



Shift work and its Impact on Health, Safety and Family Conflict for Working Women: Research Methodology

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Abstract—Indian women have marked their significant presence in the world in various fields. They have been given the status of power and prestige. The main problem is to balance family, health, work and safety together. As research, begins to highlight the Shift work and its Impact on Health, Safety and Family Conflict for Working Women on both individual and organizational performance. Shift work is a major feature of modern work practices. It involves individuals working at times considered unconventional for most workers, such as at night. Although the community often benefits from such work practices, shift work can be hazardous, for both the workers and the community. Employers owe a legal duty of care to employees which includes ensuring that health and safety effects are always considered in planning rosters and working arrangements. The effects of working hours on family and social life must also be considered. As with other health and safety hazards, the greater the exposure to shift work and extended hours, the more likely the risk of some harm. The thesis reviews the main problems of shift work, especially when involving night work.

1. INTRODUCTION

Shift work has been reported to affect the worker's health and well-being. However, the many interacting factors involved in shift work make it difficult to understand the mechanism underlying its effects. The fact that shift work affects employees' health and well-being, and in turn affects economic productivity gives enough reason for doing shift work studies [7]

2. RESEARCH METHODOLOGY AND DATA COLLECTION

2.1 Research Methodology

Women are now rejecting the traditional roles ascribed to them and coming out to get into the domain of 'paid work' and thus are getting involved in what is called 'productive labor, is the contemporary social reality. Since, the problems and difficulties of women are multi dimensional as evident from the literature reviewed. Keeping this in view an attempt was made to study the shift work and its impact on health, safety and family conflict for working women. As to the method used, this is qualitative research with an exploratory focus that relies for this case.

2.1.1 Data Collection and Respondent Profile

The data collection can be described as an iterative process. It consisted of three phases, as described. Concurring with the typical case study, data collection also included multiple data sources including semi-structured interviews, meeting notes, workshop documentation, and email correspondence. The first data collection phase included meeting attendance as to frame the area of concern. Analysis of meeting notes generated five areas of significant interest (development methods, organization, digitization, differentiation, and architecture). The data collection of the second phase mainly included recorded and transcribed semi-structured interviews. The interviews were based on an interview template developed on the basis of the themes identified in the first phase. The third phase was confirmatory in character. After completing the first two phases, process charts of the software development and differentiation process were developed. Data collection will do by questionnaire; questionnaire will be filling by all level workers in industry.

2.1.2 Questionnaire Design

The questionnaire consisted in the main of self-rated, non-comparative single-item rating scales used to assess respondents' level of agreement or disagreement with statements relating to the shift work and its impact on health, safety and family conflict for working women with standard features and to the difficulty of choice between many alternative models. All items in the questionnaire are extracted from previous literature. This questionnaire is based on 5 points Likert scale. Questionnaire is designed on the bases of previous literature and study related to shift work and its impact on health, safety and family conflict for working women; through these questions we also find unpredictable demand of leaves and how effected to companies issues.

2.2 Data Collection

Research provides a framework to understand the shift work and its impact on health, safety and family conflict for working women. Data were collected from small and medium mines, operators, clerks, secretaries hospitals (Doctors, Nurses), fm radio, Police authorities, women's working in marriage at night for (cooking food, washing plates, carrying decoration lights), shopping malls, teachers of schools and colleges (government and private) to test the relationships in the framework. The study indicates shift work and its impact on health, safety and family conflict for working women. I have conducted some personal meetings and interviews with women's workers. About 150 copies of questionnaire I sent to respondents 40 questionnaire sent through post but only 12 respondent give reply this is the 30%; 100 questionnaire filled by respondent in meetings and in interviews; and 10 questionnaire filled by respondent with the help of friends support. This questionnaire is use only for knowing shift work and its impact on health, safety and family conflict for working women. We want to use sample size one ratio five (1:5) that means 100 because my questionnaire have 20 questions. According to this ratio; ratio of 20 questions are 100. It is sufficient for analysis of my objectives but I receive 122 responses this is also more than enough to calculate factor analysis, reliability, regression, and correlation in SPSS.

3. ANALYSIS OF DATA

3.1 Analysis of Data

First, this chapter will describe research subjects' basic data according to the valid questionnaires. Next, it will perform a confirmatory factor analysis to validate the critical factors of shift work and its impact on health, safety and family conflict for working women.

The first step is description of research; according to questionnaire we take all important information about company and

workers. These all data help us to find the shift work and its impact on health, safety and family conflict for working women. Second step is a visual examination of the factor analysis identifying those that are statistically significant. We used Varimax rotation method with Kaiser Normalization. Through SPSS we apply KMO & Bartlett's test for sampling adequacy and sphericity respectively. Result of KMO is 0.663 that is acceptable and in Bartlett's result value of chi-square is 566.860, value of freedom (df) is 190, and significance is 0; these all values are considerable. These all calculation completed in 6 iterations. Take all 20 variables for analysis and then find that this analysis provides 4 variances according to SPSS software; theoretically we also make 4 groups of variables.

