Moderating Effect of Work Place Support on the Social Life of Night Shift Employees

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Abstract

The main purpose of this paper was to examine the moderating effect of workplace support on the social life of night shift employees working in the logistics industry. We aimed to find whether workplace support as a moderator had an effect on the relationship of night shift hassles and social life as well as night shift hours and social life. We used night shift hassles and night shift hours as the exogenous variables and social life as the endogenous variable. We used workplace support as the moderator to find if workplace support influenced the relationship between night shift hassles and social life as well as night shift hours and social life. Multiple step by step regression method was also used to find the relationship between night shift hassles and social life as well as night shift hours and social life. We then computed the interaction variable to find its influence on the relationship between exogenous variables (night shift hassles & night shift hours) and social life. The findings suggested that the interaction variable had a significant effect and influenced the relationship between the exogenous variables and the endogenous variable.

Key words : shift work, night shift, night shift hassles, night shift hours, leisure time, social relationship, social life

JEL Classification : I310, J800, J810

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The logistics industry is the most booming industry and has captured worldwide attention in the export and import of goods. Globalization has made imports and exports much easier by outsourcing jobs to countries like India and China. Logistics business is the key for successful supply chain management, and hence, in order to assure the timely delivery of goods, the industry works 24/7. Night shifts have been at the helm of things in the logistics industry as the goods are imported and exported from Middle East, Europe, America, and other countries around the globe. Employees are made to work in various shifts such as night shift, evening shift, rotational shifts, and general shift based on the work time of each location.

Employees work in night shift, mostly because of the luxurious monetary package that the logistics organizations provide, but there are problems that a night shift employee faces during his/her course of tenure in the industry. There are quite a lot of employees within the logistics industry who find night shifts strenuous and tedious. Married employees are more affected since they find the road tough in fulfilling their family responsibilities. The work hours in India vary according to the countries' import and export delivery, and more often, the employees are asked to work in shifts to cater to the needs of the customers round the clock.

The employees working in night shifts could face problems in adjusting themselves to the odd hours and face problems in their family life, social life, marital life, and child rearing. More often, the employees face situations of social isolation and find it difficult to fulfill their societal needs. According to Memon (2013), the strain in

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social life is caused due to the strain in the biological clock. Eichler (2011) stressed that the employees who work in night shifts feel socially isolated and this gives them a feeling that they are being excluded from the society. Rupashree (2012) found that night shift work has a detrimental effect on the whole family of the employees, including their spouses and children.

Review of Literature

The employees who work in shifts are more likely to feel socially isolated from their family and feel left out from the social circle. According to Rupashree (2012), employees face the difficulty of balancing their work and life, resulting in isolation from the social circle on account of the work schedule that they are into. Since shift work or night shift demands the employees to work in unusual hours, the employees are unable to make themselves available for important events that take place in their family as well as social circle. The individuals being isolated from their family events could cause inconvenience within the members of their families.

The night shift workers face difficulty in time as well as space, which results in domestic in-convenience for the employees, their spouses, and families. According to Mott, Mann, McLoughlin, and Warwick (1965), the difficulties employees face in their social life is mainly due to in-harmonious relationship between work schedules of shift work employees. The shift work employees face difficulties to participate in social activities and social events since most of the social activities are organized in the evenings. Foster (2014) found that employees working in night shifts faced stress related problems, work-family conflict, marital instability, and felt totally cut out from their friends and family circle.

James and Sudha (2015) used a multiple regression model to find the effects of shift work on the life of married employees. According to the authors, employees took up shift work and night shift to gain a luxurious life but were unable to fulfill their family and marital commitments. The study found that working in night shift affected the marital relationship of the employees and lowered the marital life quality. The non-day shift not only affected the marital life of the employees, but also affected the growth of the employees' children.

