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Does hotel employees' mental health matter? Assessment of its antecedents and coping behavior

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ABSTRACT

This study examines the multidimensional antecedents and outcomes of hotel employees' mental health. Using data from 756 hotel employees in China, the findings indicate that three work stressors (job responsibility, job complexity, and teamwork) unexpectedly reduced mental health problems, while other work stressors (role ambiguity, role overload, job insecurity, superiors' behavior, and pressure to respond to messages) increased depression, nervousness, and loss of peace of mind. Mental health dimensions influence coping strategies, with depression and nervousness linked to emotion-focused coping, and loss of peace of mind associated with self-solving, emotion-focused, and avoidance coping. Differences emerged between junior/senior employees and front-of-house/back-of-house staff in stressor impacts and coping behaviors. Theoretical implications highlight the nuanced conceptualization of mental health as a multidimensional construct beyond generalized indicators, and the context-dependent nature of coping mechanisms contingent on distinct psychological experiences. Managerial implications provide insights into developing targeted interventions and supportive organizational policies.

1. Introduction

The mental health and wellbeing of employees are crucial elements influencing organizational outcomes across all sectors, with direct links to performance, retention, healthcare costs, engagement, safety, and sustainability (Arjona-Fuentes et al., 2019; Karatepe et al., 2021; Khawaja et al., 2022; World Health Organization, 2019). In the hospitality industry, these issues are magnified by the high-touch nature of hotel services, which demand intense emotional labor and the delivery of exceptional guest experiences (Karatepe, 2010). Hospitality employees face unique challenges such as high customer interaction, irregular working hours, and often precarious employment conditions, contributing to higher stress levels and greater mental health problems compared to other sectors (Batra, 2022; Leach, 2024). Recent findings by the Royal Society for Public Health highlight the severity of these challenges, revealing that over 80 % of hospitality workers reported increased stress levels, 74 % experienced verbal abuse from customers, and alarmingly, only 10 % had access to mental health awareness training (Sedgwick-Jones, 2023). The post-pandemic recovery phase has further intensified these issues, with shifting operational pressures and increased customer expectations, making the need to address mental health in hospitality settings more urgent than ever. Despite growing awareness, significant gaps remain in understanding how specific work-related stressors impact various mental health outcomes in hotel employees.

Previous hospitality studies have documented concerningly high levels of emotional exhaustion, depression, and anxiety among hotel employees (Wong et al., 2021). However, most research has treated mental health as a monolithic construct rather than examining its distinct sub-domains (O'Neill and Davis, 2011a, 2011b; Kotera et al., 2021, Yu et al., 2021). Insights from occupational health, psychology, and medical literature emphasize that mental health is multifaceted, with each aspect requiring specific, targeted interventions (Alvidrez and Barksdale, 2022; Ryff, 1989). By dissecting these facets, this study aimed to fill a significant void, providing nuanced data on the prevalence and drivers of specific mental health issues most detrimental to hotel employees, and offering targeted strategies for improving their well-being and, by extension, enhancing organizational effectiveness.

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In addition, few studies have isolated the effects of the multifaceted stressors unique to hotel work – such as job insecurity, teamwork requirement, responsiveness demands, and problematic leadership – on mental health dimensions. Multiple studies have indicated that the uni-dimensionality of occupational stress contributes to exhaustion, strain, and dissatisfaction (Ayachit and Chitta, 2022; Jung and Yoon, 2014; Koc and Bozkurt, 2017; Li et al., 2021b; Yu et al., 2021), yet their relative impacts across the interrelated but distinct aspects of mental health problems remain empirically unsubstantiated. Thus, it is essential to develop and test a comprehensive framework that captures how the diverse stressors inherent in hotel work trigger depression, nervousness, and loss of peace of mind.

Lastly, there is little research examining how hospitality employees' status across different mental health domains influences their capacity to cope with unavoidable stressors. Given the inherently high-stress nature of the hotel industry, it is critical to identify and promote positive, proactive coping strategies for employees facing mental health challenges (Choi et al., 2019; Lin et al., 2022; Teoh et al., 2019a,b). A precise understanding of the relationships between diverse mental health facets and coping behaviors is essential (Teoh et al., 2019a, 2019b). Without this, hotels lack the empirical guidance needed to strengthen mental well-being and promote resilience in stressed employees.

This study therefore aimed to examine the multidimensional antecedents and outcomes of hotel employees' mental health, and was guided by three primary objectives: (1) Analyze the varied effects of hotel work stressors on multiple facets of mental health; (2) Explore how mental health facets, such as depression, nervousness, and loss of peace of mind affect coping behaviors; and (3) Conduct multigroup analyses to compare the experiences of junior versus senior, and front-of-house versus back-of-house employees.

This research offers a pioneering and comprehensive examination of mental health challenges within the hotel industry, advancing both hospitality management and occupational health domains. Dissecting the distinct sub-domains of mental health, it enables the development of targeted interventions tailored to specific issues faced by hotel employees. The study provides invaluable insights into the multifaceted work-related stressors unique to hotel work and their effects on various mental health dimensions. Crucially, it explores the relationships between mental health facets and coping behaviors, shedding light on strategies for promoting resilience and positive coping mechanisms in these inherently high-stress environments. The multigroup analyses reveal how work-related stress, mental health challenges and coping strategies vary across different employee segments. The practical implications are far-reaching for the global hospitality industry. The findings allow hotels to implement comprehensive support systems, develop tailored interventions addressing workforce challenges, design resilience-building programs equipping employees with proactive coping strategies, and create customized approaches catering to distinct employee groups' needs. By prioritizing and investing in mental health support, the industry can cultivate a healthier, more resilient workforce capable of delivering exceptional guest experiences while thriving in demanding environments.

2. Literature review

2.1. Transactional theory of stress and coping

The transactional theory of stress and coping (TTSC) provides a comprehensive framework for understanding the processes through which individuals experience and cope with stressful events or situations (Lazarus and Folkman, 1984). This theory posits that stress arises from transactions between individuals and their environment, involving cognitive appraisal processes and coping mechanisms. Central to the theory is the notion that individuals first appraise potential stressors as threatening, harmful, or challenging (primary appraisal). If appraised as stressful, individuals then evaluate their coping resources and options (secondary appraisal) to manage the perceived demands (Lazarus and Folkman, 1984).

The theory describes two overarching coping strategies: problem-focused coping, involving efforts to actively address the source of stress, and emotion-focused coping, aimed at regulating the emotional responses associated with the stressful situation (Lazarus and Folkman, 1984; Folkman and Lazarus, 1988). The effectiveness of coping strategies is contingent upon personal resources (e.g., skills, support), contextual constraints, and the individual's appraisal of the stressful encounter (Perrewé and Zellars, 1999; Dewe, 2004). In addition to problem-focused and emotion-focused coping, recent research in the hospitality context has identified avoidance coping as another coping strategy employed by employees when encountering stressful situations (Chua et al., 2022; Holm et al., 2023). Avoidance coping involves disengaging from or avoiding the stressful situation, rather than actively addressing or regulating emotions related to it (Britt et al., 2016; Chao, 2011).

Applying this theoretical lens, the diverse work-related stressors encountered by hotel employees (e.g., role ambiguity, job insecurity, teamwork demands) can be conceptualized as potential stressors subject to cognitive appraisals. Through primary appraisal, these stressors may be perceived as threats to well-being, contributing to mental health problems such as depression, nervousness, and loss of peace of mind. The secondary appraisal process then guides the selection of coping strategies, including self-solving (problem-focused), emotion-focused (e.g., worry, self-blame), or avoidance coping, contingent on perceived coping resources.

Notably, transactional theory accounts for individual differences in stress and coping processes (Lazarus and Folkman, 1984; Biggs et al., 2017), aligning with the exploration of organizational roles (junior vs. senior, front vs. back office) as potential moderators in this study. Individuals in different positions and job functions may appraise and cope with work stressors differently due to varying personal and situational factors (Park and Adler, 2003; Britt et al., 2016). By grounding the research in this theoretical framework, a comprehensive understanding of how hotel employees appraise and cope with work stressors, and the implications for their mental health, can be achieved, facilitating meaningful theoretical contributions to the literature.

2.2. Work stressor and its dimensionality

In the hospitality industry, it is crucial to recognize that work stressors are not uni-dimensional but rather span multiple dimensions, each affecting employee well-being and job performance in unique ways. Traditional work-related stressors, such as job responsibility and complexity, are prevalent across various industries but have heightened significance in hospitality because of their direct impact on customer service and satisfaction. Job responsibility often involves a high degree of personal accountability for work outcomes, which can serve as both a source of stress and a motivator, contingent upon the organizational support systems in place (Karatepe, 2013). Job complexity pertains to the intellectual demands and skills required for job tasks, potentially leading to job satisfaction when well-managed, or to stress and burnout if demands are excessive (Kuruüzüm et al., 2008). Hotel role-related stressors such as role ambiguity and role overload also profoundly affect mental health and job performance within the hotel sector. Role ambiguity arises when employees are unclear about their job expectations and responsibilities, leading to confusion and stress (Kim et al., 2015). Role overload is particularly common during peak seasons or in understaffed scenarios, where employees may feel overwhelmed by the volume of work they are expected to handle (Altinay et al., 2019). Both these stressors can significantly reduce job satisfaction and heighten turnover intentions, highlighting the necessity for clear role definitions and adequate staffing. Hotel work-related stressors, unique to this industry, include factors such as job insecurity, demanding teamwork,

supervisory behavior, and the necessity for swift communication responses. These stressors are intensified by the round-the-clock operations typical in hotels and the industry's emphasis on high-quality customer service (Abd Hadi et al., 2023; Dogantekin et al., 2022). Economic fluctuations and seasonal variations often exacerbate job insecurity, leading to psychological distress and diminished job commitment. Moreover, the behavior of supervisors and the dynamics of teamwork can critically influence both job satisfaction and mental health, emphasizing the importance of effective leadership and cohesive team dynamics.

2.3. Employees' mental health and its dimensionality

Mental health in the workplace has become a priority issue for organizations, as extensive research has demonstrated its impacts on productivity, absenteeism, costs, safety, and overall employee wellbeing (Liu-Lastres et al., 2023a,b). Organizations have a vested interest in monitoring and supporting employees' mental health. However, mental health has multiple facets (Ryff, 1989). This study identified three main multidimensional sub-components that are especially relevant in hospitality workplace contexts: depression, nervousness, and loss of peace of mind. Thoroughly assessing each of these three key facets provides a more nuanced and comprehensive understanding of employees' mental health status than examining any single common indicator.

