

ORIGINAL RESEARCH

How Do Happiness at Work and Perceived Organizational Support Affect Teachers' Mental Health Through Job Satisfaction During the COVID-19 Pandemic?

Niko Sudibjo (i), Alex M Manihuruk

Faculty of Education, Universitas Pelita Harapan, Jakarta, Indonesia

Correspondence: Niko Sudibjo, Faculty of Education, Universitas Pelita Harapan, Jakarta, Indonesia, Tel +62 21 2552 5161, Fax +62 21 2553 5163, Email niko.sudibjo@uph.edu

Purpose: The role of happiness at work (HW) on mental health (MH) in the education sector in Indonesia has not been widely examined. Additionally, the inconsistent results of previous studies on the relationship between job satisfaction (JS) and MH have led to the uncertainty of JS being a mediator. This study aims to fill the gap in knowledge by examining the effect of HW and perceived organizational support (POS) on teachers' MH, with JS as a mediator.

Methods: This research employed a quantitative approach with a cross-sectional study design, using partial least squares structural equation modeling with SmartPLS software. The research participants included 490 teachers in the Special Capital Region of Jakarta province.

Results: The results indicate that HW is the highest predictor of teachers' MH, and POS is the highest predictor of JS. Another notable finding is that JS was found to have a positive but not significant effect on teachers' MH. However, it did impact the failure of the mediation relationship of this research model, which did not align with previous studies' findings.

Conclusion: Schools must pay attention to HW to improve teachers' MH. Additionally, they should provide support to teachers to increase their JS, especially during the COVID-19 pandemic.

Keywords: happiness at work, job satisfaction, mental health, perceived organizational support, teacher

Introduction

The COVID-19 pandemic has impacted the education sector, causing changes in teaching and learning practices worldwide, such as moving from onsite to online learning.^{1,2} In Indonesia, the Ministry of National Education published the Letter of the Minister of Education and Culture of the Republic of Indonesia No. 4 of 2020, making this change mandatory. Such changes triggered by the COVID-19 pandemic have taken educators by surprise and posed challenges to both teachers and learners.³ Hence, many teachers continue to experience difficulties of increased workloads and uncertainty, thereby raising mental health (MH) concerns.⁴⁻⁶

Teachers' MH is a matter of widespread concern for education management worldwide, and poor MH is thought to be linked to high levels of stress and attrition. Working as a teacher is considered a mentally challenging job as teachers are obliged to manage numerous cultural, social, and community demands from multiple directions, resulting in a high number of daily emotional interactions. In addition, the teaching profession is considered to have a high level of burnout and stress. At the university level, lecturers face high levels of stress, which is thought to be associated with anxiety disorders, hypertension, headaches, psychosomatic disorders, and even heart disease.

Braegunig et al asserted that teachers in Germany often experience health problems caused by stress.¹¹ Moreover, research conducted in China by Liu et al found that lecturers often experience pressure from balancing teaching work,

research, and life demands, resulting in physical and mental suffering. ¹⁰ In Indonesia, teachers' MH challenges have received minimal research attention, hence the need for the present study.

According to Svalastog et al, a state of good health is a condition in which overall physical functions work well, there is an absence of pain, and a feeling of comfort arises due to harmonious organ functions.¹² This definition highlights the holistic implications of those factors that influence both physical health and MH. Specifically, MH is defined as the dynamic internal balance within an individual that enables harmony with the universal values of society.¹³ The World Health Organization defines MH as a state of wellbeing in which an individual realizes the desire to manage the problems of normal life and works productively to contribute to the community.¹⁴

One factor affecting teachers' MH is happiness at work (HW), which is an aspect of subjective wellbeing in the form of short-term moods and emotions regarding one's work experiences. HW can arise from positive experiences at work. Benevene et al found HW to have a positive effect on teachers' overall health. When workers feel happy, they tend to be healthier and better able to cope with stress.

Another factor affecting the MH of teachers is the perception of organizational support (POS). According to Eisenberger and Stinglhamber, POS is the belief that the organization in which a person works cares about the welfare of employees and values their contributions. POS is an aspect of organizational behavior theory that emphasizes the importance of valuing employees as organizational resources. Liu et al found the POS experienced by college teachers in China to positively affect both physical health and MH. 10

Job satisfaction (JS) is also believed to affect MH. JS reflects a person's affection or positive emotional perceptions toward work, coworker relationships, and the existing work environment, which arise on the basis of fulfilled expectations. When this level of fulfillment is high, employees tend to feel satisfied. Research on high school teachers in Italy conducted by Capone and Petrillo found that teachers with high levels of JS tend to also have good MH. Furthermore, Chirico et al argued that low JS leads to poor MH. 22

Many MH studies have assessed factors of JS. ^{16,19,21,23–25} Several studies have also sought to determine the role of POS on MH. ^{10,26,27} However, only a few have explored the effect of HW on MH in the education sector, particularly in Indonesia. Therefore, this research aims to fill the research gap by assessing the effects of HW on MH in the context of Indonesian teachers. Additionally, the effect of JS on MH has elicited contradictory results in previous studies, showing both positive and negative effects. ^{28,29} Hence, the mediating role of JS between HW and MH deserves further examination to address the current confusion and to examine the role of POS on teachers' MH, with JS as a mediator in the context of the COVID-19 pandemic.

