

The Journal of Behavioral Science (TJBS)

Original Article

Work Behavior and Organizational Citizenship Behavior of Frontline Workers during COVID-19 in Thailand

Naphat Wuttaphan¹

Author Affiliation

¹ Assistant Professor, Faculty of Management Sciences, Pibulsongkram Rajabhat University, Thailand.

Corresponding author e-mail:
naphat.w@psru.ac.th

Article Information

Received: 18.8.21

Revised: 7.9.21

Accepted: 8.9.21

Keywords

COVID-19,
organizational citizenship behavior,
personal characteristics,
psychological wellbeing,
team environment, work behavior

Abstract

The outbreak of COVID-19 generated a negative impact on the psychological wellbeing of frontline public health workers due to a shortage of staff and supplies. This research investigated the effect of the team environment, personal characteristics, work environment and psychological capital on work behavior and organizational citizenship behavior during COVID-19 pandemic. The participants were 816 frontline public health workers in the northern part of Thailand. The findings revealed that the 2 models had an acceptable fit, $\chi^2 = 293.00$, $df = 273$, $p = .19$, CFI = 1.00, NNFI = 1.00, GFI = .97, AGFI = .96, RMSEA = .00 and $\chi^2/df = 1.07$, and $\chi^2 = 297.83$, $df = 274$, $p = .15$, CFI = 1.00, NNFI = 1.00, GFI = .97, AGFI = .96, RMSEA = .01, and $\chi^2/df = 1.09$. The results indicated that team environment had direct effects on psychological wellbeing ($\beta = .42$, $p = .05$), work behavior ($\beta = .91$, $p = .05$), and OCB ($\beta = .92$, $p = .05$). Furthermore, personal characteristics had direct effects on psychological wellbeing ($\beta = .66$, $p = .05$), work behavior ($\beta = .90$, $p = .05$), and OCB ($\beta = .92$, $p = .05$). These findings suggest that strengthening personal positive behavior could lead to positive work and team environment that could enhance an individual's psychological wellbeing.

The outbreak of the COVID-19 pandemic around the world has affected people's way of life. The virus not only harms people's health physically, but also mentally, for example, sadness of being apart separated beloved family, loneliness during quarantine, loss of freedom (Cao et al., 2020; Wang et al., 2020). The most affected area seems to be psychological problems that might lead to the drastic consequences such as increasing of distressfulness and suicidal behavior (Kawohl & Nordt, 2020; Weir, 2020). The failure and tardiness response of coping with COVID-19 might cause the serious harm to person's emotional health, this psychological contagion plays as the significant side effect of fear, anxiety, depression, inability to cope with the negative feeling caused by the emotional pains that threaten mental health during quarantine or isolation periods as well as a proactive social distancing, lock down, and curfew (Saladino et al., 2020). The research of Liang et al. (2020) stated that frontline medical staff are facing psychological symptoms during COVID-19 outbreak such as insomnia, sleep

quality, stress and depression from exhausting, massive workloads, fear of infection, and social separating. This causes frontline public health workers to be extremely vulnerable to suffering from physical exhaustion, fear, insomnia, paranoia, and emotional disturbance all of which are significantly related to burnout (Cabarkapa et al., 2020; Hu et al., 2020; Kang et al., 2020; Li et al., 2020). At the initial state of pandemics, 34.4% of medical staffs suffered from the mental health and 6.2% were at severe state (Cao et al., 2020).

The concept of psychological capital includes hope, optimism, resilience, and self-efficacy, and influences psychological outcomes and wellbeing. Personal characteristics and team environment influences the psychological wellbeing as well as leads to the work behavior and organizational citizenship behavior (OCB) (Haider et al., 2018; Yen & Niehoff, 2004). Based on the concept of human resource development, mental health development is viewed as a fundamental human capital development that leads to the visible improvement in employees'

performance. Research showed that psychological capital and wellbeing assist people to adapt and handle difficult situations creatively as well as able to transfer positive energy to others through displays of respect, trust and empathy. Moreover, team environment and personal characteristics separately influenced psychological capital and wellbeing (Haider et al., 2018; Kim et al., 2016; Wu & Chen, 2018). So, this study tries to test whether team environment or personal strength effect work behavior and OCB during pandemics to aid policy development concerning the psychological support of medical staff in order to enhance psychological wellbeing, psychological capital, and teamwork environment. So local public health administrators could promptly implement psychiatric intervention to assist frontline medical workers to work effectively. Thus, the objectives of this research are (1) to study how the factors of team environment and personal characteristics influence work behavior in developing countries, in case of Thailand; and (2) to compare how the factors of team environment, personal characteristics and psychological capital influence work behavior and OCB.

Literature Review

In this section, relevant literature and previous studies will be discussed. Additionally, psychological capital, work environment, team environment, personal characteristics, OCB, and work behavior of frontline public health workers in Thailand during the pandemic are also discussed.

