

Mindfulness: Embrace Mental Well-Being with A Healthy Perception of Stress

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Abstract

Prioritising mental well-being in the workplace helps promote a productive and healthy working environment. Stress is one of the main determinants of mental well-being in employees. Stress caused by daily challenges at work will impact mental well-being. In modern times, there is an increasing acceptance of stressful conditions and mental health issues. Mindfulness is one of the ways to improve mental well-being and buffer stress in employees. This study examines the effect of mindfulness on mental well-being by considering the mediating role of perceived stress in employees working on a shift system. This study is motivated by the high risk of mental health disorders in shift workers due to irregular work patterns, high workload, and lack of recovery time. This study used three psychological instruments: the mindfulness scale (FFMQ), the perceived stress scale (PSS), and the mental well-being scale (WEMWBS), including 540 respondents from company X in Medan City, and using the SEM-PLS 4.0 method. The results showed that mindfulness significantly improved mental well-being ($\beta = .388$, $p < .005$) and reduced perceived stress ($\beta = -.493$, $p < .005$), whereas perceived stress was shown to decrease mental well-being ($\beta = -.174$, $p < .05$). The crucial finding showed that perceived stress was a partial mediator ($\beta = .086$, $p < .05$). Theoretically, this study enriches the literature by confirming the mediating mechanism of perceived stress within the framework of mindfulness and mental well-being, particularly in the underrepresented population of shift workers in previous studies. In practical terms, the results suggest three programme modifications that companies can implement: (1) a corporate well-being programme that includes mental health interventions specifically for shift workers, (2) a mobile application with brief interventions for stress management during shifts, and (3) a shift rotation system tailored to workers' natural productive time tendencies (chronotype).

Keywords: mental well-being, mindfulness, perceived stress, workplace

Abstrak

Memprioritaskan mental well-being di tempat kerja berguna untuk menumbuhkan lingkungan kerja yang produktif dan sehat. Stres yang menjadi salah satu faktor penentu utama mental well-being pada karyawan. Stres yang diakibatkan adanya tantangan keseharian dalam bekerja akan berdampak pada mental well-being. Dalam era modern, penerimaan terhadap kondisi stres dan masalah kesehatan mental semakin meningkat. Mindfulness menjadi salah satu cara yang dapat dilakukan untuk meningkatkan mental well-being sekaligus penyangga stres pada karyawan. Penelitian ini mengkaji pengaruh mindfulness terhadap mental well-being dengan mempertimbangkan peran mediasi perceived stress pada karyawan yang bekerja dengan sistem shift. Studi ini dilatarbelakangi oleh tingginya risiko gangguan kesehatan mental pada pekerja shift akibat pola kerja tidak teratur, beban kerja tinggi, dan kurangnya waktu pemulihan. Penelitian ini menggunakan 3 instrumen psikologis melalui skala mindfulness (FFMQ), skala perceived stress (PSS) dan skala mental well-being (WEMWBS). Dengan

melibatkan 540 responden dari perusahaan X yang berada di Kota Medan dan menggunakan metode SEM-PLS 4.0. Hasil penelitian mengungkapkan bahwa mindfulness secara signifikan meningkatkan mental well-being ($\beta = .388$, $p < .005$) dan mengurangi perceived stress ($\beta = -.493$, $p < .005$), sementara perceived stress terbukti menurunkan mental well-being ($\beta = -.174$, $p < .05$). Temuan krusial menunjukkan bahwa meskipun perceived stress berperan sebagai mediator parsial ($\beta = .086$, $p < .05$). Secara teoritis, penelitian ini memperkaya literatur dengan mengkonfirmasi mekanisme mediasi perceived stress dalam kerangka mindfulness dan mental well-being, khususnya pada populasi pekerja shift. Secara praktis, hasil penelitian menyarankan tiga modifikasi program yang dapat dilakukan oleh perusahaan: (1) program kesejahteraan perusahaan yang mencakup intervensi kesehatan mental khusus pekerja shift, (2) aplikasi mobile dengan intervensi singkat untuk manajemen stres selama shift, dan (3) sistem rotasi shift yang disesuaikan dengan kecenderungan waktu produktif alami pekerja (chronotype)

Kata kunci: mental well-being, mindfulness, perceived stress, workplace

Introduction

The characteristics of a job are an essential aspect of work that can impact employee well-being ([Rahayu, 2021](#)). Intense business competition encourages every profit-focused business field to take strategic steps to maintain its position in a competitive market. Efforts to optimize profits, improve customer service, and meet consumer demand are the primary motivations behind implementing this shift work system ([Purnama et al., 2023](#)). Other business entities or businesses implement shift work, including mini markets, gas stations, and hospitals ([Ramadhani et al., 2021](#)).

