



ROLE OF PERSONALITY DIMENSIONS AND COPING STYLES ON OCCUPATIONAL STRESS AMONG MEDICAL PROFESSIONALS: A PILOT STUDY

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Abstract

Background: Occupational stress is a significant concern for medical professionals due to the high demands and emotional intensity of their work. Persistent stress can lead to burnout, characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. **Aim:** This pilot study explores the moderating role of personality dimensions and coping styles on the relationship between occupational stress and burnout in medical professionals. **Methods:** The study sample consisted of 50 medical professionals aged 25–55 years, recruited from public and private hospitals. Participants completed standardized assessments including the Occupational Stress Index, Maslach Burnout Inventory, Eysenck Personality Questionnaire – Revised (extraversion, neuroticism, psychoticism, and coping styles (adaptive and maladaptive)). Statistical analyses included descriptive statistics, Pearson’s correlations, and moderation analysis to evaluate the influence of personality traits and coping styles on the stress–burnout relationship. **Results & Conclusion** indicate that neuroticism and maladaptive coping amplify the impact of stress on burnout, whereas extraversion and adaptive coping mitigate these effects. These findings underscore the importance of considering personality and coping strategies in designing interventions to reduce burnout in healthcare settings.

Keywords: Occupational stress, burnout, personality dimensions, coping styles, medical professionals

INTRODUCTION

Medical professionals operate in inherently high-stress environments, facing prolonged working hours, heavy workloads, critical decision-making, and frequent exposure to patient suffering and life-or-death situations. These challenges often contribute to elevated levels of occupational stress, which, when persistent, can evolve into burnout—a multidimensional psychological syndrome characterized by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment (Maslach & Jackson, 1986). Burnout not only affects mental and physical health but also impairs professional performance, job satisfaction, and patient care quality.

Individual differences play a pivotal role in determining how medical professionals perceive, interpret, and respond to workplace stressors. Personality traits are particularly influential in shaping stress responses. According to Eysenck’s model, personality comprises three primary dimensions: extraversion, neuroticism, and psychoticism (Eysenck & Eysenck, 1975). Extraversion is associated with sociability, optimism, and the ability to seek social support, which can promote resilience under stress. Neuroticism, on the other hand, involves emotional instability and heightened sensitivity to perceived threats, making individuals more susceptible to stress and negative emotional states. Psychoticism includes traits such as aggressiveness, impulsivity, and interpersonal hostility, which may interfere with effective stress management and adaptive social interactions.

Coping strategies—cognitive and behavioral efforts to manage stressful situations—serve as a crucial mechanism for mitigating or exacerbating the effects of occupational stress. Adaptive coping strategies, such as problem-solving, positive reframing, and seeking social support, have been linked to reduced stress levels and lower burnout risk. Conversely, maladaptive coping, including avoidance, denial, and emotional venting, can intensify stress responses and accelerate burnout progression (Carver et al., 1989). The interplay between personality traits and coping strategies is complex; certain



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personality profiles may predispose individuals to rely more heavily on specific coping behaviors, influencing their vulnerability or resilience to occupational stress.

Given the demanding nature of medical work and the potential consequences of chronic stress, it is essential to understand how personality and coping interact to affect burnout. This study investigates the moderating role of personality dimensions and coping styles on occupational stress among medical professionals, aiming to identify factors that can inform targeted interventions, enhance resilience, and promote well-being in healthcare settings. By exploring these dynamics, the study seeks to contribute to the development of evidence-based strategies for stress management, psychological support, and professional sustainability in the medical field.

METHODOLOGY

Objectives of the Study:

1. To examine the levels of occupational stress among medical professionals.
2. To assess the personality dimensions (extraversion, neuroticism, psychoticism) of medical professionals.
3. To explore the coping strategies employed by medical professionals in managing occupational stress.
4. To determine the moderating role of personality dimensions and coping styles on the relationship between occupational stress and burnout.

Hypotheses of the Study:

1. Medical professionals with higher occupational stress will exhibit higher levels of burnout.
2. Individuals scoring higher on neuroticism will report greater occupational stress and burnout, whereas higher extraversion will be associated with lower stress and burnout.
3. Adaptive coping strategies will moderate the impact of occupational stress on burnout, reducing its severity.
4. Maladaptive coping strategies will strengthen the relationship between occupational stress and burnout.

RESEARCH DESIGN

A comparative, cross-sectional research design was used to assess the relationship between occupational stress, personality dimensions, and coping strategies among medical professionals.

Sample:

The study included **50 medical professionals** aged 25–55 years, recruited from public and private hospitals in Lucknow . Participants included doctors and nurses with at least two years of clinical experience.

Inclusion Criteria:

- Female Medical professionals aged 25–55 years.
- Minimum of 2 years of clinical or hospital experience.
- Willingness to participate and provide informed consent.

Exclusion Criteria:

- History of chronic physical illnesses or neurological disorders.
- Current psychiatric disorders or psychological treatment.