Psychological Wellbeing

Psychological wellbeing was first mentioned in Bradburn's (1969) classic study that mentioned psychological wellbeing is a "distinguished between positive and negative effect and defined happiness as the balance of the two" (p. 719). Then the concept of psychological wellbeing was further developed in Ryff's (1989) six dimensions which are self-acceptance, positive relation with others, autonomy, environment mastery, purpose in life and personal growth. Dupuy (1997) developed self-perceived psychological health and wellbeing called psychological general wellbeing index (PGWBI). So this study attempts to utilize the concept of psychological wellbeing by integrating the significant dimensions of the wellness to measure the wheel of wellness and Seligman (2004) dimensions matching up with the collectivism contexts of psychological capital, team environment, personal

characteristics (e.g. religion, meaning), work environment (e.g. family, community, media, social connection), work behavior and OCB under the COVID-19 circumstances as a global crisis that influences the wellness. The research discovered that psychological wellbeing has a strong influence on employee performance, job satisfaction, emotional quotient, work-life balance, work engagement, psychological capital, OCB and work behavior (Haider et al., 2018; Osam et al., 2020; Sutton, 2020).

Psychological Capital

Luthans and Youssef (2007) constructed four elements of psychological capital that represented an individual state-like motivation. These elements are hope, optimism, resilience, and self-efficacy. Hope means a state of motivation and belief that motivates people to achieve a particular goal during a bad time or the crisis. Optimism is positive thinking that leads to positive behavior by an individual when facing a crisis and encourage the individual to view the crisis as a challenge to overcome. Optimism is derived from parental upbringings, negative events in life, cognitive and perceptive experiences. Resilience means the ability to be emotionally flexible to recover and to balance individual feelings when faced with adversity. Self-efficacy refers to the ability to handle tough situations with effort and confidence in order to achieve expected goals using self-mastery and indirect experiences, modeling, and social persuasion. People with a high self-efficacy tend to learn from mistakes, have emotional stability, and continuity of self-development, productivity, effective work behavior and attitude, performance, OCB, positive organization climate, satisfaction, innovation, balancing a quality of life, personal identity, prosocial actions as well as wellbeing. On the other hands it negatively correlated to undesired organizational cynicism, absenteeism, intentions to quit, turnover, and counterproductive behaviors (Avey et al., 2010; Okun, 2020; Santisi et al., 2020).

Work Environment

Work environment is the environment where the individual who works in the organization perceives emotional support from various sources that enhance psychological capital. The factors affected the people's psychological wellbeing both physical, mental and employee performance are fairness and justice, supervisor support, safety, rewards, job conditions and financial support

(Pawirosumarto et al., 2017). Research shows that the support from hospital administrators and authorities, hospital support system as well as reasonable occupational health policy, and a good human resource system improve medical staffs' psychological wellbeing (An et al., 2020). Also, perceived family support influences an individual's decision making, emotional security, and ability to heal from trauma. Therefore, a perceived social/community support system would encourage a sense of belonging, self-esteem, community and mental wellbeing (Haber, 2003; Korkmaz et al., 2020). In contrast lack of social and family support would evoke negative impacts such as anxiety, stress, insomnia, especially self-efficacy of medical staff during COVID-19 (Bao et al., 2020; Wańkiewicz et al., 2020).

Team Environment

Team environment means the working conditions affect employee work behavior and support an individual emotional challenge as well as bring about positive behaviors, desirable outcomes and greater performance, engagement, intrinsic values, strength, resilience during the organization crisis (Van Tuin et al., 2021). In addition, it produces psychological wellbeing, OCB, job satisfaction, organizational commitment especially affective commitment, encouraging divergence and innovation, maintaining vibrant internal communication, celebrating and exploiting diversity, sharing learning and improving, empowering. The leader would externally advocate the team via clarifying vision, setting targets and boundaries, including praising and acknowledging. Team environment is one of the more critical factors that affect psychological wellbeing and invoke individual psychological symptoms such as emotional turbulence, affective disorder, through the cognition, decision making (Briner, 2000).

Personal Characteristics

Individual characteristics consist of hard personality and spiritual belief. Hard personality refers to "a hardy individual who views various circumstances that they could be potentially stressful as well as interesting and meaningful (i.e., commitment), see oneself to be capable of changing events (i.e., control), and perceives changes as normal and as opportunity for growth (i.e., challenge)" (Zhang, 2011, p.109). Moreover, the research found that hard personality is positively

correlated with self-esteem, self-efficacy, optimism, adaptive characteristic, and resilience. On the other hand, it had a negative relationship with neuroticism, maladaptive person, anxiety, and depression (Alexander & Klein, 2001). Second, personal and spiritual belief is manifested through the practices, belief, religiosity and personal value that could be connected to a divine, transcendent, God, and reality. Personal and spiritual beliefs and religiosity involvement are related to mental health (Koenig & Larson, 2001). Furthermore, during the life crisis, spiritual belief and religion contribute to a person's optimism and wellbeing, especially as seen with HIV and cancer patients (Ferguson & Goodwin, 2010; Ho et al., 2010).

Organizational Citizenship Behavior

Organizational citizenship behavior (OCB) is defined as "supports the social and psychological environment in which task performance takes place" (p. 95). Podsakoff et al. (2000) described that OCB as an extra-role behavior but not an obligatory role requirement. However, the original dimension of OCB is divided into five dimensions: altruism, courtesy, conscientiousness, sportsmanship, and civic virtue. OCB is proven to have a positive relationship with wellbeing, employee performance, quality, creativity, efficiency, engagement, justice, and work passion (Mukherjee, 2020). This is consistent with Pranata et al. (2020) who found that there is a positive influence between OCB and employee performance. On the other hands it influences negatively to job stress.