The proportion of shift workers is increasing, requiring reorganization between night and day, which involves lifestyle changes ([Souza et al., 2019](#)). Shift work systems can be structured differently, depending on the configuration of key components, including shift duration, rest intervals, and shift sequencing. This arrangement can impact employee performance and well-being in various ways ([Dall'Ora et al., 2016](#)). [Sefrina \(2021\)](#) stated that this change in habits, if it continues, will result in several nutritional and health problems.

There is a close relationship between work and mental health ([Hastuti & Hadi, 2022](#)). Working with a shift work system is one type of work that hurts employees' mental health and well-being. Cross-sectional research by [Driesen et al. \(2010\)](#) indicated a positive relationship between shift work and poor mental health. Other research found that there is an association between shift work and several individual health issues, such as sleep disorders, cardiovascular disease, peptic ulcers, metabolic syndrome, breast cancer, and the risk of unwanted pregnancy ([Andrzejczak et al., 2011](#)). The challenging work environment ranging from excessive workloads, time deadlines, abrupt and rapid changes in the workplace result in an increase in various illnesses, both physical and mental, as well as negative impacts on the organization such as conflicts, employee turnover, unions, and various similar issues that will overall contribute negatively to the well-being of workers.

[Bekkers et al. \(2015\)](#) added that starting night or shift work is also related to some unhealthy lifestyle habits and, in the long run, can result in poor mental health. Most of the research (93%) that investigated depression discovered that depressive symptoms would increase with the start of shift work [Han et al., \(2019\)](#); [Kalmbach et al., \(2019\)](#), [Nguyen et al., \(2023\)](#) and shift workers have a higher risk of poorer mental health outcomes when compared to workers who do not do shift work ([Nguyen et al., 2023](#)). From the above data, it can be summarized that the shift work system influences the emergence of mental health problems in employees.

Mental health is the foundation of well-being at various stages of development, ranging from adolescent identity formation ([Syafitri et al., 2024](#)), old-age adjustment ([Itqoniah & Adriani, 2021](#)), to those workers who face professional and personal demands ([Rugulies et al., 2023](#)). [Page et al. \(2017\)](#) emphasize the role of mental well-being as a psychosocial resource that enables achieving a meaningful and adaptive life. Individuals who have good mental well-being tend to achieve more positive outcomes, including better performance, stronger social relationships, and better physical health ([Huppert & So,](#)

2009); ([Lyubomirsky et al., 2005](#)) Otherwise, individuals with poor mental well-being may trigger conditions such as anxiety or depression ([Ahorsu et al., 2022](#)). This will be associated with loss of productivity and increased absenteeism ([de Oliveira et al., 2023](#)).

Work is the most stressful thing ([Sinervo et al., 2019](#)). Shift workers experience a 50% increase in stress within the first 12 - 24 months of working shifts ([Han et al., 2019](#)) and higher depressive symptoms in shift workers compared to day workers ([Lee et al., 2017](#)). Stress arises when individuals Perceive tasks beyond their ability to complete ([Palmeira et al., 2019](#)). When an individual interprets an event as stressful and threatening and feels unable to cope, the individual is likely to experience the effects of stress ([Harding et al., 2019](#)). When a situation has features associated with the experience of stress, it is perceived as stressful. This assessment process can trigger a stress response. After the assessment and response to stress occur, perceived stress is formed ([Lebois et al., 2016](#)).

Perceived stress is an individual's evaluation of the life conditions they experience as stressful ([Horiuchi et al., 2018](#)). Stress due to day-to-day hassles causes negative mental well-being ([Poalses & Bezuidenhout, 2018](#)). The number of stressful events experienced leads to the perception that long-term high stress is correlated with poorer mental and physical health, and also mortality ([Epel et al., 2018](#)). High levels of stress over an extended period have been associated with an increased risk of lower mental well-being and mental health problems ([Slimmen et al., 2022](#)). The perceived stress at work is a significant risk factor that affects the physical health of workers ([Kêdoté et al., 2022](#)), leads to burnout, employee turnover, lack of productivity, and failures to meet working deadlines ([Vallasamy et al., 2023](#)).

