International Journal of Mental Health Promotion

Tech Science Press

DOI: 10.32604/ijmhp.2024.050961

ARTICLE

Exploring the Interplay between Job Stress, Work Performance, and Attitudes toward Professional Psychological Help among Employees

Cong Minh Le[1], Son Van Huynh[2], Ky Luu[2,*], Quynh-Nhi Ngoc Ho[2], Van Thi Le Nguyen[3] and Vinh-Long Tran-Chi[2,4]

[1]Center for Mental Health Research and Support, University of Social Sciences and Humanities, Vietnam National University Ho Chi Minh City, Ho Chi Minh City, 700000, Vietnam

[2]Faculty of Psychology, Ho Chi Minh City University of Education, Ho Chi Minh City, 700000, Vietnam

[3]Faculty of Tourism, College of Business, University of Economics Ho Chi Minh City, Ho Chi Minh City, 700000, Vietnam

[4]Scientific Management Department, Dong A University, Da Nang, 500000, Vietnam

*Corresponding Author: Ky Luu. Email: kyluuhihi@gmail.com

Received: 23 February 2024 Accepted: 30 April 2024 Published: 30 July 2024

ABSTRACT

Objective: This study explores the interplay between job stress, job-related factors, work performance, and attitudes toward seeking professional psychological help among Vietnamese employees. **Methods:** A total of 374 employees in Vietnam were surveyed using random sampling and an online questionnaire from November 07 to November 28, 2023. Demographic data and self-reported from three scales: The New Job Stress Scale (NJSS), Work Performance (WP), and Attitudes Toward Seeking Professional Psychological Help (ATSPPH_SF) were collected. **Results:** Significant variations were found across several variables, including forms of work, operating hours, education levels, monthly income, numbers of daily working hours, and the presence of a psychological counseling department within the company. Our analysis has highlighted direct relationships between key latent variables. Employees who were more open to seeking professional help tended to report higher levels of job stress. The negative relationship was found between job stress and attitudes toward seeking professional help. Additionally, work effort was positively associated with work quality. Moderation analyses revealed the influence of co-worker support on role expectation conflict and work effort, role expectation conflict and work-life balance, as well as interactions between role expectation conflict and attitudes needed toward seeking professional help. Mediation analyses showed that work effort mediated relationships between openness to seeking professional help, co-worker support, work-life balance, role expectation conflict, and work quality. Attitudes toward seeking professional help also mediated relationships between work-life balance, job stress, and work quality. **Conclusion:** The study highlights the complex dynamics surrounding job stress, job-related factors, work performance, and attitudes toward seeking professional psychological help among Vietnamese employees. It highlights the importance of addressing help-seeking barriers, promoting work engagement, and fostering healthy work-life balance for employee well-being and productivity. Further research across diverse contexts and interventions is needed.

KEYWORDS

Stress; co-worker support; work-life balance; role expectation conflict; professional psychological help-seeking

Introduction

In contemporary working life, job stress is a global phenomenon, having occurred everywhere in many different forms. Increasing responsibilities lead employees to work harder. Over the past three decades, the stress of employees on the job has gradually become a topic of increasing attention and has been comprehensively researched in the field of occupational health. According to Vietnam, a country with a rapidly developing economy, more and more occupational health problems are emerging in employees [1]. Many studies have shown that job stress has a negative impact on work performance [2,3]. Constant exposure to high-pressure environments, long working hours, and the emotional toll contribute to elevated stress levels among employees. Prolonged exposure to stressful conditions can weaken the body's resistance to stressors and have a detrimental impact on overall health. In addition, experiencing prolonged stress will also have a negative impact on mental health [4]. For work performance, psychological health is as much a result as it is a cause of job performance levels and there is evidence that poor psychological health contributes to cognitive deficits that are relevant for work performance [5,6]. Seeking professional psychological help is the optimal solution for Vietnamese employees in particular and the world in general. Despite recent research indicating a rise in the number of individuals seeking professional psychological assistance, a substantial portion of people still opt not to seek help for their mental health concerns [7]. By encouraging an attitude and behavior toward obtaining professional psychological help, this study will have practical consequences for managers, workers, and policy makers on how to improve work performance, lessen stress from the job, and support employees' psychological well-being.

Job stress, attitudes toward seeking professional psychological help

Employees who face work demands that are beyond their abilities and resources experience job stress, a combination of psychological and physiological responses [8]. When employees experience prolonged periods of stress, they experience negative mental health outcomes (depression, anxiety, etc.), and concurrently are at a higher-than-normal risk of physical harm (cardiovascular system, nervous system, etc.) [9,4]. Job stress can harm employees' health, well-being, performance, and intention to stay in the organization [10,11]. A possible solution is to seek professional psychological help when necessary. Fischer et al. [12] investigated positive help-seeking attitudes as well as the history of help-seeking behavior and discovered that attitudes toward treatment belong to a set of ideas about therapy. One of the main factors is openness to seeking professional psychological help, which is how willing and ready employees are to get psychological help [12]. Professional psychological help can help employees cope with their stress, improve their coping skills, and enhance their mental health outcomes [13,14]. However, many employees do not want to or are hesitant to get professional psychological help because of different obstacles, such as stigma, lack of awareness, cost, and accessibility [7,15,16]. Openness to seeking professional psychological support can be affected by various personal and situational factors, such as level of job stress, gender, education level, and daily working hours [7,17]. Females typically displayed more positive attitudes toward seeking help than males due to societal norms and alexithymia hindering men from expressing emotions [7,17]. Higher education correlated with more favorable attitudes, while lower education levels may have fostered self-reliance, reducing the likelihood of seeking support [7,17]. Longer working hours could intensify stress and disrupt work-life balance, potentially influencing whether individuals prioritized seeking psychological support or not as they prioritize work [10,11]. Job-related stress, particularly in cases of anxiety or depression, could prompt individuals to seek psychological support due to emotional strain [18]. However, societal and organizational pressure to manage emotions may have deterred seeking support, resulting in exhaustion and decreased job satisfaction, impacting willingness to seek professional help [19]. Therefore, it is essential to know the factors that affect employees' attitudes and behaviors toward getting professional psychological help.

Hypothesis 1: There would be a relationship between job stress and attitudes towards seeking professional psychological help.

Work performance

Effective work performance requires aligning individual actions with job demands, influenced by personal qualities like effort, loyalty, and satisfaction [20–22]. Beyond its initial definition of persistence [23], effort encompasses both mental and physical exertion tailored to the job, ranging from minimal engagement to exceeding expectations [24]. Scholars also view effort as allocating personal resources towards productive tasks [25], highlighting its critical role in performance assessment [24]. Furthermore, intrinsic motivation buffers against negative colleague interactions and compensates for decreased motivation, ultimately impacting performance [26]. Research recognizes the influence of positive emotions on performance, enhancing creativity and efficacy evaluations [27]. Additionally, higher education is associated with better core task performance across various occupations [28,29]. Regardless of negative factors impacting work quality and mental health, including heightened stress levels, employees still may refrain from seeking psychological help due to fear of judgment [30]. Mental health support is always crucial for optimizing work performance [31], emphasizing the need for addressing psychological well-being in the workplace. Therefore, openness to professional support fosters motivation and resilience, enhancing work effort and quality [32].

Hypothesis 2: *Work effort would influence work quality*.

Hypothesis 3: *Need for seeking professional psychological help would influence work quality*.

Hypothesis 4: *Work effort would mediate the relationship between openness to seeking professional help for emotional problems and work quality*.

Hypothesis 5: The need for seeking professional psychological help would mediate the relationship between job stress and work quality.

Role expectation conflict, co-worker support

Role expectation conflict is a term that refers to the degree of difference between the expectations of different role senders (e.g., supervisor, co-worker, etc.) regarding the performance of an individual's role, these things can make employees stressed and unsatisfied [33,34]. Co-worker support refers to the perception of employees that their co-workers are willing and able to help them with their tasks and problems. Recent studies have shown that there is a positive relationship between role expectation conflict and work effort, as well as work quality [35,36]. Role expectation conflict may positively boost work effort by promoting a sense of responsibility, striving, and healthy competition among employees [37]. However, when co-worker support is present, the positive impact of role expectation conflict on work effort may diminish. Support from colleagues may foster dependency and reduce the need for independent problem-solving, potentially undermining the motivation generated by role conflict [38]. Co-worker support can mitigate the negative effects of role expectation conflict by offering emotional, informational, and instrumental support to employees [39]. Previous studies have examined the relationships between role expectation conflict, co-worker support, and various work outcomes, such as work effort, work quality, work-life balance, mental health, and turnover intention [35,40,41]. However, there is a lack of research on how role expectation conflict and co-worker support affect the necessary attitude toward seeking professional psychology help among employees. Seeking professional psychological help is an important factor for promoting mental health and well-being in the workplace, especially for employees who experience high levels of role-expectation conflict and low levels of co-worker support [32].

Hypothesis 6: Work effort would mediate the relationship between co-worker support and work quality.

Hypothesis 7: Work effort would mediate the relationship between role expectation conflict and work quality.

Hypothesis 8: Co-worker support would moderate the relationship between role expectation conflict and work effort.

Hypothesis 9: Co-worker support would moderate the relationship between role expectation conflict and the need for seeking professional psychological help.

Work-life balance

Work-life balance refers to the equilibrium between work and personal/family responsibilities, promoting employee well-being and satisfaction [42,43]. Positive co-worker support enhances this balance, aiding in stress management and effective performance [44]. Role conflict, on the other hand, is linked to reduced work performance and increased stress [33]. Moreover, extended work hours can negatively impact employee productivity through poor work-life balance [10,11]. Maintaining a positive work-life balance correlates with higher work effort, job satisfaction, and life satisfaction [45,46]. A harmonious balance fosters higher-quality work and supports the notion of a happy employee being a productive one [47,48]. However, an imbalance may negatively affect mental health, necessitating professional help [49]. Additionally, several other factors have been noted to significantly impact work-life balance, such as forms of work [50], operating hours [51], monthly income [52], number of daily working hours [11]. By influencing time allocation and well-being, they shape individuals' ability to balance professional and personal commitments, affecting their overall equilibrium between work and life. Understanding these needs companies with well-established psychological support services (such as Employee Assistance Programmers-EAPs) are better equipped to assist employees in managing mental health concerns, mitigating the negative effects of personal distress, improving performance, and ultimately contributing to a more balanced work-life dynamic [53,54].

