Stressors and Symptoms of Stress amongst Teachers Due to Pursuing PHD in Management

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Abstract: Stress is an inseparable part of human life. Due to personal or professional reasons, human beings are under some or the other type of stress in day-to-day life. Teachers in Management Faculty may not be an exception to this. Due to remarkable changes in norms by controlling authorities such as AICTE and University, teaching faculty in management gets affected. As per the recent norms for getting promoted to Associate from Assistant Professor, teacher in management must possess a Ph D degree. Due to new norms, even the faculty member who may not have an aptitude of research is also required to pursue Ph D because it is mandatory. This very fact may put the teacher in stress. Senior Academicians and Researchers have come out with probable stressors. This research is an outcome of Psychometric Test conducted on group of Management Teachers pursuing Ph D. The test and the paper identify the stressors and levels of stress due to each of the stressors.

Keywords: stressors, symptoms of stress, pursuing Ph D, teachers in management, psychometric test, Ph D guide, manifest

I. INTRODUCTION

Stress is an inseparable part of human life. Due to personal or professional reasons, human beings are under some or the other type of stress in day-to-day life.

Teachers in Management Faculty may not be an exception to this. Due to remarkable changes in norms by controlling authorities such as AICTE and University, teaching faculty in management gets affected. As per the recent norms in AICTE Admission Process Handbook 2018-19 and even earlier for the position of Associate Professor possessing Ph D qualification is the essential requirements[1] which was not so earlier. Hence for getting promoted to Associate from Assistant Professor, teacher in management must possess a Ph D degree. In 1999, when the researcher enrolled for Ph D, it was not mandatory for Associate's position; however conditional approval that 'the faculty shall complete the Ph D within 7 years from the date of approval' used to get issued.

Due to new norms, even the faculty member who may not have an aptitude of research is also pursuing Ph D because it is mandatory. This very fact may put the teacher in stress. Researchers, being in academics for more than 20 years, have come out with probable causes of stress due to Ph D.

These causes of stress are known as stressors. The stressors for stress during Ph D research are enumerated by the researchers on the bases of discussions with Ph D pursuers, observations and academic experience.

II. REVIEW OF LITERATURE

Not much research is found done on the topic directly related to Stress during Ph D Research. Few of the readings and references are as follows:

- PhD students report much more mental health issues as compared to highly educated professionals or students.[1]
- 47% of the PhD students in Berkeley reached the brink of being depressed and 40.81% of the PhD students in Belgium felt under constant strain.[2]
- Less money for research and education, short term contracts, poor promotion/job prospects, more competition, more unemployment and too many higher educated people (PhD students or higher) compared to the amount of positions available. Consequently, this leads to a lot of PhD stress.[3]
- In one of studies done on 3500 Ph D students in Belgium, 1 in 2 PhD students experienced psychological distress during their PhD. More than 30% were at risk of developing a psychiatric disorder, especially depression.[4]
- Symptoms of depression in academia (not necessarily due to Ph D) (study by Ms Gemma Paech, Ph D):[4]
  o Constantly feeling empty, anxious and sad
  o Feeling Guilty, Worthless and Hopeless
  o Lost interest or pleasure in hobbies and activities
  o Issues with memory and sleep
  o Irritability
  o Changes in weight and appetite
  o Self-medicating with alcohol and drugs
  o Suicidal attempts or thoughts
- From the study done by James Hayton, following are the PhD stress: signs you should not ignore:[5]
  o Constant feeling that you can't work hard enough
  o Feeling overwhelmed by the workload
  o Feeling like you are not working to your true ability
  o Inability to focus
  o Feeling like nothing you do has any impact, and that you have no control
  o Feeling that even easy things have become difficult
  o Constant fear of failure
  o Feeling like you don't belong on a PhD program, and that you will be "found out" (impostor syndrome)
  o Physical or mental exhaustion

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As mentioned in a research paper "An empirical analysis on the causes of stress among PhD Research Scholars with reference to Rashtrasant Tukadoji Maharaj Nagpur University" by KDV Prasad and Rajesh Vaidya, factors of stress amongst Ph D Research scholars are role ambiguity, role conflict, physiological factors, approach & avoidance coping, work overload and performance.[6]

Objectives:

1. To find out the stressors amongst teachers pursuing Ph D in Management
2. To conduct psychometric tests identifying the stressors and symptoms of stress
3. To find out the strongest and least affecting stressor
4. To identify the symptoms of stress amongst the teachers pursuing Ph D

Hypotheses:

1. There is correlation between stressors and symptoms of stress

H1: There is a significant relationship between stressors (Personal, Research Methodology, Research Centre, Guide and University) and Physiological (symptoms of stress).

