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Research Article

A study of Factors Affecting the Anxiety Level of Working Females in Education Sector during COVID 19 Pandemic

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Abstract

This study is aimed to identify the factors which lead to psychological pressure and simultaneously check the anxiety level among working females in the Education Sector, during the COVID 19 pandemic. A sample of 200 females working as teachers was taken for the study. To identify the Psychological factors that lead to Anxiety EFA was run. Multiple regression was run to find out the factors that are affecting the anxiety level significantly. The results of the study found that Four factors are influencing the anxiety in working women i.e. Job Security, Work Life balance, Future Planning and Social Support & belongingness out of these Job security has the highest impact on anxiety. Further result finds that out of the sample 19% show symptoms of severe anxiety, 23% of respondents are showing symptoms of moderate level of anxiety and 58% of the respondents are under mild anxiety level during this pandemic.

Key Words: Covid 19, Anxiety Level, Females, Education Sector, Mental Health , EFA, Multiple Regression

Introduction

The spread of corona virus came into picture in Dec 2019 in China and all over the world. Indian Government launched a tracker to identify the affected areas and death rate in India. According to the report of Covid 19 india.org,on 2 May there were 39827 confirmed cases and on 29th may it was around 173495 confirmed cases, Active cases 85873 and out of the said recovered cases were 82631 and 4978 deceased cases. In Delhi there were 19844 confirmed cases, 10893 Active cases and recovered 8478 and deceased 473 on 31st of may 2020. This infectious information forced risk of infection but the mental pressure among the people and their survival. This continuous

spread of the virus, various strict measures had been taken in sense of social distancing, delays in resuming the schools, colleges and university. This impacted the mental health of the students as well as teachers.

This leads to lot of change environment for students as well for faculties and teacher too. Keeping this issue in mind various universities and schools advised their staff to take the online classes for the students so that their studies should not get affected and also to follow the government advisory to maintain social distancing. This is a new change which gives a boost to the various online mediums like Zoom, Webex, Google meet Apps which was a turning experience for the teachers as well as for students. These medium were new for both the teachers and students which affected their mental health. According to literature no such studies had been conducted till date to study the mental health status of the teachers in India during the pandemic. This situation raised few questions; does this pandemic affect the mental status of teachers and if yes then what are the factors which are creating problems in their mind.

Generalized Anxiety Disorder Scale: This scale is most commonly used instrument to check the anxiety disorders in clinical practices due to its diagnostic reliability and efficiency (Johnson et al., 2019). This scale is the module of 'Patient Health Questionnaire (PHQ; Spitzer et al., 1999), which was the first self-reported questionnaire developed for primary care, to aid the diagnostic process of specific disorders (Toussaint et al., 2020).

Review of Literature

Wenjun Cao et. al., 2020 conducted a study in China in the context of psychological anxiety and the results found that it is impacted by gender difference. It was found that approximately 14 % of the tested sample was found to be depressed 13 % (approx) was found to be depressed and 8% (approx) was found to be anxious and depressed both. This clearly states that during these difficult times of pandemic, the anxiety and stress level of people has gone up.(Song Kangxing, 2020) It was also found that and validated with the help of regression analysis that found that the risk factors of stress were more likely to be found in females, specially of age group older than 45 years of age , and the more vulnerable group are the farmers , Unemployed , local epidemic sufferers, people having increased knowledge about the pandemic. The remedies that were suggested were closeness to the colleagues, calm mood and psychological resilience. It was also concluded that working women are more prone to probable negative effects of anxiety during the pandemic situation, as the work life balance is difficult to strike.(Song Kangxing, 2020)

A study was conducted by (Raza Ali, 2019) as a case Study Of Naushahro Feroze And Mirpurkhas Istanbul on the work life balance and stress level of women in education sector . It was reported that the bottlenecks that occurs with married working women are work hours, overtime, traveling from home which is not that important for women, negative attitude from bosses, negative attitude from family and major problem is household work has to be completed on time as women who works in the schools, colleges and university campuses they feel an excessive amount of burden of their responsibilities, and as result they feel more stress, anxiety, pressurize, as they cannot give appropriate time to household work.