Hypothesis 10: Work-life balance would influence the need for seeking professional psychological help.

Hypothesis 11: The need for seeking professional psychological help would mediate the relationship between work-life balance and work quality.

Hypothesis 12: Work effort would mediate the relationship between work-life balance and work quality.

Hypothesis 13: Co-worker support would moderate the relationship between role expectation conflict and work-life balance.

Thus, this study investigated the relationships between job stress and job-related factors with Vietnamese employees' attitudes towards seeking professional psychological help and work performance. It aims to better understand the factors affecting mental health and work performance, and to propose practical solutions to help employees balance work, reduce stress, and seek psychological help when needed. This research contributes to improving the work environment and enhancing the quality of life for Vietnamese employees.

Methods

Participants

The study was conducted among 374 employees residing and working in Vietnam, employing random sampling. An online questionnaire was administered, ensuring anonymity and confidentiality for participants, with voluntary participation and no remuneration. Withdrawal rights were granted at any stage. The sample size adhered to guidelines recommending 100 to 200 observations for path estimate analysis [55]. Data were screened and cleansed according to Osborne [56] recommendations, eliminating outliers and inconsistent response patterns.

A screening question was used to confirm daily customer interaction among participants. Out of 374 distributed questionnaires, 346 were deemed valid, with 28 being invalid. Data collection spanned from November 07 to November 28, 2023, achieving a return rate of 92.5%, exceeding the 30% minimum response rate typically required for analysis [57].

Demographic

Out of the total number of participants, 70.8% were female and 29.2% were male. The mean age of the participants was 28.3 years, with an age range from 18 to 63 years. The participants worked in three different forms of work: working while studying (45.4%), working part-time (9.8%), and working full-time (44.8%). Regarding operating hours, participants worked in regular hours (52.3%), worked irregular hours (30.6%), and shift work (17.1%). The majority of the employees had a university education level (61.6%), followed by college level (15.0%), post-university education level (12.4%), up to secondary school (6.1%), and intermediate level or vocational training (4.9%). About monthly income, under 7 million VND (48.6%), from 7 million VND to under 15 million VND (35.5%), from 15 million VND to 30 million VND (11.3%), and more than 30 million VND (4.6%). In terms of daily working hours, participants worked under 5h per day (11.6%), from 5 to under 10h per day (68.5%), from 10 to 15h per day (18.2%), and more than 16h per day (1.7%). Among all respondents, individuals stated that their company has a psychology department for employees (32.4%), while the remaining individuals responded in the negative (67.6%). Table 1 shows the demographic of participants.

Measures

Three scales have been selected: (1) The New Job Stress Scale; (2) Work Performance; (3) Attitudes Toward Seeking Professional Psychological Help. The translation process of the questionnaire employed conceptual methods. Initially, an individual proficient in both English and Vietnamese and native in Vietnamese, translated the English version into Vietnamese. It is essential to note that a literal translation may not always encapsulate the intended health concepts for measurement. Therefore, the authors diligently scrutinized each question to ensure that the translations accurately conveyed the intended concepts [58].

The new job stress scale (NJSS)

The NJSS, which consists of 22-items, is a concise questionnaire designed to assess a broader range of factors, including job stress (Eg: *I have a lot of work and fear that very little time to do it.*; *I feel so burdened that even a day without work seems bad...*), role expectation conflict (Eg: *I'm not able to satisfy the different demands of v*arious people above me.; *I'm not able to satisfy the conflicting demands of my colleagues and juniors...*), co-worker support (Eg: *Have the people working with me ever given any information or advice to me?*; *Have the people working with me ever understood me and given advice?...*), and work-life balance (*I am able to balance between time at work and time at other activities...*). On a 5-point Likert scale, responses regarding job stress, role expectation conflict, and work-life balance are rated as follows: "1 = Strongly disagree" to "5 = Strongly agree". Co-worker support responses were evaluated using a 6-point Likert scale: "1 = Never" and "6 = All the time". The reliability of the NJSS scale showed 0.81 [59]. Our study determined the Cronbach's alpha of the scale to be in the range of 0.798 to 0.874 for the subscales.

Work performance (WP)

The 10-item measure assessing work effort and work quality was derived from a 6-item self-report scale developed by Kuvaas [60]. As the original scale lacked a clear distinction between effort and quality, four items directly about quality or effort were retained from the original scale, and an additional six items were developed specifically for the current study. Work performance was evaluated using these 10 items, designed to capture both the level of effort exerted by employees in their roles and the quality of their output. Work Effort, consisting of 5 items (Eg: *I try to work as hard as possible.; I intentionally expend a great deal of effort in carrying out my job…*), and Work Quality, comprising 5 items (Eg: *The quality of my work is usually high.; The quality of my work is top-notch…*), were previously validated by Kuvaas et al. [61] within this scale. Participants responded using a 5-point Likert scale, ranging from "1 = Strongly Disagree" to "5 = Strongly Agree". In our research, the Cronbach's alpha of scale reliability coefficient was established as 0.880 for WE and 0.871 for WQ.

Attitudes toward seeking professional psychological help (ATSPPH_SF)

The Attitude Toward Seeking Professional Psychological Help-Short Form (ATSPPH_SF) is a 10-item questionnaire developed by Fischer et al. [12], adapted from the 29-item ATSPPH by Fischer et al. [62]. It evaluates attitudes toward seeking mental health support. The scale demonstrates good internal consistency (α = 0.84) and test-retest reliability (0.80). It assesses two dimensions: openness to seeking help (items 1, 3, 5, 6, and 7) (Eg: *If I believed I was having a mental breakdown, my first inclination would be to get professional attention.*; *If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy…*) and the perceived value of help-seeking (items 2, 4, 8, 9, and 10, reverse-scored) (Eg: *The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.*; *There is something to admire about a person who copes with conflicts and fears without going for professional help…*). Responses range from "1 = Strongly Disagree" to "5 = Strongly Agree". The Vietnamese version of ATSPPH_SF was used, showing good reliability (Cronbach's α = 0.837) [63]. In our study, the reliability coefficient Cronbach's alpha of the scale was determined to be 0.650 for ATSPPH_SF_N and 0.836 for ATSPPH_SF_O.

In addition to the questionnaire, socio-demographic information was collected from the participants using a structured questionnaire. The information collected included age, gender, educational level, monthly income, forms of work, operating hours, daily working hours, and the presence of a psychological counseling department within the company.

Ethical

In line with the ethical standards outlined in the Declaration of Helsinki [64] and the guidelines set forth by the American Psychological Association [65] regarding research involving human subjects, the current study meticulously

