RESEARCH PAPER

Moderating Mechanism of Psychological Hardiness in the Effect of Emotional Exhaustion on Teachers Job Performance

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ABSTRACT

This study was aimed to examine the role of psychological hardiness in the effect of emotional exhaustion on job performance of teachers. Data were collected from 383 regular university teachers by applying purposive sampling technique. To overcome potential common method biases, the study applied time lagged and dyadic approach for collection of data. Hypothesized direct effects were examined with the help of structural equation modeling (SEM) in AMOS and confirmatory factor analysis (CFA) was performed to identify the feasible measurement model. For probing the moderating mechanism, PROCESS macro of Hayes (2013) was used. Results indicated a negative and significant effect of emotional exhaustion on each component of performance, i.e. in-role and extra-role. Furthermore, the results revealed that psychological hardiness fully moderated the effect of emotional exhaustion on job performance of teachers. Implications and limitations of findings were also discussed and further research possibilities were specified. The study contributed in existing literature by examining the moderating role of hardiness in teaching profession.

Keywords: Exhaustion, Hardiness, Job Performance, Moderation, Teachers

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Introduction

Emotional exhaustion specify the mental state of being worn out and weary. The perception of individuals regarding threat to resources or insufficiency of required resources to fulfill the work demands can make them psychologically nervous and stressed (Hobfoll, 1989). Such feelings can develop and promote emotional tidiness in individuals, the long term presence of which put serious negative consequences on health, behaviour, and job related outcomes (Wright & Cropanzano, 1998). In this way, stress and associated emotional weariness ultimately
Emotions may either be negative or positive, based on individuals’ mind set and overall organizational environment. Each category carry different repercussions, where positive sentiments stimulate OCB while negative feelings augment ineffectual work behavior (Spector & Fox, 2002). Emotional disorder also negatively affect the job satisfaction and performance of individuals, lessen their work efforts and OCB, and induce them to quit from job (Hur, Kim, & Park, 2015; Huang & Lin, 2019).

Emotional exhaustion, no doubt, is very much harmful for individuals, organizations, and the entire system. It may instigate due to multiple reasons, including but not limited to stressful life or work events, and put serious negative consequences on health and performance of direct and indirect victims. The negative repercussions of exhausted behaviors can be felt at multiple places in parallel (Liang, 2015). However, some people hold a natural tendency, formally termed as hardiness by Kobasa (1979), of effectively managing the stressful events. Such people cannot worry much with work or life tensions, absorb stress, show lesser depression and exhaustion, and maintain their health and job outcomes (Manning, Williams, & Wolfe, 1988; Blgbee, 1992; Maddi, Harvey, Khoshaba, Fazel, & Resurreccion, 2009). Hardiness can develop courage and stimulus to work hard, assist in reacting more positively to stressful events, and transform probable tragedies to growth opportunities (Benishek & Lopez, 1997; Maddi, 2006). Hardiness is, therefore, a valuable personality characteristic that can provide a shield against the stressful events, curtail the negative costs of emotional exhaustion, and empower the individuals to sustain performance at job (Westman, 1990; Azeem 2010; Enwereuzor, Onyishi, Onyebueke, Amazue, & Nwoke, 2017).

The convincing contributions of psychological hardiness, highlighted earlier, motivated us to empirically examine its buffering role in higher education sector of AJ&K. For this purpose, the study initially examined the effect of emotional exhaustion on performance of teachers, selected from the State universities. Once this negative effect was established, the researchers moved forward to probe the moderation of psychological hardiness in the effect of emotional exhaustion on two components of job performance separately, i.e. in-role and extra-role. In-role performance largely concern with accomplishment of formally assigned tasks (Yavas, Babakus, & Karatepe, 2013). However, extra-role performance cover the dimension of informal and volunteer services, not binding for employees to render (Belogolovsky & Somech, 2010). This parallel examination of both performance components is the first contribution of the study. Second contribution of the study is related to establishing the effect of emotional fatigue, determining the role psychological competences at work, and underlining the associated repercussions. Third contribution is related to the environment in which this study was conducted. This study exclusively addressed the higher education institutions, where the people are involved in shaping the attitudes and behaviors of others who are supposed to be a part of various organizations in future. Findings of our study are, therefore,
expected to be relevant and valuable for different stakeholders of higher education sector in the region.