Another study conducted in Meerut (2015), studied the working environment and the perceived notions of the women workers on the various parameters of work life balance. This study reveals that women become more anxious and stressed due to family members not being supportive of their work and difficulties in completion of professional and domestic work on time. The study also reveals the attitudes & beliefs of women regarding job anxiety in their formal work organizations & particularly balancing their work & personal life (Aeran & Kumar, 2015).

Another study was conducted in Iran by Aslrasoulia and Saadat Pour Vahid,(2014), incorporated a sample of 114 EFL teachers employed in the universities and other allied educational institutions. The results of their study also revealed that teachers had the anxiety and stress levels on a higher side. The interpersonal relations had the highest impact on the stress levels of the females in education sector. There are many other factors such as proficiency in using technology and language, facilities and resources provided to them also add to their anxiety levels.

The World Health Organization (WHO), in 2000 formally declared -'Gender to be a critical determinant of mental health and mental illness WHO quoted "gender determines the differential power and control men and women have over the socioeconomic determinants of their mental health and lives". Following the coronavirus outbreak, the Inter-agency Standing Committee (IASC) has also called for "gender-sensitive" deployment of healthcare, especially mental health (Bhattacharya, 2020). Therefore it is necessary to keep in mind that women have to be kept in forefront while deciding on any policy to combat the COVID 19 work situations and the mental health policy related to it (Bhattacharya, 2020)

Research Methodology

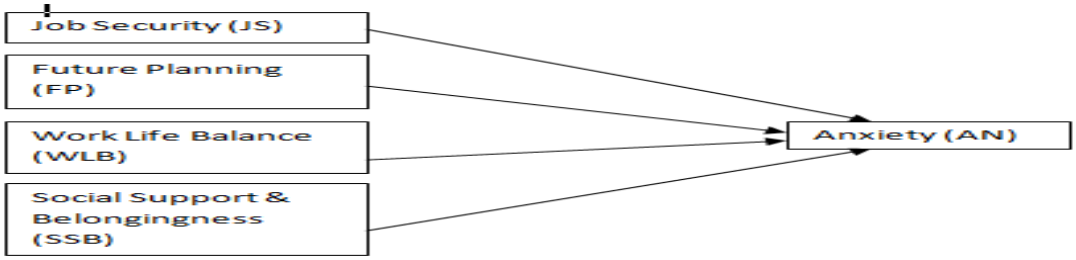
Research Objective:

1. To identify the factors that leads to mental pressure or Anxiety among working females in Education Sector during COVID 19
2. To check the level of Anxiety level among the working females teachers in Education Sector during COVID 19

Research Scope:

The model was generated to identify the factors which lead to Metal pressure or Anxiety among the female teachers (figure1). This model explains the influence of various factors associated with anxiety in this pandemic period. This research will be helpful for Education institutions to make the changes in their policy and they may get the information what exactly their female teachers are worried off and try to make them calm so that generate 100% performance. It will also help the educationist to understand the need of the era and increase motivation of female teachers towards their participation.

Figure1: Research Model; Factors Influencing the Anxiety Level of Working Females in Education Sector



Research Design:

The target population comprised of Females working in education sectors aged between 20-60 Years. The respondents selected on the basis of cluster sampling. The factors affecting and the mental health status had been studied by structured questionnaire through online platform. A total of 250 questionnaires were distributed out of which 200analyzablequestionnaire were obtained. The questionnaire included 29 items rated on 5 points Likert Scale. To check the content validity of the questionnaire, 40 academicians were contacted during the pre test and the problems were rectified from the final questionnaire. Exploratory factor analysis (EFA) was applied with principal component analysis & varimax rotation to the collected data to identify the decision factors which leads to Anxiety among the Female teachers. To check the anxiety Level of the participants a 7-item Generalized Anxiety Disorder Scale (GAD-7) was used. The GAD-7 includes seven items based on seven core symptoms and inquires the frequency with which respondents suffered from these symptoms (Toussaint et al., 2020). Respondents report their symptoms using a 3-item Likert rating scale ranging from 0 (*not at all*) to 3 (*almost every day*), such that the total score ranges from 0 to

21(Toussaint et al., 2020). The GAD-7 is a well-validated screening instrument, and it has demonstrated excellent internal consistency (Cronbach's α = 0.940).