TABLE 1

Demographic characteristics table

	Total (n = 346) frequency	JS Mean ± SD	REC Mean ± SD	CS Mean ± SD	WLB Mean ± SD	WE Mean ± SD	WQ Mean ± SD	ATSPPH_SF_O Mean ± SD	ATSPPH_SF_N Mean ± SD
Forms of work[b]					$p < 0.05$	$p < 0.05$			
Working while studying[1]	157 (45.4)	3.05 ± 0.791	2.45 ± 0.959	3.00 ± 1.060	3.32 ± 0.916	3.73 ± 0.767	3.31 ± 0.828	2.78 ± 0.656	3.48 ± 0.763
Working part-time[2]	34 (9.8)	3.17 ± 0.728	2.42 ± 0.831	3.10 ± 1.208	3.16 ± 0.797	3.95 ± 0.724	3.64 ± 0.745	2.64 ± 0.647	3.51 ± 0.774
Working full-time[3]	155 (44.8)	2.97 ± 0.741	2.39 ± 0.932	2.83 ± 0.945	3.52 ± 0.740	3.91 ± 0.644	3.39 ± 0.632	2.74 ± 0.591	3.49 ± 0.748
Operating hours[b]					$p < 0.05$				
Regular[1]	181 (52.3)	2.94 ± 0.785	2.37 ± 0.980	2.98 ± 0.961	3.50 ± 0.741	3.84 ± 0.688	3.39 ± 0.700	2.76 ± 0.636	3.48 ± 0.795
Irregular[2]	106 (30.6)	3.16 ± 0.740	2.47 ± 0.886	2.95 ± 1.177	3.32 ± 0.952	3.83 ± 0.776	3.37 ± 0.802	2.70 ± 0.646	3.54 ± 0.677
Shift work[3]	59 (17.1)	3.03 ± 0.763	2.50 ± 0.872	2.78 ± 0.934	3.22 ± 0.861	3.82 ± 0.692	3.37 ± 0.770	2.78 ± 0.561	3.44 ± 0.768
Gender[a]									
Male	101 (29.2)	3.09 ± 0.672	2.51 ± 0.925	3.00 ± 0.984	3.34 ± 0.808	3.81 ± 0.689	3.45 ± 0.737	2.72 ± 0.547	3.40 ± 0.701
Female	245 (70.8)	3.00 ± 0.797	2.39 ± 0.937	2.91 ± 1.045	3.42 ± 0.848	3.84 ± 0.726	3.35 ± 0.744	2.76 ± 0.657	3.53 ± 0.775
Education level[b]		$p < 0.05$		$p_{3\text{-}4} < 0.001$		$p_{3\text{-}4} < 0.01$	$p_{3\text{-}4} < 0.05$	$p < 0.05$	$p < 0.05$
Secondary[1]	21 (6.1)	2.83 ± 0.543	2.19 ± 0.728	2.75 ± 1.170	3.44 ± 0.748	3.74 ± 0.749	3.10 ± 0.802	3.17 ± 0.760	3.27 ± 0.985
Intermediate/Vocational[2]	17 (4.9)	3.06 ± 0.813	2.29 ± 1.008	2.69 ± 1.178	3.45 ± 0.726	3.80 ± 0.704	3.27 ± 0.919	2.81 ± 0.531	3.36 ± 0.562
College[3]	52 (15.0)	2.90 ± 0.875	2.32 ± 1.012	2.44 ± 0.864	3.22 ± 0.873	3.40 ± 0.933	3.10 ± 0.856	2.90 ± 0.863	3.22 ± 0.890
University[4]	213 (61.6)	3.12 ± 0.723	2.52 ± 0.914	3.12 ± 1.017	3.44 ± 0.850	3.96 ± 0.585	3.47 ± 0.698	2.65 ± 0.542	3.59 ± 0.698
Post-university[5]	43 (12.4)	2.80 ± 0.827	2.24 ± 2.42	2.79 ± 0.906	3.36 ± 0.813	3.77 ± 0.794	3.45 ± 0.602	2.80 ± 0.525	3.50 ± 0.711
Monthly income[b]					$p_{1\text{-}2} < 0.05$				
Under 7 million VND[1]	168 (48.6)	3.08 ± 0.769	2.49 ± 0.923	2.96 ± 1.048	3.27 ± 0.889	3.76 ± 0.759	3.30 ± 0.818	2.75 ± 0.658	3.49 ± 0.736
From 7 million VND to under 15 million VND[2]	123 (35.5)	2.98 ± 0.735	2.40 ± 0.934	2.84 ± 0.975	3.55 ± 0.727	3.96 ± 0.598	3.43 ± 0.655	2.69 ± 0.580	3.52 ± 0.718
From 15 million VND to 30 million VND[3]	39 (11.3)	2.92 ± 0.771	2.43 ± 0.970	2.94 ± 1.119	3.44 ± 0.869	3.84 ± 0.785	3.44 ± 0.631	2.86 ± 0.523	3.49 ± 0.885
More than 30 million VND[4]	16 (4.6)	3.10 ± 0.909	1.91 ± 0.864	3.30 ± 0.950	3.48 ± 0.834	3.60 ± 0.766	3.66 ± 0.729	2.84 ± 0.840	3.24 ± 0.910
Daily working hours[b]		$p < 0.05$			$p_{1\text{-}2} < 0.001$ $p_{1\text{-}3} < 0.05$		$p_{1\text{-}2,3} < 0.05$		
Under 5 h[1]	40 (11.6)	3.18 ± 0.931	2.48 ± 1.049	2.93 ± 1.311	2.90 ± 1.030	3.49 ± 0.962	3.05 ± 0.966	2.75 ± 0.710	3.49 ± 0.647
From 5 to under 10 h[2]	237 (68.5)	2.95 ± 0.739	2.37 ± 0.948	2.90 ± 1.011	3.50 ± 0.790	3.84 ± 0.666	3.39 ± 0.703	2.75 ± 0.632	3.48 ± 0.789
From 10 to 15 h[3]	63 (18.2)	3.17 ± 0.706	2.54 ± 0.805	3.07 ± 0.933	3.36 ± 0.751	4.01 ± 0.649	3.52 ± 0.671	2.74 ± 0.554	3.54 ± 0.715
More than 16 h[4]	6 (1.7)	3.61 ± 0.578	2.90 ± 0.629	2.96 ± 0.246	3.00 ± 0.919	3.73 ± 0.745	3.53 ± 0.816	2.83 ± 0.662	3.33 ± 0.532
The company have a psychology department for employees[a]					$p < 0.05$				
Yes	112 (32.4)	3.03 ± 0.769	2.44 ± 0.998	2.97 ± 0.990	3.55 ± 0.780	3.82 ± 0.810	3.49 ± 0.815	2.78 ± 0.700	3.57 ± 0.794
No	234 (67.6)	3.03 ± 0.762	2.42 ± 0.903	2.92 ± 1.046	3.32 ± 0.854	3.84 ± 0.666	3.33 ± 0.701	2.73 ± 0.588	3.45 ± 0.734

Note: Abbreviations: Job Stress (JS); Role Expectation Conflict (REC); Co-Worker Support (CS); Work-Life Balance (WLB); Work Effort (WE); Work Quality (WQ); Openness to Seeking Professional Help (ATSPPH_SF_O); Need in Seeking Professional Help (ATSPPH_SF_N). Note: a. Independent Sample *t*-test; b. One-Way ANOVA.

followed ethical protocols. Adherence to these guidelines was paramount to safeguarding the well-being, rights, and confidentiality of all participants involved in the research endeavor. The study was approved by the Ethic Committee of the Department of Science and Technology-Ho Chi Minh City University of Education (under the Vietnamese MoET), in Decision No. 450/QD-DHSP on September 12, 2023, code CS.2022.19.08DH). All participants signed the informed consent in this study.

Data analysis

The present study utilized a quantitative approach to explore the interconnections among variables within a cross-sectional framework. Data obtained underwent organization, coding, and cleansing procedures using Excel, followed by analysis through Statistical Package for the Social Sciences (SPSS) version 26.0. Descriptive statistics were then computed to delineate participant characteristics. The partial least squares structural equation modeling (PLS-SEM) approach was employed to examine the study hypotheses and intricate interactions among variables [66]. Data analysis utilized SmartPLS 4, suitable for reflective models, moderation, mediation, and non-normal data [67]. Following Hair et al. [67] approach, researchers assessed measurement and structural models. Evaluation included indicator and construct reliability, convergent and discriminant validity. Structural model analysis involved collinearity, coefficient determination, and path coefficients' significance using 5000 bootstrap samples. This analysis aimed to enrich existing literature. The $p < 0.05$ was considered statistically significant.

Results

Descriptive study and normality tests

Table 1 presents the demographic characteristics of the participants.

For the normality test, in accordance with Mishra et al. [68], with sample size >300 substantial non-normality is indicated by an absolute skewness value exceeding 2 or an absolute kurtosis value exceeding 7. Conversely, significant normality is suggested by absolute skewness and kurtosis values of ≤2 and ≤4, respectively. In our study of 346 participants, the skewness and kurtosis values all fall within these established ranges, affirming the robustness of our adherence to the criteria outlined in Kim [69] and Mishra et al. [68] for assessing normality. This meticulous evaluation underscores the credibility and reliability of our dataset, thus reinforcing the validity of the statistical analyses conducted. Since all scales had a normal distribution, parametric statistics were conducted for JS, REC, CS, WLB, WE, WQ, ATSPPH_SF_O and ATSPPH_SF_N.

Comparison test

The One-way ANOVA tests were utilized, followed by *post hoc* Tukey's HSD test.

The study findings indicated noteworthy variations among employees across various variables. There was a significant difference in forms of work between work-life balance ($F_{(2, 343)} = 3.794$, $p < 0.05$) and work effort ($F_{(2, 343)} = 3.188$, $p < 0.05$).

Work-life balance significantly varied between different types of operating hours ($F_{(2, 343)} = 3.091$, $p < 0.05$): employees who work with regular hours were better able to balance their work-life than irregular employees, and shift workers. Despite detecting overall differences among the groups for these variables, our analysis did not uncover any significant distinctions when comparing specific pairs of groups.

There was a significant difference in education levels between job stress ($F_{(4, 341)} = 2.606$, $p < 0.05$), co-worker support ($F_{(4, 341)} = 5.648$, $p < 0.001$), work effort ($F_{(4, 341)} = 4.725$, $p < 0.01$), work quality ($F_{(4, 341)} = 2.928$, $p < 0.05$), openness to seeking professional psychology help ($F_{(4, 341)} = 3.594$, $p < 0.05$), need in seeking professional psychology help ($F_{(4, 341)} = 2.591$, $p < 0.05$). There were statistically significant differences from individuals with college education level to university education level in coworker support ($p < 0.001$), work effort ($p < 0.01$) and work quality ($p < 0.05$).

There was a significant difference in monthly income between work-life balance ($F_{(3, 342)} = 2.834$, $p < 0.05$). Concretely, those with a salary under 7 million VND and those with a salary from 7 million VND to under 15 million VND had a significant effect on work-life balance ($p < 0.05$).

There was a significant difference in daily working hours between job stress ($F_{(3, 342)} = 3.867$, $p < 0.05$), work-life balance ($F_{(3, 342)} = 6.737$, $p < 0.001$), and work quality ($F_{(3, 342)} = 3.542$, $p < 0.05$). Individuals working under 5h per day differed significantly from those working from 5 to under 10h per day in work-life balance ($p < 0.001$) and in work quality ($p < 0.05$). Similarly, those working under 5h per day differed significantly from those working from 10 to 15h per day in both work-life balance ($p < 0.05$) and work quality ($p < 0.05$).

The results of the independent samples T-test indicated that there was a significant difference in the presence of a psychological counseling department within the company in work-life balance ($t_{(344)} = 2.381$, $p < 0.05$).

Model specification

Fig. 1 shows the final PLS model. The proposed research model for this study included 8 distinct latent constructs: JS (consisting of items from the Job Stress Subscale), REC (consisting of items from the Role Expectation Conflict Subscale), CS (consisting of items from the Co-worker Support Subscale), WLB (consisting of items from the Work-Life Balance Subscale), WE (consisting of items from the Work Effort Subscale), WQ (consisting of items from the Work Quality Subscale), ATSPPH_SF_O (consisting of items from the Attitudes Toward Seeking Professional Psychological Help Short Form-Openness Subscale) and ATSPPH_SF_N (consisting of items from the Attitudes Toward Seeking Professional Psychological Help Short Form-Need Subscale).