Theoretical Framework and Hypotheses Development Relationship Between HW, IS, and MH

MH is an important construct in the teaching profession, especially during the COVID-19 pandemic. Sudden changes in the teaching practice have occurred, such as moving from onsite to online learning, and it is thought that teachers' MH may suffer.³⁰ Almeida asserted that MH is a state of being free from psychological disturbances, as well as an individual's capability to adapt to change, overcome crises, relate to other people, and enjoy life.³¹ Howard et al contended that MH disorders can be caused by various circumstances, such as work stress, which is often encountered by teachers.³² Kidger et al found low wellbeing experienced by teachers to be the result of stressful workloads, dissatisfaction with coworkers' performance, and the inability to convey feelings and concerns to others, which can elicit moderate to high symptoms of depression.³³

MH is believed to be influenced by HW, which is the cognitive and affective process that appears to be related to the impact of the organizational characteristics of the workplace.¹⁶ HW is represented by employees' moods and short-term emotions experienced based on relationships with colleagues, managers, leaders, and customers.¹⁵ HW is also shaped by perceptions of fair treatment, appreciation, and positive relationships.^{34–36} During the COVID-19 pandemic, the pressure and stress caused by the dramatic work–life changes have had negative impacts on HW.³⁷ Previous research found that high HW positively affects individual health, including the reduction of stress and burnout.^{15–17,38} By contrast, low HW results in withdrawn behaviors and mental suffering (HW—MH).³⁹

JS is believed to have a mediating relationship between HW and MH. JS reflects an employee's affective emotions regarding personal accomplishments based on job expectations.^{23,40} The fulfillment of personal and organizational goals in the workplace is a key JS factor. As an endogenous variable, JS is believed to be influenced by HW. However, the COVID-19 pandemic directly changed the workplace dynamics affecting JS.⁴¹ Benevene et al studied teachers at junior and middle schools, finding HW to have a significant positive effect on teachers' JS (HW \rightarrow JS).⁴²

Nandinloyi et al found a relationship between JS as an exogenous variable and MH, demonstrating higher JS to be associated with better MH, particularly in terms of reducing depression and building social relationships with others. ⁴³ Relationship with colleagues also affects the balance of one's psychological wellbeing. ⁴⁴ In Japan and India, it was found that higher levels of teachers' JS were related to better MH (JS→MH). ^{28,42}

Based on the findings from previous research that HW affects JS, ^{15–17,39} and that JS affects MH, ²⁸ suggest that these three variables are correlated. This study seeks to examine the positive effects of HW on MH through the mediation of JS. This mediation relationship has not been well-studied, except by Benevene et al. ⁴² However, the direction of this study is novel in the context of educational management in Indonesia (HW→JS→MH).

Based on the association of the propositions derived above, the initial hypotheses of this study are as follows:

- H1: HW positively affects teachers' MH during the COVID-19 pandemic.
- H2: HW positively affects teachers' JS during the COVID-19 pandemic.
- H3: JS positively affects teachers' MH during the COVID-19 pandemic.
- H4: HW positively affects teachers' MH through JS during the COVID-19 pandemic.

Relationship Between POS, IS, and MH

The existence of the COVID-19 pandemic poses challenges and pressures for teachers in their work, and organizational support is required. Oubibi et al emphasized the importance of POS when dealing with educational crises (eg, COVID-19), in which high adaptation to changes is required. Notably, such changes clearly impact the emotional demands, pressures, and burnout symptoms of teachers. Eisenberger and Stinglhamber defined POS as employees' perceptions of organizations valuing their contributions and caring about their welfare. Another definition was proposed by Chatzittofis et al, as it pertains to employees' perceptions of the extent to which an organization expresses concern with maintaining employees' physical, psychological, and mental wellbeing. According to Malik and Neem, employees' POS is a vital aspect of work culture for organizational environments that require employees to perform more than their job descriptions.

POS is believed to influence employees' MH. Chatzittofis et al found low POS to be associated with higher rates of depression, stress, and traumatic symptoms, indicating that the greater the POS, the better the employee MH.²⁷ This seems to have been particularly true during COVID-19.²⁷ Jin and Tang found higher POS experienced by employees at work to lower stress levels, further implying the correlation of POS to MH (POS→MH).⁴⁷

POS is also believed to affect JS. ⁴⁸ Collegial relationships factor into high JS. Danielsson and Bodin found employees who share workspaces with others to have beneficial interactions, which positively affects JS. ⁴⁹ Higher POS experienced by employees tends to result in higher JS, especially during COVID-19. ^{50–53} In the context of the teaching profession, Bogler and Nir investigated the experiences of elementary school teachers in Israel, finding that the greater the POS, the greater the JS (POS→JS). ⁵⁴

The relationships between POS and MH^{27,47} and POS and JS^{52,54} suggest that all three variables are correlated. JS is believed to have a mediating role in the relationship between POS and MH. Indeed, a previous study found POS, JS, and MH to be correlated (POS→JS→MH).⁵⁵

Based on the association of the propositions derived above, the additional hypotheses of this study are as follows:

- H5: POS positively affects teachers' MH during the COVID-19 pandemic.
- H6: POS positively affects teachers' JS during the COVID-19 pandemic.

H7: POS positively affects teachers' MH through JS during the COVID-19 pandemic.

Materials and Methods

Research Design

This research was conducted using a quantitative approach that applied a cross-sectional study method with path analysis measured by partial least squares structural equation modeling (PLS-SEM). This method was chosen because it suits the data used, which otherwise does not accommodate classical assumption tests.⁵⁶ PLS-SEM is also suitable for testing for unobservable latent variables using indicators from the theory of each construct.⁵⁷ In this study, MH was an endogenous variable, HW and POS were exogenous variables, and JS was assessed as a mediating variable. The research proposal, which included an introduction, theories for hypothesis development, and methods, was started in June 2021. It was then submitted for review to our institution's Internal Review Board (IRB) on October 7, 2021 and was approved on November 19, 2021. Research data were acquired via an online questionnaire over 10 days following ethical clearance from our IRB.

Participants

The participants in this research were kindergarten-high school-level teachers in the Special Capital Region of the Jakarta province, Indonesia. The baseline population of 80,416 participants was provided by the Special Capital Region of Jakarta province based on academic year 2020 information.⁵⁸ Referring to Krejcie and Morgan's sample calculation theory, the number of samples required for a thorough representation of this population is 384.⁵⁹ In this study, the number of responses was 490 after eliminating invalid entries. Because this study was conducted during the COVID-19 pandemic, convenience sampling was used as the data collection technique, wherein the research data were based on respondents' completion of the questionnaire. The questionnaire was distributed online using a Google form. The questionnaire link was distributed through teacher representatives at schools in the Special Capital Region of Jakarta province to individual teachers. The research data were then analyzed using a bootstrapping technique for 5000 observations to ensure that the sample was truly representative of the population under study.⁵⁶

Measures

All construct measurements of this study were adapted from previous theories and research, which were translated into Indonesian to make it easier for participants to understand and respond to the online questionnaire. The questionnaire is presented in <u>Supplementary Table S1</u>. The questionnaire used through the PLS-SEM statistical validation process refers to Hair et al with the rule of thumb 0.7 for each loading factor.⁵⁶

MH was measured using six items in the questionnaire using a Likert scale of 1–5, referencing Kodraliu et al and Ware et al, integrating the four indicators of (1) good social relations, (2) good emotional roles, (3) good vitality, and (4) good mood. Examples of items in the questionnaire include "I tend to be calm in dealing with problems at work" and "I am able to use my time for various activities during the COVID-19 pandemic." The Cronbach's alpha of this variable was 0.883.