A study conducted by Crew (2006) among the nurses working in non-standard schedules found that the nurses faced a dreadful time of working at odd hours. The study, conducted among a set of experienced nurses, found that the nurses actually had little or no time of socializing with their friends or social circle around them. According to the study, the nurses went to work in the dark and came back home in the dark, leaving them with no time to socialize with the world.

In the earlier days, Herbert (1983) highlighted the influence of shift hours on the leisure activities of employees. In his study at the automated factory of Sweden, Herbert found that as the demand of working non-standard hours increased, the employees got deprived of leisure time. The leisure activity of an individual depends upon the flexibility of that individual's work arrangements. Herbert (1983) and Walker (1985) concluded that individuals who were continuously working in night shifts could not meet the requirements of social life.

The findings of the recent studies are mostly consistent with the findings of the earlier studies, though there could be some differences here and there. The recent studies conducted by profound scholars have also stated the importance of leisure time for each and every individual. Every individual requires leisure time/"me time" and needs to spend time with family and friends to rejuvenate oneself from stressful work schedules.

According to Chandel and Kaur (2015), the modern day stress of night shift is the main reason for many people quitting their jobs, and hence, there should be a balance of work/life. Tausig and Fenwick (2001) as well as Costa, Sartori, and Akerstedt (2006) felt that night shifts or rotational shifts greatly interfered with the family responsibilities of an individual, and reduced, to a greater extent, the precious time that individuals spend with their community, thus decreasing their levels of social integration.

A study conducted by Perrucci, MacDermid, King, Tang, Brimeyer, Ramadoss, Kiser, and Swanberg (2007) stated that the individuals who work in shifts usually had very less friends and their level of community activity

and community participation was very minimal. Jansen, Kant, Nijhuis, Swaen, and Kristensen (2004) and Costa et al. (2006) found that night shift had a great impact on the family environment and caused great interference in the home atmosphere, causing more impact on the work and social life of the employees.

Workplace support has become an important aspect of an employee's life, and hence, this study tries to examine the effect of workplace support on the social life of the employees. According to Kossek, Pitchler, Bodner, and Hammer (2011), workplace support is the intriguing factor that is responsible for the well-being of the individuals to have a balance between their work and personal life.

Robert and Carla (1996) made a study on the shift working and non-shift working nurses to find the moderating effect of social support on the life of nurses. The study showed the importance of social support such as family support and workplace support in buffering the stressful life of the individuals. They authors also emphasized on the importance of social support that is required for the shift workers to have a balanced life. According to Cohen (2004), social support can give the individuals enormous psychological strength and provides them ways to cope with the problems of work. Individuals crave for social support from their close ones and thus, workplace support from supervisors, co-workers, and peers are essential in decreasing the negative effects of work-related stress.

Research Hypotheses

Since we intend to study the moderating effect of workplace support on the relationship between the independent variable (night shift hassles & night shift hours) and dependent variable (social life), the hypotheses were framed accordingly.

✥ **H1 :** There is a strong relationship between night shift hassles and social life.

✥ **H2 :** There is a strong relationship between night shift hours and social life.

✥ **H3 :** Night shift hassles x workplace support (interaction variable) has a strong influence on the relationship between night shift hassles & social life.

✥ **H4 :** Night shift hours x workplace support (interaction variable) has a strong influence on the relationship between night shift hours & social life.

Sample and Methodology

We collected data from employees working in the logistics industry. A total of 168 samples were collected from the 180 questionnaires distributed and non-probability sampling technique was used. The time period of the study was from August - November 2016. The referral method (snow ball sampling method) was used to collect the data. We prepared a set of questions that were relevant to night shift working employees. The questions were based on the hassles faced by night shift employees in their personal and social life. The questionnaire was divided into three areas such as night shift hassles, night shift hours, social life and workplace support. Night shift hassles and night shift hours are the exogenous variables ; whereas, social life is the endogenous variable. We used workplace support as the moderator.