Measurement model

Indicator reliability in the model hinged on outer loadings, which gauged the bond between latent variables and their

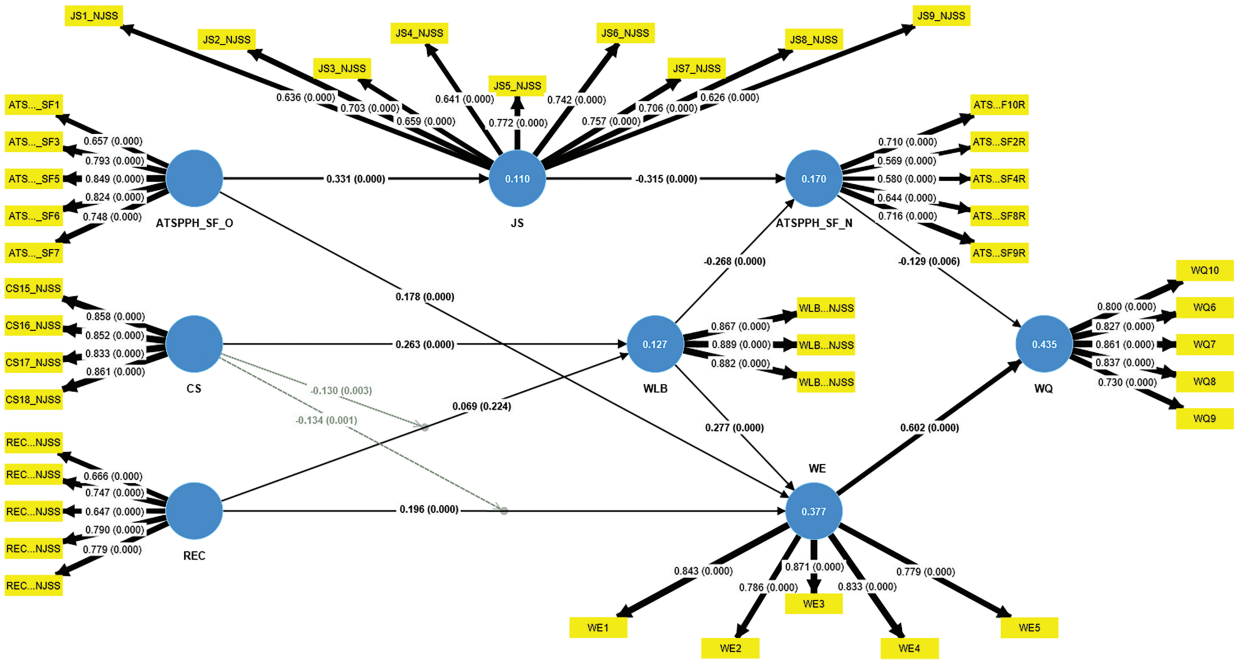

FIGURE 1. Results of structural modeling

measured counterparts. While a threshold of 0.70 was preferred, items below it were not excluded if the composite reliability remained acceptable [70]. Only loadings under 0.30 triggered automatic removal [71]. In our analysis, item WLB20 from the WLB construct exhibited a negative outer loading, indicating poor reliability and potential issues with its wording or interpretation. This item was consequently removed to ensure acceptable outer loadings.

After reanalyzing, the outer loadings ranged from 0.867 to 0.889 for WLB, 0.626 to 0.772 for JS, 0.647 to 0.790 for REC, 0.833 to 0.861 for CS, 0.779 to 0.871 for WE, 0.730 to 0.861 for WQ, 0.569 to 0.716 for ATSPPH_SF_N, and 0.657 to 0.849 for ATSPPH_SF_O. Notably, all remaining outer loadings were statistically significant ($p < 0.001$).

Internal consistency, measured by Cronbach's α, ranged from 0.650 to 0.880 for the eight constructs, all within acceptable limits, particularly in exploratory research where α values as low as 0.60 are considered acceptable [67].

Consistent with good convergent validity, AVE scores surpassed 0.50 for REC, CS, WLB, WE, WQ, and ATSPPH_SF_O. While JS and ATSPPH_SF_N exhibited AVEs slightly below 0.50, their CR values exceeded 0.60 (0.874 and 0.646, respectively), supporting adequate convergent validity for all constructs [72].

Discriminant validity was rigorously assessed using Heterotrait-Monotrait Ratios (HTMT), with bootstrapping employed to ensure statistical robustness. The resulting HTMT values, ranging from 0.082 to 0.729, fell well below the 0.85 threshold commonly recommended for discriminant validity [73]. This outcome provides strong evidence that the constructs within the model are indeed distinct from one another (see Table 2).

Structural model

Upon confirming the adequacy of the measurement model, the examination proceeds to the assessment of the PLS-SEM structural model. Criteria for scrutiny include the coefficient of determination (R^2), the effect size (f^2), the blindfolding-based cross-validated redundancy measure (Q^2), and the statistical significance and practical relevance of path coefficients (see Table 3).

Collinearity statistic (VIF)

Formative indicator multicollinearity, a potential concern in structural models, was assessed using the Variance Inflation Factor (VIF). All VIF values, ranging from 1.000 to 2.706, fell below the general threshold of 3 for acceptable levels of collinearity. This suggests a low to moderate degree of multicollinearity in our formative indicators, minimizing potential issues with inflated standard errors or unreliable coefficient estimates [67].

Model fit (SRMR)

The results indicated a suboptimal fit of the proposed model to the data. The SRMR for the estimated model was 0.099, which is slightly above the recommended threshold of 0.08. Additionally, the NFI for the estimated model (0.721) fell below the benchmark of 0.90 for reflective constructs, indicating limitations in explaining the variance in the data compared to a baseline model [74].

Coefficient of determination (R^2)

R^2 estimates the percentage of variance observed in the endogenous variable that can be statistically explained by the variations in the exogenous variables within a structural equation model. In other words, R^2 gauges the model's explanatory power. The value of R^2 should be higher than 0.1, which is considerable [75], with higher values indicating greater explanation [67]. In our study, the model explained varying degrees of variance in work-related outcomes and key findings include: WLB R^2 = 0.127, indicating 12.7% variance explanation; WE R^2 = 0.377, signifying

TABLE 2

Heterotrait-Monotrait ratios (HTMT) of correlations

	JS	REC	CS	WLB	WE	WQ	ATSPPH_SF_N	ATSPPH_SF_O
JS								
REC	0.660							
CS	0.161	0.142						
WLB	0.082	0.106	0.354					
WE	0.295	0.317	0.444	0.485				
WQ	0.273	0.300	0.329	0.451	0.729			
ATSPPH_SF_N	0.408	0.402	0.270	0.331	0.469	0.453		
ATSPPH_SF_O	0.365	0.349	0.201	0.169	0.389	0.292	0.553	

Note: Abbreviations: Job Stress (JS); Role Expectation Conflict (REC); Co-Worker Support (CS); Work-Life Balance (WLB); Work Effort (WE); Work Quality (WQ); Need in Seeking Professional Help (ATSPPH_SF_N); Openness to Seeking Professional Help for Emotional Problems (ATSPPH_SF_O).

37.7% variance explanation; and WQ R^2 = 0.435, reflecting 43.5% variance explanation. R^2 values in our model indicated a diversity of explanatory power across work-related constructs, with WQ exhibiting the strongest explanation.

Cross-validated redundancy (Q^2)

Q^2 assesses predictive relevance. Our model demonstrates substantial predictive power (from 0.099 to 0.283), affirming its validity and utility. Positive values above zero indicate successful reconstruction and confident prediction of endogenous construct values. Moreover, the Naïve Benchmarks revealed that a substantial portion of indicators within the PLS-SEM analysis exhibited smaller prediction errors compared to the LM, suggesting a medium level of predictive power for the latent constructs [76].

The effect size (f^2)

f^2 quantifies varying levels of effect sizes and shows how each outer construct affects the internal construct. In our study, the path model demonstrated a substantial effect size for the path from WE to WQ, with an $f^2 = 0.555$ ($p < 0.001$), indicating that WE accounted for 55.5% of the variance in WQ. The path from ATSPPH_SF_O to JS exhibited a moderate effect size (f^2 = 0.123, $p < 0.01$), explaining 12.3% of the variance in JS. Similarly, the path from JS to ATSPPH_SF_N yielded a moderate effect size (f^2 = 0.120, $p < 0.01$), accounting for 12.0% of the variance in ATSPPH_SF_N. WLB demonstrated a modest effect on ATSPPH_SF_N (f^2 = 0.087, $p < 0.05$), explaining 8.7% of its variance. However, other factors played less of a role and did not significantly contribute to variations. The interaction between CS and REC predicting WE (f^2 = 0.045, $p > 0.05$), CS × REC predicting WLB (f^2 = 0.032, $p > 0.05$), and ATSPPH_SF_N predicting WQ (f^2 = 0.025, $p > 0.05$), explaining 4.5%, 3.2%, and 2.5% of variance, respectively.

TABLE 3

Structural model estimates

Construct	R^2	Q^2 predict
JS	0.110	0.099
WLB	0.127	0.107
WE	0.377	0.283
WQ	0.435	0.163
ATSPPH_SF_N	0.170	0.112

Note: Abbreviations: Job Stress (JS); Work-Life Balance (WLB); Work Effort (WE); Work Quality (WQ); Need in Seeking Professional Help (ATSPPH_SF_N).

Structural hypothesis testing

Fig. 1 and Table 4 show the final PLS-SEM model. In our investigation, we explored the direct relationships among key latent variables. The analysis revealed that the inclination to ATSPPH_SF_O significantly and positively influenced JS (β = 0.331, $p < 0.001$). Conversely, JS exhibited a significant negative association with ATSPPH_SF_N (β = −0.315, $p < 0.001$). Moreover, WE positively affect WQ (β = 0.602, $p < 0.001$), WLB exhibited a negative influence on ATSPPH_SF_N (β = −0.268, $p < 0.001$), and ATSPPH_SF_N negatively impacted WQ (β = −0.129, $p < 0.01$). Thus, our analysis has confirmed the validity of H1, H2, H10 and H3.

To comprehensively examine the dynamics within our model, we conducted moderation analyses. CS jointly moderated the relationship between REC and WE (β = −0.169, $p < 0.01$) and REC and WLB (β = −0.130, $p < 0.01$). Additionally, the interaction effect between REC and ATSPPH_SF_N was also significant (β = 0.035, $p < 0.05$). The results have provided sufficient grounds to accept H8, H13, H9.

