

Work Related Stress and Work - Family Interference as a Predictor of Support from Work and Home: A Study amongst Women Employees of Indian Railways

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Abstract Work Related Stress and Work - Family Interference (WRS & WFI) gives high annoyance to work life and family life. In these circumstances Support from Work and Home (SWH) is vital for working people. This study aims at determining and establishing a relationship between WRS & WFI and SWH among women employees in Indian southern railways. The study employs the, Carlson - Perrew's WRS, Carlson - Kacmar - Wayne's WFI and *Nora Madjar - Greg - Oldham* and *Michael G. Pratt* 's SWH inventories to quantify WRS & WFI and SWH levels respectively. The sample consists of 172 women employees in Kerala and Tamil Nadu, India. Various statistical implements have been used to interpret the data. The study finds that there is a positive relationship between SWH and factors that constitute the WRS & WFI.

Keywords Work Related Stress and Work - Family Interference, Support from Work and Home, Work Related Stress (Organizational, Group & Individual) and (Time, Strain & Behavior) Work - Family Interference

1. Introduction

Women employees who significantly manage stress are in a better position to deliver their responsibilities.^[1] Moreover, managing over WRS & WFI influences the level of SWH in their work life and family life, which in turn, affects the daily work schedules, including updating knowledge and various other roles played by the women employees.^{[1][2]}

SWH includes supervisors' and colleagues' support flexibility of work schedule, spouse and child support and domestic support.^[3] Hence, the aim of the present study is to investigate the relationship between WRS & WFI and SWH amongst the women employees of railways in Kerala and Tamil Nadu.

2. Review of Literature

Support from Work and Home (SWH)

Support from Work (SFW)

Support from Work (SFW) meaning, getting support from one's supervisor was one of the sub themes that emerged from the main theme of work support.^[4] Different kinds of support such as encouragement, good recommendation and attention paid to their personal and work - related needs allowed women to concentrate on their work and improve on their output.^[5]

Support from Home (SFH)

Support from Home (SFH) indicates the spousal support in terms of their spouses exhibiting an understanding of the nature of their work and attendant pressures,^[6] helping out with childcare and other household activities,^{[6][7]} and getting support from domestic front, which includes paid assistants, unpaid younger relatives / older relatives, nieces; nephews, aunties and care takers, living with them as long term visitors or dependants.^[8]

Work Related Stress and Work - Family Interference (WRS & WFI)

WRS & WFI of women emanates from heavy work schedules at work,^[9] as well as unfinished home and office work issues inadvertently creeping into the work-family domain.^[10] This situation, according to most of the women, not only brings pressure to bear on their functioning at work, but even sometimes threatens the peace at home.^{[11][12]}

Work Related Stress (WRS)

WRS such as long working hours, tight work schedules,^[13] varieties of work and target limits^[14] culminating in strict deadlines are also highlighted as another causal factor of women's experience of Work Related Stress.^[15] WRS is divided into three factors; they are:^[15]

1. Work Related Stress in Organization (WRS - O)
2. Work Related Stress in Group (WRS - G)
3. Work Related Stress in Individual (WRS - I)

Work Related Stress in Organization (WRS - O)

The WRS - O refers to issues like scheduling meetings, accumulation of tasks [16] and fulfilling performance indicators; This also means a probable increase in women's experiences of stress in an organization. [17][18] The WRS - O implies that the planned daily schedules have been yet another cause for women in higher status and occupations to give rise to their experience of WRS. [19] Such interruptions include answering phone calls, attending to unscheduled visits and attending impromptu meetings. [20]

Work Related Stress in Group (WRS - G)

The WRS - G indicates confirming to high peer and management expectations, helping colleagues and handling the lack of team spirit. These are yet another sub theme in the group level work related stress interface among women. [21]

Work Related Stress in Individual (WRS - I)

The WRS - I can be represented in several ways. They are new learning of technologies, settling disputes, personality clashes and stress related illness. [22]

Work - Family Interference (WFI)

Most women have responsibility not only in one domain anymore; they have to balance the competing demands of both work and family domains. [23] WFI in a few studies reveal that balancing the demanding roles of a worker and a mother (as well as a wife and parent), is what usually gives rise to WFI in their lives. [24] There are three dimensions of WFI: [25]