Data Analysis

Age composition of the Respondents:

A sample of 200 females working as teacher (100 from Delhi & 100 from Bhopal) has been taken to check the anxiety level during this pandemic situation. The age composition of the respondents is as follows:

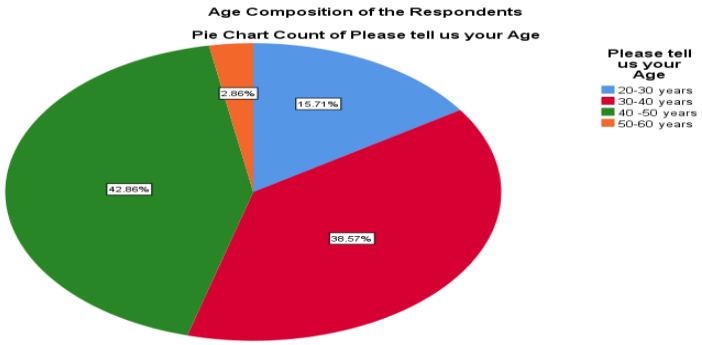


Figure 2: Age composition of Respondents

It is depicted from the figure 2 that highest percentage of respondents are from the age group 40-50 years that is 42.86% , followed by the age group 30-40 years i.e. 30.57%.

Factor Analysis:

The data was analyzed through SPSS 22.0 version. EFA was run for factor Reduction. The EFA has generated the KMO value equals to .857, that shows the adequacy of the sample.

Table 1: KMO & Bartlett's Test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.857
Bartlett's Test of Sphericity	Approx. Chi-Square	2511.026
	Df	253
	Sig.	.000

Further Principle Component Analysis with Varimax rotation method was used to extract factors having Eigenvalues above 1.00.

Table 2: Cumulative Variance Extracted

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.968	43.340	43.340	9.968	43.340	43.340	5.627	24.463	24.463
2	2.393	10.403	53.743	2.393	10.403	53.743	3.550	15.435	39.898
3	1.734	7.541	61.284	1.734	7.541	61.284	3.276	14.245	54.143
4	1.534	6.669	67.954	1.534	6.669	67.954	2.630	11.435	65.578
5	1.357	5.900	73.854	1.357	5.900	73.854	1.903	8.276	73.854
6	.845	3.673	77.527						
7	.669	2.911	80.437						

Accordingly 5 factors were derived from factor analysis and as per grouping they were renamed as follows: Job Security, Future Planning, Work Life Balance, Social Support and Belongingness and Anxiety which explain about 73.85 % of cumulative variance. Finally, the result of factor analysis along with the factor loading and names is summarized in the Table 3.

Table 3: Factor Loading & Cronbach Alpha

Constructs	Index	Item	Factor	Cronbach Alpha
Job Security	I am worried about the pay cuts and Salary issue	JS1	.554	.887
	I am worried about my retainment in the organization	JS2	.860	
	I have a fear of losing my job	JS3	.877	
	I have a high level of performance pressure	JS4	.613	
	I feel insecure that I might lose Productivity due to Technological Instability	JS6	.676	
Future Planning	COVID 19 pandemic has impacted your planning regarding your Family life	FP1	.744	.876
	COVID 19 pandemic has impacted your planning for future growth aspects	FP2	.678	
	COVID 19 pandemic has impacted your planning for monthly budget	FP3	.851	
	I feel financial insecurity	FP4	.680	
	I feel insecure about the thefts and crimes taking place around me	FP5	.537	
Work Life Balance	it is difficult to manage both household work and office work	WLB1	.733	.822
	I am not able to justify my presence at home and office together	WLB2	.572	
	I feel insecure moving out for work due to the chaotic situation around me	WLB3	.783	
Social Support & Belongingness	I feel less Socially disengaged	SSB1	.760	.627
	I feel less connected to people close to me due to social distancing	SSB2	.671	
	I feel Isolation is good	SSB3	.766	
Anxiety	Feeling nervous, anxious, or on edge	AN1	.792	.940
	Not being able to stop or control worrying	AN2	.831	
	Worrying too much about different things	AN3	.842	
	Trouble relaxing	AN4	.798	
	Being so restless that it's hard to sit still	AN5	.798	
	Becoming easily annoyed or irritable	AN6	.822	
	Feeling afraid as if something awful might happen	AN7	.780	