In exploring the intricate pathways among our latent variables, mediation analyses were conducted. notably, the ATSPPH_SF_O positively influenced WQ through the mediating role of WE (β = 0.107, $p < 0.001$). CS similarly positively affected WQ through WE (β = 0.129, $p < 0.001$). WLB indirectly impacted WQ through ATSPPH_SF_N (β = 0.035, $p < 0.05$), and through WE (β = 0.167, $p < 0.001$). REC also exhibited a positive mediated effect on WQ through WE (β = 0.118, $p < 0.001$). Finally, the mediated effect of JS on WQ through ATSPPH_SF_N was also significant (β = 0.041, $p < 0.05$). Hypotheses H4, H6, H11,

TABLE 4

Hypothesis testing

Path	β coefficient	*t*-value	95% confidence intervals	95% BC confidence intervals
Direct effects				
ATSPPH_SF_O → JS	0.331	6.977***	[0.244, 0.429]	[0.224, 0.413]
JS → ATSPPH_SF_N	−0.315	6.505***	[−0.414, −0.222]	[−0.400, −0.201]
WE → WQ	0.602	14.704***	[0.517, 0.676]	[0.517, 0.676]
WLB → ATSPPH_SF_N	−0.268	4.740***	[−0.382, −0.159]	[−0.375, −0.152]
ATSPPH_SF_N → WQ	−0.129	2.763**	[−0.225, −0.043]	[−0.214, −0.032]
CS x REC → WE	−0.169	3.319**	[−0.206, −0.047]	[−0.206, −0.047]
CS x REC → WLB	−0.130	2.996**	[−0.212, −0.043]	[−0.214, −0.046]
Indirect effect				
ATSPPH_SF_O → WE → WQ	0.107	3.600***	[0.048, 0.166]	[0.047, 0.163]
CS → WE → WQ	0.129	4.154***	[0.067, 0.190]	[0.070, 0.193]
WLB → ATSPPH_SF_N → WQ	0.035	2.238*	[0.010, 0.070]	[0.009, 0.068]
WLB → WE → WQ	0.167	4.739***	[0.097, 0.235]	[0.100, 0.237]
REC → WE → WQ	0.118	4.077***	[0.064, 0.179]	[0.062, 0.177]
JS → ATSPPH_SF_N → WQ	0.041	2.396*	[0.013, 0.080]	[0.010, 0.074]
CS x REC→ ATSPPH_SF_N	0.035	2.295*	[0.010, 0.068]	[0.011, 0.071]

Note: *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$. Abbreviations: Bias Corrected (BC); Job Stress (JS); Role Expectation Conflict (REC); Co-Worker Support (CS); Work-Life Balance (WLB); Work Effort (WE); Work Quality (WQ); Need in Seeking Professional Help (ATSPPH_SF_N); Openness to Seeking Professional Help for Emotional Problems (ATSPPH_SF_O).

H12, H7 and H5 have been retained based on the observed data. These mediated relationships shed light on the complex interdependencies among the studied constructs.

In addition, we focused on key, statistically significant relationships in the model, excluding others with negligible impact (small, non-significant effects). This strategic choice prioritizes clarity and understanding of the primary influencing factors, ensuring robust study results.

Discussion

Our study also revealed significant differences across several variables. In line with previous studies, our results indicated that work-life balance varies significantly depending on forms of work [50], operating hours [51], monthly income [52], number of daily working hours [11], and the presence of a psychological counseling department within the company [54]. An intriguing finding was the notable disparity observed depending on both forms of work and education levels in work effort. Varied schedules and commitments influenced how individuals allocated time and energy [77]. Education level also impacted skills and motivation, shaping work approach and quality [29]. Job stress exhibited significant discrepancies associated with education levels and number of daily working hours. This has also been demonstrated through previous studies, suggesting that longer working hours can increase stress levels due to fatigue and lack of work-life balance [11] whereas employees with higher education exhibit elevated levels of job stress in comparison to their counterparts [78]. Similarly, work quality demonstrated significant differences related to education levels [29] and number of daily working hours. To explain that longer work hours, less family time, hindered employee productivity through poor work-life balance [11]. Additionally, education levels were found to significantly influence both sides of attitudes towards seeking professional psychological help and co-worker support. The previous findings suggested educational attainment influences help-seeking attitudes: higher knowledge of options and benefits promoted favorability, while lower knowledge might relate to increased self-reliance [7]. Social networks also formed through high education levels could increase access to supportive colleagues [79].

Our interesting findings indicated that openness to seeking professional help for emotional problems positively influences job stress. This statement suggested that individuals who were open to seeking professional help for emotional issues were more likely to experience higher levels of job stress. One interpretation of these findings was that individuals predisposed to seeking help for emotional issues were more likely to recognize symptoms of stress and were equipped with pre-existing knowledge to self-manage through those issues [80]. Additionally, those seeking professional help might confront pre-existing psychological issues, amplifying job stress. Employees seeking help for anxiety or depression have reported higher job stress, highlighting the emotional toll [18]. Societal and organizational pressures for emotional management competence could discourage seeking external help. To reinforce this, the previous study has shown that employees pressured to suppress emotions at work experience elevated exhaustion, decreases job satisfaction, and increases intentions to quit [19].

Our finding indicated that heightened job stress diminishes the likelihood of individuals' need for seeking

professional psychological help. This statement seemed to contradict the findings presented earlier, which suggested increased job stress was associated with higher need for seeking professional help [13,14]. However, in recent years, negative attitudes among individuals experiencing high levels of work-related stress towards seeking professional help have also been reported [81,82]. Several potential explanations existed for this counterintuitive relationship as societal stigma surrounding mental health created a barrier, discouraging help-seeking even when feeling overwhelmed [83,84]. Coping mechanisms like avoidance or denial, employed during stressful periods, could prevent individuals from recognizing the need for professional intervention [85,86]. Practical obstacles, including cost and limited access to professionals, compound difficulties during challenging times [7,16]. Additionally, effective employees were expected to demonstrate robust emotional management and mental well-being. Seeking professional support might be seen as an admission of work-related challenges, resulting in lower evaluations and credibility. So, employees could fear managers' judgment and avoid seeking psychological assistance if it jeopardized career prospects [30]. This concern could lead to compromise mental health and consequently impact work quality. Meanwhile, by letting go of concerns about seeking professional mental help, employees could concentrate more on work, striving for a singular goal and ultimately improving work quality. This explanation also provided insight into our subsequent discovery why the need for seeking professional psychological help negatively influenced work quality. The crucial role of the need for seeking professional psychological help was consistently emphasized, and this was further evidenced in our findings that it helped mediate the relationship between job stress and work quality. The failure to address work-related stress through professional support resulted in a deterioration of work quality [87]. Persistent job-related stress not only detrimentally affected employees' mental well-being but also diminished job satisfaction [88], and work engagement [89]. This cycle, perpetuated by the failure to seek professional assistance, resulted in a negative impact on both individuals' psychological state and work-related outcomes, ultimately contributing to a decrease in overall work quality.

Individuals with good mental well-being did not think about seeking professional psychological help. This positive mental state has been intricately linked to a well-maintained work-life balance [43]. When individuals successfully managed the demands of work and personal life, they tended to possess effective coping mechanisms and stress management strategies [44,90]. Consequently, the presence of a favorable work-life balance contributed to a diminished need for seeking external psychological support. Furthermore, our subsequent findings continued to indicate the need for seeking professional psychological mediating in the relationship between work-life balance and work quality. In alignment with the previously stated information, the low concern about seeking professional psychological help might lead to higher work quality. This was because it could attest that individuals were in good mental health or received necessary support through non-professional channels for mental health issues such as talking to their family and friends [80]. Consequently, they might concentrate more effectively on their work, achieving higher efficiency.

The positive relationship between work effort and work quality was also found in our study, reinforcing the findings of earlier research [24]. Personal resources inherently facilitated the refinement of skills, leading to an elevated proficiency that positively influenced the quality of work [24]. The intrinsic motivation derived from an authentic interest in the task propelled individuals towards surpassing conventional expectations, thereby contributing to the production of outcomes characterized by a heightened standard of excellence [91]. The augmented sense of responsibility associated with sustained effort ensures a steadfast commitment to the pursuit of superior quality [21]. Other results concerning the mediating role of work effort from this study were also noteworthy. Our finding suggested that being open to professional help for emotional issues enhanced work quality by fostering increased work effort. Seeking help for emotional challenges has been seen as a pathway to restoring motivation, strengthening coping skills, boosting mental resilience, and promoting happiness [32]. As individuals regain motivation and well-being, their heightened work effort was proposed to directly contribute to elevated work quality. This underscored the significance of mental health support not only for individual well-being but also for optimizing work performance and output quality [31]. Next, we found that work effort mediated the relationship between co-worker support and work quality. The relationship proposed that co-worker support played a pivotal role in enhancing work quality by revitalizing work motivation and fostering a sense of comfort and camaraderie [46]. Positive work atmospheres created by co-worker support were seen as reinforcing and elevating work effort, thereby contributing to an overall increase in work quality [92]. In the relationship between role expectation conflict and work quality, we also identified the positive mediating role of work effort. Role expectation conflicts could serve as a motivational driver, promoting a heightened sense of responsibility, creativity and encouraging a proactive approach to work [22,27]. Faced with conflicting expectations, individuals might experience cognitive dissonance, prompting them to resolve the conflict and fulfill their perceived duties [93]. To manage conflicting expectations, individuals might proactively seek information, clarify roles, and negotiate solutions, enhancing problem-solving skills and initiative [94]. Increased motivational drive was expected to translate into elevated work effort, directly influencing and improving work quality. Finally, our finding emphasized that work effort also mediated the relationship between work-life balance and work quality. It asserted the importance of achieving a harmonious balance between work and personal life for both individual well-being and professional performance [43,48]. A better work-life balance contributed to higher life satisfaction, fostering a positive attitude towards work [95]. The increased satisfaction with work was expected to drive greater work effort, subsequently leading to an improvement in work quality [96].