HW was measured using six items in the questionnaire using a Likert scale of 1–5, referencing Fisher and Lutterbie and Pryce–Jones, including the three dimensions of (1) happiness toward work, (2) contextual job features, and (3) the entire organization.^{35,62} Examples of items in the questionnaire include "I can convey ideas comfortably to coworkers" and "I am enthusiastic about carrying out home teaching during the COVID-19 pandemic." The Cronbach's alpha of this variable was 0.871.

POS was measured using seven items in the questionnaire using a Likert scale of 1–5, referring to Eisenberger and Stinglhamber and Eisenberger et al, assessing the five indicators of (1) the organization values employee contributions, (2) the organization pays attention to employee complaints, (3) the organization cares about employee welfare, (4) the organization shows great concern for employees, and (5) the organization appreciates employees' extra efforts. ^{18,63} Examples of items in the questionnaire include "The school cares about my complaints during the COVID-19 pandemic" and "The school provides adequate work facilities to work from home during the pandemic." The Cronbach's alpha of this variable was 0.927.

JS was measured using five items in the questionnaire using a Likert scale of 1–5, referring to Dolbier et al and Tsai, including the five indicators of (1) satisfaction with compensation, (2) satisfaction with the promotion, (3) satisfaction

with supervisor's supervision, (4) satisfaction with coworkers, and (5) satisfaction with assigned work.^{64,65} Examples of items in the questionnaire include "I am happy with the allowances provided by the school during the COVID-19 pandemic" and "I am happy with the way the leaders at my school provide feedback on my performance." The Cronbach's alpha of this variable was 0.914.

Data Analyses

The data in this study were classified into two groups: respondent profile (nominal) and research questionnaire (interval). Respondent profile data describe the demographics of the respondents, including sex, educational background, teaching level, and teaching experience. This data group was analyzed descriptively by calculating the percentages. Research questionnaire data reflect respondents' answers in the range [1–5] and were analyzed descriptively and inferentially.

Descriptive analysis for the questionnaire data was used to present the means and standard deviations of respondents' answers. In addition to the cross-sectional method analysis requirement, Harman's single factor test was conducted using the SPSS v.25 software to ensure no common method bias because respondents' answers may be influenced by the format and context of the questions, resulting in over- or under-stated tendencies reported by the respondents.⁶⁶

PLS-SEM inner and outer inferential statistics models were used to validate the hypotheses using the Smart-PLS v.3.2 software.⁵⁶ The outer model test focuses on validity testing with the loading factor, average variance extracted (AVE), convergent and discriminant validity, and data reliability testing with Cronbach's alpha and composite reliability.⁵⁶ The inner model test examines the multicollinearity of the data, predicts the coefficient determinant (R²), and tests the hypotheses via path analysis.⁵⁶

Results

The respondents in this research were predominantly female teachers with the highest educational background of a bachelor's degree. Participants were from different school departments, with the largest number being of elementary school teachers. Most respondents had been teaching for more than 12 years at the time of questionnaire completion. The details of the respondents' demographic data are presented in Table 1.

Table I Respondent Profile

Criteria		Number	Percentage	
Sex	Female	381	77.8%	
	Male	109	22.2%	
Educational	Diploma degree	26	5.3%	
background	Bachelor's degree	342	69.8%	
	Master's degree	122	24.9%	
Teaching level	Kindergarten	73	14.9%	
	Elementary	209	42.7%	
	Junior high	103	21%	
	Senior high	105	21.4%	
Teaching experience	0-3 years	39	8%	
	4–6 years	90	18.4%	
	7–9 years	46	9.4%	
	IO-I2 years	86	17.6%	
	>12 years	229	46.7%	

Common Method Bias Test

The common method bias test was carried out using Harman's single factor test (result 38.48%) to ensure that the cross-sectional research results were not biased by instrument artifacts.⁶⁶ This result meets the rule of thumb, which is less than 50%.⁶⁶ Hence, common method bias did not influence the results. The result of the common method bias test is shown in Table 2.

Outer Model

The outer model test measures the validity and reliability of the data. The descriptor of each construct was assessed as valid as it met the loading factor of >0.7 with an AVE of >0.5.⁵⁶ All constructs were confirmed to be reliable as their composite reliability and Cronbach's alpha values exceeded the 0.7 requirement, ⁵⁶ and all constructs were considered reliable with values above 0.7. Details are found in Table 3.

In the outer model, discriminatory validity testing was conducted to ensure that each construct of the study differed sufficiently.⁵⁶ To assess discriminant validity, heterotrait–monotrait ratio (HTMT) testing was carried out by calculating the mean of the indicator correlations of all constructs whose rule of thumb was less than 0.85.⁶⁷ On the basis of the results of the data analysis presented in Table 4, all constructs have values less than 0.85; hence, discriminant validity is confirmed.

Inner Model

Inner model testing is divided into three parts. The first includes multicollinearity testing, which aims to ensure that all exogenous variables lack high collinearity.⁵⁶ This test was conducted by examining the value of the variance inflation factor, which must be >5.00.⁵⁶ The results of the data analysis presented in Table 5 reveal that the exogenous variables did not exhibit multicollinearity.