1. Time based Work - Family Interference (WFI - T)
2. Strain based Work - Family Interference (WFI - S)
3. Behavior based Work - Family Interference (WFI - B)

Time based Work - Family Interference (WFI - T)

WFI - T refers to the women's reporting of higher levels of

WFI in their daily lives. [26][27] They attribute this to several factors, including the facts that they have to work late and get home tired and exhausted, not having time to spend with spouse, which does not afford them any energy to interact with their families in any meaningful way [28]

Strain based Work - Family Interference (WFI - S)

WFI - S factor is the social support they sometimes require from either their spouses or house helps, [29] because of getting too much work commitments and work strains. [30]

Behavior based Work - Family Interference (WFI - B)

A study discovered the fact that they are sometimes compelled to bring office work to home, and the demands of work, [31] [32] give them a little or no time to deal with important family demands. [33]

Work Related Stress and Work - Family Interference and Support from Work and Home

The relationship between the WRS & WFI and getting SWH states that, it is very evident that the kind of support women receive [34] either at work or at home, really helps them in dealing with the impact of WRS & WFI and the women are quick to point out that such support, [34] even if occasional, gives them the needed impetus to carry on with their work and family duties. [34]

Work Related Stress and Support from Work (WRS & SFW)

The model envisages that women's experience of WRS and WFI will make the boundaries between work and home permeable. [32] The level of permeability will in turn impinge on women's coping abilities; which may influence their intentions to quit their jobs [34] However, such intentions can be buffered by social support like spousal assistance and other work benefits. Finally the model envisages that legislation of WFI will reduce women's experience of WFI and their intentions to quit. [31]

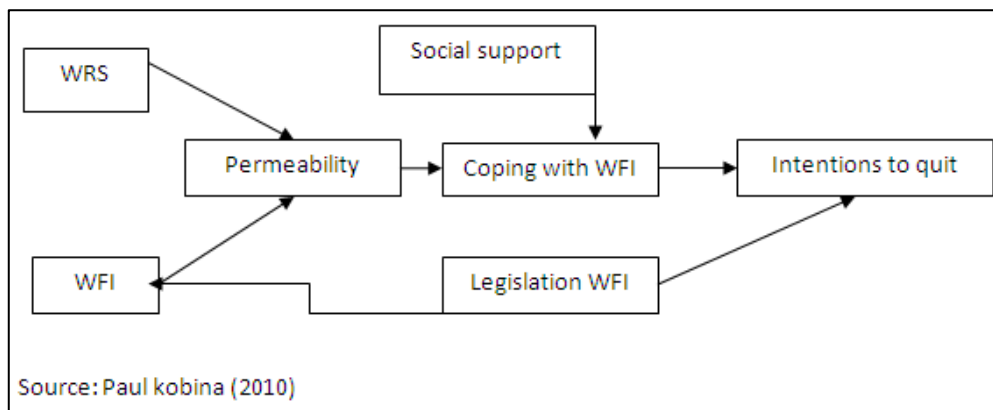


Figure 1. Working model of WRS and WFI

Key: WRS = Work Related Stress; WFI= Work - Family Interference;
The model focuses on the incidence and impact of WRS and WFI among professional.

WRS & SFW refers to the support from colleague and boss, flexible working hours and management [30] and, parental support at work which was another sub theme that emerged from thematic analysis. [34] Even though peer relationships could sometimes become arenas for conflict, women are quick to point out that peer support at work is vital to their ability to deal with work stress and other problems at work. [34]

Work Related Stress and Support from Home (WRS & SFH)

Home is not felt like a place of solace for women after work, especially if there are younger children living at home. [29] This is because without the needed support, a woman then begins a whole ‘new’ job after an exhausting day. [33]

Work - Family Interference and Support from Work (WFI & SFW)

The four factors of WFI are: [30]

- i. Time poverty (lack of sufficient time to attend to personal and family issues),
 - ii. Family strain,
 - iii. Family exhaustions. ‘Unchanged plans’ (inability to follow through on planned family activities owing to pressure from work) and
 - iv. Job demands,
- At this time women getting proper support from management give leisure to mental health.