3.2 Reliability Analysis

Reliability Analysis for

Factor = Family issues

Scale ('All Variables') All/Model=Alpha

Table – 3.7 Case Processing Summary

		N	%
Cases	Valid	122	100.0
	Excluded(a)	0	0
	Total	122	100.0

List wise deletion based on all variables in the procedure.

Table – 3.8 Reliability Statistics

Cronbach's Alpha	N of Items
0.643	4

Reliability Analysis for

Factor= Safety

Scale ('All Variables') All/Model=Alpha.

Table – 3.9 Case Processing Summary

		N	%
Cases	Valid	122	100.0
	Excluded (a)	0	.0
	Total	122	100.0

List wise deletion based on all variables in the procedure.

Table – 3.10 Reliability Statistics

Cronbach's Alpha	No. of Items
0.653	4

Reliability Analysis for

Factor = Personal issue

Scale ('All Variables') All/Model=Alpha.

Table – 3.11 Case Processing Summary

		N	%
Cases	Valid	122	100.0
	Excluded (a)	0	.0
	Total	122	100.0

List wise deletion based on all variables in the procedure.

Table – 3.12 Reliability Statistics

	N of Items
0.626	6

Reliability Analysis for

Factor = Health

Scale ('All Variables') All/Model=Alpha.

Table – 3.13 Case Processing Summary

		N	%
Cases	Valid	122	100.0
	Excluded (a)	0	.0
	Total	122	100.0

List wise deletion based on all variables in the procedure.

Table – 3.14 Reliability Statistics

	N of Items
0.632	6

Reliability Analysis for
 Factors = Family, Safety, personal issues, Health.
 Scale ('All Variables') All/Model=Alpha.

Table – 3.15 Case Processing Summary

		N	%
Cases	Valid	122	100.0
	Excluded (a)	0	.0
	Total	122	100.0

List wise deletion based on all variables in the procedure.

Table – 3.16 Reliability Statistics

Cronbach's Alpha	N of Items
0.621	20

After factor analysis and reliability analysis we can do regression analysis for variables. Regression analysis wants a dependent variable and some independent variables. We take individual mean of all four groups and select a dependent variable in this analysis this dependent variable is group fourth “Health” and other are independent. Applying method is Enter method. Through model summary value of

R, R², adjusted R², F, and degree of freedom is checked these all values are under the limits of Durbin-Watson. In ANOVA table and Residuals Statistics (a); all values are considerable. So this regression analysis is also considerable. After this regression correlation test is taken among these four groups the value should be in limit of -1 to +1. In this test “-1” shows the perfect negative relation, “0” shows no relation and +1 shows perfect positive relation among all variables.

3.3 Regression Analysis

Missing Listwise

Statistics COEFF Outs R ANOVA Change
 Dependent Health (04)
 Method=Enter Personal Issues (03), Family (01), Safety (02)
 Residuals Durbin Norm (ZRESID)

Table – 3.17 Variables Entered/Removed (b)

Model	Variables Entered	Variables Removed	Method
1	Personal issues (03), Family (01), Safety (02) (a)	.	Enter

All requested variables entered.

b- Dependent Variable: Health (04)

In table 3.17 dependent variables is variable 04 that is “Health”, variable 01, 02, 03 are independent variables these are “Family”, “Safety”, “personal issues” respectively. Table 3.18 shows the model summary; R is correlation coefficient that indicates the strength of the association between any two metric variable. The sign (+ or -) indicates the direction of the relationship. R square means coefficient of determination measure of the proportion of the variance of the dependent variable about its mean that it explained by the

independent or predictor variables. Value can vary 0 to 1 if value is higher, the greater explanatory power of regression equation and therefore the better the prediction of the dependent variable. Degree of freedom (df) value calculated from the total number of observations minus number of estimated parameters

1. Predictors: (Constant), VAR00003, VAR00001, VAR00002
2. Dependent Variable: VAR00004

Table – 3.19 ANOVA (b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.648	6	.549	1.051	.373 (a)
	Residual	58.559	114	.523		
	Total	60.207	120			

a -Predictors: (Constant), personal issues (03), Family (01), Safety (02)

b -Dependent Variable: Health (04)

Table – 3.20 Coefficients (a)

Model		Unstandardized Coefficients		Standardized Coefficients	t		Sig.
		B	Std. Error	Beta	B	Std. Error	
1	(Constant)	1.438	0.533		2.698	0.008	
	Family (01)	0.120	0.113	0.100	1.058	0.292	
	Safety (02)	0.106	0.131	0.076	0.803	0.424	
	Personal issues (03)	0.165	0.136	0.115	1.211	0.229	

a -Dependent Variable: Health (04)

Table – 3.21 Residuals Statistics (a)

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.941	2.6213	2.3438	.1196	122
Residual	-1.456	1.7825	.00000	.7136	122
Std. Predicted Value	-3.322	2.309	.000	1.000	122
Std. Residual	-2.014	2.465	.000	.991	122

a -Dependent Variable: Health (04)

Correlations

Variables= Family (01), Safety (02), Personal Issues (03), Health (04)

Print=TWOTAIL NOSIG

Missing=Pairwise.

