Work-Interference-With-Family among Married Non-Medical Staff in a Teaching Hospital: The Relationship with Emotional Exhaustion and Job Stress

Koleoso ON, Akanni OO, Akinwale LT

1Department of Mental Health, University of Benin Teaching Hospital, Benin City, Edo State, Nigeria
2Department of Clinical Services, Federal Neuro-Psychiatric Hospital, Benin City, Edo State, Nigeria
3Department of Psychology, Faculty of Social Sciences, University Of Ibadan, Oyo State, Nigeria

ABSTRACT

Work and family lives are the areas where time and energy are expended the most. However, time and energy are limited; therefore conflict may arise in an attempt to balance work and family lives. This imbalance may be further aggravated by personal or job-related factors. The study was carried out in order to find out the relationship of emotional exhaustion (EE), job stress (JS) and socio-demographics with work-interference-with-family (WIF) among the married non-medical staff in a teaching hospital in Nigeria. The study was a cross-sectional survey involving 254 (92 males and 162 females) respondents selected through convenience sampling at the University College Hospital, Ibadan, Nigeria. Data from the respondents were gathered using the Work-Family Conflict Scale, Maslach Burnout Inventory, and Stress in General Scale to measure WIF, EE, and JS, respectively. There was a significant correlation of WIF with EE (p< 0.01, r =0.50), and JS (p< 0.01, r =0.88) but none with the socio-demographic factors studied. Furthermore, the two correlates, jointly predicted WIF (R= 0.88; R² = 0.77; F [2, 253] = 437.73; p =0.00); however, only JS made significant contribution. EE and JS are important variables in relation to WIF, though the later is more relevant in terms of predictive value. An understanding of these relationships could be useful to help individuals deal with the problem of interference of work with family duties.

Keywords: Emotional Exhaustion; Job Stress; Non-medical Staff; Socio-demographic Factors; Work-Family Conflict

INTRODUCTION

Work and family represent two of the most important aspects of adult life. Each of these variables contributes uniquely to the understanding of human behaviour. Traditionally, these two crucial domains have been examined independently of each other, though, researchers have hypothesised that these two variables are related and have also found that this interaction exists in the form of conflict. This conflict, well known as work-family conflict (WFC), refers to the form of inter-role clashes regarding function in which the role pressures from work and family domains are mutually incompatible in some respects, thereby creating an imbalance in the work life and family life. It can also be construed as the confrontation between work and family, in which focusing on one role makes it difficult to meet the other roles' obligations. WFC is multidimensional and covers conflict that may be time-based, strain-based or behaviour-based. Time-based conflict occurs when job and family responsibilities compete for the individual's time, such as long work hours, schedule inflexibility, shift work requirements, and overtime or evening duties. Strain-based conflict suggests that the strain experienced in one role crosses over and interferes with participation in another role. Recently, researchers have begun to identify bi-directionality in the WFC and have
come up with two possible forms of interference which are work interfering with family (WIF) and family interfering with work (FIW). Although these two forms of conflict are distinct, they are strongly correlated with each other.\(^6,7\) Although research has supported a cross-domain effects model,\(^6,9\) much of research has focused on WIF because, generally, it has been found to occur more often than FIW.\(^6,7,10\) For example, a study that was carried out among psychologists reported that the conflict of work duties with the family was greater than the family obligation interfering with work.\(^11\) This finding has been explained on the basis of the challenging nature of a psychologist work which can lead to emotional exhaustion; these can pave way for work responsibility to infringe on family life. Another study among clinical personnel, (nurses), in Taiwan found the presence of work-family conflict to be important in burnout.\(^12\) The issue of conflict among nurses could be traced to workload, overtime, job demand and control. Two constructs are therefore worth investigating in relation to WIF; these are emotional exhaustion and job stress. Emotional exhaustion refers to a chronic state of feeling that a person’s emotional resources are overtaxed or depleted in attempts to meet job demands.\(^13\) Job stress on the other hand, is a situation in which some characteristics of the work situation are thought to cause poor psychological/physical health or to cause risk factors making poor health more likely.\(^14\)

