



Statistical Analysis of Occupational Stress of Working Women of three Districts in Karnataka State - A Case Study

KEYWORDS

Chi-Square test, Occupation, Demographic factors, Occupational stress, Workplace, Working Women, Area

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ABSTRACT Occupational stress is a major hazard for many workers. Stress is an integral part of everyday life and simply cannot be avoided. People encounter stressful stimuli many times a day in their personal and social domains and, as a work is an essential aspect of human existence, in the workplace. Nature of work, increased workloads, overtime work, heavy physical work, work satisfaction, personal time availability, colleagues support are just a few of many causes of stressful working conditions. Medical dictionary defines stress as " the result produced when a structure , system or organism is acted upon by forces that disrupt equilibrium or produce strain". In this paper an attempt is made to analyze the occupational stress of working women based on some demographic factors viz; Age, Education, Marital Status, Family Type of the three districts in Karnataka state, India. The association between different demographic factors and occupational stress were identified by using chi-square test.

1. Introduction

Occupational stress and workplace have become issues of great concern over the last decade, both internationally and nationally. Given the value of work in the society, the amount of time spent at work and the current changes that are affecting the nature of, it is not surprising that work stress appears to be increasing (Szymanski, 1999 [4]). Workplace stress is very common occurrence in the modern world. The present study is aimed to analyze the occupational stress of working women participating in various types of occupation in three districts Bagalkot, Vijayapur and Belagavi of Karnataka State. Chi-square test is a most powerful test used to examine the significance of relationship between two or more attributes. In this paper occupational stress of working women were identified basing on various demographic factors. Chi-square test is used to test the association between different demographic factors and occupational stress. The study is mainly based on the primary data of 500 working women selected from three districts Bagalkot, Vijayapur and Belagavi of Karnataka state by using convenience sampling. Questionnaire method is most suitable for data collection; the tool used to carry out present research includes demographic characteristic questionnaires and types of occupations. Demographic characteristics questionnaires consisting the information regarding age, marital status, education, family type and occupational stress factors like work place ,wage/salary availability in time, nature of work , work satisfaction level , colleague support at working place . . . etc, of working women in different types of occupations.

2. Review of Literature

In the paper "Occupational stress and Job satisfaction among working women" dealt by Tharakan, PNO (1992) [1] it was found that professional women and non professional working women would differ in their job related stress and level of job satisfaction. A sample of 90 working like Doctors, Engineers, Lawyers, nurse . . etc women were compared with Clerks, Teachers, Officers, Daily wage workers on these variables. Occupational stress indicator (OSI) scale developed by Cooper was administrated to measure occupational stress and job satisfaction. The relationship between occupational stress and job satisfac-

tion has been found to be associated with professional women and non –professional women. It is observed that professional working women experience greater work related stress than nonprofessional working women, because expectations of technocrats were much higher than non-technocrats.

Dr. Neeru Garg (2014) (2) in his paper entitled "Occupational stress and Challenges faced by working women in India" states that occupational stress is stress involving work , work and family are two most important aspects in women's lives. Balancing work and family roles has become a key personal and family issue for many societies. There are many facts in working mother's lives that subject to stresses. They deal with home and family issues as well as job stress on daily basis. Imbalance between work and family leads to occupational stress. Imbalance between work and family life arises due to a number of factors are mental harassment, sexual harassment , discrimination in work place, lack of family support, job insecurity, workplace adjustment, heavy physical work at work place . .etc.

3. Data Sources and Methods

Primary data was collected through questionnaire, observation and interviews. The univariate and bivariate data analysis was presented for the descriptive statistical data, which is the simple and best way to present numeric percentage. The chi-square test is used to test the association between occupational stress factors and socio demographic factors age , education , marital status and family type. Among the total 500 samples 330 (66%) working women belongs to urban area and 170 (34 %) are from rural area. The district wise statistical analysis reveals that 54% of working women are from Bagalalot , 26% are from Vijayapur and 20% of working women belongs to Belagavi.

Preliminary Analysis of Classified Data:

The classified data of respondents basing on different types of occupations by area is presented and analyzed in the paper C.P.S. Hungund and V.S. Kulkarani(1). The distribution of types of occupations of 500 respondents with respect to area is presented in the following table.