Depression associated with one's job has been widely studied in organizational research (Theorell et al., 2015). Employees experiencing depressive symptoms including sadness, hopelessness, low self-esteem, fatigue, and lack of motivation report higher rates of errors, accidents, absenteeism, and turnover (Karatepe and Ehsani, 2012; Kotera et al., 2021). Depression is characterized by persistent negative mood and loss of interest in usual activities (American Psychiatric Association, 2013). Within the hospitality sector, studies have revealed heightened rates of clinical depression among hotel employees compared to the general population, stemming from organizational stressors endemic to the industry, such as long and irregular hours, lack of work-life balance, job insecurity, and poor leadership (Moon et al., 2015; O'Neill and Davis, 2011a, 2011b; Ruiz-Palomino et al., 2022).

Nervousness specifically tied to the workplace environment is another important facet of mental health. Nervousness involves feelings of worry, unease, and being 'on edge' that impair functioning (American Psychiatric Association, 2013). Studies have shown frontline hospitality employees in frequent customer-facing roles exhibit higher rates of anxiety disorders compared to the general workforce (O'Neill and Davis, 2011a, 2011b; Raza et al., 2021). Within hotels, staff may experience panic attacks, trembling, sweating, gastrointestinal issues and other nervousness symptoms when confronted by stressful situations such as excessive workloads, ambiguous expectations, or abusive customers (Chung et al., 2021; Karatepe, 2010).

Loss of peace of mind at work represents another important facet of mental health. It involves feeling easily agitated, impatient, rushed, and having difficulty concentrating (de Bruin et al., 2012). Studies have revealed that hotel employees in busy front office and food service roles frequently experience loss of peace of mind triggered by hectic, chaotic work environments and constant guest demands (Li et al., 2021a; Karatepe and Aleshinloye, 2009). Symptoms such as agitation and lack of focus can impair cognitive performance and harm service quality (Keng et al., 2011). In hospitality, evidence-based interventions such as short mindfulness meditation sessions, rest breaks, and increased employee autonomy over tasks can help mitigate loss of peace of mind on the job (Bolm et al., 2022; Johnson and Park, 2020).

The existing literature clearly establishes that employees' mental health has a multidimensional nature rather than comprising a single uniform construct. Depression, nervousness, and loss of peace of mind have emerged as three distinct yet interrelated facets of mental health in workplace contexts. Assessing each sub-dimension using validated instruments enables the development of targeted interventions that address the specific underlying factors of mental health concerns in the workplace.

2.4. Relationship between traditional work-related stressors and employees' mental health

Hospitality employees face certain traditional work stressors that are common across many industries and occupations (Wong et al., 2021). These traditional work stressors can negatively impact mental health (Arjona-Fuentes et al., 2019). The two main dimensions of traditional work stress are excessive job responsibility and job complexity. High levels of job responsibility have been strongly linked to emotional exhaustion and burnout among hotel employees (Karatepe, 2013; Karatepe et al., 2014). Employees who feel immense personal responsibility and accountability for their work outcomes tend to experience higher stress and anxiety. Taking full ownership over job successes and failures, without a sense of shared responsibility, contributes to mental strain. Hospitality staff who believe organizational outcomes rest entirely on their shoulders report lower job satisfaction and higher intention to leave (O'Neill and Davis, 2011a,b).

In addition to responsibility, job complexity is another key traditional stressor. Hospitality roles often require learning extensive knowledge and skills to perform the work effectively. The cognitive demands and skills needed for complex roles can become mentally draining over time. As job complexity increases, hospitality employees exhibit higher rates of exhaustion and psychosomatic symptoms (Kuruüzüm et al., 2008; Radic et al., 2020; Tian et al., 2022). They may feel overwhelmed when trying to master all the competencies needed. The persistent strain of sole responsibility for performance, along with the cognitive load of complex roles, contributes to depression, nervous, lack of peace of mind and diminished work engagement over time for hospitality staff. According to the TTSC, this appraisal of job demands as overwhelming, when coupled with perceived inadequate resources, is predicted to elicit a stress response. This response, in turn, can exacerbate mental health problems. This theoretical framework supports the notion that the perception and appraisal of traditional work-related stressors play a central role in their impact on mental health. Based on substantial evidence linking traditional stressors to mental health decrements, the following hypothesis was developed:

Hypothesis 1:. *Traditional work-related stressors will increase the levels of depression (H1a), nervousness (H1b), and lack of peace of mind (H1c) among employees.*

2.5. Relationship between hotel role-related stressors and employees' mental health

In addition to traditional work-related stressors faced by all employees, hotel staff must contend with stressors specific to their roles in the hospitality industry (Kim, et al., 2015; Park and Min, 2020). A growing body of research has examined the detrimental impacts of these hotel role-related stressors on employee mental health and wellbeing outcomes (Nawaz and Sandhu, 2018; Yu et al., 2021). The two most salient and impactful dimensions of role are role ambiguity and role overload. Role ambiguity stemming from unclear expectations, and role overload stemming from extreme demands, have been linked to heightened mental strain, emotional exhaustion, and reduced job satisfaction and performance among hotel staff (Altinay et al., 2019; Hing, and Nuske, 2012; Lin and Ling, 2018).

Role ambiguity arises when there is lack of clarity relating to responsibilities and expectations. Hospitality employees facing ambiguity reported higher emotional exhaustion, propensity to quit, and lower job satisfaction (Karatepe, 2010; Kim et al., 2015; Madera et al., 2013). Symptoms include feelings of uncertainty, psychological strain and diminished performance (O'Neill and Davis, 2011a, 2011b; Schmidt et al., 2014). Role overload is another facet, occurring when excessive

demands are placed on an employee (Altinay et al., 2019). Hospitality staff struggling with role overload feel overburdened, making it hard to maintain quality standards. Having too many job duties to handle leads to burnout, especially when coupled with inadequate resources or support (Akgunduz et al., 2023; Altinay et al., 2019). The consequences of role overload include emotional exhaustion, psychosomatic health complaints, and decreased mental wellbeing (Ayachit and Chitta, 2022; Karatepe and Uludag, 2007).

Both role ambiguity from unclear expectations and role overload from extreme demands elevate mental strain for hotel employees. The combination of not fully understanding the role while also having excessive responsibilities compounds stress (Üngüren, and Arslan, 2021). This compounded stress, according to the TTSC, leads to poorer mental health outcomes as employees continuously appraise these stressors in ways that strain their coping capacities. Based on substantial evidence, the following hypothesis was proposed:

Hypothesis 2:. *Role-related stressors will increase levels of depression (H2a), nervousness (H2b), and lack of peace of mind (H2c) among employees.*

2.6. Relationship between hotel work-related stressors and employees' mental health

Beyond general work and role-related stressors, hotel employees are also confronted with stressors specific to the hotel work environment that can adversely impact mental health (Lee et al., 2022; Moon et al., 2015). Four key sub-dimensions of hotel-specific work stressors were identified in a thorough literature review, and included job insecurity, excessive teamwork demands, problematic supervisor behaviors, and pressure to promptly respond to messages.

Job insecurity arising from concerns over restructuring, automation, seasonality, and potential layoffs has been strongly linked to increased anxiety symptoms, psychological distress, and reduced wellbeing among hotel employees (Darvishmotevali and Ali, 2020; Dogantekin et al., 2022). The high employee turnover endemic to the hotel industry contributes to persistent fears over job stability and employability. Excessive collaboration expectations coupled with unsupportive leadership behaviors serve to heighten stress levels (Hon and Chan, 2013; Walters and Raybould, 2007). Lack of supervisor support increases strain when managing high teamwork demands. Furthermore, meetings and email communications outside of scheduled work hours disrupt personal time. In particularly, the 24/7 nature of hotel operations also leads to organizational pressures for rapid response to emails and messages outside of scheduled work hours, which can disrupt psychological detachment from work (Abd Hadi et al., 2023; Wood et al., 2021). Without proper boundaries, constant availability and responsiveness expectations impair recovery and exacerbate work-life imbalance. The TTSC posits that stress occurs when an individual perceives environmental demands as exceeding their coping abilities and resources. In the context of hotel work, continual appraisal of work-related stressors such as job insecurity, demanding teamwork, and unsupportive supervisors can lead to chronic psychological strain. This ongoing stress, exacerbated by insufficient support, may manifest as depression, nervousness, and a disrupted sense of peace. Therefore, the following hypothesis reflects the established relationship in the literature:

Hypothesis 3:. *Hotel work-related stressors will increase levels of depression (H3a), nervousness (H3b), and lack of peace of mind (H3c) among employees.*

2.7. Relationship between employees' mental health and their coping behavior

The TTSC suggests that stress arises from an individual's evaluation of whether environmental demands exceed their coping resources. In the hotel industry, employees' ability to effectively manage work-related stressors is intrinsically linked to their mental health, influencing their selection of coping strategies (Liu-Lastres et al., 2023a,b; Yan et al., 2021). Research has identified three primary coping behaviors when employees encounter strain. Specifically, studies have linked mental health to employees' use of self-solving coping through analyzing issues and determining solutions; emotion-focused coping such as blaming oneself and worrying; and avoidance coping by disengaging from stressors (Chua et al., 2022).