Work - Family Interference and Support from Home (WFI & SFH)

Family support which comes in diverse forms is a key resource that assists women in dealing with WFI. [31] Spousal support in the form of helping out with child care activities, going out on other errands to help out or just showing an understanding about the stress their spouses are undergoing, as women try to combine work and family roles, is vital in reducing the levels of WFI that these women encounter. [32] Additionally, support from house helps either paid ones or those who help out as a result of family affiliations, is also crucial in enabling women deal with WFI [34]

The literature leads to the following hypotheses:

H₁: There is a relationship between **WRS & WFI** as a whole and **SWH**.

H₂: There is a relationship between the factors in **WRS** and **SWH**.

H₃: There is a relationship between the factors in **WFI** and **SWH**.

3. Model

The aim of the present study is to evaluate the relationship between WRS & WFI and SWH. In this study, only extrinsic (circumstantial) factors have been considered to evaluate the relationship between WRS & WFI and SWH. Hence, only WRS has been considered in Organizational, Group and Individual, WFI predicated on Time, Strain and Behavior and their relationship to SWH.

Work family interference (WFI) work family interference (WFI)

In order to analyze the relationship, a model as shown in Figure 2, has been developed.

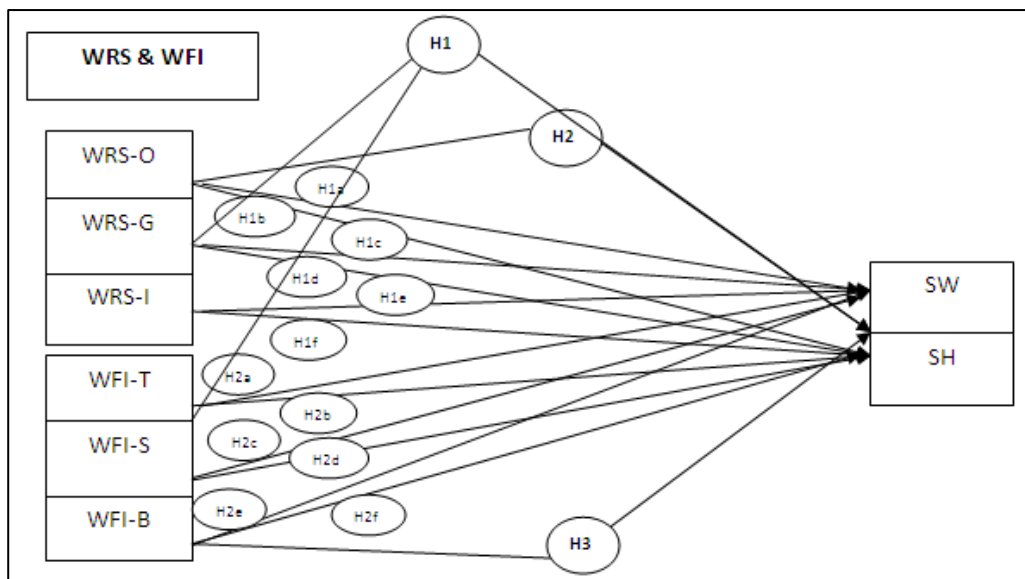


Figure 2. Research model - relationship between WRS, WFI and SWH

4. Methods

Predicated on the review of literature, a detailed questionnaire (Appendix) was developed. The questionnaire has seven sections - WRS - O, WRS - G, WRS - I, WFI -T, WFI - S, WFI - B and SWH.

5. Measurements

In H₁, SWH is dependent variable; WRS & WFI is independent variables. The dependent variables are conceptualized by the individual’s posture towards SWH and its operations by utilizing a set of 5-point Likert scale verbalization to quantify SWH. It is quantified by utilizing Verbal expressions. The independent variable is conceptualized by WRS - O, G & I and WFI - T, S & B. WRS and WFI are quantified by utilizing 43 verbalization, out of which 7 verbalization refer to WRS - O; 5 verbalization refer to WRS - G; 7 verbalization refer to WRS - I; 8 verbal expressions refer to WFI - T; 9 verbalization refer to WFI - S; 7 verbal expressions refer to WFI - B. The variable is operationalized by independent verbalization to quantify six constructs in WRS & WFI, which are WRS - O, WRS - G, WRS - I, WFI - S, WFI - B and WFI - T. [26]

In H₂, SWH is the dependent variable and WRS is the independent variable. The dependent variable is conceptualized by the individual postures towards the SWH and is operationalized by utilizing a set of 5- point Likert scale verbalization to quantify SWH. The independent variable is conceptualized by WRS - O, G & I. This is quantified utilizing three task levels. One, the Organizational which is quantified by 7 verbalization, two, the Group, which is quantified utilizing 5 verbalization and three, Individual which is quantified utilizing 7 verbal expressions.