Table 4.1 : Distribution of respondents by types of occupation and area

Sl. No.	Types of occupation	Rural	Urban	Total
1	Bank/ Co-operative societies/LIC	15 (30%)	35 (70%)	50 (100%)
2.	Anganawadi staff/ supervisor	15 (30%)	35 (70%)	50 (100%)
3.	Catering/ mess/ Cooking/warden	10 (25%)	30 (75%)	40 (100%)
4.	College teachers	15 (30%)	35 (70%)	50 (100%)
5.	Doctors/ Nurse/ medical staff	15 (25%)	45 (75%)	60 (100%)
6.	Daily wages/ others	25 (50%)	25 (50%)	50 (100%)
7.	Owen Business handling/Entrepreneurs	15 (37.5%)	25 (62.5%)	40 (100%)
8	Government / Non-Government office staff	15 (30%)	35 (70%)	50 (100%)
9.	School Teachers	25 (42%)	35 (58%)	60 (100%)
10.	Tailoring and Garments	20 (40%)	30 (60%)	50 (100%)
Total		170 (34%)	330 (66%)	500 (100%)

(Source: Primary Survey)

From the table 4.1 it could be seen that among the 170 rural respondents 25 are school teachers and daily wage workers each followed by 20 respondents tailoring and garments and 15 of each respondents belongs to occupations type Bank, LIC and co-operatives anganwadi staff, college teachers, entrepreneurs, government and non-government employees etc. In urban area among the total 330 respondents 45 are belonging to occupations type doctors, nurse and related staff , followed by occupations type Bank, LIC and co-operatives anganwadi staff, college teachers and school teachers are 35 respondents in each .

Frequency distribution with respect to area

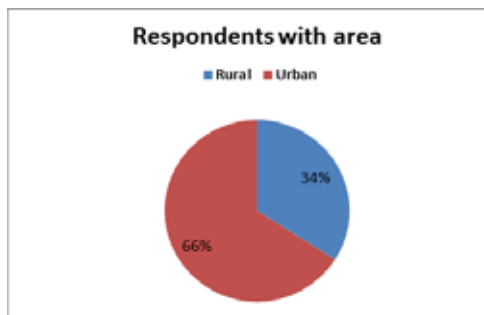


Fig. 1
Percentage distribution of types of occupation with respect to districts

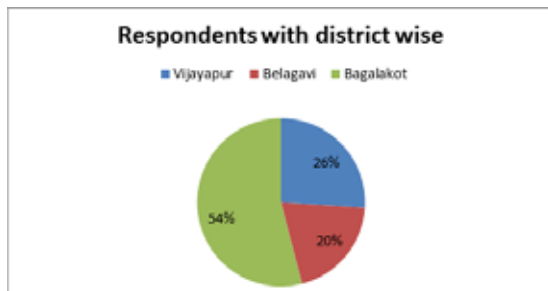


Fig.2

5. Analysis of Occupational Stress of Working Women

In this section, where association between different demographic factors and occupational stress were identified using chi-square test.

5.1 Association between demographic factors and occupational stress based on heavy physical work at work place

H0: There is no significant association between the demographic factors and heavy physical work at work place

5.1 : Demographic factors of the respondents and heavy physical work

Demo-graphic characters	Heavy physical work			Total	Level of significance
	Low	Medium	High		
Age (yr)					
20 - 35	9	57	63	129	Not significant at 0.05 and 0.01 levels
35 – 50	7	130	119	256	
50 & above	8	59	48	115	
Marital Status					Significant at both the levels
Unmarried	10	48	57	115	
Married	14	198	173	385	
Education					Significant at both the levels
Primary/ SSLC	1	80	88	169	
PUC/ Degree	14	129	117	260	
P.G / Ph.D	9	37	25	71	
Family type					Significant at both the levels
Single	18	195	157	370	
Joint	6	51	73	130	
Total	24	246	230	500	

From the table - 5.1 one can observe that there is an association between demographic factors marital status ,education and family type with occupational stress factor heavy physical work at work place but there is no association between age with stress factor heavy physical work at their work place.

5.2 Association between demographic factors and occupational stress based on colleague support

H0: There is no significant association between the demographic factors and colleague support

Table 5.2 : Demographic factors of the respondents and colleague support

Demo-graphic characters	Colleague support			Total	Level of significance
	Never	Rarely	Always		
Age (yr)					
20 - 35	15	56	58	129	Not significant at 0.05 and 0.01 levels
35 – 50	32	121	103	256	
50 & above	20	52	43	115	
Marital Status					Not significant at both the levels
Unmarried	14	46	55	115	
Married	53	183	149	385	
Education					Not significant at both the levels
Primary/ SSLC	23	76	70	169	
PUC/ Degree	29	121	110	260	
P.G / Ph.D	15	32	24	71	

Family type					Significant at both the levels
Single	57	172	141	370	
Joint	10	57	63	130	
Total	67	229	204	500	

From the table - 5.2 it revealed that there is an association between demographic factor family type and occupational stress factor colleague support at their work place but there is no association between age , education and marital status with colleague support at work place.