Work Behavior

Work performance behavior during a crisis (national disasters, flooding, earthquake, as well as pandemics) might be different from a non-crisis. According to Bryson et al. (1997), work behavior consists of five dimensions: social skills, cooperativeness, habit, and personal presentation. In order to be suitable for Thai work context, Thailand's Ministry of Public Health identifies five work behaviors, and these are responsiveness (enthusiastic and willingness to work), assurance (courtesy, trustworthy, impressive, and being confident to work with knowledge, and ability), empathy (understanding patients), reliability (rightness, maintaining the promises with patients), and impersonal (non-discrimination) (Department of Health Service Support, 2020). In addition, research shows there is a positive effect between work

behavior and psychological wellbeing, OCB, organizational support, personality traits, job satisfaction and psychological capital (Haider et al., 2018; Mount et al., 2006).

Frontline Public Health Workers in Thailand

Thai's government is attempting to deal with COVID-19 through policy and regulation that people to remain in their resident declaring curfew as well as social distancing. While the state hospitals in Thailand are usually crowded even in normal circumstances, the COVID-19 pandemic caused has only added to this congestion, exasperating the situation. The government urgently demands to increase the field patient bed in order to cope with the situation. Frontline public health workers are deployed to face a terrible predicament work environment, some infected patients hid or lied about their timeline, this makes the public health workers work harder and puts them at risk of infection. Regarding unpleasant work environment, public health workers can also suffer from psychological distress, as well as having a high infection risk, excessive workload, long-night shift, isolation and discriminated, high casualty, moral dilemmas in deciding who qualifies for intensive care (Kang et al., 2020; Li et al., 2020). The Center for COVID-19 Situation Administration of Thailand (2022) reported that frontline public health workers were infected COVID-19 more than 4,270 cases (female 54%, male 46%), most of them are nurses and caregivers, between 20-29 years old. So far 7 have died (11/1/2022). This causes frontline public health workers are extremely vulnerable to suffering from physical exhaustion (e.g., headaches, throat pain and lethargy), fear, insomnia, paranoid, emotional disturbance, and sleep problem which significantly related to burnout and weaker psychological wellbeing (Cabarkapa et al., 2020; Hu et al., 2020; Kang et al., 2020; Li et al., 2020). During the initial state of the pandemic, 34.4% of medical staff in Thailand were found to be suffering and experiencing a mild state of psychological abnormality, while 6.2% were found to be suffering a severe state (Cao et al., 2020), these variables lead to the psychological challenge which impact to psychological wellbeing, therefore frontline public health workers need a proper psychological support, treatment and intervention. Both short- and long-term support in order to handle these psychological challenges. The objective of this study is to compare 2 SEM models to examine whether team

environment or personal characteristics influence work behavior and OCB of frontline public health workers.

Method

Research Design

This study applied a cross-sectional quantitative method. The samples were contacted directly by face-to-face questionnaire paper. The questionnaire was completed via pencil-type and received back on hand and used the structured questionnaires in an average of 10-15 minutes. In terms of online data collection, questionnaires were distributed to sample via Google Form, and waited approximately one week to receive. However, the questionnaire used a simple and easy to understand language, avoided jargon or technical words. All samples also reported no ambiguity during the completion of the questionnaire.

Population and Sample

A survey was used to collect data from the 816 randomly selected samples of frontline public health workers, healthcare and medical workers who work at the hospital, field hospital, quarantine areas, including doctors, nurses, dentists, pharmacists, physician, clinical laboratory staffs, emergency attendants, medical technicians, respiratory therapist, physiotherapists, and village health volunteers from 10 purposive hospitals, field hospitals, and quarantine areas all over Thailand were examined both offline ($n = 367$, 44.97%) and online questionnaires ($n = 449$, 55.03%) during October 2020 to April 2021. The sample size was determined by using Kline's (2005) multivariate analysis technique to estimate sample size. The samples were informed that participation in this survey was voluntary, including the study was informed and consented in accordance with the Declaration of Helsinki, The Belmont Report, CIOMS Guideline, and International Conference on Harmonization in Good Clinical Practice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 2022). The protocol was approved by the Institution Ethical Broad of the Pibulsongkram Rajabhat University Ethics Committee (PSRU-EC:2020/003, COA NO:003/2020).

Measures

The questionnaires were developed from standardized scales.

Psychological wellbeing of front-line public

health workers with 6-point Likert scales for 31 items was developed using Myers et al. (2000), Ryff (1989), Witmer and Sweeney (1992), with eight dimensions which are posttraumatic growth, intention to stay, self-acceptance, positive relations with others, autonomy, environment mastery, purpose in life and personal growth. An example of an item was *"I feel passionate to the challenging job"* The result after the pretesting process indicated internal consistency of .92.