H2: There is a significant relationship between stressors (Personal, Research Methodology, Research Centre, Guide and University) and Seen Behavioral (symptoms of stress).

H3: There is a significant relationship between stressors (Personal, Research Methodology, Research Centre, Guide and University) and UnSeen Behavioral (symptoms of stress)

H4: There is a significant relationship between stressors (Personal, Research Methodology, Research Centre, Guide and University) and psychological (symptoms of stress)

2. Students pursuing Ph D manifest signs of stress due to stress of pursuing Ph D
3. Ph D Guide is the Highest stressor amongst 5 stressors

III. METHODOLOGY FOR RESEARCH PAPER

The data are collected at the Ph D Coursework conducted at Neville Wadia Institute of Management for Ph D students enrolled with Savitribai Phule Pune University under Management Stream. Author of the Research Paper had conducted a session in this coursework on 26th May 2018. The session included 2 psychometric tests, the details of which are as under:

Psychometric Test – I: T1

The Psychometric Test – I is a test designed by the Author, he being a Certified Psychometric Test Professional from Carlton Advance Management Institute, USA in joint association with British Council Library. The test is administered on 51 respondents present for the session. Out of 51 present, 49 respondents submitted the filled-in scores to the researcher. The test has 35 statements with 5 options a, b ,c, d and e. The respondent is supposed to select one of the five choices that suits him/ her. 35 statements are the statements related to the stressors. 'Stressors' are the drivers/ causes of stress. Researcher has identified 5 causes of stress during Ph D research. These stressors are:

1. Stress due to Personal Reasons
2. Stress due to Research Methodology

3. Stress due to University selection process and further support and assistance from the University's Ph D Section
4. Stress due to support and assistance from Research Centre where the student has enrolled with the University for Ph D
5. Stress due to Research Guide allotted by the University to the student pursuing Ph D

After marking choices amongst 5, each choice has been provided with weightage to each statement's choice. And then as per directions given by the researcher scoring of each set of questions is totalled and noted.

The total score for each stressor can be maximum 50 however the weightage for each statement may not necessarily be the same. The total score for T1 can be maximum 250 however the weightage for each stressor is not the same. Higher the score; higher is the level of stress due to concerned stressor.

Psychometric Test – II: T2

The Psychometric Test – II is a copyrighted stress test that can be used by certified psychometric test professionals. The test is also administered on 51 respondents present for the session. Out of 51 present, 49 respondents submitted the filled-in scores to the researcher. The test has 70 statements with options yes and no. The respondent is supposed to select either yes or no that suits him/ her. These 70 statements are in fact the manifestation of stress; not necessarily due to Ph D. Manifestation means the expression or display of stress. Manifestation in simple words can be said to be 'symptoms' of stress. The manifestation is found to be done, as per the experts of stress management professionals, at four different ways viz

1. Physiological
2. Seen Behavioural
3. Unseen Behavioural
4. Psychological

After marking choices between yes and no for all 70 statements, respondents are asked to count only 'yes' and get the total count of yes; individually for each symptom and in total yeses and noted.

The total score for T2 can be maximum 70 however the weightages for symptoms are maximum 15, 17, 19 and 19 in the sequence mentioned above. Higher the score; higher is the symptom/ display of stress by those means.

IV. DISCUSSION

Stressors included in Psychometric Test – I are stress due to:
1. Personal Reasons: Personal stressors include inability of an individual to handle stress/ work-life imbalance, personal problems, time management, dilemma and confusion about the purpose, discipline and self-management, aptitude, target orientation, change management at the age of pursuing Ph D etc.
2. Research Methodology: Stress related to research methodology starts right from selection of topic of research. Since due to educational controlling authorities have made Ph D compulsory many teachers are pursuing without any aptitude of research in many cases.

Hence it starts from selection of topic, then going through various difficulties in matching with research fundamentals and intricacies. Fulfilling basic registration qualifications (including clearing entrance tests, topic selection interviews etc) is another stressor. Getting a guide (guide is known as 'supervisor' in many western universities), preparing research proposal, getting it approved by research review committee, modifications required, research literature review, getting and finding the topic related literature and supporting material, finding such resources, preparing instrument of data collection, deciding universe and sample, approaching respondents, getting the instrument administered, collection and tabulation of data, and last but not the least analysis of data. Though data analysis may be outsourced to statistician and analytics experts, their interpretation itself is a strainous understanding. Interpretation is not a cup of tea of most of the researchers. After all these, writing thesis is a specialized effort that includes grammatically correct drafting that is free from plagiarism. Drafting of thesis involves references and bibliography for its correct representation from plagiarism perspective.