Reliability

The factor reliability was checked by cronbach's alpha. The values of cronbach alpha for all the factors were more than 0.7, except Social Support & Belongingness which is acceptable Nunnally's (1978). Hence factors were found to be reliable for measuring the female Teachers Anxiety Level. (Table 3)

Regression Analysis: SPSS version 22 was used to calculate the multiple regressions between the various factors causing anxiety, to find out which factors are impacting the anxiety levels

Table 4: Descriptive Statistics

	Mean	Std. Deviation	N
ANSCO	1.59	.778	200
JS1	3.74	1.030	200
JS2	3.03	1.141	200
JS3	2.98	1.293	200
JS4	3.57	1.110	200
FP1	3.67	.989	200
FP2	3.79	.982	200
FP3	3.73	1.017	200
WLB1	3.48	1.186	200
WLB2	3.08	1.221	200
SSB1	3.04	1.173	200
SSB2	3.56	.986	200
SSB3	3.29	.980	200
WLB3	3.76	.990	200
FP4	3.32	1.020	200
FP5	3.37	1.086	200
JS6	2.87	1.197	200
SBS1	3.25	1.005	200
SBS2	3.18	1.100	200
SBS3	3.15	.969	200
JS5	3.31	.941	200
SBS5	3.03	.929	200
SBS6	2.83	1.141	200

Table 5: Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	SBS6, SSB1, SBS3, WLB3, FP3, SBS2, SSB2, SBS5, FP5, JS2, SSB3, JS5, SBS1, WLB1, FP4, JS4, JS1, FP1, JS6, WLB2, FP2, JS3[b]	.	Enter

a. Dependent Variable: ANSCO

b. All requested variables entered.

Table 6: Model Summary

Model	R				Change Statistics

		R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.762[a]	.580	.528	.535	.580	11.123	22	177	.000

a. Predictors: (Constant), SBS6, SSB1, SBS3, WLB3, FP3, SBS2, SSB2, SBS5, FP5, JS2, SSB3, JS5, SBS1, WLB1, FP4, JS4, JS1, FP1, JS6, WLB2, FP2, JS3

Table 7: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	69.954	22	3.180	11.123	.000[b]
	Residual	50.601	177	.286		
	Total	120.555	199			

a. Dependent Variable: ANSCO

b. Predictors: (Constant), SBS6, SSB1, SBS3, WLB3, FP3, SBS2, SSB2, SBS5, FP5, JS2, SSB3, JS5, SBS1, WLB1, FP4, JS4, JS1, FP1, JS6, WLB2, FP2, JS3

Table 8: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound
1	(Constant)	1.019	.354		2.878	.004	.320	1.718
	JS1	-.191	.067	-.253	-2.843	.005	-.324	-.058
	JS2	-.146	.069	-.214	-2.103	.037	-.283	-.009
	JS3	.276	.085	.458	3.255	.001	.109	.443
	JS4	-.035	.059	-.050	-.593	.554	-.151	.081
	FP1	-.129	.079	-.164	-1.647	.001	-.285	.026
	FP2	.131	.083	.165	1.578	.016	-.033	.294
	FP3	.141	.074	.184	1.916	.050	-.004	.286
	WLB1	-.005	.068	-.008	-.077	.938	-.139	.128
	WLB2	.168	.061	.264	2.761	.006	.048	.288
	SSB1	-.075	.045	-.112	-1.661	.048	-.163	.014
	SSB2	.005	.054	.007	.098	.922	-.101	.112
	SSB3	-.052	.055	-.066	-.954	.341	-.160	.056
	WLB3	.039	.059	.049	.655	.513	-.078	.156
	FP4	.089	.063	.116	1.412	.040	-.035	.212
	FP5	.065	.056	.091	1.174	.242	-.045	.175
	JS6	.009	.078	.014	.113	.910	-.145	.162
	SBS1	.019	.057	.025	.333	.739	-.093	.132
	SBS2	.094	.048	.133	1.958	.050	-.001	.189
	SBS3	-.341	.054	-.424	-6.319	.000	-.447	-.234
	JS5	-.093	.066	-.112	-1.405	.162	-.223	.037