**Research Model and Hypotheses Development**

Research model of the study, presented in figure 1, primarily base on conservation of resources model (COR) proposed by Hobfoll (1989), and psychological hardiness model originated by Kobasa (1979).

At workplace, feelings of employees regarding deficient resources, inhumane or impolite treatment, and extra job demands can produce tension, misery, and emotional tiredness in the employees (Dettmers, 2017; Alola, Avci, & Ozturen, 2018; Koon & Pun, 2018). Similarly, unpleasant life events, life imbalances, and increased conflicts within the domains of work and family can also be a cause of creating emotional exhaustion (Karatepe 2013; Chen et al., 2018). Such exhausted behavior then put serious negative effects on health, job performance, and organizational commitment of the employees (Servellen, Topf, & Leake, 1994; Wright & Cropanzano, 1998; Moon & Hur, 2011; Hur et al., 2015; Collie, Granziera, & Martin, 2018). Emotional disorder also produce counterproductive work behavior, reduce organizational citizenship behavior, and enhance turnover intentions of employees (Raman, Sambasivan, & Kumar, 2016; De Clercq, InamUlHaq, Azeem, & Raja, 2018; Alola, Olugbade, Avci, & Ozturen, 2019).

Evidences clearly indicate that the stressful environment and emotional tiredness put substantial harmful effects on individuals and organizations. Such effect and reaction pattern, however, considerably differ across individuals on the basis of certain characteristics. Some individuals possess more capacity of absorbing
the unpleasant interactions and shocks, while showing negligible change in their emotions and behaviors. For others, such events may bring abrupt changes in their personal and official life. Stronger aspect of absorbing unpleasant shocks with minimum impact on health of victims was first introduced by Kobasa (1979) and termed as hardiness. Later, different researchers endorsed this concept and supported the buffering mechanism of psychological hardiness in stress and performance association (Westman, 1990; Bartone, Roland, Picano, & Williams, 2008). Hardiness in personality can enable to overcome the issues of aggression, depression, anxiety, and emotional exhaustion, while bringing satisfaction in job and life (Servellen et al., 1994; Maddi et al., 2009). Hardy people accept work and life changes as a routine developmental activity, counter constructively to stressful and unpleasant events, and took the experiences at home and work life as challenging and exciting (Kobasa, Maddi, & Courington, 1981; Benishek & Lopez, 1997; Hystad, Eid, Laberg, Johnsen, & Bartone, 2009). For extending and contributing in existing literature, this study aimed to examine the moderating role of psychological hardiness, for which the direct effect of emotional exhaustion on each in-role and extra-role performance was first probed. To empirically examine the phenomenon, the study hypothesized:

H1: Emotional exhaustion negatively affect the in-role and extra-role performance of teachers.

H2: The negative effect of emotional exhaustion on in-role and extra-role performance of teachers is moderated by their psychological hardiness, such that it remained lower for hardy teachers.

Material and Methods

Participants

This study focused the teachers of five recognized public sector universities in Azad Jammu and Kashmir. Due to dissimilarity of governance and working mechanism, the teachers of private sector universities were not considered while determining the accessible population. The sample of regular teachers was selected for empirical analysis. Teachers engaged in key administrative responsibilities were excluded to ensure the absence of outliers. In addition, the teachers on long leave of any kind or having an experience of less than six months at current position were also left off from the sample. Similarly, experience criteria was also specified for supervisors of the respondents. To manage the reservations of respondents regarding their identification, the study assigned separate codes for each university and for every respondent. This system also helped in matching of dyads during data analysis phase. Mckay, Arnold, Fratzl, and Thomas (2008), Taylor, Bedeian, Cole, and Zhang (2015) also adopted almost similar approaches in seeking responses.
**Measures**