3. Stress due to University selection process and further support and assistance from the University's Ph D Section: University/ University's Research Department and the HR handling these sections play a major role in teachers' research. Execution of certain mandatory formalities with respect to university may put teacher in stress. Mandatory regulations include registration processes, submission of recurring reports, payment of fees, online and offline procedures, completing all formalities of pre-Ph D, executing the final defence day etc. Most these bureaucracies may pose stress to Ph D pursuers.

4. Stress due to support and assistance from Research Centre where the student has enrolled with the University for Ph D: Many of the Universities in India register Ph D students through authorised research centres. Research Centre personnel including the research centre/ department head are vital for helping smooth completion of Ph D. Few stressors due to centre are timely assistance for scheduling presentations at appropriate stages, cooperation of centre head and the clerks, communication and coordination of centre with the University, verification of documents at centre level, collection and acknowledgement of required documents by the centre and so forth.

5. Stress due to Research Guide allotted by the University to the student pursuing Ph D: Research Guide (supervisor) may prove to be the most affecting stressor; authors of the paper hypothesize. Stress caused due to the guide may range anything from not guiding at all to pressurizing too much by being too stringent. Being unavailable for the student to not-responding to his/ her mails may create hurdle in the progress of student's Ph D.

The Psychometric Test – II is a copyrighted stress test that can be used by certified psychometric test professionals. Manifestation in simple words can be said to be 'symptoms' of stress. The manifestation is found to be done, as per the experts of stress management professionals, at four different ways viz Physiological, Seen Behavioural, Unseen Behavioural, Psychological.

Physiological: Physiological symptoms of stress include major injury/ illness, eating disorder or irregularity, weight fluctuation, dryness of throat/ mouth, abnormal menstrual cycle, cold hands and feet, muscle spasm, stiffness, tension, high or low blood pressure, difficulty in sleeping, indigestion problem, ulcers, frequent attacks of cold, frequent urination, constipation, headaches, body aches etc.

Seen Behavioural: Seen Behavioural symptoms of stress include bursting into tears, crying often, heavy smoking or drinking, often being confused, having nervous habits such as biting nails, tabling fingers, shaking legs, teeth grinding etc, rushing things, trembling often, getting frustrated due to rush/ queues, falling short of breath, having frequent nightmares, excessive sweating, frequently getting angry, rapid mood swings, impatience and so on.

Unseen Behavioural: Unseen Behavioural symptoms of stress include leading sedentary life style, being unhappy about sex life, difficulty in being assertive, feeling bored often, difficulty in making decisions, self-abuse, being too competitive, feeling of hostility, being self-centred, having phobias, finding difficult to forgive, finding the job too demanding/ challenging/ boring or being unemployed, laughing nervously, difficulty in concentrating, experience of anxiety attack; contemplation of suicide, frequent memory lapses, denial of problems, being behind the schedule and so forth.

Psychological: Psychological symptoms of stress include feeling of bitterness, jealousy, intolerance, being eccentric, having guilt feelings, feeling unhappy about financial situation, feeling lost in direction and withdrawn from society, life has lost meaning, suffering from depression/ despair, constant worrying, being restless, feeling apathetic, feeling emptiness/ hopelessness, having often negative self-talk, being pessimistic, having guilt feelings, felling emotionally numb and hypochondriac and so on and so forth.

V. ANALYSIS OF DATA

1. Hypothesis No. 1.: There is correlation between stressors and symptoms of stress. This has 4 hypotheses included in it-H1, H2, H3 and H4. These hypotheses are analysed and concluded as below:

H1: There is a significant relationship between stressors (Personal, Research Methodology, Research Centre, Guide and University) and Physiological (symptoms of stress)

To find the relationship between the stressors (Personal, Research Methodology, Research Centre, Guide and University) and Physiological (symptoms of stress). A multiple regression is applied to find the impact of independent variables Personal, Research Methodology, Research Centre, Guide and University) on dependent variable physiological symptoms. The p-value of University with physiological is 0.04, which is less than 0.05. Hence there is a significant relationship between university (stressors) and physiological (symptoms of stress). All the other independent variables are insignificant with physiological (symptoms of stress) as p- values are greater than 0.05.

Hence Hypothesis H1 is partially accepted.