Perceived stress is also associated with mindfulness because mindfulness-based interventions have been generally proven to reduce stress. [Vasudevan and Reddy \(2019\)](#) showed that mindfulness had a negative effect on perceived stress. This is an important part of achieving balance between mind and body ([Christopher et al., 2012](#)). Mindfulness is an attention and awareness to what is seen, sensed, and experienced ([Brown & Ryan, 2003](#); [Phan et al., 2022](#)). The implementation of mindfulness has been proven to enhance individuals' improved sleep quality ([Ding et al., 2020](#)), enhanced mental health ([Harding et al., 2019](#)), a better quality of life ([Bazzano et al., 2018](#)), and psychological well-being ([Zimmaro et al., 2016](#)). In addition, mindfulness practices have been proven to reduce depression, anxiety, trauma ([Tubbs et al., 2019](#)), and stress symptoms ([Zimmaro et al., 2016](#)). In the workplace, the practice of mindfulness can improve employees' innovation ability ([Good et al., 2016](#)), generate some new ideas ([Montani et al., 2018](#)), and workplace engagement ([Montani et al., 2019](#)).

Mindfulness is an important variable affecting mental well-being ([Klainin-Yobas et al., 2016](#)). Implementing mindfulness has been acknowledged as an effective intervention in promoting mental health, as mindfulness teaches individuals to focus on possible solutions that can be taken and executed to address their current problems ([Murniati, 2020](#)). People who are mindful are considered to have the ability to freely observe the internal and external reality around them without distraction. This has a positive impact on the individual.

Based on the descriptions above, the researcher aims to examine the role of mindfulness in mental well-being through the mediation of perceived stress in full-time employees of 24-hour retail stores in Medan. This research is helpful for 1) employees: to help employees manage stress more effectively; 2) companies: to make employees mentally healthier and thus reduce health care costs associated with stress and other mental health problems; 3) Human Capital/Human Resources/Human Resources Companies: to assist HR departments in designing and implementing more effective employee well-being programs, with a focus on mindfulness practices; 4) psychology practitioners/psychologists: to design more effective interventions to reduce stress and improve employee mental well-being in the workplace.

Methods

This study used the total sampling method by involving the entire population of 24-hour minimarket employees in Company X, Medan City, as respondents. Inclusion criteria included: (1) workers with a shift system, (2) having various levels of positions (ranging from sales clerks, assistant store heads, to store heads), and (3) diverse demographic backgrounds (ethnicity, age, and education level). Out of a total population of 632 employees, 540 respondents (85.4% response rate) were willing to participate by completing the online questionnaire. The decrease in respondents was mainly due to time unavailability and other personal reasons during the data collection period.

Data was collected online through Google Forms and distributed by the company's Human Capital Division after obtaining official permission from the person in charge of the intended division. The questionnaire was preceded by an informed consent page containing: (1) explanation of the purpose of the research, (2) procedures for filling out, (3) guarantee of data confidentiality, and (4) statement of voluntary participation. Participating respondents could access 35 question items divided into three main sections: mindfulness scale (FFMQ), perceived stress (PSS-10), and mental well-being (WEMWBS). The average time to complete the questionnaire was 15-20 minutes. All data was stored encrypted and accessible only to the primary researcher to maintain participants' privacy. This research has also been approved by the Psychology Research Ethics Test from the Nusantara Scientific Psychology Consortium with Number 166/2024 Ethics / KPIN.

This study used three instruments to collect research data. First, mental well-being is defined as the optimal function of an individual to have an effective life that can ultimately achieve contentment in life and authentic happiness (Seligman, 2002). The mental well-being scale used is the Warwick-Edinburgh Mental Well-being Scale, commonly abbreviated as WEMWBS. This scale was constructed by Warwick Medical School, University of Warwick, by Tennant et al. (2007). There are 14 positively structured items that cover the feeling and functioning aspects of mental well-being. The Indonesian adaptation was carried out with a reliability coefficient of .932 and a measurement correlation of all items above .4. Another researcher, such as Syafitri et al. (2024), has also adapted this test tool.

The psychological scale in the study is a Likert scale, which aims to measure mental health. For each item, five alternative answers will be provided with a score range of 1 to 5, with details of the answer: score 1 for the answer Never, score 4 for the answer Rarely, score 3 for the answer Sometimes, score 4 for the answer Often, and score 5 for the answer Always.