In H₃, SWH is the dependent variable and WFI is the independent variable. The dependent variable is conceptualized by the individual’s posture towards the SWH and is operationalized by utilizing a set of 5-point Likert scale verbalization to quantify SWH. The independent variable is conceptualized by WFI - T, S & B. WFI is quantified by utilizing three task levels. One of which, time is quantified utilizing 8 verbalizations; Strain is quantified utilizing 9 verbalizations and Behavior is quantified utilizing 7 verbalizations.

6. Reliability Analysis

The alpha score for the instruments WRS - O, WRS - G, WRS - I, WFI - T, WFI - S, WFI - B and SWH was obtained

as 0.8510, which is on the higher side (Table 1).

Table 1. Reliability of the Instruments

S.No	Variable
1	WRS – O
2	WRS – G
3	WRS – I
4	WFI – S
5	WFI – B
6	WFI – T
7	SWH
Reliability Coefficients	
No. of cases =172. 0	
No. of items = 7	
Alpha = 0.8510	

7. Data and Samples

In these studies Southern railway women employees were provided with a questionnaire. The designation of women employees ranged from supervisor to clerical level. A total of 172 self- administered questionnaires were considered in this study. The average age of respondents in this study was 35 years.

8. Statistical Implements

The data was analyzed using correlation and regression analyses to test the hypotheses. Statistical Package for Social Science (SPSS version 18.0) was acclimated to analyze and interpret the data.

9. Results and Discussion

In order to examine the relationship between WRS & WFI and SWH, we perform correlation and regression analyses.

H₁: In order to find out the influence of WRS & WFI to SWH, a multiple linear regression model was utilized by considering WRS & WFI as the explanatory variable and SWH as the dependent variable. From the regression model, it is inferred that WRS & WFI have significant relationship and influence on SWH. This can be inferred from the t-value (4.126) and its associated p-value (0.000). The WRS & WFI expound 0.156 of variations in SWH (refer R² value in Table 2). By referring to the F-value and its p-value, it can be inferred that the model is found to be valid. There is a correlation between WRS & WFI and SWH (Table 3). To verify the use of multi- co linearity, a test was carried out.

Table 2. Results of Multiple linear Regression Model for Work Related Stress and Work - Family Interference (WRS & WFI)

Model	Unstandardized coefficients	Standardized coefficients(Beta)	t-value	p-value (Two-Tailed)	VIF:1.000 R ² =0.156	Results
WRS & WFI	0.075	0.401	4.126	0.000		Significant
<i>F-Value= 10.148, p-value=0</i>						
Table 3: Results of correlation between Work Related Stress and Work - Family Interference (WRS & WFI)						
Relationship between			Correlation	p-value (Two-Tailed)	Results	
Work Related Stress and Work - Family Interference (WRS & WFI) and Support from Work and Home			0.411	0	Significant	

The results show that the VIF factor in this model is 1.000, indicating the multi-co linearity problem. The findings support those of Nora Madjar - Greg - Oldham and Michael G. Pratt (2002) and Carlson - Perrew (1999) and Carlson - Kacmar - Wayne (2006). The study reveals the following relationship for Support from Work and Home (SWH):

$$SWH = 0.075 \text{ WRS \& WFI} + \text{Error Term}$$

Thus, the study exhibits a positive relationship between WRS & WFI and SWH.