Previous research indicates that employees exhibiting symptoms of depression, anxiety/nervousness, and agitation are more likely to engage in passive emotion-focused and avoidance coping behaviors when faced with stressors, rather than active self-solving-focused coping (Chua et al., 2022; Jung and Yoon, 2015; Wong et al., 2024; Yin, and Ni, 2021). Specifically, employees with higher levels of depression marked by despair, fear and worthlessness tend to rely more on emotion-focused coping, such as seeking reassurance (Chua et al., 2022). Those with greater anxiety and nervousness, characterized by dizziness, trembling and panic, struggle to leverage problem-focused coping and instead fall back on unhelpful self-blame and rumination (Xiang et al., 2021). Employees lacking peace of mind and with higher levels of agitation are more prone to maladaptive avoidance coping than constructive problem-focused strategies (Elshaer, 2023; Jalil et al., 2021; Moos and Schaefer, 1993). Given this background and the framework provided by the TTSC, the following hypothesis was proposed:

Hypothesis 4:. *Employees' mental health problem domains (depression [H4a], nervousness [H4b], and lack of peace of mind [H4c]) will increase employees' use of emotion-focused (i) and avoidance-focused (ii) coping behaviors, but reduce the use of self-solving-focused (iii) coping behaviors when handling work stressors.*

2.8. Differences in organizational roles

In the hotel industry, understanding the nuances of work-related stress is crucial, particularly the role of employees' organizational positions as potential moderators in the stress-coping-outcome framework. The TTSC suggests that stress responses are not only a result of the stressor itself but are also shaped by an individual's appraisal of the stressor and their coping mechanisms (Lazarus and Folkman, 1984). This theory implies that employees in different roles may perceive the same stressor in varied ways, depending on their responsibilities and levels of authority. Resilience theory (Masten, 2001; Southwick et al., 2014) also underscores the individual's psychological capacity to adapt to stress and adversity. This capacity can vary significantly across different roles in a hotel setting, influencing how stressors are managed and coped with in the workplace. By examining how resilience and stress appraisal differ by role, we can gain deeper insights into how organizational roles can moderate stress outcomes in the hotel industry.

Research consistently shows distinct differences in the levels of work stressors and responsibilities faced by junior and senior employees in hotels, which in turn may affect their mental health and coping behaviors (Chuang and Lei, 2011; Di Virgilio et al., 2015; Kim et al., 2009, 2022b). Junior staff, such as room attendants, bellhops, or entry-level food service workers, often find themselves in less controllable work environments, receive insufficient support, and exhibit higher turnover intentions when stressed. This group is particularly vulnerable to negative stress outcomes due to limited resources and lower job autonomy. For instance, a junior housekeeper might face strict time constraints for room cleaning, leading to increased stress levels. In contrast, senior staff in hotels, such as department managers or executive chefs, who wield greater authority and typically have access to more resources, are more inclined to use active and problem-focused coping methods when under pressure. This ability to actively manage stressors not only mitigates the immediate impacts of stress but also contributes to long-term well-being and job satisfaction.

The role of job function within hotels significantly moderates stress

outcomes. Front-of-house (FOH) employees, such as receptionists, concierges, and waitstaff, frequently engage in direct guest contact, encountering unique stressors including emotional labor and intense customer interactions. For example, a front desk clerk may face significant stress when dealing with an upset guest over a booking issue. These interactions can directly impact their mental health, leading to increased levels of depression, nervousness, and a disrupted sense of peace. Conversely, back-of-house (BOH) employees, including kitchen staff, housekeeping, and maintenance workers, face distinct challenges. These include technical demands, such as mastering commercial cooking equipment and adhering to food safety standards, and workload stressors, such as managing rapid room turnovers during peak times or addressing urgent repairs from plumbing to HVAC issues. Such challenges distinctly influence their anxiety levels and coping abilities. (Efthymiou et al., 2020; Kim et al., 2022b; Young and Gavade, 2018). Given these different stress profiles, understanding these distinctions is crucial for developing targeted stress management strategies in the hotel industry. Recognizing that a one-size-fits-all approach is inadequate, hotel management can implement more effective interventions tailored to the specific needs of different employee groups. Therefore, the following hypotheses were developed:

Hypothesis 5:. *Junior employees will show a stronger correlation between work-related stressors (traditional, role-related, and hotel-related) and mental health issues (depression, nervousness, lack of peace of mind), and are more inclined to use emotion-focused and avoidance-focused coping strategies, while being less likely to employ problem-focused coping, compared to senior employees.*

Hypothesis 6:. *FOH employees will show a stronger correlation between work-related stressors (traditional, role-related, and hotel-related) and mental health issues (depression, nervousness, lack of peace of mind), and are more inclined to use emotion-focused and avoidance-focused coping strategies, while being less likely to employ problem-focused coping, compared to BOH employees.*

3. Method

3.1. Measurement

To develop the measurement items, a systematic review of the literature was conducted pertaining to the stressors perceived by employees (Karatepe et al., 2014; Lin et al., 2022; Price, 2001; Shaw and Gupta, 2004; Stamper and Johlke, 2003), particularly those experienced by hotel employees (Chua et al., 2022; Kim et al., 2022a, 2022b; Wong et al., 2021), as well as coping behaviors (Cohan et al., 2006; Chua et al., 2022). Regarding mental health, the three-dimensional structure and items of mental health were adapted from previous studies (Goldberg, Williams, 1988; Lovibond and Lovibond, 1995).

For validation of the measurement items' clarity and relevance, feedback was sought from a professor and two assistant professors specializing in occupational psychology and hospitality management. Necessary adjustments were made based on their recommendations to ensure the items were clear and contextually appropriate. All measurement items included in the questionnaire were derived from previous studies and were tailored to suit the context of Chinese hotels. The finalized measurement items are presented in Table 2. All items were measured on a 7-point scale (1= "strongly disagree", 7= "strongly agree"). To ensure accuracy and cultural relevance in the questionnaire, a rigorous back-translation process was employed. The original English measurement items were first translated into Simplified Chinese by a bilingual translator experienced in psychological and hospitality contexts, focusing on literal meanings and cultural nuances. A second, independent bilingual expert then translated this version back into English to ensure fidelity to the original content. Discrepancies identified in this back-translated version were reviewed and resolved by a panel of experts, ensuring that adaptations did not alter the fundamental meanings while remaining culturally appropriate for Chinese hotel employees.

3.2. Data collection

In November 2023, we conducted an online survey via wjx.com, one of mainland China's most reputable online survey companies, using the convenience sampling method. One of the coauthors, a general manager from a large-scale deluxe hotel in Guangzhou, assisted in disseminating the survey's QR code and link by sharing it with friends who are general managers at deluxe, four-star, and five-star hotels across mainland China. They were briefed on the survey's purpose. Then, these hotel managers forwarded an email containing the survey's QR code and link to all managers and full-time staff within their respective hotels, inviting their participation. The email emphasized the voluntary and anonymous nature of participation. As a result, 802 hotel employees from different departments across 45 hotels took part in the survey. These hotels included domestic hotel brands like Guizhou Hotel and Holiday Inn Sanya Bay, as well as international luxury hotel brands such as The Ritz-Carlton, Hilton, and Crowne Plaza. After excluding incomplete surveys and those that failed the attention check, 756 completed questionnaires were retained for data analysis.

3.3. Common method bias and normality test

Harman's one-factor analysis was used to detect potential common method bias, indicating its presence if the explained variation value exceeds 50 % (Podsakoff et al., 2003). The principal components analysis indicated that the first factor accounted for 28.74 % of the total variance, below the 50 % threshold. Since the normality of data can influence estimation accuracy (Hair, 2010), both skewness and kurtosis were used to assess normality. The results indicated skewness values ranging from −1.15–1.31 and kurtosis values ranging from −0.80–1.29. All items demonstrated maximum absolute skewness (<2) and kurtosis (<2), falling within the acceptable range (Curran et al., 1996), suggesting that the data followed a normal distribution.

4. Results

4.1. Sample characteristics

Table 1 presents the respondents' profiles in detail. Specifically, 54.9 % of the respondents were female. About half of them were between 18 and 35 years old, while 29.8 % were aged 36–45, 18 % were aged 46–55, and only 2.5 % were aged 56 and above. The majority of respondents held associate degrees (33.5 %) or bachelor's degrees (28.8 %). Nearly half reported monthly incomes between 2001 and 5000 yuan (49.5 %), and 59 % were married. In regard to tenure in the hotel industry, most had worked for between 1 and 3 years (42.7 %), while 27.9 % had over 5 years of experience. More than half of the participants held supervisory roles or higher positions (56.8 %). In terms of departments, 23.9 % worked in the food and beverage service department, followed by room division (18.8 %), sales and marketing (11.5 %), and front office (11.4 %).

4.2. Measurement model

The data analysis was conducted in a two-step procedure suggested by Anderson and Gerbing (1988). A confirmatory factor analysis (CFA) was performed using AMOS 24.0 before conducting hypothesis testing. As shown in Table 2, the measurement model demonstrated satisfactory fit indices for all indicators ($\chi^2/df = 3.193$, CFI [comparative fit index] = 0.916, IFI [incremental fit index] = 0.917, TLI [Tucker-Lewis index] = 0.909, RMSEA [root mean square error of approximation] = 0.054), suggesting that the model fitted the data well (Hu and Benlter, 1999). Cronbach's alpha values for each construct were above 0.7. The standardized factor loadings of each item were all greater than 0.6

Table 1
Profile of the respondents.

Demographic variables	Frequency (*n*)	(%)
Gender		
Male	332	43.9
Female	415	54.9
Age		
18–25 years	155	20.5
26–35 years	221	29.2
36–45 years	225	29.8
46–55 years	136	18.0
56 years or above	19	2.5
Education		
Primary or below	12	1.6
Middle or high school	249	32.9
Associate degree	253	33.5
Bachelor's degree	218	28.8
Postgraduate degree or above	24	3.2
Monthly income		
2000 yuan or below	20	2.6
2001–5000 yuan	374	49.5
5001–8000 yuan	148	19.6
8001–10000 yuan	63	8.3
10001–15000 yuan	52	6.9
15001–20000 yuan	34	4.5
More than 20000 yuan	65	8.6
Marriage status		
Single or divorced	310	41
Married	446	59
Tenure		
Less than 1 year	222	29.4
1–3 years	323	42.7
3–5 years	117	15.5
6–10 years	80	10.6
11–15 years	7	0.9
Longer than 15 years	7	0.9
Position		
Entry level employee	182	24.1
Between entry-level and supervisory employee	145	19.2
Supervisor employee	203	26.9
Managerial level	226	29.9
Department		
General affairs	26	3.4
Front office	86	11.4
Room division	142	18.8
Cooking	29	3.8
Food & beverage service	181	23.9
Human resources	42	5.6
Accounting/finance	49	6.5
Sales & Marketing	87	11.5
Reservation	10	1.3
Engineering/maintenance	53	7.0
Others	51	6.7

(Anderson and Gerbing, 1988). Additionally, the average variance extracted (AVE) ranged from 0.59 to 0.90, exceeding the acceptable minimum of 0.50 (Fornell and Larcker, 1981). The composite reliability (CR) ranged from 0.81 to 0.97, exceeding the suggested cut-off value of 0.7 (Hair, 2010). For discriminant validity, the square roots of the AVE of each construct were all above the inter-construct correlations (see Table 3). In combination, these results confirmed the convergent and discriminant validity.