Second, mindfulness is a state of awareness and attention to a condition that has occurred. The mindfulness scale used is the Five-Factor Mindfulness Questionnaire scale, or abbreviated as FFMQ, which has the aim of measuring the level of awareness possessed by a person. This scale was created by Baer et al (2006), which consists of 5 aspects of mindfulness, namely: observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience. The FFMQ consists of 39 items, with 20 positive and 19 negative items.

This scale was translated into Indonesian with a population over 15 years of 847 respondents by Fourianalistyawati et al (2023) to get a shortened version of the Indonesian FFMQ with good psychometric values. The FFMQ is a multidimensional scale / Likert scale in which each item is provided with five alternative answers with a scoring range of 1 to 5, namely for the answer TP (Never) is given a score of 1, the answer J (Rarely) is given a score of 2, the answer K (Sometimes) is given a score of 3, the answer SR (Often) is given a score of 4, the answer SL (Always) is given a score of 5.

Third, Perceived Stress is explained as the extent to which a situation in a person's life is assessed as extraordinary, unpredictable, and uncontrollable (Cohen et al., 1983). The perceived stress scale used has been designed by Cohen et al. (1983). This scale is the most widely used psychological instrument to measure perceived stress over the past month. The scale consists of 10 items that measure the extent to which situations in an individual's life are rated as stressful. This Likert scale has a 5-point response (0 =

never, 1 = almost never, 2 = occasionally, 3 = often, 4 = very often). The PSS score is obtained by reversing the scores on the four positive items, namely items 4, 5, 7, and 8.

This study's Perceived Stress Scale (PSS-10) has been adapted to the Indonesian version. The translation process began with obtaining official permission from the Mapi Research Trust (MRT) as the distribution rights holder of this instrument. However, the researcher did not follow all the standard translation guidelines set by MRT. To ensure the validity of the translation, the Indonesian version has been evaluated by three psychology experts through a content validity index (CVI) assessment. The results showed a content validity coefficient of .93, indicating an excellent level of congruence between the translated items and the measured construct. Once all the required data is collected, the data will be processed using SPSS for Windows version 26 and Smart-PLS SEM (4.0).

Results and Discussion

Results

Based on the data collection process, this study found 540 employees working in 24-hour stores located in the Medan Branch who became respondents. **Table 1** shows that the majority of employees were male (70%), served as sales clerks (54.44%), were of Javanese ethnicity (42.04%), had a high school education level (94.63%), and had contract employment status (55.37%).

Table 1. Descriptive Data of the Respondents

Characteristics	Frequency	Percentage (%)
Gender		
Male	378	70%
Female	162	30%
Total	540	100%
Position		
Store head	72	13,3%
Store head assistant	174	32,22%
Clerk	294	54,44%
Total	540	100%
Tribe		
Aceh	79	14,63%
Batak (Toba, Simalungun, Mandailing, etc.	164	30,37%
Jawa	227	42,04%
Other	70	12,96%
Total	540	100%
Last Education		
SMA/K Equivalent	511	94,63%
Diploma	14	2,59%
Bachelor	15	2,78%
Total	540	100%
Status of Employment		
Contract	299	55,37
Permanent	241	44,63%
Total	540	100%

