The ‘ifs’ and ‘buts’ of Psychosocial Job Demands on Female Nurses’ Psychological Health

ZarAyesha Parvez*a, Muhammad Umair Javaidb, Syed Khurram Ali Jafri*c, Muhammad Latif Khan*d, Muhammad Zulqarnain Arshade, 
Department of Management Sciences, Lahore Garrison University, Lahore, Pakistan, bDepartment of Management Sciences, Bahria University, Lahore, Pakistan, cDepartment of Management and Accounting, Muscat College, Muscat, Sultanate of Oman, Email: *zarayesha1@gmail.com

**Background:** in the psychosocial work environment of the healthcare sector, where nurses play a significant role, the psychological health of female nurses is extremely important considering the fact that they are the heart of this sector. **Purpose:** the main aim of this study is to identify the dominance of psychosocial job demands, such as workplace bullying, and emotional demands, upon the well-being of nurses with an indirect effect of psychological health or stress. **Methodology:** the research model is evaluated using a two-step approach by assessing the model with the help of statistical techniques using Smart-PLS. **Finding:** this study concludes that psychosocial job demands significantly predicts the psychological health of the nurses, with both direct, and indirect effects. However, we also found the rejection of one of the hypotheses; workplace bullying is negatively associated with the nurses’ well-being. **Originality:** in literature, the indirect effects of psychological health are highly overlooked in relation to workers well-being, particularly in the healthcare sector. Therefore, in this study, the researcher attempted to address the knowledge gap by focussing on the psychosocial work environment issues in the healthcare sector of Pakistan.

**Key words:** Psychology, Health, Nurses, Females
Introduction

Among the several factors that negatively affect the optimal functioning of healthcare organisations, workplace bullying (WPB) is widespread and relatively subtle, but critical (Finchilescu, Bernstein, & Chihambakwe, 2019). Workplace bullying refers to persistent abusive behaviour in the workplace that inflicts physical or emotional damage upon the victims. Such behaviour is often seen to be degrading, bullying, and threatening other workers, and affects their work efficiency (WBI, 2018).

Nurses, all over the world, are found to suffer discourteous behaviour, intimidation, and verbal abuse more often than the physical humiliation. Previous studies have, in fact, showed that the rate of bullying occurs more repeatedly in healthcare than in other sectors (Castronovo, Pulizzi, & Evans, 2016; Yoo & Lee, 2018). It has been observed that this higher rate may be due to the emotional nature of healthcare work, and the adherence to a hierarchical structure of healthcare institutions (Lever, Dyball, Greenberg, & Stevelink, 2019).

The targeted nurses of WPB also report higher rates of anxiety, and depression. Previous studies show that the nurses who suffer intimidation have a relatively higher score in post-traumatic stress disorder (PTSD) than their counterparts (Lever et al., 2019). Consequences also extend to healthcare organisations with reported findings of increased sick time and absenteeism, decreased employee job satisfaction, impaired workgroup identification, and increased absenteeism and turnover (Lever et al., 2019).

Like the global trend, nurses in Pakistan also face workplace bullying. One study found that ten per cent of nurses in Pakistan are affected by bullying (khan, Rozina, & Ali, 2015). As observed above, for the employees of healthcare and social sectors, the chances of getting bullied are higher. Due to strict workplace environments, tighter hierarchies, and heavy workloads, the problem of workplace bullying is observed to be more severe among the nurses working in a hospital setting. Despite its extreme prevalence and relevance to workplace dynamics in Pakistan (Arshad, Najwani, Siam, & Alshuaibi, 2020), there are finite studies which have investigated the nuances of stress that nurses experience in the country due to workplace bullying. Therefore, the main aim of the current study is to identify the dominance of psychosocial job demands (workplace bullying and emotional demands) on the well-being of the nurses, with an indirect effect of psychological health (stress).
Literature Review

Workplace Bullying and Stress

Attell, Brown, and Treiber (2017) conducted a study in Georgia State University, in the United States of America (USA), in women and African American individuals. After conducting the survey, it was concluded that there is positive association among workplace bullying and stress, which causes negative consequences on one’s mental health (Attell, Brown, & Treiber, 2017). Likewise, another study was conducted in 2018, and focussed on public and private sector organisations in Flanders, Belgium. In this research, authors examined the positive relationship of bullying and stress by using a cross-lagged panel design, in which fear and sadness induce work stress, and reappraisal plays a moderating role. It was concluded that workplace bullying is positively related to stress (Vranjes, Baillien, Vandeboesch, Erreygers, & Witte, 2018). Another study was conducted in Denmark, in 2004 by Agervold and Mikkelsen, in which different relationships in the psychosocial work environment were studied. The research finally concluded that the rate of bullied employees reported higher levels of stress compared to non-bullied employees (Agervold & Mikkelsen, 2004). Likewise, Malik and his colleagues in Pakistan conducted a research study into supervisor and customer relationships in terms of workplace bullying, and psychological stress. It was posited that there is positive association among workplace bullying, and stress (Malik, Schat, Shahzad, Raziq, & Faiz, 2018).

