD students' impact both the supply and entrance to the research industry. Organizational policies that are linked to mental health problems will lead individuals to quit their PhD studies or leave the research industry altogether. Several studies of PhD students suggest that the dropout numbers range from 30 to 50 percent, depending on the scientific discipline and country. Such high turnover will make it difficult for the industry to attract new talent, thus threatening the viability and quality of the academic research industry. Because economic competition between countries is heavily dependent on the nation's scientific advancement and cognitive ability, the prospects of having trained academic researchers not further pursuing a research career because of mental health problems should be a major concern for research policy.

CONCLUSION

A supervisor is seen as an ideal who lead pursuit in a student's tasks; found a breadth of understanding; helpful, pushing, beneficial, accessible and facilitative; pressured the scholar to be on the path; encouraged and assisted students in making out financing, and indicated and protected the scholar inside the department. However, here many scholars seemed stressful with their supervisors overall. Not surprisingly, the affordable labour behaviour issue is the sole one that shows a terrible relationship with the scholar and the supervisor. One interest pertains to the statements involving cheap labour/ free labour. Some doctoral scholars since their relationship with their advisor are based in part on exploitation. Another thought is the systematic increase in stress level evidenced by scholars, even after doing enough for their circumstances, study topic, and advisor choice and preferences. Institutional facilities were one more matter shared by numerous scholars.

The researcher explained that it was quite annoying whenever one's development depended on an outcome which is beyond his manage. Stress resulting from financial troubles, workload, timeframe constraints with no driving force seemed to be an unavoidable

part of living for most of the scholars. Funding was a serious supply of stress on account of both deficient present payout along with the insecurity of future funds. Scholars anxious about the debts that they were accruing together with about having funds to handle unpredicted financial troubles. The issues portrayed could be summarised as issues with stress which additionally affected on not less than one researcher's self-respect and confidence. In addition to the experiences officially recorded above, encountering an absence of trust in one's capacity and feeling down by the stress caused due to PhD which is a piece of most widely recognised and vital issues to be enlightened. These issues have an impact on the researcher's investigation and further on their work engagement.

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