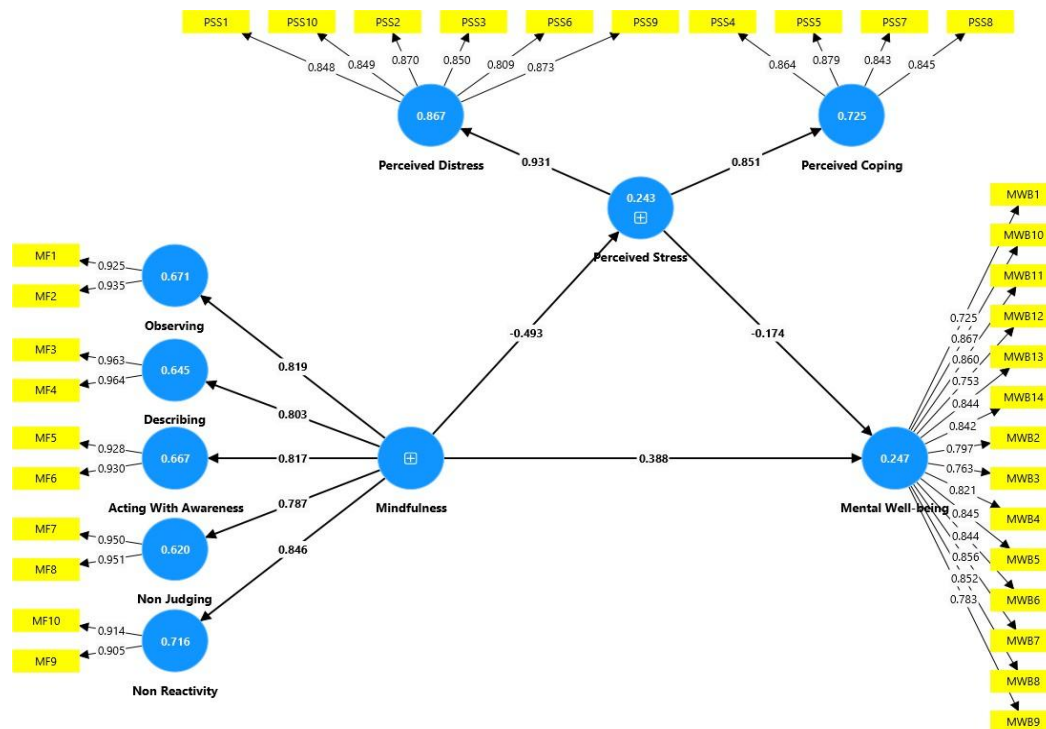


Figure 1: Validity Testing based on Outer Loading

Based on the outer loading validity test in **Figure 1**, it is known that all values have met the validity requirements based on the outer loading value.

Table 2. Validity Testing Based on CA, CR, and AVE

	Cronbach's alpha	Composite reliability (rho_c)	Average variance extracted (AVE)
Acting With Awareness	.840	.926	.862
Describing	.922	.962	.928
Mental Well-being	.962	.966	.671
Mindfulness	.920	.933	.581
Non Judging	.893	.949	.903
Non Reactivity	.792	.906	.828
Observing	.844	.927	.865
Perceived Coping	.880	.918	.736
Perceived Distress	.923	.940	.722
Perceived Stress	.922	.934	.588

Table 2 shows that, according to [Hair et al. \(2019\)](#), the Cronbach Alpha value is $> .7$, composite reliability (Rho_c) is $> .7$, and average variance extracted (AVE) is $> .5$. Thus, the table above indicates that the Cronbach Alpha, composite reliability (Rho_c), and average variance extracted (AVE) values have met the requirements for good reliability testing.

The results of the multicollinearity test show that the values of mental well-being, mindfulness and perceived stress have inner VIF values < 5 , which means that they have met the multicollinearity test and do not contain robust (unbiased) with the value of mindfulness on mental well-being: $1.321 < 5$; mindfulness to perceived stress $1.000 < 5$; perceived stress to mental well-being $1.321 < 5$.

Table 3. Coefficient Test and Significance of Direct Effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P-Values
Mindfulness -> Mental Well-Being	.388	.388	.045	8.564	.000
Mindfulness -> Perceived Stress	-.493	-.493	.044	11.251	.000
Perceived Stress -> Mental Well-being	-.174	-.174	.047	3.676	.000

Table 3 shows the direct impact proposed in this study that mindfulness has a positive and significant influence on mental well-being with a coefficient value (original sample column) of .388 and significant with T-Statistics with a value of 8.564 > 1.96 and P-Values of .000 < .05. The relationship between mindfulness has a negative and significant effect on perceived stress, with a coefficient (original sample column) of -.493, and is significant with T-Statistics with a value of 11.251 > 1.96 and P-Values of .000 < .05. The relationship between perceived stress has a negative and significant influence on mental well-being, with a coefficient value (original sample column) of -.174. It is significant with T-Statistics with a value of 3.676 > 1.96 and P-Values of .000 < .05.

Table 4. Direct and Indirect Effects of Mindfulness on Mental Well-Being through Perceived Stress

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Mindfulness -> Mental Well-being	.388	.388	.045	8.564	.000
Mindfulness -> Perceived Stress -> Mental Well-being	.086	.086	.024	3.536	.000

Table 4 shows mindfulness's direct and indirect effects on mental well-being through perceived stress. The magnitude of the direct effect of mindfulness on mental well-being is .388, meaning mindfulness's contribution value to mental well-being is 38.8%. While the magnitude of the indirect effect of mindfulness on mental well-being is .086, which means the contribution value of the indirect effect of mindfulness on mental well-being is 8.6%. So, with this, it is concluded that the direct effect of mindfulness is greater than the indirect effect through the mediating role of perceived stress.