In the view of abovementioned literature, the researcher hypothesises the following:

Hypothesis 1 (H1): workplace bullying is positively related to stress.

Workplace Bullying and Well-being

Mardanov and Cherry (2018) conducted a study in the USA to investigate the relationship of negative workplace behaviours as bullying and work-life outcomes. They hypothesised that bullying has a substantial impact on the victim’s well-being and bullying is positively related to employees’ job dissatisfaction and intention to leave the job. It was concluded that bullying has a positive impact on job dissatisfaction in organisations (Mardanov & Cherry, 2018). Similarly, another study was conducted in Taiwan on the relationship of organisational justice, workplace bullying, and hotel employees’ well-being. In this study, the authors proposed that there was a negative relationship between the experience of the workplace bullying of hotel employees and their well-being. It was found that workplace bullying had a negative impact on hotel employees’ well-being (Hsu, Liu, & Tsaur, 2019). Another study, in 2018, investigated the association of workplace bullying and well-being, with the mediating effect of work family conflicts. They hypothesised that more exposure to workplace bullying can cause a lower well-being, and this relationship was mediated by a higher work-family
conflict. It was concluded that workplace bullying has a negative impact on well-being (Yoo & Lee, 2018).

On the basis of the aforementioned arguments, the researcher hypothesises the following:

**Hypothesis 2 (H2):** workplace bullying is negatively related with well-being.

**Emotional Demands and Stress**

Rivera, Araque, and Montero (2013) conducted a study in Spain on the working conditions of organisations. The study investigated the effect of emotional demands that cause high levels of job stress. They hypothesised that a high level of stress has a strong impact on emotional demands. It was concluded that a higher level of emotional demand causes more stress in women compared to men (Rivera-Torres, Araque-Padilla, & Montero-Simó, 2013). Likewise, a survey was conducted on the association among emotional demands, and strain. The result posited that emotional demand, and stress have a positive association between them. The higher the anger, desperation, and frustration level in an employee, the higher the stress level (Schmidt, Beck, Rivkin, & Diestel, 2016). Another research study was conducted by Quinones and Griffiths (2017) in the UK, in which they investigated the fact that a high emotional demand and stress rate leads to increased Internet usage. The results showed that the employees with high emotional demands and higher levels of stress, were found to have high Internet involvement, which may inhibit the psychological recovery (Quinones & Griffiths, 2017). Similarly, Taris and Schreurs (2009) hypothesised the inverse proportional relationship among high emotional demands, and strain. The research was conducted in a Dutch domiciliary care organisation in the Netherlands, and the result concluded the direct negative relationship among emotional job demands, and strain (Taris & Schreurs, 2009).

From the above discussion, the researcher hypothesises the following:

**Hypothesis 3 (H3):** emotional demands have a positive effect on stress.

**Emotion Demands and Well-being**

Wang, Yin, and Huang (2015) hypothesised that emotional job demands positively affect the emotional exhaustion, while negatively affecting job satisfaction. They explored the links between emotional job demands, and its psychological effects on employees, and they reported a survey on companies from various sectors of the hospitality industry in China. The results revealed that emotional job demands significantly increased emotional exhaustion, and reduced job satisfaction (Wang, Yin, & Huang, 2015). Several research studies on emotional labour focussed on the short-term interaction among service staff, and health
professionals. Maxwell and Riley, in Australia, conducted a study on the association among emotional demands, burnout, three emotional labour facets, well-being, and job satisfaction. The data was collected from school principles. The study result showed that emotional demands have a negative impact on the well-being, and job satisfaction of educational leaders. The study revealed a high level of emotional demands have a negative and significant effect on well-being (Maxwell & Riley, 2017). Limited investigation results exist on the identification of the emotional demands of nurses in the psychosocial work environment, particularly in an Asian context. In the healthcare sector, high emotional job demands are crucial for organisational outcomes but may negatively affect employees’ well-being. Susanne (2015)’s conducted research in Germany which found that emotional demands have a negative relationship with employee occupational well-being (Susanne, Stamov, & Zacher, 2015).