a. Dependent Variable: ANSCO

Table 6 shows the summary of the model fitted. The model is significant, taking alpha = 0.05. The adjusted r square is 0.528 which means that each variable is causing a change of 52.8 percent on the dependent variable.
Table 8 shows that the factors under job security, that affect the anxiety level significantly are worrying about the pay cuts and salary issues , worrying about being retained in the organization ,fear of losing the job , performance pressure and loss of productivity due to not being technologically sound. The factors under Future planning that affect the anxiety level significantly are financial insecurity, future planning regarding the family, future growth aspects and insecurity about thefts and crime taking place around them. The factor under Work Life Balance that affects the anxiety level significantly is that the respondents fail to justify their presence both at home and work. The factors under Social belonging and support that affect the anxiety level significantly are feeling socially disengaged and less connected to people near to them due to social distancing.

Analysis of Anxiety level of Respondents:
Table 9, below shows that 58% of the respondents are under mild anxiety level during this pandemic and 19% show symptoms of severe anxiety. 23% of respondents are showed symptoms of moderate level of anxiety.

Table 9: Anxiety Level of Respondents			
No of respondents	**Anxiety scores**	**Anxiety level**	**Percentage**
102	**0 to 9**	**Mild level of anxiety**	**58%**
52	**10 to 14**	**Moderate level of anxiety**	**23%**
46	**15 to 21**	**Severe level of anxiety**	**19%**
Total = 200			**100%**

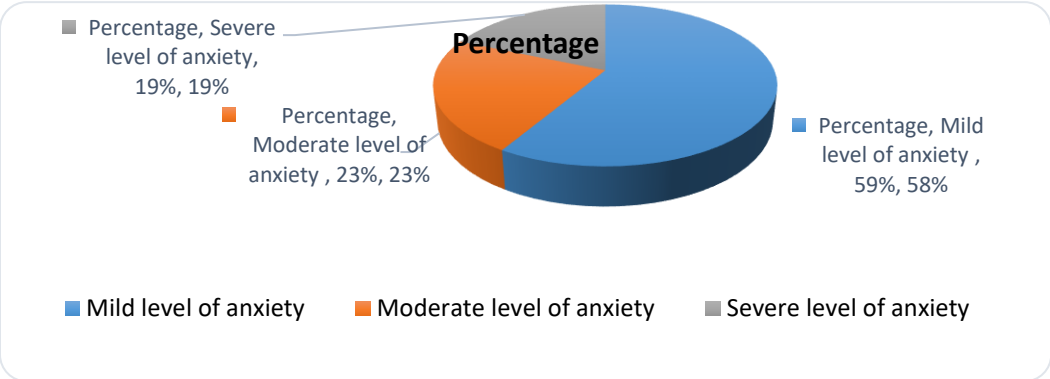


Figure 3: Anxiety level of respondents

Results

The analysis revealed four factors, all the items have factor loading above .5 and fitted Nunnally's (1978) recommended level of internal consistency for initial scale development. The results of the factor analysis identified the 4 factors which directly influence Anxiety i.e. Job Security, Work Life Balance, Social Support & Belongingness and Future Planning. The results of the multiple regression analysis shows that the factors that affect the anxiety level of the females working in the education sector significantly ($\alpha = 0.05$), during this pandemic are fear of losing the job (Mean score 3.03) , performance pressure (Mean score 2.98) , loss of productivity due to not being technologically sound (Mean score 3.31), future growth aspects (Mean score 3.67) , insecurity about thefts and crime taking place around them (Mean score 3.37), failure to justify their presence both at home and work(Mean score 3.28), feeling socially disengaged(Mean score 3.25) and feeling of being less connected to people near to them due to social distancing.(Mean score 3.15).