4.3. Structural model

Structural equation modeling (SEM) was performed to validate the proposed conceptual model (see Fig. 1). The structural model had an acceptable fit ($\chi^2/df = 4.609$, CFI = 0.858, IFI = 0.858, TLI = 0.850, RMSEA = 0.069). Table 4 shows the results of the hypothesized direct relationships in this study. Almost all stressors significantly influenced depression, nervousness symptoms, and loss of peace of mind. However, contrary to expectations, job responsibility, job complexity, and teamwork exhibited significant but negative effects on mental health

Table 2
Measurement model results and normality test.

Constructs and items	Factor loading	CR	AVE	Skewness (Std. error = 0.09)	Kurtosis (Std. error = 0.18)	Mean
Traditional work-related stressors						
Job responsibility (Cronbach's alpha = 0.84)		0.84	0.64			
I feel a high degree of personal responsibility for the work I do.	0.78			−1.15	1.29	6.01
I feel I should personally take the credit or blame for the results of my work.	0.86			−0.97	0.59	6.01
Whether or not this job gets done right is clearly my responsibility.	0.77			−1.03	0.99	5.81
Job complexity		0.81	0.59			
My job is complex.	0.74			−0.09	−0.57	4.19
My job requires demanding skills.	0.84			−0.25	−0.47	4.52
It takes a long time to learn the skills required to do my job well.	0.78			−0.35	−0.40	4.67
Role-related stressors						
Role ambiguity (Cronbach's alpha = 0.88)		0.88	0.65			
I don't know what all of my responsibilities are.	0.80			1.31	1.25	2.47
I don't know exactly what is expected of me.	0.85			0.61	−0.24	2.94
I am not sure how much authority I have.	0.75			0.38	−0.65	3.27
I don't know how to divide my time properly.	0.82			1.02	0.62	2.65
Role overload (Cronbach's alpha = 0.85)		0.85	0.60			
There is a need to reduce some parts of my role.	0.73			0.02	−0.44	4.01
I feel overburdened in my role.	0.87			0.12	−0.49	3.74
I have been given heavy responsibility.	0.75			0.02	−0.58	3.99
The amount of work I have to do interferes with the quality I want to maintain.	0.73			0.09	−0.83	3.94
Hotel work-related stressors						
Job insecurity (Cronbach's alpha = 0.90)		0.90	0.69			
I am concerned about layoffs.	0.76			−0.02	−0.73	4.12
I am not sure I will be able to keep my job.	0.85			0.18	−0.66	3.75

(*continued on next page*)

Table 2 (*continued*)

Constructs and items	Factor loading	CR	AVE	Skewness (Std. error = 0.09)	Kurtosis (Std. error = 0.18)	Mean
I think I may lose my job in the near future.	0.88			0.32	−0.55	3.56
I feel insecure about the future of my job.	0.83			0.22	−0.70	3.64
Teamwork (Cronbach's alpha = 0.85)		0.86	0.61			
I need to collaborate with colleagues to complete tasks.	0.78			−0.98	0.85	5.63
I need to put effort into managing interpersonal relationships with colleagues.	0.83			−0.71	0.06	5.50
I have demanding tasks that require cooperation with others.	0.89			−0.69	−0.01	5.48
I have to frequently attend meetings.	0.60			−0.39	−0.50	4.91
Superiors' behavior (Cronbach's alpha = 0.93)		0.93	0.81			
My superiors use hostile words and non-verbal behaviors.	0.90			0.58	−0.44	3.00
My superiors are reluctant to provide their subordinates with support.	0.91			0.70	−0.19	2.91
My superiors are not fair in allocating incentives/merits and in their treatment of subordinates.	0.89			0.50	−0.45	3.11
Pressure to respond to electronic messages in the workplace (Cronbach's alpha = 0.90)		0.90	0.57			
I'm concerned about maintaining fast response times.	0.78			0.01	−0.67	3.98
I think about how I need to respond more quickly.	0.73			−0.20	−0.51	4.32
It's hard for me to focus on other things when I receive a message from someone.	0.78			0.14	−0.70	3.74
I can concentrate better on other tasks once I've responded to my messages.	0.65			−0.53	−0.19	4.71
I can't stop thinking about a message until I complete a response to it.	0.81			−0.01	−0.63	3.89
I feel a strong need to respond to others immediately.	0.75			−0.23	−0.64	4.38
It's difficult for me to resist responding to a message right away.	0.77			−0.05	−0.62	4.18
Mental health						
Depression caused by working in this hotel (Cronbach's alpha = 0.94)		0.94	0.76			
I feel downhearted and blue.	0.81			0.36	−0.69	3.31
I feel afraid about my future.	0.85			0.34	−0.80	3.25
I feel that life is meaningless.	0.92			0.58	−0.42	2.88
I feel I am not worth much as a person.	0.93			0.70	−0.27	2.81
I feel unable to use my initiative to do things.	0.85			0.82	0.02	2.82
Nervousness symptoms associated with working in this hotel (Cronbach's alpha = 0.97)		0.97	0.90			
I feel dizzy.	0.92			0.70	−0.22	2.72
I experience trembling in my hands.	0.96			0.77	0.06	2.65
I experience feelings of panic.	0.98			0.81	0.14	2.67
I feel scared for no reason.	0.94			0.77	−0.04	2.71
Loss of peace of mind while working in this hotel (Cronbach's alpha = 0.96)		0.96	0.84			
I become agitated easily.	0.94			0.57	−0.50	2.89
I feel irritated.	0.95			0.71	−0.21	2.75
I feel rushed.	0.85			0.52	−0.63	3.05
I feel nervous.	0.93			0.63	−0.45	2.85
Coping behavior						
Coping by self-solving problems when feeling stressed while working in this hotel (Cronbach's alpha = 0.96)		0.96	0.83			
I focus on solving the problem.	0.92			−0.94	0.53	5.00
I think about the re-occurrence of similar problems.	0.83			−0.82	0.08	4.80
I determine the appropriate course of action.	0.97			−0.96	0.54	4.98
I work to understand the situation.	0.96			−1.06	0.72	5.08
I ponder and learn from the problem.	0.89			−1.13	0.92	5.23
Coping emotionally when feeling stressed while working in this hotel (Cronbach's alpha = 0.92)		0.92	0.71			
I worry about being unable to cope.	0.76			−0.05	−0.80	3.97
I blame myself for being too emotional.	0.79			0.05	−0.78	3.81
I become upset.	0.91			0.30	−0.71	3.42
I blame myself for not having a solution.	0.90			0.22	−0.80	3.55
I blame myself for incompetence.	0.83			0.55	−0.41	3.11

(*continued on next page*)

Table 2 (*continued*)

Constructs and items	Factor loading	CR	AVE	Skewness (Std. error = 0.09)	Kurtosis (Std. error = 0.18)	Mean
Coping through avoidance when feeling stressed while working in this hotel (Cronbach's alpha = 0.92)		0.92	0.71			
I visit friends or coworkers.	0.85			−0.52	−0.15	4.86
I spend time with close persons or coworkers.	0.89			−0.65	0.12	5.05
I call friends or coworkers.	0.93			−0.67	0.11	5.03
I eat meals with friends or workers.	0.87			−0.71	0.33	5.12
I talk with coworkers who have had similar experiences.	0.64			−0.49	−0.01	4.86

problems. Specifically, job responsibility had a significant negative impact on depression ($\beta = -0.20$, $p < 0.001$), nervousness symptoms ($\beta = -0.19$, $p < 0.001$), and loss of peace of mind ($\beta = -0.20$, $p < 0.001$). Job complexity significantly and negatively affected depression ($\beta = -0.10$, $p < 0.01$) and loss of peace of mind ($\beta = -0.08$, $p < 0.05$), but it insignificantly and negatively impacted nervousness symptoms ($\beta = -0.06$, $p = 0.11$). Additionally, teamwork significantly and negatively affected depression ($\beta = -0.16$, $p < 0.001$), nervousness symptoms ($\beta = -0.21$, $p < 0.001$), and loss of peace of mind ($\beta = -0.15$, $p < 0.001$).

Consistent with our expectations, role ambiguity had a significant and positive impact on depression ($\beta = 0.17$, $p < 0.001$), nervousness symptoms ($\beta = 0.18$, $p < 0.001$), and loss of peace of mind ($\beta = 0.13$, $p < 0.001$). Role overload was also found to significantly and positively influence depression ($\beta = 0.07$, $p < 0.05$), nervousness symptoms ($\beta = 0.10$, $p < 0.01$), and loss of peace of mind ($\beta = 0.14$, $p < 0.001$). Job insecurity was a significant and positive determinant of depression ($\beta = 0.28$, $p < 0.001$), nervousness symptoms ($\beta = 0.21$, $p < 0.001$), and loss of peace of mind ($\beta = 0.23$, $p < 0.001$). Similarly, the effect of superiors' behavior on depression ($\beta = 0.24$, $p < 0.001$), nervousness symptoms ($\beta = 0.28$, $p < 0.001$), and loss of peace of mind ($\beta = 0.28$, $p < 0.001$) was also significant and positive. Finally, pressure to respond to electronic messages in the workplace was significantly and positively related to depression ($\beta = 0.21$, $p < 0.001$), nervousness symptoms ($\beta = 0.19$, $p < 0.001$), and loss of peace of mind ($\beta = 0.24$, $p < 0.001$).

Depression had a significantly positive effect on coping emotionally ($\beta = 0.16$, $p < 0.001$) but insignificantly affected coping through self-solving problems ($\beta = -0.09$, $p = 0.081$). Interestingly, the impact of depression on coping through avoidance was significant but negative ($\beta = -0.29$, $p < 0.001$). Nervousness symptoms only exhibited a significant positive influence on coping emotionally ($\beta = 0.26$, $p < 0.001$), with no significant impact on coping through self-solving problems ($\beta = -0.07$, $p = 1.444$) and coping through avoidance ($\beta = 0.01$, $p = 0.796$). As anticipated, the impact of loss of peace of mind on coping through self-solving problems ($\beta = 0.20$, $p < 0.001$), coping emotionally ($\beta = 0.23$, $p < 0.001$), and coping through avoidance ($\beta = 0.10$, $p < 0.05$) was significantly positive.

