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Trait Mindfulness as Moderator with Role Overload and Job Stress among healthcare Professionals Working in the Healthcare Sector

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Abstract

Mindfulness, a practice spanning millennia across various cultures and religions, has garnered attention in contemporary psychology for its efficacy in stress reduction. Healthcare workers are among the most likely to experience high levels of stress, owing to the seriousness of their profession, as such this research investigates the role of trait mindfulness in mitigating the negative impacts of role overload among healthcare Professionals. The study, comprising 310 healthcare professionals employed in different hospitals located in Hail, Saudi Arabia, examines how a nurse's mindful predisposition (Trait mindfulness) may be effective in reducing the detrimental effects of job stress created by role overload. Utilizing Reilly's Role Overload scale (5 items, Cronbach's alpha: .82), the Job Stress Scale (5 items, alpha: .85), and the MAAS scale (15 items, alpha: .79). Results show that Mindfulness significantly moderates the relationship between role overload and job stress. This means that trait mindfulness can act as a buffer against the detrimental effects of role overload on job stress experienced by healthcare professionals. These findings are particularly useful for policymakers and management associated with the healthcare sector that mindfulness-based interventions, as a potential tool to promote well-being and protect healthcare professionals from the detrimental effects of stress.

Keywords: *Mindfulness, Role overload, Job Stress, Healthcare Professionals*

INTRODUCTION

Mindfulness denotes a state of heightened awareness and freedom from unnecessary thoughts, achieved through intentional acceptance of the present moment and calm, non-judgmental focus(Kabat-Zinn, 2015). Notably, mindfulness is categorized as both a state and a trait, where state mindfulness results from active training and meditation, while trait mindfulness reflects an individual's predisposition to mindfulness in daily life(Kiken et al., 2015). Short-term mindfulness interventions can induce states of mindfulness beneficial for handling challenging roles and tasks. Moreover, sustained interventions can enhance trait mindfulness, offering benefits across various life domains (Kiken et al., 2015; Sulosaari et al., 2022; Tang & Tang, 2017).

Mindfulness emerges as a potent resource for navigating stressful situations and daily strains in both work and personal life(Bayighomog et al., 2023; De Lissnyder et al., 2012; Lee, 2020). Mindful individuals exhibit greater composure and resilience in everyday scenarios, and in times of crisis, their enhanced mindfulness confers advantages, including increased confidence, creativity, and adaptability (Zhu et al., 2021).

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The research underscores the importance of mindfulness and a supportive psychosocial work environment for promoting workplace health and reducing Occupational stress(Mesmer-Magnus et al., 2017). It is imperative to mitigate stress and burnout, which adversely impact individuals' quality of life and work performance. The presence of role overload and stress in the healthcare profession highlights the necessity of preventive measures such as mindfulness training (Arandjelovic et al., 2010; Sulosaari et al., 2022). Mindfulness has been observed to function as a personal resource that buffers the impact of stress and stressors(E. Janssen et al., 2020).

For healthcare professionals, who confront heightened stress levels and multifaceted challenges in delivering quality care, mindfulness becomes a crucial coping resource. Despite the demanding nature of their roles, healthcare professionals often contend with insufficient consideration for their psychological well-being amidst prolonged hours and emotionally charged patient interactions(M. Janssen et al., 2020; Ma et al., 2018; N. Zhang et al., 2022).

Research reveals that healthcare professionals experiencing high-stress levels and low organizational support are more prone to job turnover and suffer from increased susceptibility to depression and anxiety affecting their overall well-being (Yuan et al., 2023; Yun & Yu, 2021). The toll of stress extends beyond individual healthcare professionals , impacting the healthcare system at large, leading to absenteeism and compromising patient care quality (Islam et al., 2021; M. Janssen et al., 2020).

In addressing stress, particularly in the context of role overload, which encompasses physical, emotional, and cognitive strains, interventions must be tailored to nurture resilience and create supportive work environments. Mindfulness emerges as a pivotal factor in moderating stress and enhancing well-being, especially amidst crises like the COVID-19 pandemic (Hamama et al., 2022; Pitchford, 2022; Y. Zhang et al., 2020).