Three other moderating results from this study deserved to be commented on. First, co-worker support moderated the relationship between role expectation conflict and work effort. While role expectation conflict might boost work effort by enhancing a sense of responsibility, striving, and healthy competition [37], support from colleagues could diminish this relationship. A plausible explanation lied in the positive assistance from peers potentially fostering psychological dependence, a sense of reliance, and an inclination to defer to colleagues rather than independently striving to resolve personal challenges. This could result in a counterproductive impact, diminishing the self-driven qualities associated with role conflict and shifting the focus towards interdependence on colleagues for issue resolution [38]. Co-worker support potentially exacerbated the adverse effects of role expectation conflict on the need for seeking professional psychological help. As discussed earlier, to explain the negative link between role expectation conflict and the need for professional psychological help, factors like shame, stigma, fear of judgment, and work impact were relevant. Role expectation conflict could hinder self-care prioritization, as individuals may prioritize work over well-being, exacerbating mental health issues [97] and delaying help-seeking [82]. However, when co-worker support increased, this relationship became even more negative. Co-worker support could lead to the sharing of negative emotions and negative perceptions of the work environment [39], reinforcing the negative impact of role expectation conflicted on the need for seeking professional psychological help. As individuals became dependent on co-worker support, they might have less motivation to seek external problem-solving strategies. Finally, our research also found that co-worker support played a role in mitigating the positive effects of role expectation conflict on work-life balance. High levels of role expectation conflict could lead to increased engagement in work tasks, fostering a sense of accomplishment and job satisfaction [98], thereby reducing work-related stress. In some cases, experiencing conflicting expectations might prompt individuals to clarify their roles and responsibilities at work and at home. This could result in setting clear boundaries between work and personal life, potentially reducing work-life interference [99]. Additionally, high levels of role conflict provided opportunities for individuals to reflect on their values, priorities, and limitations. This self-awareness could guide conscious choices about managing work and personal commitments, potentially leading to a more balanced life [100]. However, co-worker support could provide individuals with emotional and instrumental assistance in navigating the challenges posed by conflicting expectations and offered a buffer against the negative consequences of role conflict [39]. In this way, co-worker support helped individuals cope with role conflict in a manner that minimized its impact on work-life balance, ultimately contributing to a more balanced and fulfilling life.

Implications

Theoretical implications

This study explores the relationships between job stress and job-related factors with Vietnamese employees' attitudes towards seeking professional psychological help and work performance. Notably, it found that more stress may surprisingly lead to less help-seeking, suggesting stigma, denial, and practical barriers play a significant role. This calls for deeper investigation into diverse help-seeking motivations across various contexts. Furthermore, the study highlights work effort as a key bridge, connecting factors like mental well-being, social support, and conflict resolution to better work quality. This implies that interventions promoting work engagement and effort can potentially improve both mental health and work performance. However, co-worker support exhibits complex moderating effects, impacting mental health and work outcomes based on individual and work factors. This necessitates nuanced approaches to leverage its benefits while mitigating job stress and role conflicts, ultimately promoting a healthy work-life balance. Finally, the study reinforces the criticality of work-life balance for both individual well-being and work quality, emphasizing the need for further research on interventions that effectively help employees achieve and maintain this equilibrium.

Practical implications

The research brings practical results for managers and policy makers to have a basis to organize support strategies for employees in Vietnam. Employees who are willing to seek professional psychological help are at higher risk of experiencing job stress, so businesses should be more proactive in taking care of their employees' mental health by organizing regular mental health check-ups to screen for employee work stress issues that may arise. Employers can diminish job stress and aid in fostering employees' work-life balance by guaranteeing clearly defined and manageable job duties and responsibilities. It is crucial to ensure that the workload assigned to employees is reasonable and aligned with their capabilities. That way, employees will also limit the pressure of role expectation conflict. Employers need to be aware of the positive impact of work effort on work quality, thereby creating an ideal working environment, specifically increased compensation when work quality is good, open opportunities for professional improvement and career development for employees, etc. In addition, coworker support is also closely and intricately related to work effort and work quality. Therefore, management should focus on team activities, fostering a spirit of solidarity among employees by encouraging cross-functional collaboration between departments, promoting a collaborative culture of mutual support in the workplace organization. The need to seek professional psychological help plays an important role in the relationship between job stress and work quality. To support employees in this regard, businesses can create conditions for employees to access information about professional psychological help services, and cooperate with psychological experts to provide counseling services consultants, or businesses may choose to host workshops on stress management and work-life balance to help employees better understand the importance of taking care of their mind and spirit.

Limitations

This study's limitations include potential shared method variance, as all measures were completed by the same individuals, possibly introducing bias and affecting the validity of the findings. The relatively low number of responses received (<1000) may limit statistical power and generalizability. The reliance on self-report measures may introduce response bias, potentially skewing the results and affecting their reliability. Additionally, 71% females and only 45% full-time employees in the sample could also skew results and restrict applicability to full-time work settings. The cross-sectional design which calls for further longitudinal research to provide more comprehensive data. Moreover, the study's context within Vietnam limits its generalizability, warranting additional research across diverse cultural and geographical contexts. Therefore, the study's findings may lack generalizability to diverse locations and ethnicities due to the sample's potential lack of representativeness. The sample's composition may not accurately reflect the broader population, including individuals from various geographical regions or ethnic backgrounds. Finally, it is important to acknowledge that the proposed model exhibited a suboptimal fit to the data. This limitation indicates potential issues with the model's adequacy in representing the underlying relationships among the variables examined. Future research should address these limitations to validate findings and enhance their applicability across diverse settings.

Conclusion

In conclusion, this study delved into the intricate dynamics surrounding job stress, job-related factors, seeking professional psychological help, and work performance among Vietnamese employees, shedding light on an under-researched area. Notably, the findings revealed several key insights. Firstly, a counterintuitive relationship was observed, as heightened job stress correlated with reduced openness to seeking professional help, indicating the presence of stigma and practical barriers. This underscores the necessity for targeted interventions addressing these challenges to foster help-seeking behaviors. Secondly, work effort emerged as a pivotal mediator, positively influencing work quality and mitigating the adverse effects of job stress on help-seeking attitudes, highlighting the importance of promoting engagement and effort to enhance both mental health and work performance. Thirdly, while co-worker support yielded positive outcomes, its moderating effects were complex, necessitating nuanced approaches to leverage its benefits and address potential conflicts effectively. Furthermore, the study reaffirmed the critical role of work-life balance in individual well-being and work quality, emphasizing the imperative for further research on effective interventions. Acknowledging its limitations, particularly the focus on Vietnamese employees, this study calls for future research to explore these relationships across diverse cultural contexts and delve deeper into motivations for and barriers to seeking help. Investigating the effectiveness of interventions targeting work engagement, stress mitigation, and fostering healthy work-life balance holds promise for improving employee well-being and workplace productivity. Overall, this study contributes significantly to understanding the multifaceted influences on Vietnamese employees' mental health, help-seeking attitudes, and work performance, paving the way for a healthier and more productive work environment.

Acknowledgement: This research would not have been possible without the invaluable participation of individuals who willingly completed the questionnaire. We are also immensely grateful to My-Tien Nguyen-Thi, Gia-Phuoc Tran-Thien, and Bao-Tran Nguyen-Duong for their assistance in proofreading the translated scale. We would especially like to express our deepest gratitude to Gia-Phuoc Tran-Thien for his constant support and encouragement. We are deeply grateful for their contribution to advancing our understanding of the study.

Funding Statement: The authors did not receive any specific funding.

Author Contributions: The authors affirm their contribution to the paper in the following manner: The study was designed by Vinh-Long Tran-Chi, Ky Luu and Quynh-Nhi Ngoc Ho. Data was collected by Van Thi Le Nguyen, Cong Minh Le, Ky Luu, Quynh-Nhi Ngoc Ho, Vinh-Long Tran-Chi and Son Van Huynh. The results were analyzed and interpreted by Ky Luu, Vinh-Long Tran-Chi, Quynh-Nhi Ngoc Ho, Van Thi Le Nguyen and Cong Minh Le. The manuscript was prepared by Ky Luu, Quynh-Nhi Ngoc Ho, Van Thi Le Nguyen, and Vinh-Long Tran-Chi. All authors collectively assessed the results and accepted the final version of the article.

Availability of Data and Materials: The research data underlying this publication is available upon reasonable request to the corresponding author. Please email the corresponding author to discuss access and data sharing procedures.

Ethics Approval: The study was approved by the Ethic Committee of the Department of Science and Technology-Ho Chi Minh City University of Education (under the Vietnamese MoET), in Decision No. 450/QD-DHSP on September 12, 2023, code CS.2022.19.08DH). All participants signed the informed consent in this study.

Conflicts of Interest: The authors affirm that there are no conflicts of interest to disclose for the current study.

References

1. Chimed-Ochir O, Kubo T, Batsaikhan O, Yumiya Y, Mori K, Liu N, et al. Job stress in a multinational corporation: cross-country comparison between Japan and vietnam. Environ Occup Health Pract. 2023;5(1). doi:10.1539/eohp.2023-0009-OA.
2. Darvishmotevali M, Ali F. Job insecurity, subjective well-being and job performance: the moderating role of psychological capital. Int J Hosp Manage. 2020;87:102462. doi:10.1016/j.ijhm.2020.102462.