Discussion

Employees with good mental health tend to be more productive, capable of performing tasks efficiently, and infrequently absent, which overall contributes to the smooth functioning of the company's Operations. These findings are in line with [Teh et al. \(2015\)](#), who reported that individuals who self-report higher levels of perceived stress tend to have higher levels of perceived health, emotional problems, social functioning, physical functioning, body pain, physical health, energy problems, and mental health issues.

Mindfulness is awareness that focuses on the present ([Hyland et al., 2015](#)). [Baer et al. \(2012\)](#) revealed that mindfulness can reduce the stress felt by a person. Mindfulness enables individuals to detect signs of stress by increasing awareness ([Salmon et al., 2004](#)). Mindfulness will also develop attitudinal qualities such as acceptance, openness, curiosity, compassion, and non-judgment ([Crane et al., 2017](#)). The skills

and attitudes acquired through mindfulness practice thus support a way of life characterized by deliberate attention, alertness, and acceptance ([Bishop et al., 2004](#)).

The results of this study state that perceived stress can mediate the effect of mindfulness on mental well-being in employees. These findings align with the results of research by [Valikhani et al. \(2020\)](#), where individuals with higher levels of mindfulness tend to experience reduced stress levels, contributing to mental health. This occurs because mindfulness broadens the spectrum of awareness, resulting in cognitive reappraisal of events to include positive possibilities that allow individuals to understand the meaning and purpose of life experiences ([Garland et al., 2015](#)) as well as facilitating a more adaptive assessment of stressors ([Hülshager et al., 2013](#)). A decrease in perceived stress will increase mental well-being ([Zollars et al., 2019](#)).

This study's results also show that mindfulness's direct effect on mental well-being is greater than the indirect effect through the mediating role of perceived stress. This is due to its ability to increase self-awareness, reduce stress, and improve emotion regulation. By strengthening self-awareness, mindfulness helps individuals focus more on the present moment, allowing them to manage emotions and reactions more effectively, ultimately contributing to mental well-being.

Mindfulness is consistently positively correlated with mental health and shields against negative decision-making ([Black et al., 2012](#); [Brown et al., 2007](#)). Having high levels of mindfulness benefits a wide range of groups, from those with chronic mental disorders to individuals dealing with everyday stress ([Chiesa & Serretti, 2009](#); [Godfrin & van Heeringen, 2010](#); [Shapiro et al., 2008](#)). In addition, mindfulness is a potentially protective and modifiable personal resource ([Bartlett et al., 2021](#)). Theoretically, this study enriches the literature by confirming the mediating mechanism of perceived stress within the mindfulness and mental well-being framework, particularly in a population of shift workers underrepresented in previous studies.

The limitations in this research are noteworthy. First, this study takes a homogeneous population in one company that implements a shift work system, so the results cannot be generalized to a broader population. Second, the results of this study are dominated by male respondents (70%), so it cannot be applied in other sectors where the population is primarily female. Third, the data collection method was carried out using a Google form, which can lead to opportunities for responses that contain biases, such as social desirability. To reduce this bias, the researcher guarantees the confidentiality of the data and the respondents' identities so that they feel safe to fill out the questionnaire according to what they feel. This research was conducted only at one company branch, so generalizations cannot be made to other branches in different cities. Future research can involve respondents from various branches to see the mental well-being in other branches. It is also important to involve respondents from various industry sectors to get a more comprehensive overview of the influence of mindfulness in the workplace. Further studies can also investigate other factors contributing to mental well-being and perceived stress, such as intrinsic motivation, social support, and work environment.

Conclusion

In conclusion, practical implications that can be carried out by companies, such as: (1) provision of corporate wellness programs designed to improve employees' physical and mental health (e.g., education on stress management and healthy sleep patterns), (2) mobile applications with brief Interventions for stress management during work shifts (e.g., guidance on breathing for 5 minutes during breaks), (3) work shift rotation systems tailored to workers' natural productive time tendencies (chronotypes). Future research is expected to develop longitudinal studies to examine the long-term effects of mindfulness on shift workers, taking into account moderator variables such as social support and company policies, and expanding the scope of industry sectors to ensure the generalizability of the findings. In addition, a qualitative approach can explore workers' experiences in applying mindfulness in depth and the specific challenges faced in a non-standardized work environment.

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