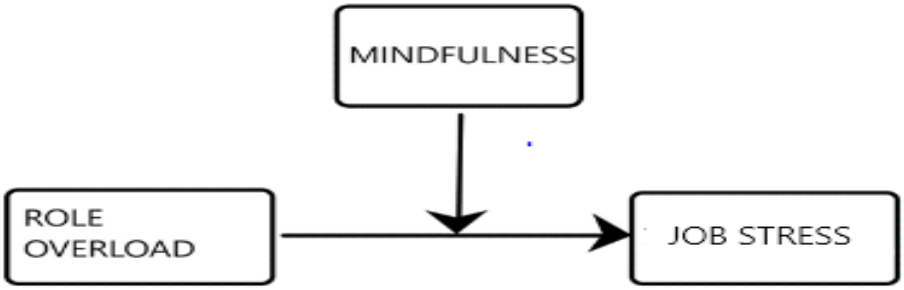
Individuals with emotional well-being tend to excel in their professional roles (M. Janssen et al., 2020). The Mindfulness-to-Meaning Theory (MMT) posits that mindfulness facilitates a shift from stress assessments to a metacognitive state, broadening awareness to uncover overlooked aspects of life. This allows for a reframing of adverse circumstances, reducing distress and fostering positive emotions(Garland et al., 2015).

For healthcare professionals engrossed in their roles, mindfulness can transform heightened awareness during tasks into a consistent state, reframing their thinking and fostering selfless happiness and meaningfulness(Garland et al., 2017). Mindfulness expands self-awareness, enabling employees to find wider meaning and recognize their impact on the world. Practicing mindfulness is particularly beneficial for healthcare professionals , as it increases awareness of the meaningfulness of their lives and the impact of their work on patients (Ghawadra et al., 2019; M. Janssen et al., 2020).

The savoring cycle of MMT fosters a greater appreciation and awareness of pleasant experiences, allowing individuals to distance themselves from painful ones (Bryant & Smith, 2015; Weitlauf et al., 2020). This cycle can shift perspectives, enabling employees, especially healthcare professionals, to find opportunities for psychological growth in the face of adversity. Healthcare professionals can leverage their experiences of patient suffering and recovery to appreciate human resilience, savor their well-being, and draw inspiration from their patients. Increased mindfulness, reprisal, and savoring generate positive emotions that can help healthcare professionals minimize Occupational stress and enhance performance(M. Janssen et al., 2020). High trait mindfulness in healthcare professionals provides better control over stress perception and role overload. Those with high mindfulness may appreciate the positive aspect of having a heavy workload and remain less affected by demotivation(Lee, 2020). This positive outlook may not only reduce stress but also increase awareness of colleagues' needs, leading to improved nursing care for patients. Research consistently supports the positive correlation between increased mindfulness and enhanced contextual performance in nursing(Şahin et al., 2020). Mindfulness emerges as a reliable predictor of mental well-being.

In conclusion, mindfulness serves as a critical role in the link between role overload and job stress within the nursing profession. Recognizing and addressing stress is essential for both healthcare professionals ' well-being and the delivery of quality healthcare. Institutions must prioritize interventions that mitigate stress and foster resilience to uphold the standards of patient care and optimize job performance in nursing.

Conceptual Framework



HYPOTHESIS

Role overload positively relates to job stress among healthcare professionals working healthcare sector.

Mindfulness negatively relates to job stress among healthcare professionals working in healthcare sector.

Mindfulness moderates the relationship between Role overload and Job stress; specifically, an increase in Mindfulness will decrease the negative impact of role overload on Job stress among healthcare professionals.

INSTRUMENTS

Role Overload

Role overload was assessed using the revised version of Reilly's Role Overload Scale, consisting of 6 items rated on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Previous studies have demonstrated high internal consistency for this scale, with Cronbach's alpha coefficients ranging from 0.87 to 0.92 (Thiagarajan et al., 2006; Reilly, 1982).

Job Stress

Job stress was measured using the Job Stress Scale developed by Lambert et al. (2006). This scale comprises 5 items rated on a 5-point Likert-type response format (1 = strongly agree to 5 = strongly disagree) and assesses the direct experience of stress among employees in their work life. The scale has demonstrated good reliability, with an alpha coefficient of 0.82.

Mindfulness

Dispositional mindfulness was assessed using the Mindful Attention Awareness Scale (MAAS) developed by Brown and Ryan (2003). The scale consists of 15 items rated on a 6-point Likert scale (1 = Almost Always to 6 = Almost Never). Previous research has indicated the stability, reliability, and validity of the MAAS, with Cronbach's alpha coefficients ranging between 0.76 and 0.93 (Osman et al., 2016; MacKillop & Anderson, 2007; Black et al., 2012).