**Statement of the problem**

The interference of work with family life is a very significant problem. It contributes to breaking down in the mental and physical well-being, poor or decrease in marital satisfaction which may lead to divorce, and child-rearing problems.\(^15,17\) Moreover, this will invariably affect the quality of the person’s relationship at work, because WIF and FIW are correlated. Consequently, it may lead to poor performance at work, absence from work, less commitment to the organization, less satisfaction with job, and more likelihood to disengage from work.\(^12,18\)

**Purpose of the study**

Although WFC has been somewhat researched in Nigeria, most studies carried out in the hospital setting have been among clinical personnel.\(^15,19,20\) This has led to the neglect of non-medical workers who constitute the bulk of hospital staff and are thought to equally encounter stress at work. Also, these Nigerian studies hardly separate the cross-domain effect of WIF from FIW, and none to the best of our knowledge, had investigated the relationship of emotional exhaustion and job stress with WIF. Hence, the general purpose of this study was to examine the role of emotional exhaustion and job stress in WIF among the married non-medical staff of a teaching hospital in Ibadan. Moreover, it will be rewarding to examine the relationship of this conflict with demographic factors (for example gender, age, religion), work-related (for instance years of experience) and as well as family-related (such as years of marriage, number of children) variables. It is expected that the finding in this study will add to the body of available knowledge and be synthesized with other findings to gain a better understanding of the conflict. Apart from the implications for clinical researchers, practitioners in the field of human resource development, and hospital administration may find it useful in helping their employees.

**Hypotheses**

The study was guided by null hypotheses because of the unavailability of literature in this environment to determine the direction of relationship:

1. Emotional exhaustion of the non-medical staff would not significantly correlate with WIF.
2. Job stress of the non-medical staff will not significantly correlate with WIF.
3. Socio-demographics, such as gender, age, religion, years of marriage and number of children, of the non-medical staff will not significantly associate with WIF.
4. Emotional exhaustion and job stress of the non-medical staff will not jointly predict WIF.

**MATERIALS AND METHODS**

**Study design, setting and participants**

A cross-sectional research design was adopted. The study was conducted among non-medical staff at the University College Hospital, Ibadan, Oyo State, Nigeria. The hospital is a tertiary health care institution which has over 1,000 non-medical staff.

**Sampling technique**

A total of 300 married non-medical staff of the hospital were selected through convenience sampling. However, 254 respondents satisfactorily filled the questionnaire given to them.
Study instrument
The instrument was a questionnaire consisting of four sections;
Social demographic section: Information deemed necessary, such as age, gender, religion, years of job experience, years of marriage and number of children, were obtained.
Work-Interference-with-Family (WIF): WIF was assessed using the Carlson, Kacmar and Williams’ (2000) multidimensional measure. The scale is composed of 18 items that consist of 9 items each for WIF and family-interference-with-work (FIW). For this study, only the 9 items measuring WIF were selected; and the internal consistency of this sub-scale recorded 0.93. Sample items are “My work keeps me from my family activities more than I would like” and “When I get home from work I am often extremely tired to participate in family activities.” It is designed in a 5-point Likert-type pattern, ranging from strongly disagree (1) to strongly agree (5). Higher scores on the sub-scale indicate higher levels of WIF.
Emotional Exhaustion (EE): The Maslach Burnout Inventory (MBI) was used to assess the level of emotional exhaustion. The MBI was specifically designed to assess burnout among professionals in the human services, and it has a wide application in the literature. The MBI has three dimensions: emotional exhaustion (EE), depersonalization, and personal accomplishment. The nine items of the EE subscale, which describe feelings of being emotionally fatigued by one’s work, was used to capture the level of job exhaustion experienced by the non-medical staff. The participants rated the experience of their feelings using a 7-point scale, scored 0-6: never, a few times a year or less, once a month or less, a few times a month, once a week, a few times a week, and every day. In this study, the EE sub-scale was found to have adequate internal consistency of 0.87.
Job Stress (JS): It was measured by the 15-item Stress in General Scale (SIG) by Stanton and his colleagues (2001). It consists of sentences or phrases, and it requires respondents to indicate whether or not the items describe their job situation in the following manner: ‘yes’, ‘no’ or ‘cannot decide’. The SIG was developed and validated to measure general feelings of JS. The SIG has two subscales: SIG-I which measures ‘pressure’ and SIG-II which indicates ‘threat’. Respectively, they indicate less and more serious levels of JS. However, the two subscales are measured as a singular construct in this study. The coefficient alpha reliability for the entire scale was 0.95.