H2: There is a significant relationship between stressors (Personal, Research Methodology, Research Centre, Guide and University) and Seen Behavioral (symptoms of stress)

To find the relationship between the stressors (Personal, Research Methodology, Research Centre, Guide and University) and seen behavior (symptoms of stress). A multiple regression is applied to find the impact of independent variables Personal, Research Methodology, Research Centre, Guide and seen behaviour) on dependent variable seen behavior. The p-value of all the independent variables with seen behavior is greater than 0.05. Hence there no a significant relationship all the independent variables and the dependent variable seen behavior. Hence Hypothesis H2 is rejected.

H3: There is a significant relationship between stressors (Personal, Research Methodology, Research Centre, Guide and University) and UnSeen Behavioral (symptoms of stress)

To find the relationship between the stressors (Personal, Research Methodology, Research Centre, Guide and University) and Unseen behavior (symptoms of stress). A multiple regression is applied to find the impact of independent variables Personal, Research Methodology, Research Centre, Guide and Unseen behviour) on dependent variable seen behavior. The p-value of all the independent variables with seen behavior is greater than 0.05. Hence there no a significant relationship all the independent variables and the dependent variable Unseen behavior. Hence Hypothesis H3 is rejected.

H4: There is a significant relationship between stressors (Personal, Research Methodology, Research Centre, Guide and University) and psychological (symptoms of stress)

To find the relationship between the stressors (Personal, Research Methodology, Research Centre, Guide and University) and Psychological (symptoms of stress). A multiple regression is applied to find the impact of independent variables Personal, Research Methodology, Research Centre, Guide and psychological) on dependent variable physiological. The p-value of University with physiological is 0.016, which is less than 0.05. Hence there is a significant relationship between university (stressors) and psychological (symptoms of stress). All the other independent variables are insignificant with physiological (symptoms of stress) as p- values are greater than 0.05. Hence Hypothesis H4 is partially accepted.

The correlation status amongst the parameters in above hypotheses H1, H2, H3 and H4 can be seen in following table:

Table. 1

	Personal	Research Methodology	University	Research Center	Guide	Physiological	Seen Behavioural	Unseen Behavioural	Psychological
Personal	1								
Research Methodology	0.350653237	1							
University	0.252338469	0.56454592	1						
Research Center	0.282139752	0.161574425	0.342192904	1					
Guide	0.289677995	0.436184107	0.359481307	0.517812	1				
Physiological	0.265865268	0.234176647	0.516690654	0.3937847	0.340978865	1			
Seen Behavioural	0.188467344	0.155811411	0.336822402	0.3356398	0.288515083	0.613017686	1		
Unseen Behavioural	0.245168283	0.25353225	0.414515228	0.4275766	0.357825656	0.626097913	0.74398088	1	
Psychological	0.155044224	0.223833214	0.460196424	0.3247661	0.285544888	0.545738074	0.68901341	0.778134614	1

The above table (Table No. 1) is made in Excel, the same correlation analysis done using SPSS is appended (Table No. 2) to this paper in Appendix.

2. Hypothesis No. 2: Students pursuing Ph D manifest signs of stress due to stress of pursuing Ph D: Since from H1, H2, H3 and H4, there is hardly any correlation found, this hypothesis proves to be disproved. This means, students pursuing Ph D do not manifest signs of stress.

3. Hypothesis No. 3: Ph D Guide is the Highest stressor amongst 5 stressors. Out of the 4 stressors; Highest stressor from the scores found to be is University (systems) with score of 26.94. Stressors in descending order are: 1. University (systems)-26.94, 2. Research Methodology-24.11, 3. Research Centre-21.51, 4. Guide-21.45 and 5. Personal (reasons)-20.64. Hence hypothesis no. 3 is disproved. This means, Ph D (research) Guide (supervisor) is not the highest stressor.

- Out of 49 respondents under study, only one candidate was found in danger zone of stress due to Ph D (above 75%), 3 were between 60% and 75%, 11 were between 50% and 60%, 22 were between 40% and 50%, 9 were between 30% and 40% and remaining 3 were less than 30%.

VI. CONCLUSIONS

A. Based on Objectives

1. Stressors amongst teachers pursuing Ph D in Management are Research Methodology, Research Guide (Supervisor), University (Systems), Ph D Research Centre and the Candidate's personal reasons. Though the manifestation of stress is not vividly seen in the sample of study, the stressors in descending order are 1st (Highest) University (systems), 2nd Research Methodology, 3rd Research Centre, 4th Guide and 5th Personal (reasons). These conclusions are based on average scores out of 70.