The second inner model applied determinant coefficient testing, which assesses the prediction accuracy of the research model. The value of the determinant coefficient was ascertained from the effect of the exogenous variable as a whole and has a value in [0, 1]; the higher the value is, the better the research model is. Hair et al provided R² values of 0.25, 0.5, and 0.75 as criteria, indicating weak, moderate, and substantial predictions, respectively. Hair et al. Provided R² values of 0.25, 0.5, and 0.75 as criteria, indicating weak, moderate, and substantial predictions, respectively.

The R² value in this study indicated that the research model predicted MH constructs well and JS constructs very well as 60.8% of JS findings were explained by the HW and POS variables, whereas the remaining 39.2% were explained by other variables not examined in this study. It was also concluded that 49.2% of the MH findings were explained by HW, POS, and JS, whereas the remaining 50.8% were explained by other variables not examined in this study. The values of the determinant coefficients for JS and MH are presented in Table 6.

The final inner model test assessed the research hypotheses by investigating the path coefficient value and its significance, which can be ascertained using two events: t-statistic value > 1.96 and p-value < 0.05. The results showed that HW positively and significantly affected teachers' MH (β = 0.659, p = 0.000). HW also had a positive effect on JS (β = 0.194, p = 0.000). Therefore, Hypotheses 1 and 2 were supported. Meanwhile, JS was found to affect teachers' MH positively but not significantly (β = 0.060, p = 0.173). Therefore, Hypothesis 3 was not supported. Hypothesis 5 was also supported as POS was found to affect teachers' MH positively but not significantly (β = -0.028, p = 0.304). POS was also found to positively affect JS (β = -0.687, p = 0.000). This path is therefore considered strong and significant. Therefore, Hypothesis 7 was supported. Table 7 presents the detailed results of the path analysis between variables.

Table 2 Harman's Single Factor Test Results

Total Variance Explained						
Extraction Sums of Squared Loadings						
Total % of Variance Cumulative %						
9.234	38.477	38.477				

Note: Extraction method: principal axis factoring.

Table 3 Loading Factor, AVE, and Reliability Test Results

Item Construct	Loading Factor	AVE	CR	Alpha
Mental health		0.630	0.911	0.883
мні	0.743			
MH2	0.809			
MH3	0.803			
MH4	0.796			
MH5	0.808			
MH6	0.802			
Happiness at work		0.609	0.903	0.871
HWI	0.808			
HW2	0.798			
HW3	0.807			
HW4	0.840			
HW5	0.716			
HW6	0.703			
Perceived organizational support		0.663	0.932	0.915
POSI	0.822			
POS2	0.834			
POS3	0.827			
POS4	0.785			
POS5	0.767			
POS6	0.799			
POS7	0.860			
Job satisfaction		0.747	0.936	0.914
JSI	0.818			
JS2	0.802			
JS3	0.917			
JS4	0.905			
JSS	0.873			

Abbreviations: AVE, average variance extracted; CR, composite reliability.

Mediated Effect

Table 7 also presents the results of the indirect relationship coefficient path test. In the mediating relationship, JS did not successfully mediate the positive effect of HW on teachers' MH (β = 0.012, p = 0.178). This result was smaller than the direct effect of HW on teachers' MH and was not significant. Referring to Zhao et al and Hair et al, the first measurement of the mediating effect depends on the significance of the resulting mediation effect.^{56,68} If the value is not significant, then a mediation relationship does not exist (fails). The subsequent mediating relationship involving JS was found to fail

Table 4 Descriptive Statistics and Discriminant Validity Test Result (HTMT) Ratios

	М	SD	HW	JS	МН	POS
Happiness at work (HW)	4.28	0.81				
Job satisfaction (JS)	3.66	1.12	0.503			
Mental health (MH)	4.14	0.80	0.781	0.414		
Perceived organizational support (POS)	3.55	1.13	0.415	0.820	0.347	

Note: Rule of thumb of HTMT Ratio <0.85.

Abbreviations: HTMT, heterotrait-monotrait ratio; M, mean; SD, standard deviation.

Table 5 Multicollinearity Test Results

Exogenous Variables	VIF			
	Job Satisfaction	Mental Health		
Happiness at work	1.168	1.263		
Job satisfaction		2.554		
Perceived organizational support	1.168	2.369		

Abbreviation: VIF, variance inflation factor.

Table 6 Determinant Coefficient Test Results

Endogenous Variable	R-Squared
Job satisfaction	0.608
Mental health	0.492

Table 7 Hypotheses Test Results

Hypothesis Code	Path	Path Coefficient	Sample Mean	SD	T-Statistics	P-value	Decision
ні	HW→MH	0.659	0.662	0.035	18.660	0.000	Supported
H2	HW→JS	0.194	0.194	0.038	5.085	0.000	Supported
H3	JS→MH	0.060	0.059	0.063	0.954	0.170	Not supported
H4	HW→JS→MH	0.012	0.011	0.013	0.930	0.176	Not supported
H5	POS→MH	0.028	0.030	0.055	0.522	0.301	Not supported
H6	POS→JS	0.686	0.687	0.032	21.326	0.000	Supported
H7	POS→JS→MH	0.041	0.040	0.044	0.947	0.172	Not supported

Abbreviations: HW, happiness at work; MH, mental health; JS, job satisfaction; POS, perceived organizational support.

to mediate the positive effect of POS on teachers' MH (β = 0.041, p = 0.175). This result was higher than the direct effect on Hypothesis 5, but it was not significant. Following the rules for calculating the variance accounted for (VAF) proposed by Hair et al, these two mediating relationships were not significant as they had a p-value > 0.05; thus, the VAF test was

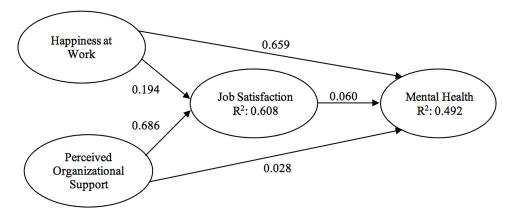


Figure I Research model with path coefficient to estimate the structural equation model.

not carried out.⁵⁶ Therefore, Hypotheses 4 and 7 were not supported. Details of the results of the hypothesis testing are presented in Table 7.