4.4. Multigroup analysis

Multigroup analysis (MGA) was conducted to compare the differences between junior employees ($n = 327$) and senior employees ($n = 429$). A measurement invariance test was initially performed before conducting MGA, as suggested by Rasoolimanesh et al. (2021). The results showed that the measurements were equivalent across groups ($\Delta\chi^2[46] = 59.052$, $p > 0.05$), thus establishing measurement invariance. The baseline model had an acceptable fit ($\chi^2/df = 3.081$, CFI = 0.840, IFI = 0.841, TLI = 0.831, RMSEA = 0.053). A significant chi-square difference was observed ($\Delta\chi^2[33] = 157.409$, $p < 0.001$), indicating that the model differed across groups.

As listed in Table 5, the negative effect of job responsibility on depression ($p < 0.05$) was stronger for junior employees. The effect of job complexity on depression ($p < 0.01$), nervousness symptoms ($p < 0.001$), and loss of peace of mind ($p < 0.001$) was negative for senior employees but positive for junior employees. The positive relationship between role ambiguity and depression ($p < 0.001$), nervousness symptoms ($p < 0.001$), and loss of peace of mind ($p < 0.001$) was stronger for senior employees than for junior employees. Surprisingly, the effect of role overload on depression ($p < 0.001$), nervousness symptoms ($p < 0.001$), and loss of peace of mind ($p < 0.001$) was negative for junior employees but positive for senior employees. Interestingly, the negative relationship between teamwork and depression ($p < 0.001$), nervousness symptoms ($p < 0.001$), and loss of peace of mind ($p < 0.001$) was stronger for senior employees. The negative relationship between superiors' behavior and depression ($p < 0.001$), nervousness symptoms ($p < 0.001$), and loss of peace of mind ($p < 0.001$) was stronger for junior employees than for senior

Table 3
Discriminant validity matrix.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. JR	**0.80**													
2. JC	0.21	**0.77**												
3. RA	0.31	0.33	**0.81**											
4. RO	0.01	0.61	0.56	**0.77**										
5. JI	0.08	0.34	0.53	0.54	**0.83**									
6. TW	0.47	0.39	0.10	0.25	0.15	**0.78**								
7. SB	0.17	0.32	0.59	0.56	0.57	0.03	**0.90**							
8. REM	0.00	0.36	0.37	0.54	0.54	0.27	0.47	**0.75**						
9. DEP	0.29	0.18	0.55	0.46	0.57	0.09	0.60	0.45	**0.87**					
10. NS	0.28	0.18	0.52	0.42	0.48	0.12	0.56	0.38	0.86	**0.95**				
11. LPM	0.26	0.20	0.50	0.46	0.51	0.06	0.57	0.45	0.83	0.89	**0.92**			
12. CS	0.19	0.22	0.01	0.14	0.06	0.20	0.05	0.13	0.05	0.04	0.09	**0.91**		
13. CE	0.13	0.22	0.44	0.33	0.42	0.01	0.42	0.37	0.62	0.64	0.63	0.33	**0.84**	
14. CA	0.35	0.17	0.15	0.04	0.04	0.35	0.10	0.07	0.19	0.13	0.10	0.42	0.11	**0.84**
Mean	5.94	4.46	2.83	3.92	3.77	5.38	3.00	4.17	2.99	2.69	2.88	5.02	3.57	4.98
SD	0.95	1.34	1.31	1.30	1.46	1.13	1.53	1.27	1.42	1.42	1.47	1.47	1.46	1.28

Note. JR = job responsibility, JC = job complexity, RA = role ambiguity, RO = role overload, JI = job insecurity, TW = teamwork, SB = superiors' behavior, REM = pressure to respond to electronic messages in the workplace, DEP = depression, NS = nervousness symptom, LPM = loss of peace of mind, CS = coping by self-solving problems, CE = coping emotionally, CA = coping through avoidance; SD = standard deviation.

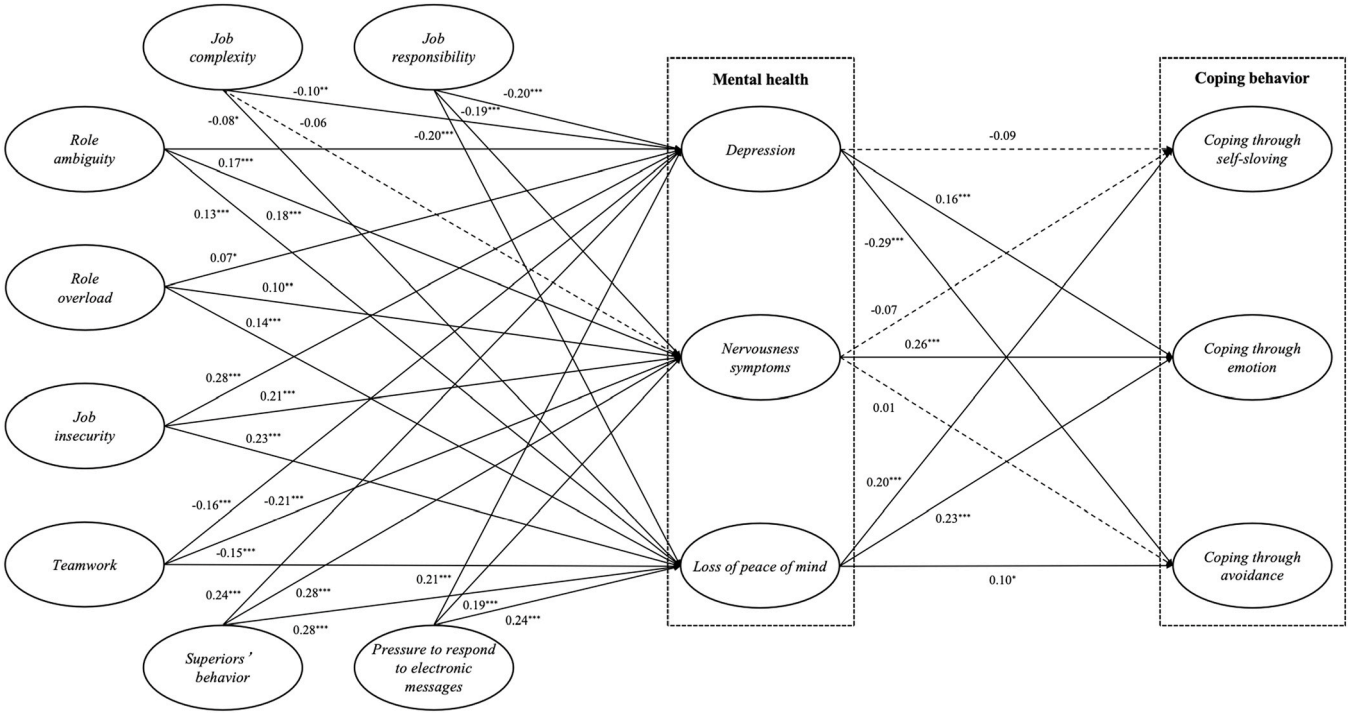

Fig. 1. Structural model.

Table 4
Structural model results.

Hypothesized path			β	SE	t-value	Decision
JR	→	DEP	−0.20	0.04	−4.69***	**Rejected**
JR	→	NS	−0.19	0.05	−4.17***	**Rejected**
JR	→	LPM	−0.20	0.05	−4.26***	**Rejected**
JC	→	DEP	−0.13	0.04	−2.81***	**Rejected**
JC	→	NS	−0.06	0.04	−1.60	Rejected
JC	→	LPM	−0.08	0.04	−2.14**	**Rejected**
RA	→	DEP	0.17	0.03	5.28***	Accepted
RA	→	NS	0.18	0.03	5.33***	Accepted
RA	→	LPM	0.13	0.03	3.76***	Accepted
RO	→	DEP	0.07	0.03	2.35*	Accepted
RO	→	NS	0.10	0.03	2.97**	Accepted
RO	→	LPM	0.14	0.04	3.88***	Accepted
JI	→	DEP	0.28	0.03	9.94***	Accepted
JI	→	NS	0.21	0.03	7.21***	Accepted
JI	→	LPM	0.23	0.03	7.69***	Accepted
TW	→	DEP	−0.16	0.04	−3.89***	**Rejected**
TW	→	NS	−0.21	0.05	−4.69***	**Rejected**
TW	→	LPM	−0.15	0.05	−3.41***	**Rejected**
SB	→	DEP	0.24	0.03	9.22***	Accepted
SB	→	NS	0.28	0.03	10.06***	Accepted
SB	→	LPM	0.28	0.03	9.91***	Accepted
REM	→	DEP	0.21	0.04	5.99***	Accepted
REM	→	NS	0.19	0.04	5.12***	Accepted
REM	→	LPM	0.24	0.04	6.21***	Accepted
DEP	→	CS	−0.09	0.05	−1.74	Rejected
DEP	→	CE	0.16	0.04	4.28***	Accepted
DEP	→	CA	−0.29	0.05	−5.80***	**Rejected**
NS	→	CS	−0.07	0.05	−1.46	Rejected
NS	→	CE	0.26	0.03	7.62***	Accepted
NS	→	CA	0.01	0.04	0.26	Rejected
LPM	→	CS	0.20	0.05	4.18***	Accepted
LPM	→	CE	0.23	0.03	6.87***	Accepted
LPM	→	CA	0.10	0.04	2.24*	Accepted

Note. ***$p < 0.001$, **$p < 0.01$, *$p < 0.05$. Rejected in **bold** indicates that the hypothesized path was rejected due to a different sign.

employees. As expected, the positive effect of pressure to respond to electronic messages on depression ($p < 0.001$) and nervousness symptoms ($p < 0.001$) was stronger for junior employees than for senior employees.

In terms of the relationship between mental health and coping behavior, it was found that the effect of depression on coping through self-solving problems was negative for junior employees but positive for senior employees ($p < 0.001$). The positive effect of depression on coping emotionally was stronger for senior employees ($p < 0.001$). In contrast, the effect of depression on coping through avoidance was negative and stronger for junior employees ($p < 0.001$). The only stronger effect found was the negative impact of nervousness symptoms on coping through self-solving problems for senior employees ($p < 0.001$).