Psychological capital was assessed by using Luthans and Youssef (2007) with four dimensions which are hope, optimism, resilience, and self-efficacy. The 6-point Likert scales included 24 items. An example of an item was *"At work, I always find that every problem has a solution"* The scales comprised both positive and negative items. The scales possessed an internal consistency of .91.

Work environment was developed by integration of Arin (2012), Pfefferbaum et al. (2015), and Procidano and Heller (1983). The 6-point Likert scales included 22 items. An example of an item was *"I have an opportunity to express my opinion about working"*. The Work environment consisted of four dimensions which are organization support, family support, and community support and perceived COVID-19's news. The internal consistencies alpha after the pretesting value was .76.

Team environment was measured by two sub-dimensions, first, transformational leadership of Bass and Avolio (1993) consisted of idealized influence, inspirational motivation, intellectual stimulation, and individual consideration. Second, the teamwork by using Dyaram and Kamalanabhan (2005) and Mudrack (1989) consisted of a sense of team belonging and team morale and encouragement. The 6-point Likert scales questionnaire included 32 items. An example of an item was *"During the emergencies, my leader could control his/her emotion and situation"* The scales have shown the value of internal consistencies of .91.

Personal characteristics measurement was adapted by applying the concept of Hahn (1966), Holt et al. (2003), and Stroebe and Stroebe (1995). Composed of two dimensions which are hard personality (control, commitment, and challenge), and spiritual belief (spiritual, religious belief and belief practices). The 6-point Likert scales questionnaire included 19 items. An example of item was *"I believe that my job performance derived from my ability"*. The scales value has shown .92.

Organizational citizenship behavior scale was

measured by using Organ (1988) comprised of altruism, courtesy, sportsmanship, conscientiousness, and civic virtue. The 6-point Likert scales questionnaire included 23 items. A sample of item was *"I spend time to advice, coach, or mentor co-workers"*. The scale after the tryout showed .92.

Work Behavior was using Thailand Ministry of Public Health in five work behavior of the public health workers which are responsiveness, assurance, empathy, reliability and impersonal (non-discrimination) (Department of Health Service Support, 2020). 6-point Likert scales questionnaire was developed for 22 items. A sample of item was *"I equally service to all patients"*. The scale after the tryout the value showed .92.

Content validity was conducted by three specialists in nursing, psychologists, and human resource management program to find the Index of Congruence (IOC), and the value came up at .6. Internal Consistency Reliability test for 30 non-sample tryouts value was .93 throughout the questionnaire.

Results

The result was analyzed by descriptive statistics, confirmatory factor analysis and structural equation modeling (SEM).

Demographic Results

The demographic description of study participation is shown in Table 1. Among the sample of 816, most were females ($n = 427$, 52.33%), a majority were Buddhist ($n = 758$, 92.98%), most of them worked in groups of 5 members ($n = 389$, 22.67%), were aged between 41-50 years old ($n = 274$, 33.58%). In term of work experience, most of them had 1-10 years of work experience ($n = 485$, 59.44%).

Correlation among Variables

Bivariate correlation analysis explains the relationship of variables in Table 2 that psychological capital is significantly positively correlated identified work environment ($r = .71^{**}$, $p = .01$), team environment ($r = .70^{**}$, $p = .01$), psychological wellbeing and psychological capital ($r = .70^{**}$, $p = .01$) respectively.

The results of construct validity of a single level confirmatory factor analysis model of variables after adjusted modification is shown in Table 3. It shows the measured model fits with the empirical data.

Table 1*Descriptive Statistics of the Participants (n = 816)*

Demographic information	Frequency	Percentage
Gender		
- Male	254	31.13
- Female	427	52.33
- Others	135	16.54
Religion		
- Buddhist	758	92.89
- Christian	30	3.68
- Muslims	10	1.23
- Non-religious	14	1.72
- Others	4	0.49
Group members/group		
- 3 members	116	14.22
- 4 members	126	15.44
- 5 members	185	22.67
- More than 5 members	389	47.67
Age		
- Less than 20 years old	70	8.58
- 21-30 years old	78	9.56
- 31-40 years old	167	20.47
- 41-50 years old	274	33.58
- 51-60 years old	132	16.18
- More than 60 years old	95	11.64
Work experiences		
- Less than a year	63	7.72
- 1-10 years	485	59.44
- 11-20 years	193	23.65
- 21-30 years	56	6.86
- More than 30 years	29	2.33

Table 2*Means, Standard Deviations, and Correlation for Study Variables*

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Psychological wellbeing	4.28	.40	1	.70**	.69**	.67**	.65**	.66**	.60**
2. Psychological capital	4.29	.48	.70**	1	.70**	.71**	.67**	.67**	.63**
3. Work environment	4.28	.51	.69**	.70**	1	.70**	.63**	.67**	.61**
4. Team environment	4.28	.48	.67**	.71**	.70**	1	.64**	.67**	.64**
5. Personal characteristics	4.29	.51	.65**	.67**	.63**	.64**	1	.63**	.58**
6. OCB	4.27	.50	.66**	.67**	.67**	.67**	.63**	1	.62**
7. Work behavior	4.31	.47	.60**	.63**	.61**	.64**	.58**	.62**	1

Note. ** Correlation is significant at the .01 level (2-tailed)