2. 2 psychometric tests identifying the stressors and symptoms of stress were executed on the sample for study.

3. The strongest stressor happens to be the University (systems) and least affecting stressor Personal Reasons.

4. Symptoms of stress amongst the teachers pursuing Ph D are found but very minor.

B. Based on Hypothesis

1. There is partial correlation between stressors and symptoms of stress.

2. Candidates pursuing Ph D in management do not display their stress. This means they manage their stress properly.

3. Ph D Research Guide happens to be the 4th stressor in descending order out of hypothesized 5 stressors

LIMITATIONS OF THE PAPER

- The Paper is based on tests conducted on sample size of merely 49 respondents amongst the Ph D students in only one research centre under the University.

- Not much study has been found done on the topic.

REFERENCES

1. Pavli, S., Uršič, M., & Hočevar, M. (2013). Changing the context of researchers'work in academia. Annales, Series historia et sociologia, 23(2), 365-376. Received from https://barendspsychology.com/phd-stress/ viewed on 24.10.2018
2. Levecque, K., Anseel, F., De Beuckelaer, A., Van der Heyden, J., & Gisle, L. (2017). Work organization and mental health problems in PhD students. Research Policy, 46(4), 868-879. Received from https://barendspsychology.com/phd-stress/ viewed on 24.10.2018
3. https://barendspsychology.com/phd-stress/ viewed on 24.10.2018
4. https://cheekyscientist.com/reasons-your-phd-causes-stress-and-depression/ viewed on 24.10.2018
5. https://jameshaytonphd.com/phd-stress-dont-ignore-the-warning-signs/ viewed on 24.10.2018
6. https://www.researchgate.net/publication/312092795_Causes_of_Stress_among_PhD_Research_Scholars_with_reference_to_Rashtrasant_Tukadoji_Maharaj_Nagpur_University_an_Empirical_Analysis viewed on 25.10.2018

APPENDIX

Table. 2 Correlations

		Personal	Research Methodology	University	Research Center	Guide	Physiological	Seen Behavioural	Unseen Behavioural	Psychological
Personal	Pearson Correlation	1	.351*	.252	.282*	.290*	.266	.188	.245	.155
	Sig. (2-tailed)		.014	.080	.050	.043	.065	.195	.090	.287
	N	49	49	49	49	49	49	49	49	49
Research Methodology	Pearson Correlation	.351*	1	.565**	.162	.436**	.234	.156	.254	.224
	Sig. (2-tailed)	.014		.000	.267	.002	.105	.285	.079	.122
	N	49	49	49	49	49	49	49	49	49
University	Pearson Correlation	.252	.565**	1	.342*	.359*	.517**	.337*	.415**	.460**
	Sig. (2-tailed)	.080	.000		.016	.011	.000	.018	.003	.001
	N	49	49	49	49	49	49	49	49	49
Research Center	Pearson Correlation	.282*	.162	.342*	1	.518**	.394**	.336*	.428**	.325*
	Sig. (2-tailed)	.050	.267	.016		.000	.005	.018	.002	.023
	N	49	49	49	49	49	49	49	49	49
Guide	Pearson Correlation	.290*	.436**	.359*	.518**	1	.341*	.289*	.358*	.286*
	Sig. (2-tailed)	.043	.002	.011	.000		.017	.044	.012	.047
	N	49	49	49	49	49	49	49	49	49
Physiological	Pearson Correlation	.266	.234	.517**	.394**	.341*	1	.613**	.626**	.546**
	Sig. (2-tailed)	.065	.105	.000	.005	.017		.000	.000	.000
	N	49	49	49	49	49	49	49	49	49
Seen Behavioural	Pearson Correlation	.188	.156	.337*	.336*	.289*	.613**	1	.744**	.689**
	Sig. (2-tailed)	.195	.285	.018	.018	.044	.000		.000	.000
	N	49	49	49	49	49	49	49	49	49
Unseen Behavioural	Pearson Correlation	.245	.254	.415**	.428**	.358*	.626**	.744**	1	.778**
	Sig. (2-tailed)	.090	.079	.003	.002	.012	.000	.000		.000
	N	49	49	49	49	49	49	49	49	49
Psychological	Pearson Correlation	.155	.224	.460**	.325*	.286*	.546**	.689**	.778**	1
	Sig. (2-tailed)	.287	.122	.001	.023	.047	.000	.000	.000	
	N	49	49	49	49	49	49	49	49	49

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).