The path analysis results of the research model are presented in Figure 1.

Based on these results, two structural equations based on the two endogenous variables emerged from this study:

$$JS = 0.194HW + 0.686POS + 0.392e$$

$$MH = 0.659HW + 0.028POS + 0.060JS + 0.508e$$

Discussion

Relationship Between HW, JS, and MH

The results of this research confirmed that HW has the greatest influence on teachers' MH. The first hypothesis test showed that HW positively and significantly affected teachers' MH, which can be generalized to the entire teacher population in the Special Capital Region of Jakarta province. Thus, improvements that evoke happiness in the workplace (school) will improve teachers' MH. This deduction is supported by the results of Benevene et al, De Stasio et al, Graziotin et al and Salas-Vallina et al indicating that HW affects MH. 15–17,39

Based on the descriptive statistics from the questionnaire items, the teachers felt enthusiastic when conducting remote teaching activities during the pandemic. This suggests that teachers' happiness is related to their work.³⁵ Additionally, teachers felt comfortable conveying ideas to colleagues, indicating that the teachers had a good work environment that allowed good social interactions among colleagues.⁶² The HW felt by teachers, therefore, impacts MH. The descriptive statistical data confirmed that teachers felt they had good physical conditioning, and they were enthusiastic about working during the pandemic. The teachers also agreed that they could think rationally regarding the problems encountered at work. These findings suggest that teachers' emotions and moods affect their MH.⁶⁰

The second hypothesis was supported by the positive and significant effect of HW on JS. This reflects previous findings that HW positively influences teachers' JS. 42 Although the results of our study showed a positive effect, the value of this effect was small and weak. Thus, teachers' JS is minimally influenced by HW. The descriptive statistics suggest that although teachers may feel happy at work, the level of JS tends to be low, as revealed by respondents' average answers showing hesitancy regarding JS questionnaire items.

The third hypothesis was not supported as the results revealed a positive but insignificant effect. These results indicate that in the context of the research sample, JS positively affects teachers' MH. However, these results cannot be generalized for all teachers in the Special Capital Region of Jakarta province. Based on the context of the sample data, the results are congruent with those of Nagai et al for teachers in Japan, who showed a positive influence of JS on teachers' MH. However, when generalized for the entire population of this study, the results support those of Kuwato and Hirano, who found JS to negatively affect teachers' MH in Japan. ²⁹

The results of Hypothesis 3 help fill the research gap on the relationship between JS and MH,^{28,29} which impacts the mediating role of JS between HW and MH. The proposed mediating role in Hypothesis 4 was not supported as the test results revealed a positive influence of HW on teachers' MH through JS, which was not significant. Therefore, these results contradicted those of Benevene et al, who found JS to successfully mediate the effect of HW on teachers' MH.⁴² Although the effect was positive, it was not greater than the direct effect on Hypothesis 5; hence, the proposal of the mediating role of this study was unsuccessful as the participants expressed doubt regarding all JS questionnaire items. This indicates that teachers tended to be dissatisfied with their work during the COVID-19 pandemic based on the allowances provided by the schools and the ways in which leaders provided work feedback.

Relationship Between POS, JS, and MH

In this study, POS was found to positively affect teachers' MH (0.083), which was not significant. Thus, Hypothesis 5 was not supported. The effect of POS on teachers' MH was weak and did not represent the entire population. Therefore, the results do not support the findings of Chatzittofis et al and Jin and Tang, who found higher POS to be correlated with lower stress levels and superior MH.^{27,47}

The low value of the effect of Hypothesis 5 was caused by the teachers' hesitation regarding the POS questionnaire items. Based on the results of the descriptive statistics, most teachers responded doubtfully regarding whether schools provided adequate work facilities for working from home during the pandemic. The teachers also answered doubtfully regarding whether their leaders appreciated their best efforts. These findings further suggest that teachers perceived a lack of support from their organizations during the COVID-19 pandemic. In terms of MH, the teachers indicated that they think rationally, are not often anxious, use their time well, and have good vitality, which implies that they have good MH. 60,61 Although they felt less supported by their organizations, they maintained good MH. Therefore, POS was not shown to have a major influence on teachers' JS.

For Hypothesis 6, POS was found to positively and significantly affect teachers' JS. The effect value was considerably high, indicating that POS is a strong predictor of teachers' JS. This further implies that increases in teachers' POS may have a high impact on JS. The influence value is also significant, indicating that it can be generalized to the entire teacher population. These results support the findings of Bilgin and Demirer, Maan et al and Zeng et al. 50–52

A notable finding from this research emerged from Hypothesis 7, revealing that POS has a positive and insignificant effect on teachers' MH through JS. The value of the effect was greater than the direct effect of Hypothesis 5, but it was not significant; thus, the proposed mediating role of this study was unsuccessful. This finding is interesting as POS was shown to have a strong effect on teachers' JS, whereas JS does not mediate the effect of POS on MH. This finding differs from those of Bravo–Yáñez and Jiménez-Figueroa, in which POS, JS, and MH were shown to have positive correlations.⁵⁵

Conclusion

This study applied an appropriate model for predicting teachers' MH and JS, as confirmed by the value of the coefficient determinant (R²). HW was found to be a predictor of MH with the highest influence, whereas JS had the smallest influence. The results also showed that POS is a strong predictor of teachers' JS.

This study successfully fills the research gap regarding the confusion among previous results about the effects of JS on teacher's MH in Indonesia, which further impacts the mediating role of JS in the relationship of HW with MH. This study confirms that JS positively affects teachers' MH while not being significant to the wider population, as reflected by the findings of the unsuccessful mediating role of JS in this research model.

Managerial Implications

The results of this research prompt several managerial implications for leaders of educational institutions in the Special Capital Region of Jakarta province. HW was found to be a strong predictor of teachers' MH. Therefore, school leaders should attend to increasing opportunities to evoke HW in schools to improve teachers' MH. This can be achieved by establishing a pleasant working climate, such as with teacher-appreciation gatherings. School leaders can also improve HW by assigning jobs according to teachers' abilities and interests at appropriate workload levels.