Table – 3.22 Correlations

		VAR01	VAR02	VAR03	VAR04
Family (01)	Pearson Correlation	1	-.065	-.122	.080
	Sig. (2-tailed)		.42	.19	.385
Safety (02)	Pearson Correlation	-.076	1	.144	.085
	Sig. (2-tailed)	.415		.124	.366
personal issues (03)	Pearson Correlation	-.122	.143	1	.113
	Sig. (2-tailed)	.183	.124		.237
Health (04)	Pearson Correlation	.081	.085	.113	1.1
	Sig. (2-tailed)	.395	.366	.237	

4. RESULTS AND SUGGESTIONS

Results

Factor Analysis: - Questionnaire is divided in 4 groups with the help of SPSS soft ware; these groups are Family, Safety, personal issues, Health. Before using SPSS we already divide this questionnaire in same 4 groups; but few variables are different that means our factor analysis is correct.

Reliability Analysis: - After factor analysis check the reliability of all individual groups of variables and finally reliability of total number of variables. In reliability analysis values of Cronbach's Alpha for all 4 groups and all variables lie between 0.6 to 0.7 according to book of "Multivariate Data Analysis" (Hair and Anderson) this value is considerable.

Regression Analysis and Correlation: - In regression analysis ANOVA table shows the correct regression. Correlation among all 4 groups shows the values between -1 to +1. In this test "-1" shows the perfect negative relation, "0" shows no relation and +1 shows perfect positive relation among all variables.

All analysis of data show that questionnaire is effective and it helps to the finding reasons the Impact of Shift work on Health, Safety and Family Conflict for Working Women

5. CONCLUSION AND FUTURE SCOPE

Conclusion

Indian women have marked their significant presence in the world in various fields. They have been given the status of power and prestige. The main problem is to balance family, health, work and safety together. Participation rate of women is largely as a result of the increasing the cost of living & educational improvement. And as more married women participate in the labour force, they tend to experience conflict in order to occupy both work and family roles simultaneously. This study concludes that Health, Safety and Family Conflict are the main factors related to the Women Working in various fields. Indian Women are more likely to have work-family conflict compared with Male workers. Level of work family conflicts & Safety depends upon the type of occupation, age, number and ages of children, and type of childcare arrangement & work and physical environment. A study

of Indians females from small and medium mines, operators, clerks, secretaries hospitals (Doctors, Nurses), fm radio, Police authorities, women's working in marriage garden at night for (cooking food, washing plates, carrying decoration lights), shopping malls, teachers of schools and colleges (government and private). The different result may be due to the cultural differences between the organization, nature of work, education level, mental maturity of individual and their age. Health, Safety and Family Conflict is an important issue that needs to be resolved due to its negative outcomes such as absenteeism, stress and job dissatisfaction that are detrimental to both employees and the employers. It is evident that as the women workers experience Health, Safety and Family Conflict during their working, they need a supportive working culture which could use proactive measures to promote the Health, Safety and Family Conflict across employees. Other than workplace support in terms of childcare facilities, flexible working hours and paid parental leave, safety during working & travelling, family support especially from spouse and other family members plays an important role in reducing work-family conflict.

6. FUTURE SCOPE OF THE STUDY

Indian women have marked their significant presence in the world in various fields. They have been given the status of power and prestige. The main problem is to balance family, health, work and safety together. A noticeable feature is the shift working & its impact on health, safety & family conflict for working women in India. The research work is to analyse the problem of shift working & its impact on health, safety & family conflict for working women in India. This research work is done to analyse the problem of shift working & its impact on health, safety & family conflict for working women in India. Shift work & its impact on working

women is the universal phenomenon. The study reveals the shift working & its impact on health, safety & family conflict for working women in India of workers in small and medium mines, operators, clerks, secretaries hospitals (Doctors, Nurses), fm radio, Police authorities, women's working in marriage garden at night for (cooking food, washing plates, carrying decoration lights), shopping malls, teachers of schools and colleges (government and private). Shift working is a yardstick to find out the employees attitude towards his work and organization. Effective supervisory support to maintain effective work & physical environment also helps the women's participating during shift work.

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