Another MGA was performed to compare the differences between FOH employees ($n = 400$) versus BOH employees ($n = 356$). Samples were categorized into two groups based on hotel employees' respective departments. The invariance test results demonstrated that the measurements were equivalent between the two groups ($\Delta\chi^2[46] = 49.312$, $p > 0.05$). The baseline model demonstrated an acceptable fit ($\chi^2/df = 3.111$, CFI = 0.838, IFI = 0.839, TLI = 0.828, RMSEA = 0.053). The chi-square difference was significant across groups at the model level ($\Delta\chi^2[33] = 70.782$, $p < 0.001$).

As shown in Table 6, the negative effect of loss of peace of mind ($p < 0.01$) was only significant for BOH employees. The positive impact of role ambiguity on depression ($p < 0.001$), nervousness symptoms ($p < 0.001$), and loss of peace of mind ($p < 0.001$) was stronger for BOH employees. As expected, the positive effect of role overload on depression ($p < 0.05$), nervousness symptoms ($p < 0.001$), and loss of peace of mind ($p < 0.001$) was stronger for FOH employees than for BOH employees. Similarly, the positive effect of job insecurity on depression (10.865, $p < 0.001$), nervousness symptoms ($p < 0.001$), and loss of peace of mind ($p < 0.001$) was stronger for FOH employees. Only a negative effect of teamwork on nervousness symptoms ($p < 0.001$) was found, and it was stronger for FOH employees. The positive effect of superiors' behavior on depression ($p < 0.001$) and loss of peace of mind ($p < 0.001$) was stronger for FOH employees. Not surprisingly, the

Table 5
Multigroup analysis (junior employees vs. senior employees).

Hypothesized path			Junior sample ($N = 327$)		Senior sample ($N = 429$)		Constrained model χ^2 (3347)	Chi-square difference $\Delta\chi^2$ (1)	Decision
			β	t-value	β	t-value			
JR	→	DEP	-0.31	-5.15***	-0.07	-1.25	10313.274	5.075*	Supported
JR	→	NS	-0.26	-4.20***	-0.13	-2.06*	10309.631	1.432	Not supported
JR	→	LPM	-0.25	-3.87***	-0.14	-2.24*	10309.086	0.887	Not supported
JC	→	DEP	0.06	0.38	-0.29	-5.73***	10317.752	9.553**	Supported
JC	→	NS	0.23	4.08***	-0.34	-6.49***	10333.637	25.438***	Supported
JC	→	LPM	0.18	2.99**	-0.33	-6.10***	10327.111	18.912***	Supported
RA	→	DEP	0.03	0.61	0.34	7.81***	10283.833	24.366***	Supported
RA	→	NS	-0.05	-0.97	0.38	8.81***	10325.256	17.057***	Supported
RA	→	LPM	-0.01	-0.17	0.31	7.06***	10317.155	8.956***	Supported
RO	→	DEP	-0.19	-3.89***	0.28	6.45***	10325.384	17.185***	Supported
RO	→	NS	-0.19	-3.82***	0.32	7.21***	10325.947	17.748***	Supported
RO	→	LPM	-0.24	-4.54***	0.39	8.42***	10335.412	27.213***	Supported
JI	→	DEP	0.22	5.17***	0.29	8.21***	10308.989	0.790	Not supported
JI	→	NS	0.11	2.55**	0.22	6.42***	10083.019	225.18***	Supported
JI	→	LPM	0.19	4.11***	0.21	5.90***	10308.254	0.055	Not supported
TW	→	DEP	-0.32	-4.31***	-0.07	-1.36	10313.493	5.294***	Supported
TW	→	NS	-0.41	-5.08***	-0.08	-1.38	10316.500	8.301***	Supported
TW	→	LPM	-0.34	-4.16***	-0.07	-1.22	10313.268	5.069***	Supported
SB	→	DEP	0.33	7.86***	0.17	5.33***	10313.18	4.981***	Supported
SB	→	NS	0.48	10.64***	0.14	4.31***	10326.388	18.189***	Supported
SB	→	LPM	0.45	9.67***	0.16	4.75***	10320.686	12.487***	Supported
REM	→	DEP	0.43	7.13***	0.11	2.45*	10319.443	11.244***	Supported
REM	→	NS	0.31	5.43***	0.13	2.91**	10311.468	3.269***	Supported
REM	→	LPM	0.32	5.30***	0.22	4.56***	10309.176	0.977	Not supported
DEP	→	CS	-0.36	-4.42***	0.19	2.47*	10321.227	13.028***	Supported
DEP	→	CE	0.06	0.88	0.24	5.05***	10311.463	3.264***	Supported
DEP	→	CA	-0.53	-6.80***	-0.00	-0.04	10322.897	14.698***	Supported
NS	→	CS	0.07	0.92	-0.23	-3.30***	10311.23	3.031***	Supported
NS	→	CE	0.24	4.07***	0.24	5.60***	10308.200	0.001	Not supported
NS	→	CA	0.10	1.45	-0.11	-1.74	10309.971	1.772	Not supported
LPM	→	CS	0.16	2.16*	0.21	2.92***	10308.293	0.094	Not supported
LPM	→	CE	0.25	4.22***	0.22	5.26***	10308.239	0.040	Not supported
LPM	→	CA	0.12	1.77	0.05	0.75	10308.468	0.269	Not supported
Measurement invariance test									
Model				χ^2	*df*	$\Delta\chi^2$	CFI	IFI	RMSEA
Baseline model				7760.910	3238	(46) = 59.052	0.896	0.897	0.043
Constrained model				7819.962	3284		0.896	0.896	0.043

Note. ***$p < 0.001$, **$p < 0.01$, *$p < 0.05$.

positive relationship of pressure to respond to electronic messages with depression ($p < 0.001$), nervousness symptoms ($p < 0.001$), and loss of peace of mind ($p < 0.001$) was stronger for BOH employees than for FOH employees.

In regard to the relationship between mental health and coping behavior, it was found that the negative effect of depression on coping through self-solving problems was only significant for FOH employees ($p < 0.01$). However, the positive effect of depression on coping emotionally was only significant for FOH employees ($p < 0.001$). The effect of nervousness symptoms on coping emotionally was positive and stronger for BOH employees than for FOH employees ($p < 0.001$). Lastly, the positive effects of loss of peace of mind on coping emotionally ($p < 0.001$) and coping through avoidance ($p < 0.001$) were stronger for FOH employees.

5. Discussion and implications

5.1. Discussion

This research introduced a conceptual model to examine the antecedents and consequences of hotel employee mental health, and to compare the differences between junior and senior employees, as well as FOH and BOH employees.

This research has revealed an intriguing counterintuitive result where traditional work-related stressors such as job responsibility and job complexity were associated with unexpectedly low levels of depression, nervousness, and loss of peace of mind among hotel employees. This finding contrasts with previous literature that often highlights a direct positive relationship between increased job demands and deteriorating mental health (Chen et al., 2020; Hu and Cheng, 2010; Kim and Kang, 2015). However, our results resonate with recent research during the pandemic, which suggests that traditional stressors might be perceived differently under significant external pressures (Wong et al., 2021). One possible explanation for these unexpected findings aligns with the TTSC, which suggests that the perception of stressors as either threats or challenges significantly influences emotional and physiological responses (Lazarus and Folkman, 1984). According to this theory, job responsibility and complexity, typically perceived as stressors, can also be viewed as challenges (Kang and Jang, 2019; Karatepe et al., 2014). This perception might lead to greater feelings of control and opportunities for achievement, which can enhance personal growth and well-being (Crawford et al., 2010).

The influence of cultural context is profoundly evident in the dynamics observed within this study, set against the backdrop of China—a society where collective well-being and harmony are paramount. In such environments, job responsibility and complexity may not merely be perceived as stressors but also as avenues to contribute to the collective success of the organization. This aligns with the deeply ingrained societal values of dedication and hard work. Given these cultural underpinnings, the stress appraisal process in Chinese settings often leads to more positive evaluations of potential stressors, viewing them as opportunities for personal growth and contributions to team success. Contrastingly, studies conducted in Western contexts frequently emphasize the overwhelming nature of similar job demands, focusing on

Table 6
Multigroup analysis (front-of-house employees vs. back-of-house employees).

Hypothesized path			Front-of-house sample ($N = 400$)		Back-of-house sample ($N = 356$)		Constrained model χ^2 (3347)	Chi-square difference $\Delta\chi^2$ (1)	Decision
			β	t-value	β	t-value			
JR	→	DEP	-0.09	-1.72	-0.24	-3.29**	10411.050	1.669	Not supported
JR	→	NS	-0.11	-2.05*	-0.20	-2.64**	10409.904	0.523	Not supported
JR	→	LPM	-0.09	-1.51	-0.28	-3.55***	10411.654	2.273**	Supported
JC	→	DEP	-0.22	-4.38***	-0.12	-2.39*	10410.179	0.798	Not supported
JC	→	NS	-0.19	-3.68***	-0.05	-1.02	10410.584	1.203	Not supported
JC	→	LPM	-0.22	-4.03***	-0.10	-1.93	10410.243	0.862	Not supported
RA	→	DEP	0.06	1.68	0.25	5.00***	10413.292	3.911***	Supported
RA	→	NS	0.09	2.16*	0.25	4.78***	10411.933	2.552**	Supported
RA	→	LPM	0.06	1.32	0.16	3.09**	10285.375	124.006***	Supported
RO	→	DEP	0.23	5.47***	0.07	1.56	10411.359	1.978*	Supported
RO	→	NS	0.30	6.57***	0.04	0.78	10413.853	4.472***	Supported
RO	→	LPM	0.32	6.74***	0.10	1.95	10412.519	3.138***	Supported
JI	→	DEP	0.45	10.68***	0.18	4.47***	10420.246	10.865***	Supported
JI	→	NS	0.37	9.38***	0.12	2.83**	10417.392	8.011***	Supported
JI	→	LPM	0.40	9.67***	0.13	3.04**	10418.505	9.124***	Supported
TW	→	DEP	-0.21	-3.40***	-0.10	-1.90	10410.434	1.053	Not supported
TW	→	NS	-0.25	-3.68***	-0.17	-2.78**	10356.507	52.874***	Supported
TW	→	LPM	-0.13	-1.91	-0.16	-2.63**	10409.452	0.071	Not supported
SB	→	DEP	0.21	6.21***	0.23	6.01***	10285.495	123.886***	Supported
SB	→	NS	0.24	6.71***	0.27	6.55***	10409.472	0.091	Not supported
SB	→	LPM	0.26	6.98***	0.25	6.09***	10358.116	51.265***	Supported
REM	→	DEP	-0.04	-0.89	0.42	7.30***	10432.442	23.061***	Supported
REM	→	NS	-0.04	-0.72	0.35	6.12***	10432.391	23.01***	Supported
REM	→	LPM	0.01	0.26	0.40	6.73***	10422.734	13.353***	Supported
DEP	→	CS	-0.19	-2.66**	0.05	0.59	10411.846	2.465**	Supported
DEP	→	CE	0.29	5.97***	0.02	0.30	10416.310	6.929***	Supported
DEP	→	CA	-0.22	-3.16**	-0.33	-4.55***	10410.085	0.704	Not supported
NS	→	CS	-0.12	-1.87	0.00	0.02	10409.872	0.491	Not supported
NS	→	CE	0.11	2.68**	0.47	7.79***	10418.341	8.960***	Supported
NS	→	CA	-0.05	-0.81	0.08	1.24	10410.066	0.685	Not supported
LPM	→	CS	0.26	4.03***	0.09	1.21	10410.426	1.045	Not supported
LPM	→	CE	0.29	6.87***	0.11	2.09*	10357.242	52.139***	Supported
LPM	→	CA	0.13	2.18*	0.03	0.47	10355.421	53.960***	Supported
Measurement invariance test									
Model				χ^2	df	$\Delta\chi^2$	CFI	IFI	RMSEA
Baseline model				7754.066	3238	(46) = 49.312	0.895	0.897	0.043
Constrained model				7803.378	3284		0.895	0.897	0.043