3. Kumar P, Kumar N, Aggarwal P, Yeap JAL. Working in lockdown: the relationship between COVID-19 induced work stressors, job performance, distress, and life satisfaction. Curr Psychol. 2021;40(12):6308–23. doi:10.1007/s12144-021-01567-0.
4. James KA, Stromin JI, Steenkamp N, Combrinck MI. Understanding the relationships between physiological and psychosocial stress, cortisol and cognition. Front Endocrinol. 2023;14:1085950. doi:10.3389/fendo.2023.1085950.
5. Ford MT, Cerasoli CP, Higgins JA, Decesare AL. Relationships between psychological, physical, and behavioural health and work performance: a review and meta-analysis. Work Stress. 2011;25(3):185–204. doi:10.1080/02678373.2011.609035.
6. Joormann J, Gotlib IH. Updating the contents of working memory in depression: interference from irrelevant negative material. J Abnorm Psychol. 2008;117(1):182–92. doi:10.1037/0021-843X.117.1.182.
7. Picco L, Abdin E, Chong SA, Pang S, Shafie S, Chua BY, et al. Attitudes toward seeking professional psychological help: factor structure and socio-demographic predictors. Front Psychol. 2016;7:00547.
8. Demerouti E, Bakker AB. Job demands-resources theory in times of crises: new propositions. Organ Psychol Rev. 2023;13(3):209–36.
9. Doherty AM, Gaughran F. The interface of physical and mental health. Soc Psychiatry Psychiatric Epidemiol. 2014;49:673–82. doi:10.1007/s00127-014-0847-7.
10. Priya J, Machani P, Isaac Tweneboah Agyei NVSS, Thandayuthapani S, Lourens M. Effects of performance and target pressure on the psychological well-being of corporate employees. J ReAttach Therap Develop Divers. 2023;6(8s):218–27.
11. Hsu YY, Bai CH, Yang CM, Huang YC, Lin TT, Lin CH. Long hours' effects on work-life balance and satisfaction. BioMed Res Int. 2019;2019:5046934.
12. Fischer EH, Farina A. Attitudes toward seeking professional psychological help: a shortened form and considerations for research. J College Student Develop. 1995;36:368–73.
13. Smith J, Cvejic E, Lal TJ, Fisher A, Tracy M, McCaffery K. Impact of alternative terminology for depression on help-seeking intention: a randomized online trial. J Clin Psychol. 2022;79(1):68–85.
14. Thomas PB, Chau D, Jetelina KK. Mental health and help-seeking behavior within the United States technology industry: investigating workplace support. J Workplace Behav Health. 2022;37(2):106–21. doi:10.1080/15555240.2022.2032724.
15. Shi W, Shen Z, Wang S, Hall BJ. Barriers to professional mental health help-seeking among Chinese adults: a systematic review. Front Psychiatry. 2020;11:00442. doi:10.3389/fpsyt.2020.00442.
16. Gulliver A, Griffiths KM, Christensen H. Perceived barriers and facilitators to mental health help-seeking in young people: a systematic review. BMC Psychiatry. 2010;10(1):113. doi:10.1186/1471-244X-10-113.
17. Sheng X, Wang Y, Hong W, Zhu Z, Zhang X. The curvilinear relationship between daily time pressure and work engagement: the role of psychological capital and sleep. Int J Stress Manage. 2019;26(1):25–35. doi:10.1037/str0000085.
18. Arthur AR. When stress is mental illness: a study of anxiety and depression in employees who use occupational stress counselling schemes. Stress Health. 2005;21(4):273–80. doi:10.1002/smi.v21:4.
19. Khan MQ, Elahi NS, Abid G. Workplace incivility and job satisfaction: mediation of subjective well-being and moderation of forgiveness climate in health care sector. Eur J Investig Health, Psychol Educ. 2021;11(4):1107–19.
20. Dorta-Afonso D, González-De-La-Rosa M, García-Rodríguez FJ, Romero-Domínguez L. Effects of high-performance work systems (HPWS) on hospitality employees' outcomes through their organizational commitment, motivation, and job satisfaction. Sustainability. 2021;13(6):3226. doi:10.3390/su13063226.
21. Matteucci MC, Guglielmi D, Lauermann F. Teachers' sense of responsibility for educational outcomes and its associations with teachers. Instruct Approach Prof Wellbeing. Soc Psychol Educ. 2017;20(2):275–98.
22. Montani F, Setti I, Sommovigo V, Courcy F, Giorgi G. Who responds creatively to role conflict? Evidence for a curvilinear relationship mediated by cognitive adjustment at work and moderated by mindfulness. J Business Psychol. 2020;35(5):621–41. doi:10.1007/s10869-019-09644-9.
23. Mitchell TR, Albright DW. Expectancy theory predictions of the satisfaction, effort, performance, and retention of naval aviation officers. Organ Behav Human Perform. 1972;8(1):1–20. doi:10.1016/0030-5073(72)90033-5.
24. van Wingerden J, Derks D, Bakker AB. The impact of personal resources and job crafting interventions on work engagement and performance. Human Res Manage. 2017;56(1):51–67. doi:10.1002/hrm.21758.
25. Naylor JC, Pritchard RD, Ilgen DR. A theory of behavior in organizations. 1st edition. New York: Academic Press; 1980. p. 194–95.
26. Kuvaas B, Buch R, Weibel A, Dysvik A, Nerstad CGL. Do intrinsic and extrinsic motivation relate differently to employee outcomes? J Econ Psychol. 2017;61:244–58. doi:10.1016/j.joep.2017.05.004.
27. Tang YT, Chang CH. Impact of role ambiguity and role conflict on employee creativity. African J Business Manage. 2010;4(6):869–81.
28. Rivaldo Y, Nabella SD. Employee performance: education, training, experience and work discipline. Calitatea. 2023 Mar 1;24(193):182–8.
29. Ling Y, Wei J, Zhou J. How job tenure weakens the positive influence of education on creative performance through task performance. Sustainability. 2022;14(1):537. doi:10.3390/su14010537.
30. Walton L. Exploration of the attitudes of employees towards the provision of counselling within a profit-making organisation. Couns Psychother Res. 2003;3(1):65–71. doi:10.1080/14733140312331384658.
31. Nangoy R, Mursitama TN, Setiadi NJ, Pradipto YD. Creating sustainable performance in the fourth industrial revolution era: the effect of employee's work well-being on job performance. Manage Sci Lett. 2020;10(5):1037–42.
32. Bolier L, Haverman M, Westerhof GJ, Riper H, Smit F, Bohlmeijer E. Positive psychology interventions: a meta-analysis of randomized controlled studies. BMC Public Health. 2013;13(1):119. doi:10.1186/1471-2458-13-119.
33. Rizzo JR, House RJ, Lirtzman SI. Role conflict and ambiguity in complex organizations. Adm Sci Q. 1970;15(2):150–63. doi:10.2307/2391486.
34. Kahn RL, Wolfe DM, Quinn RP, Snoek JD, Rosenthal RA. Organizational stress: studies in role conflict and ambiguity. New York: John Wiley & Sons; 1964.
35. Mai DT, Hussain IA, Subramaniam A. Job stress, co-worker support, role expectation conflict and work-life balance

among working women: a quantitative study on multinational companies in vietnam. Test Eng Manage. 2020;82:744–9.

36. Mahmudah S, Sadari S, Karimah U, Asnawi HS. Job stress, role expectation conflict, co-worker support, and work-life balance among muslimah scholars: a study in the indonesian historical women political movement members. Islamic Guidance Couns J. 2022;5(2):172–84. doi:10.25217/igcj.v5i2.3000.
37. Jones ML. Role conflict: ccause of burnout or energizer? Soc Work. 1993;38(2):136–41.
38. Liu Y, Chen FX, Chiang JTJ, Wang Z, Liu H. Asking how to fish *vs*. asking for fish: antecedents and outcomes of different types of help-seeking at work. Personnel Psychol. 2022;75(3):557–87. doi:10.1111/peps.v75.3.
39. Mensah A. Job stress and mental well-being among working men and women in europe: the mediating role of social support. Int J Environ Res Public Health. 2021;18(5):2494. doi:10.3390/ijerph18052494.
40. Yucel D, Minnotte KL. Workplace support and life satisfaction: the mediating roles of work-to-family conflict and mental health. Appl Res Quality Life. 2017;12(3):549–75. doi:10.1007/s11482-016-9476-5.
41. Leka S, Griffiths A, Cox T. Work organisation and stress: systematic problem approaches for employers, managers and trade union representatives. Geneva, Switzerland: World Health Organization; 2003.
42. Lawson KM, Davis KD, Crouter AC, O'Neill JW. Understanding work-family spillover in hotel managers. Int J Hosp Manage. 2013;33:273–81. doi:10.1016/j.ijhm.2012.09.003.
43. Semlali S, Hassi A. Work-life balance: how can we help women it professionals in Morocco? J Glob Responsib. 2016;7(2):210–25. doi:10.1108/JGR-07-2016-0017.
44. Fernandes CFV, Tewari K. Organizational role stress: impact of manager and peer support. J Knowl Glob. 2012;5(1):1–28.
45. Koubova V, Buchko AA. Life-work balance. Manage Res Rev. 2013;36(7):700–19.
46. Foy T, Dwyer RJ, Nafarrete R, Hammoud MSS, Rockett P. Managing job performance, social support and work-life conflict to reduce workplace stress. Int J Prod Perform Manage. 2019;68(6):1018–41. doi:10.1108/IJPPM-03-2017-0061.
47. Shaffer MA, Sebastian Reiche B, Dimitrova M, Lazarova M, Chen S, Westman M, et al. Work-and family-role adjustment of different types of global professionals: scale development and validation. J Int Business Stud. 2016;47(2):113–39. doi:10.1057/jibs.2015.26.
48. Joo BK, Lee I. Workplace happiness: work engagement, career satisfaction, and subjective well-being. Evid-Based HRM. 2017;5(2):206–21.
49. Spurgeon P, Mazelan P, Barwell F. The organizational stress measure: an integrated methodology for assessing job-stress and targeting organizational interventions. Health Serv Manage Res. 2012;25(1):7–15. doi:10.1258/hsmr.2011.011016.
50. Chambel MJ, Carvalho VS, Cesário F, Lopes S. The work-to-life conflict mediation between job characteristics and well-being at work. Career Develop Int. 2017;22(2):142–64. doi:10.1108/CDI-06-2016-0096.
51. Fischer FM, Silva-Costa A, Griep RH, Smolensky MH, Bohle P, Rotenberg L. Working time society consensus statements: psychosocial stressors relevant to the health and wellbeing of night and shift workers. Ind Health. 2019;57(2):175–83. doi:10.2486/indhealth.SW-3.
52. Haar J, Carr SC, Arrowsmith J, Parker J, Hodgetts D, Alefaio-Tugia S. Escape from working poverty: steps toward sustainable livelihood. Sustainability. 2018;10(11):4144. doi:10.3390/su10114144.
53. Bryant-Genevier J, Rao CY, Lopes-Cardozo B, Koné A, Rose CE, Thomas I, et al. Symptoms of depression, anxiety, post-traumatic stress disorder, and suicidal ideation among state, tribal, local, and territorial public health workers during the COVID-19 pandemic—United States, March–April 2021. Morbidity Mortality Weekly Rep. 2021;70(48):1680–5. doi:10.15585/mmwr.mm7048a6.
54. Milot M, Borkenhagen E. Job stress in users of an employee assistance program and association with presenting status. J Workplace Behav Health. 2018;33(3–4):153–67.
55. Kline TJB. Psychological testing: a practical approach to design and evaluation. Thousand Oaks, CA: SAGE Publications; 2005.
56. Osborne J. Best practices in quantitative methods. Thousand Oaks, CA: SAGE Publications; 2008.
57. Dillman DA. Mail and internet surveys: the tailored design method. 2nd ed. New York: John Wiley & Sons; 2007.
58. WHO/UNESCAP Project on Health and Disability Statistics. Translation & linguistic evaluation protocol & supporting material: centers for disease control and prevention; 2006.
59. Shukla A, Srivastava R. Development of short questionnaire to measure an extended set of role expectation conflict, coworker support and work-life balance: the new job stress scale. Cogent Business Manage. 2016;3(1):1134034.
60. Kuvaas B. Work performance, affective commitment, and work motivation: the roles of pay administration and pay level. J Organ Behav. 2006;27(3):365–85. doi:10.1002/job.v27:3.
61. Kuvaas B, Dysvik A. Perceived investment in employee development, intrinsic motivation and work performance. Human Res Manage J. 2009;19(3):217–36. doi:10.1111/hrmj.2009.19.issue-3.
62. Fischer EH, Turner JL. Orientations to seeking professional help: development and research utility of an attitude scale. J Consult Clin Psychol. 1970;35:79–90. doi:10.1037/h0029636.
63. Tran-Chi VL, Ly TT, Luu-Thi HT, Huynh VS, Nguyen-Thi MT. The influence of COVID-19 stress and self-concealment on professional help-seeking attitudes: a cross-sectional study of university students. Psychol Res Behav Manage. 2021;14:2081–91. doi:10.2147/PRBM.S345244.
64. World Medical Association. World medical association declaration of Helsinki: ethical principles for medical research involving human subjects. JAMA. 2013;310(20):2191–4. doi:10.1001/jama.2013.281053.
65. American Psychological Association. Ethical principles of psychologists and code of conduct. American Psychological Association; 2017. Available from: https://www.apa.org/ethics/code [Accessed 2017].
66. Rigdon EE, Sarstedt M, Ringle CM. On comparing results from CB-SEM and PLS-SEM: five perspectives and five recommendations. Marketing: ZFP–J Res Manage. 2017;39(3):4–16.
67. Hair JF, Risher JJ, Sarstedt M, Ringle CM. When to use and how to report the results of PLS-SEM. Eur Bus Rev. 2019;31(1):2–24. doi:10.1108/EBR-11-2018-0203.
68. Mishra P, Pandey CM, Singh U, Gupta A, Sahu C, Keshri A. Descriptive statistics and normality tests for statistical data. Annals Cardiac Anaesthesia. 2019;22(1):67–72. doi:10.4103/aca.ACA_157_18.