A 5-point Likert scale with anchors (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree) was used for seeking responses on all the variables. Research instrument was based on standard available measures, developed and applied by the researchers earlier. To gather responses on emotional exhaustion, a 8-items OLBI scale was taken from the study of Demerouti, Mostert, and Bakker (2010). This scale comprised of four positively worded and equivalent negatively phrased items. Sample items of this scale include, “After working, I have enough energy for my leisure activities”, “After my work, I usually feel worn out and weary”. A 15-items scale form the study of Hystad, Eid, Johnsen, Laberg, and Bartone (2010) was used to seek responses regarding the psychological hardiness of respondents. This scale also comprised of some negatively worded items for consistency of responses. Sample items were, “By working hard I can nearly always achieve my goals”, “How things go in my life depends on my own actions”, “I enjoy the challenge when I have to do more than one thing at a time”. For each in-role and extra-role performance of teachers, the study adopted the scale of Williams and Anderson (1991). 7-items of this scale were specified for in-role performance while 14-items for extra-role performance. Each scale carry some reverse coded items. Sample items were, “He/she meets formal performance requirements of the job”, “He/she assists you with his/her work (when not asked)”, “He/she complains about insignificant things at work”.

**Statistical Procedure**

The study collected primary data from two different categories of respondents, i.e. teachers and their immediate supervisors (HoDs). For this purpose, the respondents were approached through mailed questionnaires in separate sealed envelopes. Each respondent’s category was approached at different points of time, while an appropriate time interval was maintained within each phase. Responses on exhaustion and hardiness were gathered from individual teachers in first phase. In second phase, respective HoDs were approached to provide feedback regarding the performance and behavior of teachers under their supervision. Dyadic approach, time lagged data, and sealed/mailed questionnaires strategy facilitated in securing unbiased responses and to manage the probabilities of common-method biases (Teven, 2007; Karatepe, 2015; Arasli, Hejraty, & Abubakar, 2018; De Clercq, InamUlHaq, Azeem, & Ahmad, 2019; Shin&Hur, 2020). To facilitate the respondents, a postal paid self-addressed envelope was also included in each questionnaire package. The systematic mechanism helped to secure a decent response rate.

Descriptive statistics, correlation, reliability, and validity analyses were initially conducted to establish the normality of data and suitability of measures. The study adopted the approach of Campbell and Fiske (1959) to examine the validity of responses and measures. After examining the basic features of collected responses, the study applied two stages SEM approach of Anderson and Gerbing (1988). In the first step, confirmatory factor analysis (CFA) was applied to select the desired...
measurement model. Model fitness was identified with the help of largely used and commonly accepted fit indices with appropriated threshold levels, i.e. \( \chi^2/df< 3.00; \) RMSEA< 0.08, IFI/TLI/CFI \( \geq 0.90 \) (Hu & Bentler, 1999; Fan, Thompson, & Wang, 1999; Rens van de Schoot, Lugtig, & Hox, 2012; Hyde & Grieve, 2018; Teo, Bentley, & Nguyen, 2020). Hypothesized direct effects were examined in the next step. Owing to its advantageous nature, numerous researchers across the world followed this two stages SEM approach in analysis of primary data (Abubakar, 2018; Alola et al., 2018; Fatima, Majeed, & Jahanzeb, 2020). Once hypothesized direct effects were established, the study tested moderation of psychological hardiness with the help of model proposed by Hayes (2013).

Results and Discussion

The basic data characteristics were initially examined in SPSS 24 and its results are reported in table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE</td>
<td>2.75</td>
<td>0.83</td>
<td>0.90</td>
<td>0.533</td>
<td>0.213</td>
<td>0.730</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH</td>
<td>3.68</td>
<td>0.82</td>
<td>0.928</td>
<td>0.546</td>
<td>0.303</td>
<td>-0.038</td>
<td>0.739</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IRP</td>
<td>4.03</td>
<td>0.73</td>
<td>0.899</td>
<td>0.642</td>
<td>0.303</td>
<td>-0.251***</td>
<td>0.455***</td>
<td>0.801</td>
<td></td>
</tr>
<tr>
<td>ERP</td>
<td>3.57</td>
<td>0.80</td>
<td>0.913</td>
<td>0.515</td>
<td>0.290</td>
<td>-0.429***</td>
<td>0.380***</td>
<td>0.477***</td>
<td>0.718</td>
</tr>
</tbody>
</table>

(Note: \( N = 383; \) ***p < 0.001; AVE = Average variance extracted; MSV = Maximum shared variance; Diagonal elements (in bold) are square root of AVE).