Note. ***$p < 0.001$, **$p < 0.01$, *$p < 0.05$.

the resultant strain without the mitigating influence of collectivistic norms that champion group harmony and shared burdens (Chen et al., 2024; Park and Adler, 2003). For instance, in individualistic societies such as the United States or parts of Europe, high job demands are often associated with personal stress and competition, potentially leading to negative health outcomes without the buffer of a supportive group context. This marked difference between Eastern and Western coping mechanisms highlights the importance of incorporating cultural factors when developing workplace strategies and interpreting research findings in the diverse hospitality industry.

Second, this research advances our understanding of hotel work-related stressors by identifying crucial factors that influence employee mental health. Notably, our findings challenge conventional views by revealing that teamwork, often considered a potential source of conflict, actually correlates with reduced levels of depression, nervousness, and loss of peace of mind among hotel employees. This unexpected result underscores the powerful role of teamwork in fostering a supportive environment, which can mitigate the adverse effects of stress. Effective teamwork promotes strong interpersonal relationships and a cohesive work environment, which are crucial in high-pressure service settings. Regular communication, mutual support, and shared goals inherent in successful team dynamics significantly enhance job satisfaction and reduce feelings of isolation. These findings are corroborated by recent literature, which highlights a positive correlation between teamwork and both job satisfaction and lower turnover intentions, fostering a sense of belonging and achievement among team members (Jung et al., 2023).

This research also highlights three sub-domains of hotel work-related stressors that are most influential in affecting hotel employees' mental health, each manifesting uniquely in the hospitality context. Our findings reveal that supervisor behavior is the most influential stressor, profoundly affecting employee well-being. In the hospitality industry, where service quality and guest satisfaction are paramount, the role of supervisors is critical and distinctly challenging. Unlike in many other industries, hotel supervisors must make split-second decisions to resolve guest issues, often in public settings, while simultaneously managing staff performance and morale. Poor leadership—characterized by unclear communication, lack of support, and unfair treatment—can significantly exacerbate stress levels, particularly in a setting where employees constantly juggle high customer expectations and the need for swift problem resolution. Effective leadership serves as a crucial buffer, mitigating the adverse effects of workplace stress and thereby improving mental health outcomes among hotel staff (Kalargyrou et al., 2023). Following supervisor behavior, job insecurity emerged as the second most impactful stressor. The hospitality sector faces unique challenges in this regard, with employment often characterized by seasonality, high turnover rates, and vulnerability to economic fluctuations and global events (such as pandemics). This inherent instability, coupled with the trend towards casual or gig work in hotels, creates a level of job insecurity that is particularly acute in this industry. The impact on mental health is substantial, contributing directly to increased levels of depression, nervousness, and loss of peace of mind. Implementing strategies that bolster job security is likely to significantly reduce these negative outcomes, thereby enhancing the psychological stability of the workforce (Han et al., 2022; Kim et al., 2022b). The third most

influential stressor is the pressure to respond to electronic messages, a challenge exacerbated by the 24/7 nature of hotel operations and the industry's increasing reliance on digital platforms for managing bookings and guest communications. Unlike many 9-to-5 jobs, hotel employees often face expectations of constant availability, with guest queries and internal communications arriving at all hours. This continuous connectivity not only extends beyond traditional working hours but also significantly encroaches on personal time, leading to potential mental health challenges (Schmid et al., 2019; Ye et al., 2022). The demand for immediate responses, driven by guest expectations and the potential impact on online reviews, contributes directly to increased depression, nervousness, and loss of peace of mind. Effective communication management policies could help to establish clear boundaries, reducing the intrusion of work-related stress into personal time and preventing burnout (Farrish and Edwards, 2020). While other factors such as role ambiguity and role overload have comparatively lower impact, they still significantly contribute to mental health issues, particularly in the context of post-pandemic labor shortages (Chua et al., 2022). Addressing these issues through clearer job descriptions and workload management can help to alleviate undue stress and improve overall mental health among hotel employees.

Third, among the mental health issues examined—depression, nervousness, and loss of peace of mind—depression emerges as having a notable impact on coping behaviors among hotel employees. Each condition leads to an increased reliance on emotion-focused coping, indicating that employees might prioritize immediate emotional relief from stress, which could offer temporary solace but not necessarily manage long-term stress effectively. Depression distinctively affects the use of avoidance coping strategies. This might be influenced by the perception of depression as a significant mental health issue, potentially raising concerns about stigma (Essler et al., 2006), or by fears that disclosing a mental disorder could negatively impact career prospects (Arjona-Fuentes et al., 2019). The use of avoidance coping can lead to increased feelings of isolation and a decrease in engagement, which may exacerbate the condition. In contrast, a loss of peace of mind may prompt the adoption of problem-solving coping strategies, which are generally considered adaptive as they involve addressing stressors directly, potentially reducing their impact and improving personal and professional outcomes. The impact of depression, which tends to promote less adaptive emotion-focused coping and reduce engagement in potentially beneficial strategies such as avoidance and problem-solving, underscores the importance of targeted interventions that address the complexities of depression and enhance the overall coping repertoire available to affected employees.

Fourth, the organizational roles of hotel employees played a significant role in the consequences of stressors. Compared to their senior counterparts, junior employees' job responsibilities helped reduce their depression, nervousness, and loss of peace of mind. However, higher job complexity was associated with increased these mental health problems, suggesting that junior employees may experience distress due to the demands for skill proficiency (Kim et al., 2015). Senior employees, on the other hand, were susceptible to mental health problems due to role ambiguity and role overload. Interestingly, role overload was associated with reduced mental health problems in junior employees. This may be due to the fact that role overload, compared to role ambiguity, is recognized as a challenging stressor that can contribute to goal achievement and personal development (Lin and Ling, 2018). This finding highlights the resilience of junior hotel employees in China in adapting to high job demands, which are an expected part of joining the hospitality industry. In terms of coping behaviors, junior employees who experienced strong depression tended to reject self-solving-oriented coping strategies. These findings underscore the relative lack of experience and capability among junior employees in addressing mental health problems compared to their senior counterparts.

Fifth, the MGA results showed compelling differences in mental health and coping behaviors between FOH and BOH employees, illustrating diverse impacts based on their workplace roles. BOH employees suffer more significantly due to increased job responsibilities and role ambiguity. This aligns with Efthymiou et al. (2020), who observed the escalating complexity of BOH roles as the traditional boundaries between front and back operations blur. Such blurring results in heightened expectations for BOH staff to be both aesthetically appealing and emotionally prepared for direct guest interactions, previously uncharacteristic of their roles. This role expansion and the diminishing clarity in job boundaries contribute to increased emotional labor demands, exacerbating stress and confusion among BOH staff. Furthermore, the shift towards greater digitalization and constant connectivity in BOH operations has added to this stress. Employees frequently have to manage communications via texts and phone calls outside regular working hours, reflecting a trend towards a more invasive work culture (Park et al., 2020). Conversely, FOH employees exhibited fewer mental health issues even as their workloads increased, a finding that initially seems paradoxical. This can be elucidated through the lens of the job demands-resources model (Bakker and Demerouti, 2017). In the dynamic environment of FOH hospitality, heavier workloads often coincide with busier periods that are typically associated with higher tips, increased social interactions, and enhanced feelings of accomplishment. These elements serve as substantial job resources, buffering the potential negative impacts of heightened job demands. Additionally, the energetic and interactive nature of FOH roles may induce a state of "flow" or deep engagement, where employees derive satisfaction from effectively navigating high-pressure scenarios (Poulston, 2015). This phenomenon is supported by O'Neill and Davis (2011a),b), who found that some hospitality workers perceive busy periods as exhilarating challenges rather than stressors.

5.2. Theoretical implications

This research provides several theoretical implications that contribute to the existing literature on work-related stressors, mental health, and coping behaviors in the hospitality industry. First, this study challenges the longstanding assumption in occupational health psychology that all work-related stressors negatively impact mental health. Contrary to traditional views, the findings revealed that certain stressors—namely job responsibility, job complexity, and teamwork—can serve as sources of eustress, promoting personal growth, achievement, and overall well-being among hospitality employees. This unexpected result suggests a need to redefine the conceptualization of work-related stressors, as some may be perceived as "eustress" (positive stress) that fosters personal growth, achievement, and well-being among hospitality employees (Wong et al., 2021). This calls for a more nuanced understanding of how stressors are perceived, and their dual potential impacts. According to the TTSC (Lazarus and Folkman, 1984), stress responses are shaped by individuals' cognitive appraisals of stressors as either threatening or challenging, and their subsequent coping responses. This study extends this theory by demonstrating that stressors traditionally viewed as negative can also be appraised as challenges that contribute positively to employee outcomes. This dualistic nature indicates a more complex interplay between stressors and individual appraisals, suggesting that the same stressor can lead to different outcomes based on personal, contextual, and organizational factors. A nuanced approach that considers both the potentially harmful and beneficial effects of work-related stressors is proposed.