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- Pregnant or postpartum women.

Procedure:

After obtaining ethical approval and informed consent, participants were briefed about the purpose of the study. Standardized questionnaires were administered individually in a quiet environment. Each session lasted approximately 60 minutes. Confidentiality and anonymity were strictly maintained.

Tools Used:

1. **Occupational Stress Index (OSI)**-Developed by Srivastava & Singh (1984).Measures the level of occupational stress across domains such as role overload, role ambiguity, role conflict, and interpersonal relationships.Higher scores indicate higher perceived occupational stress.
2. **Eysenck Personality Questionnaire – Revised Short Form (EPQR-S)** - Developed by Hans J. Eysenck and Sybil B. G. Eysenck. Assesses three personality dimensions: **Neuroticism**, **Extraversion**, and **Psychoticism**.Provides insight into how personality traits influence stress perception and coping behaviors.
3. **Coping Response Inventory – Adult Form (CRI-A)**Developed by Rudolf H. Moos (1988).Evaluates coping strategies across **approach** (problem-solving, seeking guidance, logical analysis, positive reappraisal) and **avoidance** (cognitive avoidance, acceptance/resignation, emotional discharge, seeking alternative rewards) dimensions.Identifies adaptive and maladaptive coping patterns in response to occupational stress.
4. **Maslach Burnout Inventory (MBI)** - Developed by Maslach & Jackson (1986).Measures burnout across three dimensions: **Emotional Exhaustion**, **Depersonalization**, and **Reduced Personal Accomplishment**. Helps understand the impact of occupational stress on professional functioning.

DESCRIPTION OF THE TOOLS:

Occupational Stress Index (OSI), developed by Srivastava and Singh in 1984, comprises **46 items**. These items are designed to assess various stressors in the workplace, such as role overload, role ambiguity, role conflict, interpersonal relationships, and organizational pressures. The items are rated on a **five-point Likert scale**, ranging from 1 (strongly disagree) to 5 (strongly agree). Of the 46 items, 28 are positively keyed, and 18 are negatively keyed, requiring reverse scoring for the latter

Eysenck Personality Questionnaire – Revised Short Form (EPQR-S) The EPQR-S was developed by Hans J. Eysenck and Sybil B.G. Eysenck in 1991. It is a 48-item self-report questionnaire designed to assess three major dimensions of personality:Neuroticism (N) – emotional instability and anxiety, Extraversion (E) – sociability and liveliness, Psychoticism (P) – aggressiveness and tough-mindedness. It also includes a Lie Scale (L) to detect socially desirable responses. Scoring: The items are answered in a Yes/No format. Each dimension consists of 12 items. Scores are summed separately for each trait, with higher scores indicating stronger personality tendencies in that domain.

The **Maslach Burnout Inventory (MBI)**, developed by Maslach and Jackson (1986), contains **22 items** in total.These items are divided across three subscales: **Emotional Exhaustion (EE)**: 9 items – measures feelings of being emotionally overextended and exhausted by one’s work. **Depersonalization (DP)**: 5 items – assesses an unfeeling and impersonal response toward recipients of one’s care or service. **Personal Accomplishment (PA)**: 8 items – evaluates feelings of competence and successful achievement in one’s work. Each item is rated on a **7-point Likert scale** (0 = never, 6 = every day). High scores on EE and DP, combined with low scores on PA, indicate higher levels of burnout.



Coping Response Inventory Adult Form (CRI-A)

The CRI-A was developed by Rudolf H. Moos in 1988 to assess the cognitive and behavioral coping strategies individuals use in response to stressful situations. It includes 48 items, rated on a 4-point Likert scale (from “not at all” to “fairly often”), and is divided into two major coping styles: Approach Coping (Logical Analysis, Positive Reappraisal, Seeking Guidance and Support, Problem Solving), Avoidance Coping (Cognitive Avoidance, Acceptance/Resignation, Seeking Alternative Rewards, Emotional Discharge), Scoring: Each subscale has 6 items. Higher scores indicate a greater use of that particular coping strategy.

Statistical Analysis :

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). Independent Samples t-tests were conducted to compare the mean scores of occupational stress, burnout, personality dimensions, and coping strategies among medical professionals. Additionally, Pearson’s correlation coefficients were calculated to examine the relationships between occupational stress, burnout, personality traits, and coping styles. Moderation analyses were performed to determine whether personality dimensions and coping strategies influenced the relationship between occupational stress and burnout.