Procedure

Data collection involved contacting the heads of different departments in hospitals to seek permission to approach healthcare professionals for participation. Upon approval, healthcare professionals with on-the-job experience were invited to participate and provided with consent forms outlining their rights and a brief overview of the study. Participants completed the questionnaires independently, either in person or through an online Google form, ensuring anonymity and the option to withdraw from the study at any time. Ethical guidelines were strictly followed throughout the data collection process.

ANALYSIS

Data was compiled in SPSS v26 and Model 1 of Andrew Hayes' Process macro v4 was used to run moderation analysis for the moderating effects of mindfulness on the relationship between role overload and job stress.

RESULTS

Table 1 ***Reliability of the scales. (N = 310)***

Scale	Items	Mean	Cronbach's α	SD	Skewness	Kurtosis
Role overload	6	20.98	.87	5.55	-0.42	-0.48
Job Stress	5	14.64	.85	4.89	0.02	-0.68
Mindfulness	15	60	.79	10.89	-0.03	-0.25

The Role overload scale exhibited good internal consistency, with a Cronbach's alpha coefficient of .82. On average, participants reported a score of 17.67 (SD = 4.62) on this scale. The Job Stress scale, consisting of 5 items, demonstrated high internal consistency, with a Cronbach's alpha coefficient of .85. Participants' average score on this scale was 14.64 (SD = 4.89). The Mindful Attention Awareness Scale, comprising 15 items, showed good reliability, with a Cronbach's alpha of .79. Participants obtained an average score of 60 (SD = 10.89) on this scale.

Moderating role of Mindfulness on Role Overload and Job Stress Relationship

Table 2 ***Regression: Mindfulness moderation on Role Overload to Job Stress relationship (N = 310)***

Variables	β	SE	p	95% CI
Role Overload	.25	.05	.00	[.16, .34]
Mindfulness	-.17	.02	.00	[-.22, -.12]
Role overload x Mindfulness	-.02	.00	.00	[-.03, -.01]

Model for the a-path $R^2 = .23$, $F(3, 306) = 32.25$, $p < .001$

For the path from Role Overload to Job Stress there was a significant interaction between Role Overload and Mindfulness, $p < .001$, $\Delta R^2 = .04$. Indicating significant moderation by Mindfulness. The model accounted for 23% of the variance in job stress.

Results show that Role overload had a significantly positive relationship with job stress ($\beta = 0.25$, $p < .001$). Mindfulness demonstrated a significantly negative association with job stress ($\beta = -0.17$, $p < .001$). Showing that higher levels of role overload were associated with increased job stress. And those with higher mindfulness tended to experience lower levels of job stress.

The conditional effect from Role Overload on Job Stress was significant for small (-10.89), b = .43, {.30, .55}, and medium values (0) of Mindfulness, b = .25, {.16, .34}, but non-significant for larger values (10.89) of Mindfulness, b = .10, {-.07, .21}. Showing that mindfulness weakened the effect of role overload on job stress, however the effect becomes non-significant at high levels of mindfulness.