H₂: In order to find out the influence of factor in WRS on SWH, a multiple linear regression model with SWH as the dependent variable was considered. From the regression results, from the t-value (3.136) and its associated p-value (0.000), it can be inferred that WRS has a significant relationship and influence on SWH. The three factors in WRS together expound 0.067 of variations in SWH (refer R² value in table 4). By referring to the F-value and its p-value, it can be inferred that the model is found to be valid. There is a correlation between WRS and SWH (Table 5). The results show that the VIF factor in this model is found to be 1.000, indicating the non-subsistence of multi-co linearity quandary. The results reveal the following relationship:

$$SWH = 0.084 \text{ WRS} + \text{Error Term}$$

Table 4. Results of Multiple linear Regression Model for Work Related Stress (WRS)

Model	Unstandardized Coefficient	Standardized Coefficient (Beta)	t-value	p-value (Two-Tailed)	VIF: 1.000 R ² = 0.067	Results
WRS	0.084	0.322	3.136	0		Significant
<i>F-value=10.008, p-value=0</i>						
Table 5: Results of correlation between Work Related Stress (WRS) and Support from Work - Home (SWH)						
Relationship between			Correlation	p-value (Two- Tailed)	Results	
Work Related Stress and Support from Work – Home			0.452	0	Significant	

Thus, the study reveals that there is a positive relationship between factors in WRS and SWH.

H₃: In order to find out the influence of factors in WFI on SWH, a multiple linear regression model was considered, with WFI as the explanatory variable on SWH as the dependent variable. From the regression results, it can be inferred that WFI has a significant relationship and influence on SWH. This can be inferred from the t-value (4.120) and its associated p-value (0.000).

The factors in WFI explicate 0.164 of variation in SWH (refer R² value in Table 6). By referring to the F-value and its p-value, it can be inferred that the model is found to be valid. There is a correlation between WFI & SWH (Table 7). The results reveal that the VIF factor in this model is 1.000, denoting the non-use of multi-co linearity quandary. Thus the following relationship is obtained from the results.

$$SWH = 0.164 \text{ WFI} + \text{Error Term}$$

Table 5. Results of multi- co linearity for Work - Family Interference (WFI)

Model	Unstandardized Coefficient	Standardized Coefficient (Beta)	t-value	p-value (Two-Tailed)	VIF: 1.000 R ² = 0.164	Results
WFI	0.154	0.253	4.120	0		Significant
<i>F- value = 10.211, p-value = 0</i>						

Table 6. Results of correlation Between Work - Family Interference (WFI) & Support from Work and Home (SWH)

Relationship between		Correlation	p-value (Two- Tailed)	Results
Work - Family Interference and Support from Work and Home		0.354	0	Significant

The study reveals that there is a positive relationship between factors in WFI and SWH.

10. Conclusions

Summary of findings

This study thus confirms that WRS & WFI is a multidimensional concept of WRS & WFI. Correlation and regression analyses were used to examine the hypotheses. Statistical Package for Social Sciences (SPSS version 18.0) was employed to analyze and interpret the data. A positive relationship has been established between WRS & WFI and SWH. But the relationship is found too ineffective, which establishes that there are many factors that influence SWH, and hence WRS & WFI may not be the most significant one. This study highlights the need for reinforcing the WRS & WFI scores of the women employees since it is found to affect the SWH.

Theoretical implications of the study

Carlson and Perrewe (1999) have identified one broad area of **WRS**, which again has been divided into three branches each. The study confirms WRS as three branch structure comprising WRS - O, WRS - G and WRS - I. Here the individual dimension, WRS - O consisted of 7 items, WRS - G consisted of 5 and WRS - I consisted of 7 items. Carlson, Kacmar and Wayne(2006)have identified one broad area of **WFI**, which again has been divided into three branches each. The study confirms WFI as a three branch structure comprising WFI - S, WFI - B and WFI - T as the individual dimension WFI - S consisted of 9 items, WFI - B consisted of 7 and WFI - T consisted of 8 items. Nora, Greg, Oldham and Michael G. Pratt (2002) recognized **SWH** as a one - dimensional measure consisting of 19 items. This study proves a one - dimensional variable of nineteen items.

Pragmatic implication of the study

This makes it imperative for the railway organization to provide better Stress Relief Training Programs (SRTP) (which includes yoga, laughter therapy, physical exercise,counseling,on the job training and solving family problem) for women employees to improve their SWH scores turn in order to decrease WRS & WFI scores and special advise for drinking lot of water , its automatically reducing stress.

Limitations of the study

This research has been carried out with the women employees of Southern Railways the target audience and hence the consequences are symptomatic since only 172 samples were considered out of a large population.

Scope for further research

There can be additional assessments among women employees in private establishments and comparison can be based on demographic features like age, matrimonial status, knowledge, social background, place of living, medical history and their employability skill level.

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