Procedure
Recruitment of the study participants was done by convenience sampling. Consent was first obtained from the participants and the first researcher had obtained approval from the department in the hospital, to carry out the study. The questionnaire was administered to persons who indicated interest without offering any incentive. They were encouraged to ask questions regarding concerns encountered while filling in the questionnaire. Most of the participants completed the questionnaire with ease in an average of 10 minutes.

Statistical analysis
SPSS version 23.0 was used to carry out data analyses which included both descriptive and inferential statistics. Hypotheses one and two were tested using the Pearson’s Product Moment Correlation (PPMC); hypothesis three was tested partly with PPMC and partly with the Chi-Square test; while hypothesis four was tested using multiple regression analysis.

RESULTS
Of the 254 respondents, 92 (36.2%) were males, while 162 (63.8%) were females. The mean age was 38.59 years (S.D = 10.74 years), ranging from 30 to 58 years. A total of 141 (55.5%) respondents were Christians, and 113 (44.5%) were Muslims. Average working experience for respondents in this study was 13.87 years (SD = 4.32) while the average number of years married was 3.02 years (SD = 1.94).

Hypothesis one: Emotional exhaustion (EE) will not significantly correlate with work-interference-with-family (WIF). This was tested using Pearson’s Product Moment Correlation (PPMC) and the result is presented in Table 2. The result indicates that EE has a positive correlation with WIF among the non-medical staff (p< 0.01, r =0.50). This implies that as EE increases, WIF also increases. Therefore, the result disproved the stated hypothesis, meaning that, the hypothesis was rejected.

Hypothesis two: Job stress (JS) will not significantly correlate with WIF. This was tested using PPMC; the result is also captured in Table 2. The result indicates that JS correlate strongly and positively with WIF among the non-medical staff (p< 0.01, r =0.88). This means that as JS
decreases. WIF also decreases. The result disproved the stated hypothesis; therefore, the hypothesis was rejected.

**Hypothesis three:** Socio-demographics, such as gender, age, religion, years of marriage and number of children will not significantly associate with WIF. The relationships of gender, age and religion with WIF were tested using Chi-Square, while the others were tested using PPMC. The test of association using Chi-Square is presented in Table 1, while the rest are presented in 2. The results reveal that WIF has no significant association with any of the socio-demographic variables studied. The result confirmed the stated hypothesis. Therefore, this hypothesis was accepted.

**Hypothesis four:** EE and JS will jointly predict WIF among the non-medical staff. This was tested using multiple regression analysis. The results are shown in Table 3. The table shows that EE and JS jointly predicted work-family conflict (R = 0.88; R² = 0.77; F [2, 253] = 437.73; p < 0.00). The results refute the tested hypothesis. R² = 0.77 suggests that all the predictor variables accounted for 77% of the proportion of variance in WIF. Further analysis, however, showed that JS (β = 0.94; t = 24.28; p < 0.00) was the only significant independent predictor on WIF.

**Table 1: Association of WIF with socio-demographic factors**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Work-family conflict</th>
<th>Significant test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low (n=147)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High (n=107)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total (n=254)</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54 (36.7)</td>
<td>38 (35.5)</td>
</tr>
<tr>
<td>Female</td>
<td>93 (63.3)</td>
<td>69 (64.5)</td>
</tr>
<tr>
<td></td>
<td>162 (63.8)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;40</td>
<td>70 (47.6)</td>
<td>60 (56.1)</td>
</tr>
<tr>
<td>40-50</td>
<td>73 (49.7)</td>
<td>42 (39.3)</td>
</tr>
<tr>
<td>&gt;50</td>
<td>4 (2.7)</td>
<td>5 (4.7)</td>
</tr>
<tr>
<td></td>
<td>9 (3.5)</td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christian</td>
<td>74 (50.3)</td>
<td>67 (62.6)</td>
</tr>
<tr>
<td>Islam</td>
<td>73 (49.7)</td>
<td>40 (37.4)</td>
</tr>
<tr>
<td></td>
<td>113 (44.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X²</td>
<td>df</td>
</tr>
<tr>
<td>Gender</td>
<td>0.04</td>
<td>1</td>
</tr>
<tr>
<td>Age</td>
<td>3.01</td>
<td>2</td>
</tr>
<tr>
<td>Religion</td>
<td>3.78</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table 2: Inter-correlation of variables with WIF**