The next managerial implication is related to JS. POS was found to be a strong predictor of JS; therefore, school leaders should increase the general support provided to teachers. The JS of the teachers participating in this study tended to be low. Therefore, school leaders should adequately attend to teachers' complaints and concerns, provide support for remote learning (eg, internet quotas and training), assist teachers who are sick, particularly during the COVID-19 pandemic, and show meaningful appreciation for teachers' contributions.

Limitation and Research Suggestions

This research is certainly not without limitations. The study was conducted during the COVID-19 pandemic, and the data collection method applied a convenience sampling technique that relied on the completion of an online questionnaire. As a result, the number of respondents per school may be disproportionate, including gender distribution. It is suggested that future researchers accommodate a proportional number of respondents to elicit more comprehensive results. Additionally, this study found that JS did not operate as a mediating variable. Therefore, future research could investigate other variables for this purpose regarding the effects of HW and POS on teachers' MH. In terms of the instrument and research design, this study used a self-reported questionnaire in a cross-sectional study design; hence, it could not fully explore causal hypotheses.

Ethics Statement

The IRB of the Center for Research & Community Development, Universitas Pelita Harapan, declared that our research methods met their research ethics criteria (201-IRB/PN-MPD-UPH/XI/2021), in line with the Declaration of Helsinki. The data collection questionnaire maintained participant anonymity. No personally identifiable information was collected. The questionnaire's introduction provided respondents with a full explanation of the purpose of the research (for scientific publication) and a guarantee of confidentiality. Informed consent was obtained from all respondents.

Disclosure

The authors declare no conflicts of interest in this work.

References

- 1. Lizana PA, Vega-Fernadez G, Gomez-Bruton A, Leyton B, Lera L. Impact of the COVID-19 pandemic on teacher quality of life: a longitudinal study from before and during the health crisis. *Int J Environ Res Public Health*. 2021;18:3764. doi:10.3390/ijerph18073764
- 2. Nuland SV, Mandzuk D, Petrick KT, Cooper T. COVID-19 and its effects on teacher education in Ontario: a complex adaptive systems perspective. *J Educ Teach*. 2020;46(4):442–451. doi:10.1080/02607476.2020.1803050
- 3. Mok KH, Xiong W, Ke G, Cheung JOW. Impact of COVID-19 pandemic on international higher education and student mobility: student perspectives from mainland China and Hong Kong. *Int J Educ Res.* 2021;105:101718. doi:10.1016/j.ijer.2020.101718
- Aperribai L, Cortabarria L, Aguirre T, Verche E, Borges Á. Teacher's physical activity and mental health during lockdown due to the COVID-2019 pandemic. Front Psychol. 2020;11:577886. doi:10.3389/fpsyg.2020.577886
- 5. Hidalgo-Andrad P, Hermosa-Bosano C, Paz C. Teachers' mental health and self-reported coping strategies during the COVID-19 pandemic in Ecuador: a mixed-methods study. *Psychol Res Behav Manag.* 2021;2021(14):933–944. doi:10.2147/PRBM.S314844
- Idris F, Zulkipli IN, Abdul-Mumin KH, et al. Academic experiences, physical and mental health impact of COVID-19 pandemic on students and lecturers in health care education. BMC Med Educ. 2021;21:542. doi:10.1186/s12909-021-02968-2
- Borrelli I, Benevene P, Fiorilli C, Amelio FD, Pozzi G. Working conditions and mental health in teachers: a preliminary study. Occup Med. 2014;64
 (7):530–532. doi:10.1093/occmed/kqu108
- 8. von Muenchhausen S, Braeunig M, Pfeifer R, et al. Teacher self-efficacy and mental health—their intricate relation to professional resources and attitudes in an established manual-based psychological group program. *Front Psychiatry*. 2021;12:510183. doi:10.3389/fpsyt.2021.510183
- 9. Religious Belief CF. Mental health in lay and consecrated Italian teachers. J Relig Health. 2016;56(3):839-851. doi:10.1007/s10943-016-0242-7
- Liu C, Wang S, Shen X, Li M, Wang L. The association between organizational behavior factors and health-related quality of life among college teachers: a cross-sectional study. Health Qual Life Outcomes. 2015;13(85):1–12. doi:10.1186/s12955-015-0287-4
- 11. Braeunig M, Pfeifer R, Schaarschmidt U, Lahmann C, Bauer J. Factors influencing mental health improvements in school teachers. *PLoS One*. 2018;13(10):e0206412. doi:10.1371/journal.pone.0206412
- Svalastog AL, Donev D, Kristoffersen NJ, Gajović S. Concepts and definitions of health and health-related values in the knowledge landscapes of the digital society. Croat Med J. 2017;58(6):431–435. doi:10.3325/cmj.2017.58.431
- 13. Galderisi S, Heinz A, Kastrup M, Beezhold J, Sartorius N. Toward a new definition of mental health. World Psychiatry. 2015;14(2):231–233. doi:10.1002/wps.20231
- 14. World Health Organization. Promoting mental health: concepts, emerging evidence, practice (summary report). World Health Organization; 2004:70. Available from: https://www.who.int/mental_health/evidence/en/promoting_mhh.pdf. Accessed April 12, 2022.
- Salas-Vallina A, Lo´pez-cabrales Á, Alegre J, Ferna´ndez R. On the road to happiness at work (HAW): transformational leadership and organizational learning capability as drivers of HAW in a healthcare context. Pers Rev. 2017;38(3):470–488. doi:10.1108/PR-06-2015-0186

16. Benevene P, De Stasio S, Fiorilli C, et al. Effect of teachers' happiness on teachers' health, the mediating role of happiness at work. Front Psychol. 2019;10:2449. doi:10.3389/fpsyg.2019.02449