The computed mean and standard deviation values of all the variables are presented in table 1. Higher mean value of each variable represented to the respondents choice closer to agreement side. Each scale, however, was comprised of some reverse coded items. Regarding emotional exhaustion, the summary statistics indicated a nearly neutral position that can also be attributed to the equivalent number of positive and negative worded items in the scale. Indicators of all other variables portrayed a higher choice towards agreement side. Highest mean and lesser standard deviation value of in-role performance was quite natural as the items of this scale were mostly representing to duties specified in job descriptions, the employees are obligated to perform. Extra-role performance scale, on the other side, mainly comprised of items and contributions made on voluntary basis. Results also specified a negative correlation of emotional exhaustion with all other variables, although it didn’t remain significant for hardiness. The results further specified a positive correlation of hardiness with each in-role and extra-role performance of respondents. Table 1 also depicted higher than specified threshold value of CR (\( \geq 0.70 \)) and AVE (\( \geq 0.50 \)). In addition, AVE values were higher than the corresponding MSV values, while CR values were higher than the corresponding AVE values for each variable. Statistics reported in table 1, therefore, conform to normal distribution of data and absence of outliers, while established the validity and reliability of measures and responses. The study then examined goodness-of-fit
indices to establish the model fitness. Table 2 is summarizing the results of desired fit indices.

<table>
<thead>
<tr>
<th>Measurement Model</th>
<th>χ²/df</th>
<th>RMSEA</th>
<th>IFI</th>
<th>TLI</th>
<th>CFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original 4-Factor Model</td>
<td>5.89</td>
<td>0.11</td>
<td>0.75</td>
<td>0.73</td>
<td>0.75</td>
</tr>
<tr>
<td>Revised 4-Factor Model</td>
<td>2.32</td>
<td>0.07</td>
<td>0.95</td>
<td>.94</td>
<td>.95</td>
</tr>
</tbody>
</table>

Model fit indices were poor in original 4-factor model so certain items were correlated in the revised model. This modification analysis substantially improved the model fitness (χ²/df = 2.32, RMSEA = 0.07, IFI = 0.95, TLI = 0.94, CFI = 0.95). Before testing the moderation of psychological hardiness, direct paths were examined. Results of direct effects are presented in table 3.

<table>
<thead>
<tr>
<th>Path</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE → IRP</td>
<td>-0.251***</td>
</tr>
<tr>
<td>EE → ERP</td>
<td>-0.429***</td>
</tr>
</tbody>
</table>

(Note: N = 383; *** p < 0.001)

Hypothesized direct effects were supported by the empirical results. As reported in table 3, the study found a negative and significant effect of emotional exhaustion on each component of performance, i.e. in-role (β = -0.251, p < 0.001) and extra-role (β = -0.429, p < 0.001). The results endorsed the propositions pertaining to harmful effects of emotional tiredness for individuals and organizations. Once the direct effects were established, the researchers stepped forward to examine the moderating mechanism of psychological hardiness by applying Hayes (2013) model in SPSS 24. Results of moderation analysis are summarized in table 4.

<table>
<thead>
<tr>
<th>DV:IRP</th>
<th>95% CI</th>
<th>DV:ERP</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>β</td>
<td>LLUL</td>
<td>β</td>
<td>LLUL</td>
</tr>
<tr>
<td>EE</td>
<td>-1.123***</td>
<td>-1.397</td>
<td>-0.850</td>
</tr>
<tr>
<td>PH</td>
<td>-0.296*</td>
<td>-0.508</td>
<td>-0.084</td>
</tr>
<tr>
<td>EE x PH</td>
<td>0.258***</td>
<td>0.184</td>
<td>0.332</td>
</tr>
<tr>
<td>ΔR²</td>
<td>.077***</td>
<td>.0492***</td>
<td></td>
</tr>
<tr>
<td>F Statistics</td>
<td>46.64</td>
<td>30.92</td>
<td></td>
</tr>
</tbody>
</table>

**Conditional effects of the focal predictor (EE) at values of the moderator (PH)**

One SD below mean | -0.387*** | -0.474 | -0.299 | -0.556*** | -0.650 | -0.462 |
At the mean       | -0.175*** | -0.245 | -0.105 | -0.371*** | -0.446 | -0.295 |
One SD above mean | 0.037     | -0.062 | 0.135  | -0.186*** | -0.291 | -0.080 |

(Note: N = 383; *** p < 0.001; ** p < 0.01, *p < 0.05)
The results indicate that the effect of emotional exhaustion was negative and significant but due to moderation of psychological hardiness it became positive for each in-role ($\beta = .258, p< .001$) and extra-role ($\beta = .226, p< .001$) performance of teachers. The graphs of moderating mechanism were plotted on the basis of conditional effects (-1SD, mean, +1SD) and presented in Fig. 2 and Fig. 3.