<table>
<thead>
<tr>
<th>Measures</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Years of experience</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Years of marriage</td>
<td>0.61**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. No of children</td>
<td>0.55**</td>
<td>0.51**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Job stress</td>
<td>0.03</td>
<td>0.03</td>
<td>0.03</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Emotional Exhaustion</td>
<td>0.04</td>
<td>0.05</td>
<td>0.07</td>
<td>0.64**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6. Work-family conflict</td>
<td>0.03</td>
<td>0.02</td>
<td>0.01</td>
<td>0.88**</td>
<td>0.50**</td>
<td>1</td>
</tr>
</tbody>
</table>

**DISCUSSION**

This study aimed at determining the roles of emotional exhaustion, job stress, and some socio-demographic variables in work-interference-with-family (WIF) among the married non-medical staff of a teaching hospital. The result from the first hypothesis showed that emotional exhaustion was positively correlated with WIF among the non-medical staff. This corroborates the results from previous studies that showed that high emotional exhaustion is associated with high WIF. Demeroutie and his colleagues found exhaustion as a contributing factor of future work-home interference, an underlying determining factor of consequent exhaustion. Increased WFC has been linked with increased emotional exhaustion among correctional officers, medical residents, nurses, teachers, government employees, and other occupations. An increase in emotional exhaustion could cause an increase in WIF, which, in turn, may contribute to an additional rise in emotional exhaustion. Therefore, the capacity to regain from workload demands may drop over time. The resource loss builds up over time, leading to an unfavourable accumulative process, resulting in impaired well-being in both the family and work domains that may be chronic.

The results from the second hypothesis revealed that job stress correlated positively with WIF, suggesting that when job stress increased at the workplace, automatically WIF increased among the non-medical staff. The results of this study buttress previous findings of the relationship between job stress and WIF. Masten and Obradovic claimed that workers experience the split-over effect when they face a conflict at work as well as family that eventually affect their spousal and family lives. According to Panatik et al., WIF is directly related to stress. According to Kazmi and his colleagues, working women are confronted with more stress because they have to accomplish different roles and responsibilities at the workplace and in the family. Employees that try to accomplish the growing work responsibilities and at the same time satisfy the family roles...
and responsibilities are struggling with stress and WFC. Dealing with job stress invariably leads to dealing with WIF.30,32

Findings from the third hypothesis indicated that none of the socio-demographic variables studied associated with WIF among the non-medical staff. Several studies have investigated the relationships between gender and WIF and found conflicting results. Eby et al.,33 established that there is a mixed indication as to whether men and women experience diverse points of WFC. Their meta-analysis noted that several studies10,34 have found no gender differences in WFC. Though some studies have found that men reported higher WFC than women,35 others found women to experience higher WFC than men36 or higher levels on some factors of WFC.7,37 In all it seems that gender has a near-zero association with WFC and is merely weakly correlated with it, signifying that men and women go through comparable levels of interference in both areas.5

The dissimilarity in responsibilities for men and women determines their manifestation of WFC.38 According to the gender perspective theory, people experience WFC if they do not fulfil their responsibilities.34 Women are required to fulfil the work demands from both the work and family domains. However, since culturally, their main domain is the family, the inability to fulfil all family demands now leads to guilt and anxiety for them.34 Conversely, men who are extremely involved in family activities at the expense of their paid work can feel they have abandoned their work responsibilities and therefore experience WFC.34

In the literature, it has been observed that, in early periods of their employment, individuals are often eager to sacrifice their personal lives in the interest of their professional upliftment.39 However, as individuals advance in age to the maturity stage of their careers, they have been found to place a greater emphasis on a balance between their work and family lives when assessing their careers. Thus, because of the greater priority that individuals give to their family roles as they age, the career satisfaction of older individuals is likely to be more negatively affected by work-family conflict than that of younger individuals.