- 17. De Stasio S, Fiorilli C, Uusitalo-Malmivaara L, Di Chiacchio C, Chiacchio CD. Burnout in special needs teachers at Kindergarten And Primary School: investigating the role of personal resources and work wellbeing. Psychol Sch. 2017;54(5):472-486. doi:10.1002/pits.22013
- 18. Eisenberger R, Stinglhamber F, Hutchison S, Sowa D. Perceived organizational support. J Appl Psychol. 1986;71(3):500-507. doi:10.1037/0021-
- 19. Hamaideh SH, Hamaideh SH. Burnout, social support, and job satisfaction among Jordanian mental health nurses. Issues Ment Health Nurs. 2011;32(4):234-242. doi:10.3109/01612840.2010.546494
- 20. Spector PE. Job Satisfaction: Application, Assessment, Causes, and Consequences. SAGE; 1997.
- 21. Capone V, Petrillo G. Mental health in teachers: relationships with job satisfaction, efficacy beliefs, burnout and depression. Curr Psychol. 2018;39:1757-1766. doi:10.1007/s12144-018-9878-7
- 22. Chirico F, Sharma M, Zaffina S, Spirituality MN. Prayer on teacher stress and burnout in an Italian cohort: a pilot, before-after controlled study. Front Psychol. 2020;10:2933. doi:10.3389/fpsyg.2019.02933
- 23. Aazami S, Shamsuddin K, Akmal S, Azami G. The relationship between job satisfaction and psychological/physical health among Malaysian working women. Malays J Med Sci. 2015;22(4):40-46.
- 24. Allan BA, Dexter C, Kinsey R, Parker S. Meaningful work and mental health: job satisfaction as a moderator. J Ment Health. 2016;27(1):38-44. doi:10.1080/09638237.2016.1244718
- 25. Nadinloyi KB, Sadeghi H, Hajloo N. Relationship between job satisfaction and employees mental health. Procedia Soc Behav Sci. 2013;84:293-297. doi:10.1016/j.sbspro.2013.06.554
- 26. Arnold KA, Dupre KE. Perceived organizational support, employee health and emotions. Int J Workplace Health Manag. 2012;5(2):139-152. doi:10.1108/17538351211239171
- 27. Chatzittofis A, Constantinidou A, Artemiadis A, Michailidou K, Karanikola MNK. The role of perceived organizational support in mental health of healthcare workers during the COVID-19 pandemic: a cross-sectional study. Front Psychiatry. 2021;12:707293. doi:10.3389/fpsyt.2021.707293
- 28. Nagai M, Tsuchiya KT, TouloPoulou T, Takei N. Poor mental health associated with job dissatisfaction among school teachers in Japan. J Occup Health. 2007;49(6):515-522. doi:10.1539/joh.49.515
- 29. Kuwato M, Hirano Y. Sense of coherence, occupational stressors, and mental health among Japanese high school teachers in Nagasaki prefecture: a multiple regression analysis. BMC Public Health. 2020;20:1355. doi:10.1186/s12889-020-09475-x
- 30. Jakubowski TD, Sitko-Dominik MM. Teachers' mental health during the first two waves of the COVID-19 pandemic in Poland. PLoS One. 2021;16(9):e0257252. doi:10.1371/journal.pone.0257252
- 31. Almeida JM. Mental health is public health: need to enhance the value and visibility of mental health. In: Reports of the Ministry of Social Affairs and Health. Helsinki: Ministry of Social Affairs and Health; 2001:30-35.
- 32. Howard K, Haskard-Zolnierek K, Johnson A, Roming S, Price R, Cobos B. Somatization disorder and stress in teachers: a comprehensive occupational health evaluation. Journal Appl Biobehav Res. 2017;22(4):e12105. doi:10.1111/jabr.12105
- 33. Kidger J, Brockman R, Tilling K, et al. Teachers' wellbeing and depressive symptoms, and associated risk factors: a large cross sectional study in English secondary schools. J Affect Disord. 2016;192:76–82. doi:10.1016/j.jad.2015.11.054
- 34. Chaiprasit K, Santidhirakul O. Happiness at work of employees in small and medium-sized enterprises, Thailand. Procedia Soc Behav Sci. 2011;25:189-200. doi:10.1016/j.sbspro.2011.10.540
- 35. Fisher CD. Happiness at work. Int J Manag Rev. 2010;12(4):384-412. doi:10.1111/j.1468-2370.2009.00270.x
- 36. Peñalver J, Salanova M, Martínez IM, Schaufeli WB. Happy-productive groups: how positive affect links to performance through social resources. J Posit Psychol. 2017;14(3):377–392. doi:10.1080/17439760.2017.1402076
- 37. Pradhan RK, Jandu K, Panda M, Hati L, Mallick M. In pursuit of happiness at work: exploring the role of psychological capital and coping in managing COVID-19 stress among Indian employees. J Asia Bus Stud. 2021. doi:10.1108/JABS-03-2021-0097
- 38. Ozkara San E. Concept analysis of nurses' happiness. Nurs Forum. 2015;50(1):55-62. doi:10.1111/nuf.12099
- 39. Graziotin D, Fagerholm F, Wang X, Abrahamsson P. What happens when software developers are (un)happy. J Syst Softw. 2018;140:32-47. doi:10.1016/j.jss.2018.02.041
- 40. Locke EA. Handbook of industrial and organizational psychology. In: Dunnette MD, editor. The Nature and Causes of Job Satisfaction. Rand McNally; 1976.
- 41. Bulińska-Stangrecka H, Bagieńska A. The role of employee relations in shaping job satisfaction as an element promoting positive mental health at work in the era of COVID-19. Int J Env Res Public Health. 2021;18(4):1903. doi:10.3390/ijerph18041903
- 42. Benevene P, Ittan MM, Cortini M. Self-esteem and happiness as predictors of school teachers' health: the mediating role of job satisfaction. Front Psychol. 2018;9. doi:10.3389/fpsyg.2018.00933
- 43. Eckhaus E. The fourth dimension of happiness and work satisfaction. Manag Mark Chall Knowl Soc. 2021;16(2):118-133. doi:10.2478/mmcks-2021-0008
- 44. Haider S, Jabeen S, Ahmad J. Moderated mediation between work life balance and employee job performance: the role of psychological wellbeing and satisfaction with coworkers. J Work Organ Psychol. 2018;34(1):29-37. doi:10.5093/jwop2018a4
- 45. Oubibi M, Fute A, Xiao W, Sun B, Zhou Y. Perceived organizational support and career satisfaction among Chinese teachers: the mediation effects of job crafting and work engagement during COVID-19. Sustainability. 2022;14(2):623. doi:10.3390/su14020623
- 46. Malik SZ, Naeem R. Organizational virtuousness, perceived organizational support and organizational citizenship behavior: a mediation framework. J Behav Sci. 2016;26(1):113-129.
- 47. Jin J, Tang J. Exploring the effect of perceived organizational support and resilience on Chinese pharmacists' engagement in stressful and competitive pharmaceutical work at hospitals. Saudi Pharm J. 2021;29(9):931-938. doi:10.1016/j.jsps.2021.08.003
- 48. Assiri SM, Shehata SF, Assiri MM. Relationship of job satisfaction with perceived organizational support and quality of care among Saudi nurses. Health. 2020;20(12):828-839. doi:10.4236/health.2020.127060
- 49. Danielsson CB, Bodin L. Office type in relation to health, well-being, and job satisfaction among employees. Environ Behav. 2008;40(5):636-668. doi:10.1177/0013916507307459