It was also found by analyzing the scores of the GAD questionnaire that 19% of the total respondents are feeling severe anxiety (anxiety score is between 0-9), 23% of the respondents are feeling moderate anxiety (anxiety score is between 10-14) and 58% of the respondents are having symptoms of mild anxiety.

Discussion & Conclusion

The objective of the research was to identify the factors that impact the Anxiety level of working female in education sector. Factor analysis was applied to the data collected through the online survey. The factors identified are namely, Job Security, Work Life Balance, Social Support & Belongingness and Future Planning.

The study was further extended and using multiple regression analysis it tested the influence of various independent factors on the dependent factor i.e. Anxiety level of working females in Education Sector. Out of these independent factors, Job Security was found to have the maximum impact on Anxiety. So Education sector employers should try to make their Environment hassle free, secure and convenient. They should also take care of this pandemic and should not pressurize the teachers because they are dealing with new aspects of teaching and technology which they are not familiar off. They should be given a tuning period to adjust to this scenario. This time is to have the cordial relationship with each others. Also a consideration should be taken care of regarding working hours as it is difficult to the female teachers to make the schedule for family members according to profession work schedule. The education institution should keep females into management for designing policy frame work so that they may identify the genuine problem faced by females in the implementation of the policies.

Managerial Implications, Limitation and the Future Research

The findings of the research will help the Education institutions to make the changes in their policy and they may get the information what exactly their female teachers are worried off and try to make them calm so that generate 100% performance. It will also help the educationist to understand the need of the era and increase motivation of female teachers towards their participation. Research can be conducted further to identify the factors affecting the Education Institutions while working and looking for the betterment areas of their employees. Further the research can be conducted on the difference in the psychological factors which leads to anxiety on the basis of Demographic factors like Age & income.

References

1. Aeran, A., & Kumar, R. (2015). Impact on life of women employees in Education Sector. *Indian J.Sci.Res.* , 57-62.
2. Aslrasoulia, M., & Saadat Pour Vahid, M. (2014). An Investigation of Teaching Anxiety among Novice and. Procedia - Social and Behavioral Sciences *98*, 304-313.
3. Bhattacharya, S. (2020, April 11). What Covid-19 teaches us about women's mental health. *The Times of India*.
4. Nunnally, J. C. (1978). Psychometric Theory. McGraw-Hill Book Company, pp. 86-113, 190-255.
5. Raza ,Ali 2019. "Work Life Balance Of Working Women In Education Sector : A Case Study Of Naushahro Feroze And Mirpurkhas." International Case Studies Journal (2019): 27.
6. S.U. Johnson, P.G. Ulvenes, T. ktedalen Psychometric properties of the general anxiety disorder 7-Item (GAD-7) scale in a heterogeneous psychiatric sample, Frontiers in psychology., 10 (2019), p. 1713

7. Spitzer RL, Kroenke K,Williams JBW, and the Patient Health Questionnaire Primary Care Study Group. Validation and Utility of a Self-report Version of PRIME-MD: The PHQ Primary Care Study. *JAMA.* 1999; 282(18):1737–1744.

8. Song Kangxing, Li Tao, Luo Dan, Bi Fengying,Terry D. Stratton,Voyko Kavcic,Jiao Rong,Xu Rui, Yan Shiyan, Jiang Yang. "Psychological Stress and Gender Differences during COVID-19 Pandemic in Chinese population." medRxiv 3 May 2020.

9. Toussaint A., P. Hüsing, A. Gumz, K. Wingenfeld, M. Härter, E. Schramm, B. Löwe Sensitivity to change and minimal clinically important difference of the 7-item generalized anxiety disorder questionnaire (GAD-7),J Affect Disord, 265 (2020), pp. 395-401
10. Wenjun Cao, Ziwei Fang, Guoqiang Hou,MeiHan, Xinrong Xu, Jiaxin Dong, Jianz hong Zheng,2020 the Psychological Impact of Covid 19 epidemic on college studenta in China, Psychitary Research, vol 287.
11. World Health Organization Emergencies: Novel Coronavirus 2019 WHO, Geneva (2020)