Firstly, we tested the correlation between all the variables using the Pearson's correlation test and then used the step by step multiple regression method to find the relationship between the independent variables and the dependent variables, eventually conducting the moderated regression analysis by adding the interaction variable to the test. Finally, we drew the scattered plot to find the effect of levels of moderator on the social life of the employees. We grouped the variable moderator into low workplace support , moderate workplace support, and high workplace support to test the nature of relationship that changes from low level of workplace support to high level of workplace support.

Analysis and Results

The Table 1 shows the Pearson's correlation test that is used to find whether all the variables are correlated. It can be inferred from the Table 1 that social life is the dependent variable ; whereas, night shift hassles, night shift hours, and workplace support are taken as the predictor variables. We find that all the four variables are correlated since the p value is < 0.05 (Table 1).

The Table 2 gives details on the multiple regression analysis that was generated. We used multiple regression test to find the relationship of night shift hassles and night shift hours on the social life of the employees. It can be inferred from the Table 2 that the regression coefficient for night shift hassles is positive and statistically significant at the 5% level. Since the p value for night shift hassles and social life is <0.05, the null hypothesis is rejected and the alternative hypothesis H1 is accepted, showing a strong relationship between night shift hassles and social life.

The above findings demonstrate that night shift hours do not show a strong relationship with social life as the t - value is 0.357, which is negative and the p - value is >0.05. Since the p - value is statistically non-significant for night shift hours and social life, the null hypothesis is accepted and the alternative hypothesis H2 is rejected.

Next, we used the step by step regression method to find the value (moderator) that affects the relationship between the predictor variables and the dependent variable (see Table 3). We use the independent variables - night shift hassles and night shift hours, whereas social life is the dependent variable. We aimed to find the moderating effect of workplace support on the social life of employees, and we used the interaction variable to find its effect on the dependent variable, which is social life.

Table 1. Pearson's Correlation

		Social Life	Night Shift Hours	Night Shift Hassles	Workplace Support
Social Life	Pearson Correlation	1	0.637	0.806	-0.364
	Sig. (2-tailed)		.000	.000	.000
	N	168	168	168	168
Night Shift Hours	Pearson Correlation	0.637	1	0.845	-0.223
	Sig. (2-tailed)	.000		.000	.004
	N	168	168	168	168
Night shift Hassles	Pearson Correlation	0.806	0.845	1	-0.411
	Sig. (2-tailed)	.000	.000		.000
	N	168	168	168	168
Workplace Support	Pearson Correlation	-0.364	-0.223	-0.411	1
	Sig. (2-tailed)	.000	.004	.000	
	N	168	168	168	168

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

Table 2. Multiple Regression Analysis

Independent Variables	B	Standardized Coefficients Beta	t	p -value
Constant	5.672		2.203	.029
Night Shift Hours	-0.357	-0.154	-1.806	.073
Night shift Hassles	0.635	0.936	10.987	.000

$F = 157.849$ ($p =.000$), $R = .810$, $R^2 = .657$

Table 3. Moderated Regression Analysis

Variables	Step 1			Step2			Step 3		
	B	*t*	*p*	*B*	*t*	*p*	*B*	*t*	*p*
Night Shift Hours	-.154	-1.806	.073	-.147	-1.659	.099	.373	3.469	.001
Night Shift Hassles	.936	10.987	.000	.923	9.769	.000	.179	9.769	.000
Work Place Support				-.017	-.326	.745	-.196	-3.805	.000
Centered Night shift Hours x Centered Workplace Support							-.898	-7.129	.000
Centered Night shift Hassles x Centered Workplace Support							.584	5.199	.000
Constant	5.672	2.203	.029	3.774	.592	.555	34.225	4.586	.000
R^2		0.657			0.657			0.749	
Adjusted R^2		0.653			0.651			0.741	
F		157.849			104.698			96.522	

The predictor variables, that is, workplace support, night shift hassles, and night shift hours are centered to have a product of multiple center variables for moderator. The predictor variables are centered by computing the variables and deducting the mean from each variable. Here, workplace support (M = 7.5476) gives centered workplace support, night shift hassles (M = 70.0714) gives centered night shift hassles, and night shift hours (M = 10.5952) yields centered night shift hours.