Structural Equation Model Analysis

The results of SEM analysis of the hypothesized team environment, work environment, psychological capital, psychological wellbeing, work behavior and OCB. The construct validity of the model based on Maximum Likelihood after adjusting the model and adjusted the parameter by using the correlation error method, the data reveals chi-square = 293.00, *df* = 273, *p* = .19, CFI = 1.00, NNFI = 1.00, GFI = .97, AGFI = .96, RMSEA = .00 and a sum of squares divided by degrees of freedom = 1.07, thus the model had an acceptable fit (Hair et al., 2006). Factors loading range of psychological

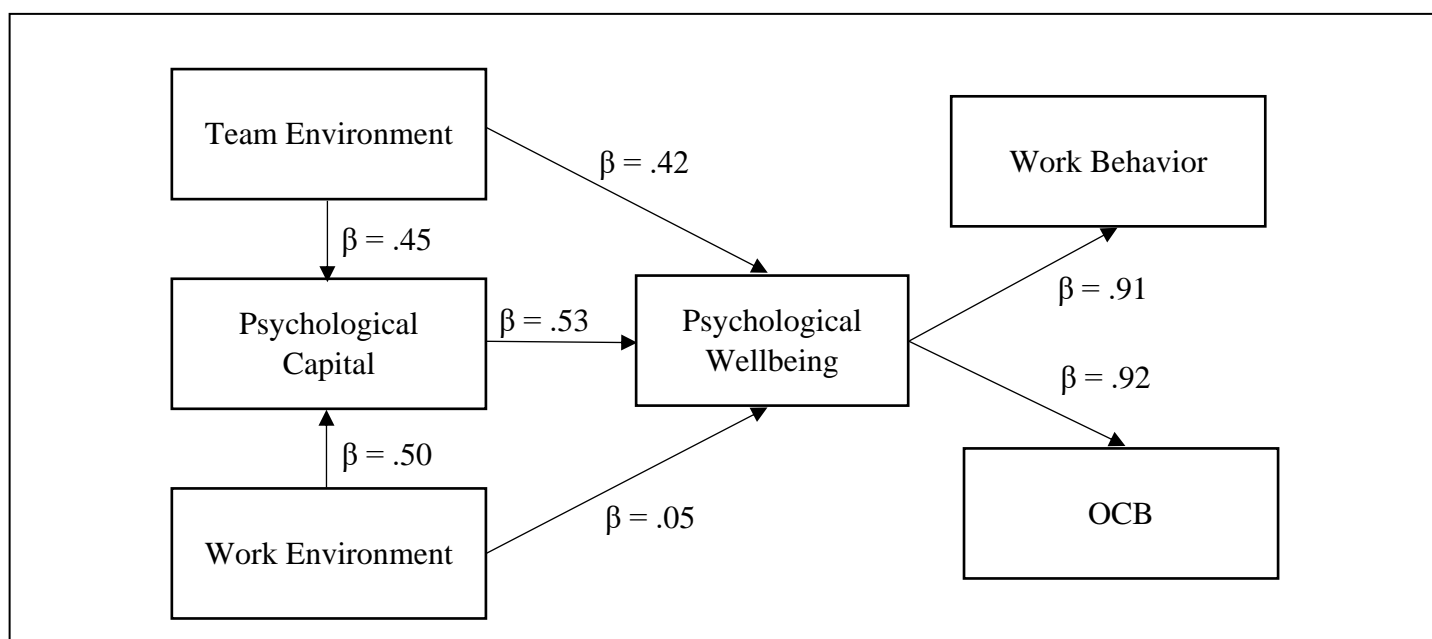
wellbeing = .42 to .63, psychological capital = .70 to .74, team environment = .76 to .89, work environment = .43 to .78, OCB = .61 to .73, and work behavior = .65 to .71 while all variables have R-squared values range between .18 to .80, AVE range .50 to .69, CR range .75 to .82. Psychological capital was directly affected by team environment and work environment respectively at a significant level at .01, while psychological wellbeing was directly affected by psychological capital and team environment significantly but insignificantly affected by work environment as shown in Figure 1 and Table 4.

Table 3
Measured Model Fit

Measurement Model Fit	PsyWell ¹	PsyCap ²	WorkEn ³	TeamEn ⁴	PerCha ⁵	OCB ⁶	WorkBeh ⁷
Chi-square (χ^2)	11.35	1.83	3.11	.13	.24	4.42	5.85
Degree of freedom	15	1	2	1	1	4	4
Probability level	.72	.17	.21	.72	.62	.35	.21
χ^2 / df	.75	1.83	1.55	.13	.24	1.10	1.46
CFI	1.00	1.00	1.00	1.00	1.00	1.00	1.00
NNFI	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GFI	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AGFI	.99	.99	.99	1.00	1.00	.99	.99
RMSEA	.00	.03	.02	.00	.00	.01	.02

Note. ¹Psychological wellbeing, ²Psychological capital, ³Work environment, ⁴Team environment, ⁵Personal characteristics, ⁶OCB, ⁷Work behavior

Figure 1
SEM of Team Environment, Work Environment, Psychological Capital, Psychological Wellbeing, Work Behavior and OCB