5.3 Association between demographic factors and occupational stress based on nature of work

H0: There is no significant association between the demographic factors and nature of work

Table 5.3 : Demographic factors of the respondents and nature of work

Demo-graphic characters	Nature of work		Total	Level of significance
	Routine	Challenging		
Age (yr)				Significant at 0.05 level , Not significant at 0.01 level
20 - 35	71	58	129	
35 – 50	180	76	256	
50 & above	74	41	115	
Marital Status				Significant at both the levels
Unmarried	61	54	115	
Married	264	121	385	
Education				Significant at both the levels
Primary/SSLC	141	28	169	
PUC/ Degree	148	112	260	
P.G / Ph.D	36	35	71	
Family type				Not significant at both the levels
Single	240	130	370	
Joint	85	45	130	
Total	325	175	500	

From the table - 5.3 it revealed that there is an association between demographic factors marital status and education with occupational stress factor nature of work of the working women at both the levels and age at 0.05 level but there is no association between family type at both levels and age at 0.01 level with stress factor nature of work.

5.4 Association between demographic factors and occupational stress based on work satisfaction level

H0: There is no significant association between the demographic factors and work satisfaction level

Table 5.4 : Demographic factors of the respondents and work satisfaction level

Demo-graphic characters	Work satisfaction level			Total	Level of significance
	Low	Medium	High		
Age (yr)					Significant at 0.05 and 0.01 levels
20 - 35	28	51	50	129	
35 – 50	38	130	88	256	
50 & above	10	59	46	115	

Marital Status					Significant at both the levels
Unmarried	28	44	43	115	
Married	48	196	141	385	
Education					Not significant at 0.05 level Significant at 0.01 level
Primary/SSLC	35	87	47	169	
PUC/ Degree	33	119	108	260	
P.G / Ph.D	8	34	29	71	
Family type					Significant at both the levels
Single	49	171	150	370	
Double	27	69	34	130	
Total	76	240	184	500	

From the above table - 5.4 one can observe that there is an association between demographic factors age , marital status and family type with occupational stress factor work satisfaction level at both the levels and education at 0.01 level and there is no association at 0.05 level.

5.5 Association between demographic factors and occupational stress based on salary/wage availability in time

H0: There is no significant association between the demographic factors and salary availability in time

Table 5.5: Demographic factors of the respondents and salary/wage availability in time

Demo-graphic characters	Salary/wage availability in time			Total	Level of significance
	Never	Rarely	Always		
Age (yr)					Not significant at 0.05 and 0.01 levels
20 - 35	25	56	48	129	
35 – 50	61	127	68	256	
50 & above	16	56	43	115	
Marital Status					Significant at both the levels
Unmarried	23	57	35	115	
Married	79	182	124	385	
Education					Significant at both the levels
Primary/SSLC	48	93	28	169	
PUC/ Degree	41	114	105	260	
P.G / Ph. D	13	32	26	71	
Family type					Not significant at both the levels
Single	69	177	124	370	
Double	33	62	35	130	
Total	102	239	159	500	

From the above table - 5.5 it revealed that there is an association between the demographic factor marital status and education with occupational stress factor salary/wage

availability in time, but there is no association between age and family type of working women with occupational stress factor salary/wage availability in time.

5.6 Association between demographic factors and occupational stress based on leave/gap availability in time

H0: There is no significant association between the demographic factors and leave/gap availability in time

Table 5.6 : Demographic factors of the respondents and leave/gap availability in time

Demo-graphic characters	Leave/gap availability in time			Total	Level of significance
	Never	Rarely	Always		
Age (yr)					
20 - 35	40	66	23	129	Significant at 0.05 and 0.01 levels
35 – 50	90	125	41	256	
50 & above	19	75	21	115	
Marital Status					Not significant at both the levels
Unmarried	36	59	20	115	
Married	113	207	65	385	
Education					Significant at both the levels
Primary/ SSLC	19	75	21	115	
PUC/ Degree	65	143	52	260	
P.G / Ph.D	21	34	16	71	
Family type					Significant at both the levels
Single	101	198	71	370	
Double	48	68	14	130	
Total	149	266	85	500	

From the table - 5.6 it is clear that there is an association between the demographic factors age ,education and family type with occupational stress factor leave /gap availability in time but there is no association with marital status of working women.

Conclusion

The Statistical analysis of occupational stress of working women of the three districts in Karnataka state was done by testing the association between various demographic factors and occupational stress factors of the respondents using age, education,marital status and family type chi-square test. The analysis reveals that there is an association between marital status and family the null hypothesis are completely rejected in the cases of testing the association between the demographic factors with stress factor work satisfaction level. type with occupational stress factor heavy physical work. There is an association between fam-

ily type with occupational stress factor colleague support. There is an association between age, education, marital status with stress factor nature of work and all four demographic factors are associated with stress factor work satisfaction level. There is an association between education and marital status with stress factor salary availability in time. There is an association between age, education and family type with stress factor leave availability in time. In all the above cases significant level is less than 0.05 and 0.01. Which means that there is an association between demographic factors and occupational stress factors.

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