The centered night shift hassles x centered workplace support and centered night shift hours x centered workplace support are used as the interaction variable. We used night shift hassles x workplace support and night shift hours x workplace support to find whether the interaction variables have an effect on the relationship between the predictor variables and the dependent variable.

In Model 1, the R^2 value for night shift hassles and night shift hours is .651, but in Model 2, there is no change in R^2 even though workplace support is added. The R^2 value (.092) in Model 3 varies after the interaction variables are entered. Hence, the interaction between night shift hassles and workplace support as well as the interaction between night shift hours and workplace support counter to .092, which is 9.2% variance. The coefficients in the Table 3 show the values from Model 1 to Model 3. In Model 1, when night shift hassles and night shift hours are added, the coefficient value shows that night shift hassles is significantly related to social life ; whereas, night shift hours are not statistically significant as the *p* - values for night shift hassles is .000 and for night shift hours, the value is .073.

In Model 2, when workplace support is added, night shift hassles is significant (.000) and night shift hours is non-significant (.099), but here, the point to be noted is that workplace support is also non-significant as the *p* - value is .075 which is >0.05. In Model 3, we add both the interaction variables, which is night shift hassles x workplace support and night shift hours x workplace support to find if the interaction variable yields a positive effect. The results show that once the interaction variables are added, all the variables are statistically significant.

In Model 3, the statistics show that the variables - night shift hassles, night shift hours, workplace support, night shift hassles x workplace support and night shift hours x workplace support are found to be statistically significant as the *p* - value is <0.05. Hence, the null hypothesis is rejected and the alternative hypotheses H3 and H4 are accepted, concluding that night shift hassles x workplace support has a strong influence on the relationship between night shift hassles and social life. The findings also conclude that night shift hours x workplace support has a strong influence on the relationship between night shift hours & social life.

We next categorized the variable workplace support into three groups, which is low workplace support, moderate workplace support, and high workplace support to have three different regression groups

Figure 1. Scattered Plot
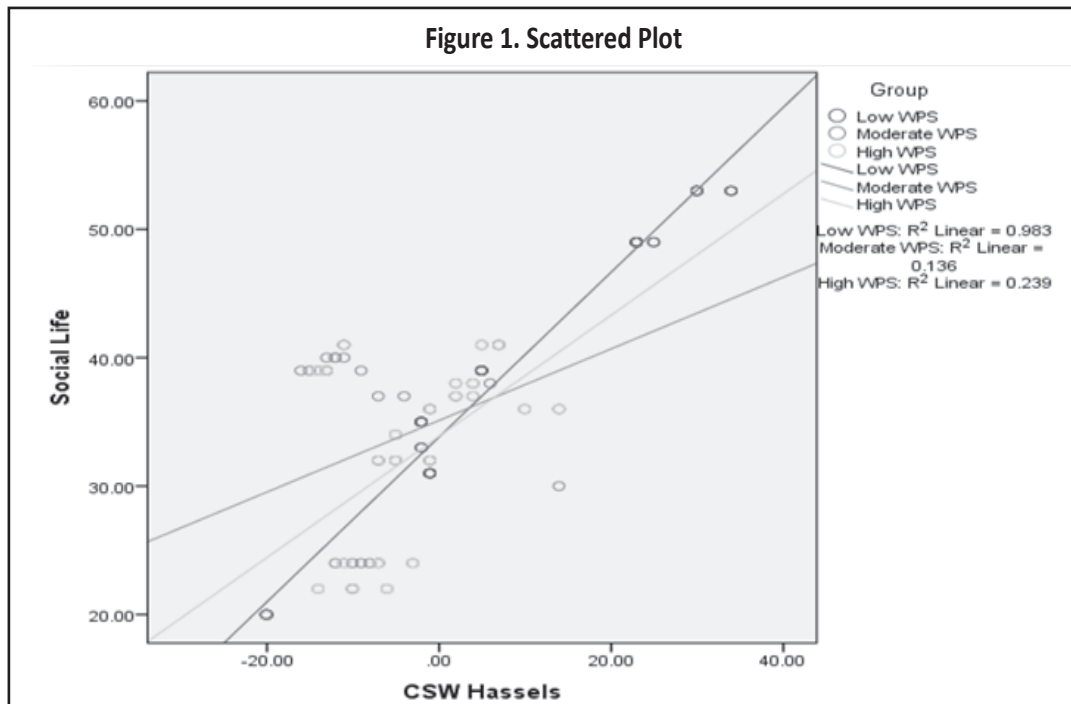
(see Figure 1). We created a scattered plot of night shift hassles on social life, which is mentioned above. The Figure 1 shows that low support has a really strong regression effect as the R^2 linear is 0.983 and when 0.983 is square rooted, the value is 0.99 ; hence, the correlation between night shift hassles and social life is 0.99 for people with low support levels. When the moderate support is taken into consideration, the R^2 is only .136, and for high support, it is only .239. When .136 and .239 are square rooted, the values are 0.36 and 0.48, respectively, which is relatively low when compared with low workplace support. Hence, the nature of relationship changes between night shift hassles and social life as a function of another variable, which is workplace support, and in this case, it changes from low workplace support to high workplace support.