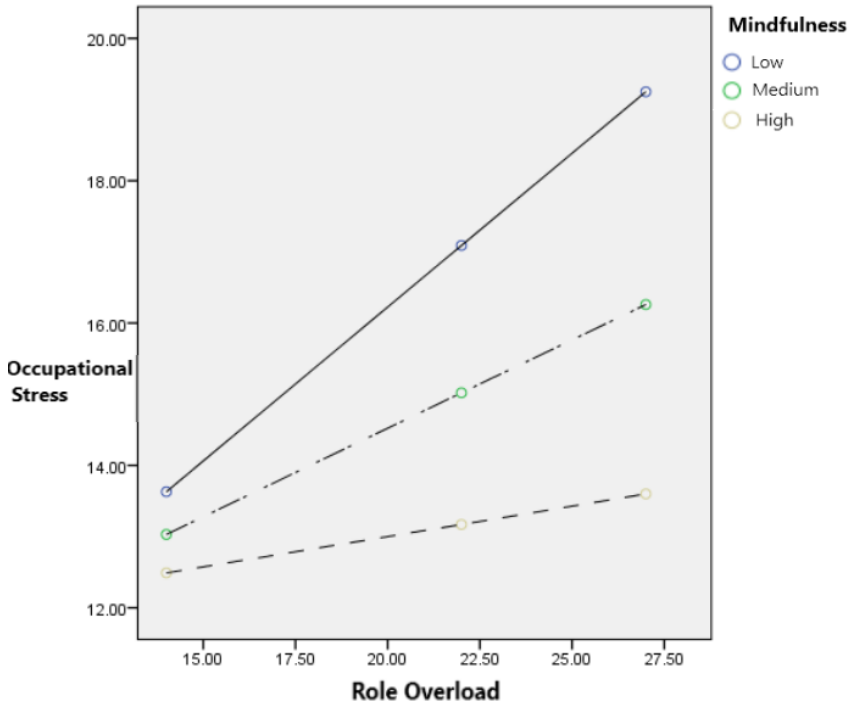


Figure 1: Mindfulness Moderation at Low, Medium and High level

Graphical representation according to Figure 1, shows how; for low levels of mindfulness the slope between occupational stress and role overload is steep, however as mindfulness increases to medium and high levels, the slope appears to become less and less steep. These slopes represent how the relationship between Role overload and job stress weakens as mindfulness increases.

DISCUSSION

Job stress has been an ever-present issue for employees since the time jobs have existed, this problem has continued to persist into the modern world. As such, finding ways of mitigating stress and its negative effects has been of great importance to researchers. Through research conducted in the latter half of the 20th century, the importance of mindfulness, awareness and acceptance has gained traction as a means of reducing job stress. Researchers have found that the mindfulness level of an individual has strong implications for their stress levels(Rodríguez-Muñoz et al., 2022). The present study investigated how role overload may be a predictor of job stress and how trait mindfulness of individuals may function to reduce such stress.

According to the results, it was established that role overload was significantly positively related to job stress while mindfulness was significantly negatively related to job stress. These findings further extend the scientific body of research on role overload, job stress, and mindfulness. As found by Mittal & Bhakar (2018), increasing levels of role overload are often accompanied by increasing job stress and dissatisfaction with the job. Individuals going through mindfulness training or meditation, however, are more likely to score lower in job stress. Wexler & Schellinger (2023) found in their integrative review that most past studies show Mindfulness-Based Stress Reduction as an effective tool for use to not only reduce stress but also increase mindfulness levels among healthcare professionals. Healthcare professionals are more likely to be engaged in role overload and hence be susceptible to job stress; the findings of Pitchford (2022) during the COVID-19 pandemic support that healthcare professionals were experiencing burnout due to role overload.

The findings from Model 1 of the PROCESS macro suggest that there is a noteworthy moderation effect by mindfulness within the nursing sample. Reviewing existing literature, it becomes evident that many studies indicate a similar pattern, wherein concepts akin to mindfulness play a moderating role in alleviating role overload and stress. For instance, a study focusing on caregivers of adults found that individuals exhibiting

higher levels of gratitude tended to experience lower psychological distress. Moreover, gratitude was observed to mitigate the impact of role overload on psychological well-being associated with job stress(Zhu et al., 2021). Another investigation highlighted the significance of political skills, which encompass social perceptiveness and related abilities that may align closely with mindfulness, in buffering the effects of role overload on job tension(Hochwarter et al., 2005). Additionally, research has shown that mindfulness is effective in moderating the adverse consequences of role overload on sleep(Jiayuan et al., 2022)

CONCLUSION

These findings exemplify the importance of measuring buffers for the exacerbation of strain into stress. Various studies have already explored the potential of psychological techniques to foster mindfulness as a resilience-building strategy to mitigate the adverse effects of role overload. The present study further emphasizes the importance of cultivating, specifically, mindfulness practices, with the help of which hospitals may empower healthcare professionals to effectively manage workplace demands and promote overall well-being in the workforce..

Limitations

Several limitations within this study may apply when conducting further research on this topic. The variables used are precise and limited, i.e., they are one-dimensional with a small number of questions to be answered. This method was preferred to sustain the full focus of participants and avoid any errors in filling due to boredom, which would occur if there were many questions to be answered. Although the brief nature of the questionnaires used was beneficial for accuracy in answering; multidimensional scales may provide a more accurate understanding in niche areas of this topic. Future researchers should weigh the detriments and benefits of using longer, more detailed scales.

Recommendations

Another area worth exploring would be to improve the self-report method of collecting data. While more popular designs employ supervisor-filled questionnaires to supplement self-report questionnaires, oftentimes that is not a viable option. As such, another method could be to collect data at multiple points in time from the same person and use the average of their responses. This method would not only help avoid biases due to situational circumstances but also provide more credible, stable responses.

One final recommendation is the addition of medical illness questions in the demographic part of the questionnaire. Oftentimes, a medical issue, such as diabetes, can cause memory problems which might compromise the response. Therefore, screening for other issues that may give outlier responses should be taken into consideration.

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