Second, this research significantly expands the theoretical framework surrounding work-related stressors in the hospitality industry by introducing and analyzing underexplored domains such as superiors' behavior and the pressure to respond to electronic messages. It highlights the substantial negative impact these emerging stressors have on employees' mental health, illuminating the complex dynamics within contemporary hospitality work environments. This study underscores how technological advancements and evolving leadership styles contribute to the spectrum of stressors affecting employee well-being,

suggesting that existing theoretical models need adaptation to incorporate these modern influences. By documenting the specific effects of supervisor behaviors and digital communication demands, this research contributes to a deeper understanding of how interpersonal and technological stressors interact within the hospitality sector. It invites a revision of traditional stress models, such as the job demands-resources model or the TTSC, to include these nuanced stressors. For instance, the job demands-resources model could be expanded to categorize digital communication as a unique job demand that intersects with both physical and emotional aspects of job strain, requiring specific resources such as digital literacy training or more flexible communication protocols to mitigate its impact (Tuan, 2022). Similarly, the TTSC could be adapted to include dynamic coping strategies that specifically address the challenges posed by electronic communication and supervisory relationships, emphasizing the need for developing resilience skills that are tailored to managing continuous connectivity and leadership dynamics.

Third, this study enhances the theoretical framework for mental health in the hospitality industry by separating mental health issues into specific domains, including depression, nervousness, and loss of peace of mind. This multidimensional conceptualization challenges the traditional view of mental health as a monolithic construct, aligning with Keyes (2005) advocacy for a more nuanced and disaggregated approach. By distinguishing between these specific mental health facets, the research provides a clearer depiction of the complex interplay between workplace stressors and their psychological outcomes. This multidimensional conceptualization is critical for theoretical models that aim to accurately reflect the complex relationship between workplace stressors and their distinct impacts on different aspects of mental health. This approach allows for a more precise identification of the stressors that specifically exacerbate depression, provoke nervousness, or disrupt an individual's peace of mind. Moreover, recognizing the distinct impacts of stress factors on various mental health domains invites theoretical advancements that could lead to more effective diagnostic tools and intervention models. The findings suggest that future theoretical work should not only seek to identify the general presence of stress but also differentiate the specific psychological domains affected. This could guide more specialized research inquiries and interventions tailored to the unique psychological experiences of employees, enhancing both the academic understanding and practical management of workplace mental health.

Fourth, this study advances knowledge about coping behaviors by linking specific mental health problem domains to distinct coping strategies, thereby deepening the theoretical understanding of coping mechanisms in the hospitality occupational context. The findings revealed a nuanced relationship where individuals experiencing depression and nervousness symptoms are more inclined to adopt emotion-focused coping strategies, while those grappling with loss of peace of mind tend to employ a combination of self-solving, emotion-focused, and avoidance-oriented coping strategies. These insights challenge the traditional theoretical approach of treating coping behaviors as universal responses to stress. Prior research suggests that employees exhibiting symptoms of depression, anxiety/nervousness, and agitation are generally more likely to engage in passive emotion-focused and avoidance coping when faced with stressors, rather than active self-solving focused coping (Chua et al., 2022; Jung and Yoon, 2015; Yin and Ni, 2021). However, the current study indicated that coping strategies are contextually dependent and contingent on the distinct psychological state an individual is experiencing. This suggests that coping behaviors are not universally applied, but rather intricately tied to the specific mental health domains manifesting for a given employee. Advancing this theoretical perspective can guide future research efforts to disentangle the complex interplay between mental health and coping mechanisms in occupational settings.

Lastly, this study significantly advances the theoretical framework on workplace stress by illustrating the moderating effects of organizational roles within the hospitality industry. Anchored in the TTSC and resilience theory, the research revealed distinct differences in how junior versus senior employees, and FOH versus BOH staff, perceive and respond to workplace stressors. These findings suggest that individual perceptions of stress and their subsequent coping responses are deeply influenced by their hierarchical position and departmental roles, which dictate their access to resources and autonomy. This nuanced understanding prompts theoretical models to consider role-specific variables as fundamental components that could predict different stress outcomes. By integrating these role-based perspectives, stress management theories can more accurately address the diverse needs and challenges faced by employees in various organizational contexts, leading to more effective strategies for promoting workplace well-being. This study thus not only contributes to a deeper academic understanding of stress dynamics but also provides a robust framework for developing targeted interventions that enhance resilience and reduce stress in the hospitality sector.

5.3. Managerial implications

This study offers several managerial implications for hospitality managers and organizations, providing insights into developing effective strategies to support employee mental health and foster adaptive coping mechanisms in the evolving post-pandemic work environment. First, hospitality managers are advised to develop targeted interventions that acknowledge the nuanced impact of different types of stressors on employee mental health. While job responsibility and complexity may not necessarily require stress reduction strategies, they should be leveraged as potential avenues for employee growth, satisfaction, and personal development through job enrichment strategies such as job rotation, task variety, and empowerment. Career advancement opportunities, such as mentoring programs, cross-training initiatives, and transparent promotion pathways, can also contribute to personal growth and mitigate the negative effects of these stressors. Conversely, training programs should be designed to enhance employees' coping skills, equipping them with self-solving strategies like problem-solving techniques, time management, and stress management workshops, as well as positive emotion-focused strategies such as mindfulness practices, emotional intelligence training, and peer support groups tailored to their specific mental health challenges identified in this study. For smaller hotel chains or independent hotels with limited resources, partnering with local mental health organizations or leveraging online resources can provide cost-effective solutions for implementing employee well-being initiatives.

Second, organizational policies should be mindful of the distinct impacts of role-related stressors, such as role ambiguity and role overload, on employee mental health. The findings highlight the detrimental effects of these stressors, underscoring the need for concerted efforts to clarify roles and manage workloads effectively to prevent their occurrence. Policy frameworks should incorporate measures such as clear job descriptions, regular performance reviews, and open communication channels to foster role clarity and delineate responsibilities. Implementing workload monitoring systems, cross-training programs, and task redistribution protocols can help address excessive workloads and mitigate the negative consequences on employees' mental health problems. Larger hotel chains with more resources may consider implementing specialized software or hiring dedicated personnel to streamline role assignments and workload management, while smaller hotels can leverage existing communication channels and regular team meetings to address these issues.

Third, training for supervisors and managers should emphasize the significant impact of their behavior on employee mental health, as evidenced by the findings on the deleterious effects of negative behavior by superiors. Leadership development programs should prioritize promoting supportive and fair leadership practices, equipping managers with the necessary skills to foster a psychologically safe and nurturing

work environment for their subordinates. For larger hotel chains, investing in comprehensive leadership training programs and incorporating mental health awareness into their existing management development curricula can be beneficial. Smaller hotels may opt for more cost-effective options, such as online training modules or partnering with local organizations that offer leadership development workshops. Furthermore, organizations should critically re-evaluate their expectations around electronic communication, as the pressure to respond promptly emerged as a significant stressor. Policies that establish clear boundaries for response times, such as setting specific hours during which staff are expected to reply to emails, can help manage the pressure on employees. Initiatives such as staggered shifts and designated off-duty periods could encourage a healthy work-life balance, even within the 24/7 operational model typical of hotels. Additionally, offering condensed work weeks or rotational scheduling could provide employees with more consecutive days off, allowing them to better disengage from work demands and prioritize their mental well-being.

Lastly, employee assistance programs and support systems should be tailored to different employee groups, recognizing that junior versus senior staff and front-of-house versus back-of-house employees may have varying support needs due to their distinct experiences of stressors. This customized approach requires a thorough understanding of the unique challenges faced by each employee segment, which can be achieved through regular surveys, focus groups, and open communication channels. Based on these insights, interventions such as targeted counseling services, role-specific stress management workshops, and tailored wellness programs can be developed to effectively address the specific needs of diverse workforce segments. Larger hotel chains may have the resources to establish dedicated employee assistance programs for different employee segments, while smaller hotels could explore partnerships with local mental health providers or leverage online resources to offer tailored support. As the hospitality industry navigates the post-pandemic landscape, managers should recognize the potential shifts in perceptions and priorities that may have emerged from this global crisis, and ensure employee retention and satisfaction strategies are adapted accordingly. In times of economic downturn or financial constraints, hotels may need to prioritize the most essential mental health support initiatives and seek cost-effective solutions, such as leveraging existing resources or collaborating with industry associations or community organizations. For example, continuous monitoring and adjustments to organizational practices are necessary to align with the evolving needs and expectations of the workforce in the post-pandemic era. By adopting a flexible and employee-centric approach, hospitality organizations can foster a supportive environment that promotes employee well-being, engagement, and long-term commitment, ultimately contributing to the industry's overall resilience and success.

5.4. Limitations and suggestions for future research

This study has several limitations that provide opportunities for future research. First, the cross-sectional nature of the data may limit causal inferences, and longitudinal studies are needed to assess changes in employee mental health over time. Second, this study is limited to the hotel industry in mainland China. Future research could expand the context to other regions or service sectors to enhance generalizability. Third, while established measures were used, incorporating qualitative approaches could yield richer insights into employee experiences. Future studies could also explore additional individual and organizational factors influencing mental health and coping mechanisms, such as personality traits, coping resources, and organizational support systems. Finally, intervention studies evaluating the design, implementation, and effectiveness of mental health promotion programs and support initiatives specifically tailored for the hotel industry workforce would offer invaluable practical implications for organizations seeking to cultivate a mentally healthy and resilient workforce.

CRediT authorship contribution statement

Yuchen Xu: Writing – original draft, Visualization, Resources, Formal analysis, Data curation. **Antony King Fung Wong:** Writing – review & editing, Writing – original draft, Validation, Software, Investigation, Conceptualization. **Seongseop (Sam) Kim:** Writing – review & editing, Supervision, Project administration, Funding acquisition, Conceptualization.

Declaration of Competing Interest

I, Antony King Fung WONG, representing the authors of this manuscript, hereby declare that:

We have no financial or personal relationships that may have inappropriately influenced me in writing this manuscript.

We have no potential conflicts of interest to disclose.

We are not involved in any activity or organization that has a direct or indirect interest in the subject matter of this manuscript.

The research and writing of this manuscript have been conducted in an ethical and honest manner, following all relevant guidelines and regulations.

If any potential conflicts of interest arise after the submission of this manuscript, we will inform the editor as soon as possible.

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