On the basis of the foregoing arguments, the researcher hypothesises the following:

**Hypothesis 4 (H4):** emotional demands have a negative effect on well-being.

**Stress and Well-being**

Jennifer Courtney from Dublin City University conducted a study in the UK and investigated the relationship of stress, and job satisfaction. The study revealed that a high stress rate causes a low job satisfaction level. Factors, such as perceived unfair treatment from the organisation, and poor remuneration, cause a high level of stress (Courtney & Phelan, 2019). Grossi, Tavano Blessi, and Sacco (2019) conducted research in the USA, in which organisational factors reduced stress, and increased well-being. They concluded that the reduction in stress levels creates a positive effect on individual physical, and mental health. Similarly, another longitudinal study conducted on the periodic earned Income Tax Credit (EITC) Payment, and the relationship of financial stress, and well-being. The study noted the relationship between stress, and well-being under the Earned Income Tax Credit. The study concluded that stress has a negative impact on employee well-being (Kramer et al., 2019).

During their academic and practical experience, nursing students can face high levels of stress. This adversely affects their physical, and emotional well-being. Another study was conducted in Canada and investigated that how organisations promote emotional well-being among nursing students. The results suggested a promising approach for mitigating nursing students’ stress by helping them acquire practice-relevant strengths, and self-care strategies (Beanlands et al., 2019).

On the basis of abovementioned arguments, the researcher hypothesises the following:

**Hypothesis 5 (H5):** stress is negatively related to well-being.
Methodology

Response Rate

A self-administered survey technique was used. The unit of analysis was at the individual level, which comprised hospital nurses. Two of the researchers distributed 400 questionnaires among nurses to ensure a higher response rate and reduce the probability of error terms in analysis. Overall, a total of 310 out of 400 questionnaires were completed and returned by nurses. Out of the 310 received questionnaires, 29 questionnaires were incorrectly completed or incomplete, and therefore, were discarded. Finally, 281 questionnaires were used with a valid response rate of 70.2 per cent for final analysis.

Measurements

The measures utilised in this study were all adapted from previous studies. The scale of workplace bullying was adopted from Einarsen (2009), which is comprise of three dimensions, and a total of 22 items. The WRB has seven items, WPRB has 12 items, and WPIB has three items. The emotional demands scale was adapted from Burr et al. (2018), and consists of a total of seven items. The scales of stress, and well-being were also adapted from Burr et al. (2018), and are comprised of four items, and X items, respectively.

Analysis

The SPSS software is used for encoding the data, and primarily, analysis. The Smart-PLS was used for model validation, and hypothesis testing.

Results and Discussion

Assessment of Measurement Model

According to Hair, Sarstedt, Ringle, and Mena (2012), at first we must assess the construct’s reliability, and validity in the measurement model assessment. In this research, the hierarchical component modelling technique is used because one construct is a higher order. In other words, workplace bullying, and the model is reflective-reflective. In the measurement model for the reliability, and validity, the researcher has run a confirmatory factor analysis (EFA).

In the EFA, the Cronbach alpha (CA), and composite reliability (CR) values are assessed. The CA value of all the constructs range from 0.767–0.958, and the CR value range from 0.865–0.961, as shown in Table 1, which are in the acceptable range; i.e. greater than 0.706 (Hair, 2016). This indicates that all the constructs in this study have a high level of internal consistency reliability. Subsequently, we assessed the convergent validity of the measurement
model. The convergent validity is the degree to which individual indicators are correlated to other indicators of a similar construct (Hair et al., 2016). The average variance extracted (AVE) is defined “as the grand mean value of the squared loadings of the indicators associated with the construct” (Hair, 2016). It reflects the extent to which a construct explains the variance of its indicators. Generally, an AVE value of more than 0.50 indicates that more than 50 per cent of the indicators’ variance is explained by the construct (Bagozzi & Yi, 1988; Fornell & Larcker, 1981; Hair, 2016). Based on Table 1, this study found the AVE values in range from 0.518–0.795, indicating that the convergent validity of each construct is established. The discriminant validity refers to the degree to which a construct distinguishes with other constructs by statistical standards. The established discriminant validity across constructs indicates that each construct is distinctive and captures phenomena not characterised by other constructs in the measurement model (Hair et al., 2016). Regarding the evaluation of discriminant validity, the Heterotrait-Monotrait ratio (HTMT) is examined in this study, as shown in Table 2. For the Heterotrait-Monotrait ratio evaluation, any value of constructs should be less than 0.9, which means every construct is distinct from other constructs. For the current research, all the values are below 0.9, hence the discernment validity is achieved. All the criteria for the measurement model have been achieved. In the next step, we assessed the structural model.