The result of SEM Model 2 consisted of the personal characteristics, work environment, psychological capital, psychological wellbeing, work behavior and OCB; the final model is shown in Table 5 and Figure 2. The construct validity of the model by Maximum Likelihood after adjusted the model following the Model Modification Indices and adjusted the parameter by using the correlation error method, the result came up with the goodness of fit statistics is chi-square = 297.83, $df = 274$, $p = .15$, CFI = 1.00, NNFI = 1.00, GFI = .97, AGFI = .96, RMSEA = 0.010, and a sum of squares divided by degrees of freedom = 1.09, as the result the model fit with the empirical data by factor loading of psychological capital range among .72 to .77, psychological wellbeing .43 - .62, personal characteristics .73 - .76, work environment .42 - .78, OCB .61 - .72, and work behavior .66 - .71 while all variables has R-squared values range between .18 - .61, AVE range .51 - .57, CR range .72 to .84. The model had an acceptable

fit (Hair et al., 2006).

From the SEM analysis it was found that the personal characteristics influenced the psychological capital ($\beta = .72$, $p = .05$), followed by the work environment ($\beta = .25$, $p = .05$) with statistical significance. Psychological wellbeing is significantly directly influenced by personal characteristics ($\beta = .66$, $p = .05$ and psychological capital ($\beta = .34$, $p = .05$). On the other hand, insignificantly directly affected by work environment ($\beta = .05$, $p = .05$). Consequently, psychological wellbeing has influenced work behavior ($\beta = .90$, $p = .05$) and OCB ($\beta = .92$, $p = .05$) respectively at statistical significance. Moreover, indirect effect analysis exposed that psychological wellbeing has been insignificantly indirectly affected by personal characteristics ($\beta = .01$, $p = .05$) and work environment ($\beta = .00$, $p = .05$). However, psychological wellbeing mediates personal characteristics ($\beta = .01$, $p = .05$) as shown in Figure 1 and Table 5.

Table 4
The Path Coefficients of Model 1

Endogenous Variables	R^2	Exogenous Variables											
		TeamEnvi			WorkEnv			PsyCap			PsyWell		
		DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE
PsyCap	.86	.45**	-	.45**	.50**	-	.50**	-	-	-	-	-	-
PsyWell	.96	.42**	.24**	.68**	.05	.26**	.31**	.53**	-	.53**	-	-	-
WorkBeha	.82	-	.60**	.60**	-	.28**	.28**	-	.48**	.48**	.91**	-	.91**
OCB	.84	-	.61**	.61**	-	.29**	.29**	-	.49**	.49**	.92**	-	.92**

Note. ** $p = .01$, R^2 = Correlation Coefficient, DE = Direct Effect, IE = Indirect Effect, TE = Total Effect, TeamEnvi = Team Environment, WorkEnv = Work Environment, PsyCap = Psychological Capital, PsyWell = Psychological Wellbeing

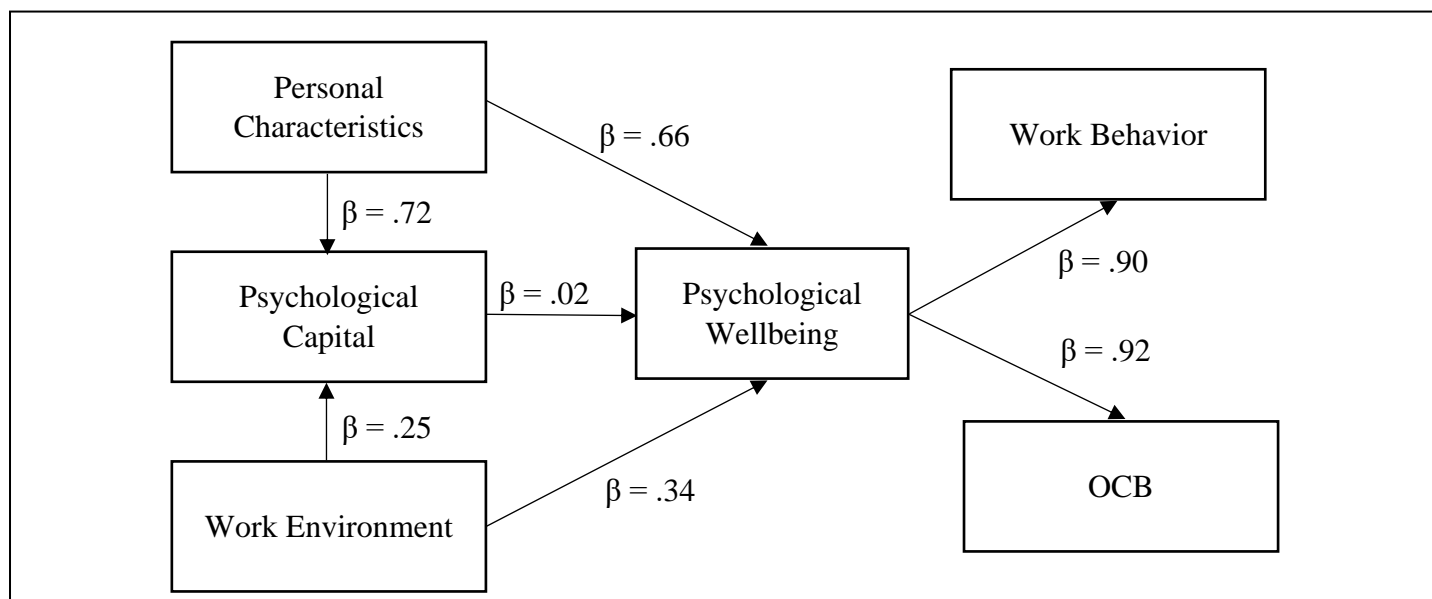
Table 5
The Path Coefficients of Model 2