50. Bilgin N, Demirer H. The examination of the relationship among organizational support, affective commitment and job satisfaction of hotel employees. *Procedia Soc Behav Sci.* 2012;51:470–473. doi:10.1016/j.sbspro.2012.08.191

- 51. Maan AT, Abid G, Butt TH, Ashfaq F, Ahmed S. Perceived organizational support and job satisfaction: a moderated mediation model of proactive personality and psychological empowerment. *Future Bus J.* 2020;6(1):21. doi:10.1186/s43093-020-00027-8
- 52. Zeng X, Zhang X, Chen M, Liu J, Wu C. The influence of perceived organizational support on police job burnout: a moderated mediation model. Front Psychol. 2020;11:946. doi:10.3389/fpsyg.2020.00948
- 53. Zhang SX, Sun S, Jahanshahi AA, et al. Developing and testing a measure of COVID-19 organizational support of healthcare workers results from Peru, Ecuador, and Bolivia. *Psychiatry Res.* 2020;291:113174. doi:10.1016/j.psychres.2020.113174
- 54. Bogler R, Nir AE. The importance of teachers' perceived organizational support to job satisfaction: what's empowerment got to do with it? *J Educ Adm.* 2012;50(3):287–306. doi:10.1108/09578231211223310
- 55. Bravo-Yáñez C, Jiménez-Figueroa A. Psychological well-being, perceived organizational support and job satisfaction amongst Chilean prison employees. *Rev Esp Sanid Penit*. 2011;13:91–99. doi:10.1590/S1575-06202011000300004
- 56. Hair Jr H, Hult GTM, Ringle CM, Sarstedt M. A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). SAGE; 2014.
- 57. Bartholomew DJ, Knott M, Moustaki I. Latent Variable Models and Factor Analysis. Wiley: A Unified Approach; 2011.
- 58. DKI Jakarta Provincial Education Office. JUMLAH GURU DAN MURID DI DKI Jakarta TAHUN 2020. Sectoral Statistics Portal Dki Jakarta Province; 2021. Available from: https://statistik.jakarta.go.id/jumlah-guru-dan-murid-di-dki-jakarta-tahun-2020/. Accessed June 2, 2021.
- 59. Krejcie RV, Morgan DW. Determining sample size for research activities. Educ Psychol Meas. 1970;30:607–610. doi:10.1177/001316447003000308
- 60. Kodraliu G, Mosconi P, Groth N, et al. Subjective health status assessment: evaluation of the Italian version of the SF-12 health survey. Results from the MiOS project. *J Epidemiol Biostat.* 2001;6:305–316. doi:10.1080/135952201317080715
- Ware Jr JE, Kosinski M, Keller SD. A 12-item short-form health survey: construction of scales and preliminary tests of reliability and validity. *Med Care*. 1996;34(3):220–233. doi:10.1097/00005650-199603000-00003
- 62. Lutterbie S, Pryce-Jones J. Measuring happiness at work. Assess Dev Matters. 2013;5(2):13-16.
- 63. Eisenberger R, Armeli S, Rexwinkel B, Lynch PD, Rhoades L. Reciprocation of perceived organizational support. *J Appl Psychol.* 2001;86 (1):42–51. doi:10.1037/0021-9010.86.1.42
- 64. Dolbier CL, Webster JA, McCalister KT, Mallon MW, Steinhardt MA. Reliability and validity of a single-item measure of job satisfaction. *Am J Health Promot.* 2005;19(3):194–198. doi:10.4278/0890-1171-19.3.194
- 65. Tsai Y. Relationship between organizational culture, leadership behavior and job satisfaction. BMC Health Serv Res. 2011;11:98. doi:10.1186/1472-6963-11-98
- 66. Hufnagel EM, Conca C. Users response data: the potential for errors and biases. Inf Syst Res. 1994;5(1):48-73. doi:10.1287/isre.5.1.48
- 67. Henseler J, Ringle CM, Sarstedt M. A new criterion for assessing discriminant validity in variance-based structural equation modeling. *J Acad Mark Sci.* 2015;43:115–135. doi:10.1007/s11747-014-0403-8
- 68. Zhao X, Lynch JG, Chen Q. Reconsidering Baron and Kenny: myths and truths about mediation analysis. *J Consum Res.* 2010;37(2):197–206. doi:10.1086/651257

Psychology Research and Behavior Management

Dovepress

Publish your work in this journal

Psychology Research and Behavior Management is an international, peer-reviewed, open access journal focusing on the science of psychology and its application in behavior management to develop improved outcomes in the clinical, educational, sports and business arenas. Specific topics covered in the journal include: Neuroscience, memory and decision making; Behavior modification and management; Clinical applications; Business and sports performance management; Social and developmental studies; Animal studies. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit http://www.dovepress.com/testimonials.php to read real quotes from published authors.

 $\textbf{Submit your manuscript here:} \ \text{https://www.dovepress.com/psychology-research-and-behavior-management-journal} \\$