Most research in Western countries has found that the number of children positively correlates with WIF. However, in this study, the number of children did not have any significant correlation with WIF. Research to date has demonstrated that WIF increases as one’s responsibility to the family increases as a result of marriage and the coming of children.40 It also has been debated that this WIF will lessen, or at least reduce, as the youngest child begins to grow up. Parents of children below the age of six had the highest levels of WIF; closely followed by parents of school-age children.41 Staff without children reported the least experience of WIF. Differences in results between ours and others may be due to the cultural dissimilarities of the different countries because according to Aycan,42 there are some remarkable cross-cultural disparities among countries. Contrary to the findings from this study, Akhigbe and Koleoso found among married nurses that length of marriage predicted WIF.19 According to them, a possible explanation for their finding could be that the understanding and maturity in management problems related to work and family roles may have developed and gets improved ultimately. By being together for many years, it is likely they have now developed adequate skills to deal and cope with issues that may arise from conflict related to work and family. According to Awe,43 the husband and wife typically use the first few years of their relationship to modifying their individual differences and other external influences affecting their marriage. The first two to five years are the most dangerous for the married couple, after which they begin to accept each other and to value each other better, particularly when children start coming.

The review of previous research showed that no research has investigated the relationship between religious affiliations using the two common religions in Nigeria. Most of the former studies were mostly based on the role of religiosity and spirituality in investigating WIF. This study found that there was no association between religious affiliation and WIF. Nevertheless, it is important to point out that religion influences happiness openly, when other capacities are exhausted and when people seek another place for help.44 Belief in God might lessen the effect of stress on well-being and buffer undesirable experiences,44,45 which may result in less conflict and more improvement. Since both religions in this study offer this buffer, it is understandable if there is no difference between religious affiliation and WIF. What may be may be more important to investigate will be religiosity. The findings on the last hypothesis showed that emotional exhaustion and job stress jointly predicted WIF among the nursing staff. This implies that the two predictor variables interacted together to predict work-family conflict. This finding is expected. The response of workers to job stresses and pressures that are not related to their understanding,
interest, skills and capacities can affect their ability to manage.\(^46\) This can leave the individual feeling exhausted.\(^47\) Therefore, job difficulties that involve more energy are related to the accumulation of unfavourable weight effects that are spilt over to the family domain.\(^48\) In other words, extreme job demands make it more challenging for individuals to recover adequately at home because of the amount of work that has been consumed in their job.

**CONCLUSION**

This study establishes the role of EE, and JS in WIF. The findings reveal that participants who scored high on EE and JS experienced significantly higher WIF than their counterparts who scored low on EE and JS respectively, though only JS independently predicted WIF. These data could be used by managers or therapist to help troubled individuals sort out interferences with family responsibilities stemming from work.

**RECOMMENDATIONS**

The main objective of the study was to determine the role of emotional exhaustion, job stress, and some socio-demographic variables in WIF among the married non-medical staff in a teaching hospital. It is apparent that emotional exhaustion and job stress influences WIF. Therefore, the study gives useful and necessary insights to the effect on WIF, taking into consideration variables such as emotional exhaustion, job stress, gender, age, religion, years of marriage and number of children. These findings will assist to further understand, enhance knowledge of WIF, and help the management of organizations in formulating strategies in relation to WIF in order to guarantee a work-life balance of their most valued resources – the workers.

The implication of the findings for decision makers is that managing emotional exhaustion and job stress tends to reduce WFC in families and there is need to critically examine the effects of the studied variables on organizations’ performance and provide interventions. Managers should pay more attention to emotional exhaustion and job stress, as these variables have positive and significant relationship with WIF. Although the study found that socio-demographic factors (gender, age, religion, years of marriage and number of children) have insignificant relationship with WIF, its consideration and relevance, based on the review of the literature, would serve as an advantage in order to increase employees’ efficiency.

**LIMITATION**

Caution should be applied concerning the types of interpretations drawn from the results of this study because of particular features of the sample and the cross-sectional nature of the design. The fact that the study utilised cross-sectional design stops us from drawing any conclusions concerning causality and directionality. The participants in this study are a convenience sample of non-medical staff of a teaching hospital which is just one of the health zones in Nigeria. Again, data gathering was limited to only one health facility in the zone. Therefore, the respondents were predominantly people from that part of Nigeria. Therefore, restraint should be exercised in generalizing the results to dissimilar populations. Finally, as this study used a self-report measure, future research may be enhanced by using other methods of data gathering such as interview.

**Conflicts of interest**

None declared

**REFERENCES**

19. Akhigbe KO, Koleoso ON. The Role of Age, Job Experience, Educational Attainment, and Length of Marriage in Work-Family Conflict of Married Nurses.