Endogenous Variables	R^2	Exogenous Variables											
		PerChar			WorkEnv			PsyCap			PsyWell		
		DE	IE	TE	DE	IE	TE	DE	IE	TE	DE	IE	TE
PsyCap	.89	.72**	-	.72**	.25**	-	.25**	-	-	-	-	-	-
PsyWell	.96	.66**	.01	.67**	.34**	.00	.34**	.02	-	.02	-	-	-
WorkBeha	.82	-	.60**	.60**	-	.31**	.31**	-	.01	.01	.90**	-	.90**
OCB	.85	-	.62**	.61**	-	.32**	.32**	-	.02	.02	.92**	-	.92**

Note. ** $p = .01$, R^2 = Correlation Coefficient, DE = Direct Effect, IE = Indirect Effect, TE = Total Effect, PerChar = Personal Characteristics, WorkEnv = Work Environment, PsyCap = Psychological Capital, PsyWell = Psychological Wellbeing

Figure 2

SEM of Personal Characteristics, Work Environment, Psychological Capital, Psychological Wellbeing, Work Behavior and OCB



Discussion

The results from this research showed that team and work environment influenced work behavior, psychological wellbeing during the COVID-19 pandemic. The support for this relationship has been found in the study of Mukhtar (2020) who reported that the support from family, leaders, and team members with love, care and empathy plays a significant role as mental support to work effectively and has organizational citizenship during crises in order to cope and handle stressful situations. Moreover, the results report that hardiness personality, spirituality and religiosity also positively influence the psychological wellbeing and psychological capital which contribute to work behavior and OCB. These findings highlighted that hardiness personality and psychological wellbeing public health staffs will interpret the crisis in a positive way, optimists, and belief in self-efficacy to cope with the problems confidently, which contribute to a lower level of stress, anxiety, and depression (Villani et al., 2019; Weiss, 2002; Zhang, 2011).

The result of SEM model 1 revealed that psychological wellbeing was influenced by team environment, psychological capital, and work environment significantly. These results indicated that the team environment encompasses individual psychological wellbeing to work behavior and OCB during the pandemics. These findings corroborate similar study by Arin (2012) that reported that team environment of group cohesiveness, and leader

influences contribute a psychological growth and outcome in order to mindfully dealing with adverse situations.

In addition, in the SEM model 2, psychological wellbeing was influenced by personal characteristics, psychological capital, and work environment insignificantly. These findings could explain that hard personality might not rely on team environment as much as a non-hard personality. They tend to have an ability to recover from an adverse situation or crisis and experience posttraumatic growth and psychological wellbeing for work effectively. While people with non-hard personality with non-specific values or beliefs, the team environment would be needed and endorsed to motivate and fulfill psychological wellbeing in order to work effectively. A similar study by Zaman et al (2021) found that the COVID-19 induced psychological distress and negatively correlated to psychological wellbeing, thus cognitive reappraisal, self-regulation, hard personality are the vital strategy for dealing with psychological distress during pandemics.

As Thailand emphasizes collectivism (Hofstede & Minkov, 2010), the relationship and interconnection between a person's identity and teamwork are critical. According to the findings, team environment positively affects individual psychological wellbeing and enhances psychological

capital among frontline public health workers. Loyalty to the team, team-based decisions, including sharing team goals, and cohesive devices of colleagues and supervisors are privileged to collectivists (Kawamura & Rice, 2008). Working as a team, individuals would feel a mental secureness when facing difficult situations at work, moreover, encouragement from supervisors and trusted co-workers could enhance positive work behavior and OCB. This finding is also in line with the previous studies that a supportive team environment has become essential for the organization because highly compassionate teamwork and leadership can increase individual psychological capital and wellbeing which leads to work behavior and the increased likelihood of organizational citizenship behavior (Arin, 2012; Briner, 2000; Juan, 2020; Mukherjee, 2020). Therefore, psycho-social support such as encouragement and team motivation are required to maintain the sanity when people confronted with hopelessness, demotivation, exhaustion and being apart from loved ones while working in the field hospitals.

Limitation and Future Research

Similar to every research, this study also has limitations; first, this research used a single cross-sectional self-report survey to measure, so it might be a self-report bias problem, so a time-series survey is recommended to further investigations. Moreover, future research might be conducted in other dimensions such as age, race, specific beliefs and occupations. Besides, qualitative methods should also be included in further investigations. These would potentially bring about more understanding of the concept of psychological wellbeing and OCB.