69. Kim HY. Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. Restor Dent Endod. 2013;38(1):52–4. doi:10.5395/rde.2013.38.1.52.
70. Hair JF, Hult GTM, Ringle CM, Sarstedt M. A primer on partial least squares structural equation modeling (PLS-SEM). 2nd ed. Thousand Oaks, CA: SAGE Publications; 2016.
71. Hair JF, Sarstedt M, Ringle CM, Gudergan SP. Advanced issues in partial least squares structural equation modeling. 2nd ed. Thousand Oaks, CA: SAGE Publications; 2024.
72. Fornell C, Larcker DF. Structural equation models with unobservable variables and measurement error: algebra and statistics. J Mark Res. 1981;18(3):382–8. doi:10.1177/002224378101800313.
73. Henseler J, Ringle CM, Sarstedt M. A new criterion for assessing discriminant validity in variance-based structural equation modeling. J Acad Mark Sci. 2015;43(1):115–35. doi:10.1007/s11747-014-0403-8.
74. Lt Hu, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. Struct Eq Model: A Multidiscip J. 1999;6(1):1–55. doi:10.1080/10705519909540118.
75. Chin WW. Commentary: issues and opinion on structural equation modeling. MIS Q. 1998;22(1):vii–xvi.
76. Shmueli G, Sarstedt M, Hair JF, Cheah JH, Ting H, Vaithilingam S, et al. Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. Eur J Mark. 2019;53(11):2322–47. doi:10.1108/EJM-02-2019-0189.
77. Joung HW, Choi EK, Taylor JJ. Investigating differences in job-related attitudes between full-time and part-time employees in the foodservice industry. Int J Contemp Hosp Manage. 2018;30(2):817–35. doi:10.1108/IJCHM-03-2016-0129.
78. Solomon BC, Nikolaev B, Shepherd DA. Does educational attainment promote job satisfaction? The bittersweet trade-offs between job resources, demands, and stress. J Appl Psychol. 2022;107(7):1227–41. doi:10.1037/apl0000904.
79. Gatz E, Akiva T. Education networks for deeper learning. J Educ Adm. 2024;62(1):91–102. doi:10.1108/JEA-02-2023-0043.
80. Rickwood DJ, Deane FP, Wilson CJ. When and how do young people seek professional help for mental health problems? Med J Aust. 2007;187(S7):S35–S9. doi:10.5694/j.1326-5377.2007.tb01334.x.
81. Yamauchi T, Suka M, Yanagisawa H. Help-seeking behavior and psychological distress by age in a nationally representative sample of Japanese employees. J Epidemiol. 2020;30(6):237–43. doi:10.2188/jea.JE20190042.
82. She R, Wang X, Zhang Z, Li J, Xu J, You H, et al. Mental health help-seeking and associated factors among public health workers during the COVID-19 outbreak in China. Front Public Health. 2021;9:622677. doi:10.3389/fpubh.2021.622677.
83. Thornicroft G. Most people with mental illness are not treated. Comment. 2007;370(9590):807–8.
84. Hanisch SE, Twomey CD, Szeto ACH, Birner UW, Nowak D, Sabariego C. The effectiveness of interventions targeting the stigma of mental illness at the workplace: a systematic review. BMC Psychiat. 2016;16(1):1–11. doi:10.1186/s12888-015-0706-4.
85. Thoits PA. Stress, coping, and social support processes: where are we? What next? J Health Soc Behav. 1995;35:53–79. doi:10.2307/2626957.
86. Choi HM, Mohammad AAA, Kim WG. Understanding hotel frontline employees' emotional intelligence, emotional labor, job stress, coping strategies and burnout. Int J Hosp Manage. 2019;82:199–208. doi:10.1016/j.ijhm.2019.05.002.
87. Ajayi S. Effect of stress on employee performance and job satisfaction: a case study of nigerian banking industry. Social Science Electronic Publishing; 2018. doi:10.2139/ssrn.3160620.
88. Xue J, Wang H, Chen M, Ding X, Zhu M. Signifying the relationship between psychological factors and turnover intension: the mediating role of work-related stress and moderating role of job satisfaction. Front Psychol. 2022;13:847948. doi:10.3389/fpsyg.2022.847948.
89. Cordioli DFC, Cordioli Jr JR, Gazetta CE, da Silva AG, Lourenção LG. Occupational stress and engagement in primary health care workers. Revista Brasileira de Enfermagem. 2019;72(6):1580–7. doi:10.1590/0034-7167- 2018-0681.
90. Kotera Y, Maxwell-Jones R, Edwards AM, Knutton N. Burnout in professional psychotherapists: relationships with self-compassion, work-life balance, and telepressure. Int J Environ Res Public Health. 2021;18(10):5308. doi:10.3390/ijerph18105308.
91. Dysvik A, Kuvaas B. Intrinsic motivation as a moderator on the relationship between perceived job autonomy and work performance. Eur J Work Organ Psychol. 2011;20(3):367–87. doi:10.1080/13594321003590630.
92. Bronkhorst B, Tummers L, Steijn B, Vijverberg D. Organizational climate and employee mental health outcomes: a systematic review of studies in health care organizations. Health Care Manage Rev. 2015;40(3):254–71. doi:10.1097/HMR.0000000000000026.
93. Dechawatanapaisal D, Siengthai S. The impact of cognitive dissonance on learning work behavior. J Workplace Learn. 2006;18(1):42–54. doi:10.1108/13665620610641300.
94. Giebels E, de Reuver RSM, Rispens S, Ufkes EG. The critical roles of task conflict and job autonomy in the relationship between proactive personalities and innovative employee behavior. J Appl Behav Sci. 2016;52(3):320–41. doi:10.1177/0021886316648774.
95. Kasbuntoro DI, Maemunah S, Mahfud I, Fahlevi M, Parashakti RD. Work-life balance and job satisfaction: a case study of employees on banking companies in Jakarta. Int J Control Autom. 2020;13(4):439–51.
96. Satuf C, Monteiro S, Pereira H, Esgalhado G, Marina Afonso R, Loureiro M. The protective effect of job satisfaction in health, happiness, well-being and self-esteem. Int J Occup Safety Ergon. 2018;24(2):181–9. doi:10.1080/10803548.2016.1216365.
97. Nappo N. Job stress and interpersonal relationships cross country evidence from the EU15: a correlation analysis. BMC Public Health. 2020;20(1):1143. doi:10.1186/s12889-020-09253-9.
98. Chen ZJ, Zhang XI, Vogel D. Exploring the underlying processes between conflict and knowledge sharing: a work-engagement perspective1. J Appl Soc Psychol. 2011;41(5):1005–33. doi:10.1111/jasp.2011.41.issue-5.
99. Creary SJ, Gordon JR. Role conflict, role overload, and role strain. In: Encyclopedia of family studies. Wiley; 2016. p. 1–6. doi:10.1002/9781119085621.wbefs012.
100. Chan XW, Kalliath T, Brough P, O'Driscoll M, Siu OL, Timms C. Self-efficacy and work engagement: test of a chain model. Int J Manpower. 2017;38(6):819–34. doi:10.1108/IJM-11-2015-0189.