**Table 1:** Summary statistics of the measurement analysis

<table>
<thead>
<tr>
<th></th>
<th>CA</th>
<th>Items Loading</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED</td>
<td>0.833</td>
<td>0.662–0.805</td>
<td>0.865</td>
<td>0.518</td>
</tr>
<tr>
<td>ST</td>
<td>0.855</td>
<td>0.786–0.807</td>
<td>0.896</td>
<td>0.632</td>
</tr>
<tr>
<td>WEB</td>
<td>0.863</td>
<td>0.767–0.823</td>
<td>0.901</td>
<td>0.646</td>
</tr>
<tr>
<td>WPB</td>
<td>0.958</td>
<td>0.734–0.852</td>
<td>0.961</td>
<td>0.532</td>
</tr>
<tr>
<td>WPIB</td>
<td>0.871</td>
<td>0.789–0.899</td>
<td>0.921</td>
<td>0.795</td>
</tr>
<tr>
<td>WPRB</td>
<td>0.934</td>
<td>0.744–0.843</td>
<td>0.943</td>
<td>0.559</td>
</tr>
<tr>
<td>WRB</td>
<td>0.887</td>
<td>0.732–0.899</td>
<td>0.914</td>
<td>0.639</td>
</tr>
</tbody>
</table>

**Table 2:** Heterotrait-Monotrait ratio

<table>
<thead>
<tr>
<th></th>
<th>ED</th>
<th>ST</th>
<th>WEB</th>
<th>WPB</th>
<th>WPIB</th>
<th>WPRB</th>
<th>WRB</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST</td>
<td>0.208</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEB</td>
<td>0.279</td>
<td>0.916</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WPB</td>
<td>0.189</td>
<td>0.283</td>
<td>0.240</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WPIB</td>
<td>0.247</td>
<td>0.250</td>
<td>0.232</td>
<td>0.824</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WPRB</td>
<td>0.156</td>
<td>0.266</td>
<td>0.216</td>
<td>0.028</td>
<td>0.845</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WRB</td>
<td>0.195</td>
<td>0.294</td>
<td>0.256</td>
<td>0.782</td>
<td>0.821</td>
<td>0.883</td>
<td></td>
</tr>
</tbody>
</table>
**Assessment of Structural Model**

In this study, the researchers used the PLS bootstrapping 500 samples size with one-tailed tests of significance at the level of five per cent to test the hypotheses. Thus, a critical T-value of 1.645 is considered as the threshold to examine the hypotheses in this study (Hair, 2016). The Table 3 displays the specific direct relationships between the latent variables in the current study. According to Table 3, this study found that workplace bullying positively predicts stress (β=-0.277, t=3.618, p<0.01), supporting hypothesis one; workplace bullying predicts a positive association instead of negative with well-being (β=-0.000, t=0.009, p>0.05), not supporting hypothesis two; emotional demand positively predicts stress (β=0.168, t=3.344, p<0.01), supporting hypothesis three; emotional demands negatively predict well-being (β=-0.085, t=3.166, p<0.05), supporting hypothesis four; and finally, in our study, stress negatively predicts well-being (β=-0.497, t=6.848, p<0.00), supporting hypothesis five.

For model predictive power, the most common measure applied is the coefficient of determination (R² value). The value of R² represents the exogenous latent variables’ combined effects on the endogenous latent variable (Hair, 2016). The R²-values have three different ranges from 0.25, 0.50, and 0.75 for independent variables, and each termed as the weak, moderate, and substantial coefficient of determination. In the current study, there are two endogenous variables — stress, and well-being — so the values of R² are 0.290, and 0.712, respectively. This means that 29 per cent of the variance in stress is explained by workplace bullying, and emotional demand. In addition, 71.2 per cent of the variance in well-being is explained by workplace bullying, emotional demands, and stress.