Results

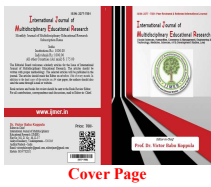
Table 1: (n = 50) Mean and Standard Deviation of Coping Responses in Medical Professionals

Variable	Mean	SD	Minimum	Maximum
Occupational Stress	73.68	13.89	51	99
Burnout	54.46	15.11	30	79
Extraversion	16.42	4.27	10	24
Neuroticism	20.36	4.86	12	28
Psychoticism	12.94	4.31	7	21
Adaptive Coping	31.86	7.84	20	44
Maladaptive Coping	26.42	8.00	15	39

<75) demonstrated higher usage of **adaptive coping strategies**, including Logical Analysis, Positive Reappraisal, Problem Solving, and Seeking Social Support. In contrast, participants with higher occupational stress scores (≥ 75) reported greater reliance on **maladaptive coping strategies**

Table 2: Pearson correlation coefficients among occupational stress, burnout, personality dimensions, and coping strategies in Medical Professionals

Variable	1	2	3	4	5	6	7
1. Occupational Stress	1.00	-0.04	0.19	-0.05	-0.13	0.10	0.18
2. Burnout	-0.04	1.00	-0.13	0.36	-0.01	0.19	0.18
3. Extraversion	0.19	-0.13	1.00	0.24	0.19	-0.19	0.07
4. Neuroticism	-0.05	0.36	0.24	1.00	0.04	0.06	0.10
5. Psychoticism	-0.13	-0.01	0.19	0.04	1.00	0.15	0.06
6. Adaptive Coping	0.10	0.19	-0.19	0.06	0.15	1.00	0.21



Variable	1	2	3	4	5	6	7
7. Maladaptive Coping	0.18	0.18	0.07	0.10	0.06	0.21	1.00

Occupational stress was positively correlated with burnout ($r = 0.36$) and maladaptive coping ($r = 0.18$), suggesting that higher stress is associated with greater burnout and reliance on ineffective coping. Extraversion showed a slight positive relationship with adaptive coping ($r = -0.19$), while neuroticism was moderately associated with burnout. These results indicate that personality traits and coping strategies are linked to occupational stress and burnout, highlighting their potential moderating role

Table 3: Moderation Effects of Personality and Coping on Occupational Stress → Burnout

Predictor	Moderator	Interaction β	Interpretation
Occupational Stress	Adaptive Coping	-0.25	Adaptive coping weakens stress–burnout link
Occupational Stress	Maladaptive Coping	0.30	Maladaptive coping strengthens stress–burnout link
Occupational Stress	Extraversion	-0.18	Extraversion buffers impact of stress on burnout
Occupational Stress	Neuroticism	0.28	Neuroticism amplifies stress impact on burnout

Table 3 shows the moderating effects of personality traits and coping strategies on the relationship between occupational stress and burnout. **Adaptive coping** weakened the link between stress and burnout ($\beta = -0.25$), whereas maladaptive coping strengthened it ($\beta = 0.30$). Extraversion buffered the impact of stress on burnout ($\beta = -0.18$), while neuroticism amplified this effect ($\beta = 0.28$). These findings highlight that both personality and coping styles play significant roles in influencing how occupational stress translates into burnout.

DISCUSSION

The findings of the present study indicate that personality traits and coping styles play a significant role in moderating the impact of occupational stress on burnout among medical professionals. Neuroticism was associated with higher levels of burnout, suggesting that individuals with emotional instability are more vulnerable to stress and its negative consequences. In contrast, extraversion appeared to enhance resilience, likely due to greater sociability, optimism, and ability to seek social support in stressful situations. Coping strategies also demonstrated a moderating effect: adaptive coping, including problem-solving, positive reappraisal, and seeking guidance, mitigated the relationship between stress and burnout, while maladaptive strategies, such as avoidance and emotional discharge, intensified it.

These results align with previous research highlighting the protective role of adaptive coping and the risk posed by high neuroticism in occupational settings. The findings underscore the importance of developing interventions aimed at reducing stress and promoting adaptive coping skills, such as stress management training, resilience-building programs, and personality-informed counseling. By targeting both coping behaviors and individual personality traits, healthcare organizations can help reduce burnout, enhance well-being, and improve professional performance among medical staff. Furthermore, these insights emphasize the need for regular psychological assessments and workplace support systems to identify high-risk individuals and provide timely interventions.

Conclusion

The present study highlights that occupational stress among medical professionals is influenced by both personality traits and coping strategies. Neuroticism increases vulnerability to burnout, while extraversion fosters resilience. Adaptive coping strategies, such as problem-solving and positive reappraisal, help mitigate the effects of stress, whereas maladaptive coping



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exacerbates burnout. These findings emphasize the importance of stress management programs, resilience training, and coping-skills development in healthcare settings. Interventions tailored to individual personality profiles can further enhance well-being and job performance. By addressing both the psychological and behavioral aspects of stress, healthcare organizations can reduce burnout and promote a healthier work environment.

Limitations

The study has several limitations. The sample size was relatively small ($n = 50$), limiting generalizability. Data were collected from only two cities, which may not represent all medical professionals. The cross-sectional design prevents causal inferences. Self-report measures may be subject to social desirability bias. Future research should include larger, more diverse samples and longitudinal designs to better understand the dynamic relationships between stress, personality, and coping.

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