Conclusion and Suggestions

The study provides a detailed account on the effect of night shift hassles and night shift hours on the social life of the employees working in the logistics industry in Chennai. It is inferred from the above analysis that there exists a strong relationship between night shift hassles and social life, but no relationship is found between night shift hours and social life. The moderator variable plays an important role in influencing the social life of the employees. Workplace support being the moderator variable influences the social life of the employees when it interacts with night shift hassles, and workplace support influences social life when it interacts with night shift hours.

The moderated regression test conducted gives us the fact that workplace support alters the social life of the employees in dealing with the night shift hassles and night shift hours. Though previous research highlighted the effects of night shift on the social life of employees, this research determines the importance of social support in moderating the social life of the employees. The study would enable the organizations to formulate intrinsic as well as extrinsic motivation for the employees as recognition, growth opportunities, and work culture motivates them to not quit the organization.

Managerial Implications

This study would make the organization know the importance of work-place support in assisting the employees to overcome the effects of night shift work. The study stands as a path way for the organizations working in night shift to understand that social relationships and social commitments are also very important in the lives of the employees. As there are very few studies that have examined the effects of night shifts on the social life of employees, the managements of the organizations may plan interventions that support the employees and provide the required benefit to work in night shifts. The study focuses on the social life of the employees since it is important for the employees to be connected with the society and social life is critical in order to refresh their minds and maintain their sanity. The study would act as a trend setter for future research since the area of social life is a crucial part of every individual, and every individual requires time for their personal happiness and commitment to the society.

Limitations of the Study and Scope for Further Research

As there are very few studies that have examined the effect of night shifts on the social lives of employees in the Indian context, the present study will be an eye-opener for an organization to understand that shift work also has a great impact on the social life of employees, and the importance of workplace support, which influences the strength of relationship between night shift problems and social life. The study will give the organizations a deeper insight into strategies that could help the employees balance their work and life as social life is mandatory for the individuals to have a healthy living and stress free life. The paper highlighted the importance of leisure time, social commitment, and social relationships, but a more focused study can be conducted on the leisure time and social relationships of night shift employees to understand the time they get to interact with their beloved ones. On the whole, the study would be useful to understand that night shift hassles as well as night shift demands can be managed if appropriate workplace support is in place.

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