**Table 3: Direct Hypothesis Testing**

<table>
<thead>
<tr>
<th>Serial no.</th>
<th>Hypo</th>
<th>Beta</th>
<th>Standard error</th>
<th>T-Value</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Workplace Bullying -&gt; Stress</td>
<td>0.227</td>
<td>0.063</td>
<td>3.618</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>Workplace Bullying -&gt; Well-being</td>
<td>0.000</td>
<td>0.027</td>
<td>0.009</td>
<td>0.496</td>
</tr>
<tr>
<td>3</td>
<td>Emotional Demands -&gt; Stress</td>
<td>0.168</td>
<td>0.050</td>
<td>3.344</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>Emotional Demands -&gt; Well-being</td>
<td>-0.085</td>
<td>0.027</td>
<td>3.166</td>
<td>0.001</td>
</tr>
<tr>
<td>5</td>
<td>Stress -&gt; Well-being</td>
<td>-0.497</td>
<td>0.073</td>
<td>6.848</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Following the steps of the mediator analysis procedure suggested by Hair (2016), as well as running the bootstrapping of 500 samples with two-tailed tests at the five per cent significance level in the PLS-SEM model, this study further determines the mediating effects, and its types. The Table 4 details the indirect effects of the mediation model. According to
Table 4, this study found that the indirect effect of workplace bullying, stress, and well-being; and emotional demand, stress, and well-being are significant with ($\beta$=−0.115, $t$=3.472, $p<0.01$) and ($\beta$=0.081, $t$=2.756, $p<0.01$), respectively. Therefore, hypotheses six, and seven are supported.

**Table 4: Direct Hypothesis Testing**

<table>
<thead>
<tr>
<th>Serial no.</th>
<th>Hypo</th>
<th>Beta</th>
<th>Standard error</th>
<th>T-Value</th>
<th>P Values</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Workplace Bullying -&gt; Stress -&gt; Well-being</td>
<td>0.115</td>
<td>0.033</td>
<td>3.472</td>
<td>0.000</td>
<td>full Mediation</td>
</tr>
<tr>
<td>7</td>
<td>Emotional Demands -&gt; Stress -&gt; Well-being</td>
<td>0.081</td>
<td>0.030</td>
<td>2.756</td>
<td>0.003</td>
<td>Partial Mediation</td>
</tr>
</tbody>
</table>

The hypothesis six is fully mediated in the direct relationship of workplace bullying, and well-being, and is not significant but it will become significant with an indirect path. The hypothesis seven mediation is partially supported, as direct relationships are also significant.

**Conclusion**

The main aim of this study was to evaluate the effects of the job demand factors (workplace bullying and emotional demands) on the psychological health factor (stress), and well-being of female nurses. The study results showed a strong direct link between the emotional demands, workplace bullying, and well-being of nurses. In other words, stress as mediation. This clearly explains the importance of emotional demands, and workplace bullying in studying the well-being of nurses with respect to either an increase or decrease effect of stress. Emotional demands (ED) was the only variable that had a significant effect on both the psychological health, and well-being of the nurses. Workplace bullying had a significant effect on stress, and an insignificant direct effect on well-being. Past studies have shown that emotional demands influence distraction in influencing psychological availability. An emotional worker exhibits personal expressions in tasks that require a certain level of emotionality, which engages and influences psychological availability. The EDs in many of the past studies were found to be related to stress, and well-being (Lewig & Dollard, 2004). If the provided resources are not sufficient enough, then emotional labour charged with EDs results in an impairment of health that further exhausts the mental and physical resources of workers, which, in turn, leads to the depletion of energy. However, we also found the rejection of the hypotheses that workplace bullying is negatively associated with the nurses’ well-being. The possible reasons could be attributed to the small nursing sample size, a total
tenure of nurses in hospitals, and in particular, the availability of the opposite gender in those hospitals from where the data was collected.

This study highlighted the issues surrounding nurses and workplace bullying. It is also stressed that less attention has been given to this topic, especially by professionals, and researchers. Increasingly, literature evidence suggests that in the nursing sector there is a high level of bullying. In literature, the indirect effects of psychological health are highly overlooked in relation to workers’ well-being, particularly in the healthcare sector. Therefore, in this study, we have tried to overcome this knowledge gap by addressing the psychosocial work environment issues in the healthcare sector of Pakistan.
REFERENCES


someone in cyberspace when they are down: Testing the role of stressor evoked emotions on exposure to workplace cyberbullying. Work and Stress, 32(4), 379–399. https://doi.org/10.1080/02678373.2018.1437233