![Fig. 2. Moderation of PH between EE and IRP](image)

![Fig. 3. Moderation of PH between EE and ERP](image)

The results of moderation analysis supported our Hypothesis 2. It was observed that psychological hardiness significantly buffered the effect of emotional exhaustion on each component of performance. Moreover, the buffering role of hardiness remained relatively stronger for in-role performance of teachers.

**Conclusion**

This study found a significant negative effect of emotional exhaustion on each in-role and extra-role performance of teachers. In the meantime, it was observed that psychological hardiness effectively moderated the effect and minimized the negative consequences of emotional exhaustion on each performance component. Based on results, the study concluded that emotional exhaustion is too dangerous and harmful for organizations, especially educational institutions. It can disrupt the entire environment and put serious negative consequences for individuals, institutions, and entire system. Results of this domain are consistent with the findings of existing studies, conducted in different organizational and environmental settings (Liang, 2015; Collie et al., 2018; Huang & Lin, 2019). Findings of the study endorsed that emotional exhaustion negatively contributes to performance, productivity, and efficiency of individuals and organizations. This chronic issue should, therefore, be addressed proactively and positively at every level. The study, however, found a positive sign regarding the presence of
psychological hardiness in larger proportion of respondents with its positive and buffering role to manage the emotional feelings. It was observed that negative impact of exhaustion remained lower for hardy teachers. Researchers in past reported and supported the positive contributions of hardiness in unpleasant interactions, stress, and performance management (Westman, 1990; Hystad et al., 2009; Mackey, Bishoff, Daniels, Hochwarter, & Ferris, 2019). This study also concluded that hardiness is an important personality attribute that can play an effective role everywhere.

The study offers some practical policy implications and interventions to manage the chronic issue of emotional exhaustion for survival, growth, and sustainability of individuals and organizations. One is relevant to the creation of conducive working environment in the organizations. Humane treatment at workplace can reduce the level of anxiety and stress, and facilitate to lessen the negative job outcomes. To address the issues, concerns, and instigators of stress and exhaustion within the institutions, the grievance committees can also be effective, as earlier proposed by Hur et al. (2015). The other possible mechanism and intervention is the arrangement of training sessions, motivational speeches, and awareness seminars to highlight the consequences of emotional drainage and offering mechanism to overcome this chronic issue. Earlier, Bedi, Courcy, Paquet, and Harvey (2013), Bai, Lin, and Wang (2016) also highlighted the importance and relevance of such trainings and awareness programs to confine the issues and associated outcomes. The attitude and support of supervisors could be much helpful for employees in managing the unpleasant events, so trainings programs on social intelligence should be organized for supervisors, as suggested by Rahim and Cosby (2016). Results of moderation analysis endorsed the suggestions of Cho, Bonn, Han, and Lee (2016), De Clercq et al. (2018) to incorporate the aspect of personality traits, social and interpersonal skills in hiring, selection, and retention of employees and supervisors.

Despite of its strengths, the study has few limitations that should be considered in interpreting the results and be addressed in future studies. The researchers focused only one sector and one region to complete the study with available resources. Future studies may address more sectors and regions for higher generalizability of results. Secondly, the researchers only relied on supervisors-rated feedback to measure each in-role and extra-role component of performance. Extra-role component is related to organizational citizenship behavior, so the feedback of colleagues and other stakeholders could be more interesting and relevant. Thirdly, the study only examined the impact of emotional exhaustion on job performance, without taking into account its antecedents. A separate, full-fledge study in this context is required. Similarly, the scope of outcomes for individuals and organizations could be extended in future studies. The study can also be extended in future to determine the moderating mechanism of hardiness for other domains of work and family life. Such extensions and implementation of suggested measures...
are expected to be helpful in individual, organizational, societal, and ultimately national development.
References


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