Conclusion

This study showed the comparison effect of team environment and personal characteristics that influence psychological capital, psychological wellbeing, work environment, work behavior and OCB of frontline public health workers during COVID-19 pandemics. The current study highlights the team environment and personal characteristics significant affect the individual psychological wellbeing which leads to the work behavior and OCB during the COVID-19 pandemics. The results have revealed that teamwork with hard personal characteristics contributes to psychological wellbeing through psychological capital. The Ministry of Public Health, in Thailand, the

government and related sectors can be utilized as a guideline for public health staff throughout Thailand to initiate the strategic plan in order to support psychological wellbeing. For instance, psychological social intervention, self-coping strategies, and proper psychiatric interventions and open discussion focused on strengthening a staff's ability to work as a team and promoting psychological capital to cultivate psychological wellbeing not only during pandemics crisis but also other crises.

References

- Alexander, D. A., & Klein, S. (2001). Ambulance personnel and critical incidents: Impact of accident and emergency work on mental health and emotional wellbeing. *The British Journal of Psychiatry*, 178(1), 76-81. <https://doi.org/10.1192/bjp.178.1.76>
- An, Y., Yang, Y., Wang, A., Li, Y., Zhang, Q., Cheung, T., Ungvari, G. S., Qin, M., An, F., & Xiang, Y. T. (2020). Prevalence of depression and its impact on quality of life among frontline nurses in emergency departments during the COVID-19 outbreak. *Journal of Affective Disorders*, 276, 312-315. <https://doi.org/10.1016/j.jad.2020.06.047>
- Arin, N. (2012). *The study of antecedents and consequences of psychological capital affecting psychological outcomes and work performance under adverse situations of public health officers in Southern border provinces* [Doctoral dissertation]. Srinakharinwirot University.
- Avey, J. B., Luthans, F., & Youssef, C. M. (2010). The additive value of positive psychological capital in predicting work attitudes and behaviors. *Journal of Management*, 36(2), 430-452. <https://doi.org/10.1177/0149206308329961>
- Bass, B. M., & Avolio, B. J. (1993). Transformational leadership and organizational culture. *Public Administration Quarterly*, 17, 112-121. <http://www.jstor.org/stable/40862298>
- Bao, Y., Sun, Y., Meng, S., Shi, J., & Lu, L. (2020). 2019-nCoV epidemic: Address mental health care to empower society. *The Lancet*, 395(10224), e37-e38. [https://doi.org/10.1016/S0140-6736\(20\)30309-3](https://doi.org/10.1016/S0140-6736(20)30309-3)
- Bradburn, N. M. (1969). *The Structure of Psychological Wellbeing*. Aldine.

- Briner, R. B. (2000). Relationships between work environments, psychological environments and psychological wellbeing. *Occupational Medicine*, 50(5), 299-303. <https://doi.org/10.1093/occmed/50.5.299>
- Bryson, G., Bell, M. D., Lysaker, P., & Zito, W. (1997). The work behavior inventory: A scale for the assessment of work behavior for people with severe mental illness. *Psychiatric Rehabilitation Journal*, 20(4), 47-55.
- Cabarkapa, S., Nadjidai, S. E., Murgier, J., & Ng, C. H. (2020). The psychological impact of COVID-19 and other viral epidemics on frontline healthcare workers and ways to address it: A rapid systematic review. *Brain, Behavior, & Immunity Health*, 8, 100144. <https://doi.org/10.1016/j.bbih.2020.100144>
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 287, 112934. <https://doi.org/10.1016/j.psychres.2020.112934>
- Department of Health Service Support. (2020). *Health Service System Standard*. <https://bkpho.moph.go.th/bungkanpho/uploads/media/>
- Dupuy, H. J. (1997). *The General wellbeing schedules*. In Mcdowell, & Clair Newell (Eds.). *A Health: A Guide to Rating Scales and Questionnaires*. Oxford University.
- Dyaram, L., & Kamalanabhan, T. J. (2005). Unearthed: The other side of group cohesiveness. *Journal of Social Sciences*, 10(3), 185-190. <https://doi.org/10.1080/09718923.2005.11892479>
- Ferguson, S. J., & Goodwin, A. D. (2010). Optimism and wellbeing in older adults: The mediating role of social support and perceived control. *The International Journal of Aging and Human Development*, 71(1), 43-68. <https://doi.org/10.2190/AG.71.1.c>
- Haber, D. (2003). *Health Promotion and Aging* (3rd ed.). Springer.
- Haider, S., Jabeen, S., & Ahmad, J. (2018). Moderated mediation between work life balance and employee job performance: The role of psychological wellbeing and satisfaction with coworkers. *Journal of Work and Organizational Psychology*, 34(1), 29-37. <https://doi.org/10.5093/jwop2018a4>
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate Data Analysis* (Vol. 6). Pearson Prentice Hall.
- Hahn, M. E. (1966). *California Life Goals Evaluation Schedule*. Western Psychological Service.
- Ho, M. Y., Cheung, F. M., & Cheung, S. F. (2010). The role of meaning in life and optimism in promoting wellbeing. *Personality and Individual Differences*, 48(5), 658-663. <https://doi.org/10.1016/j.paid.2010.01.008>
- Hofstede, G., & Minkov, M. (2010). Long-versus short-term orientation: New perspectives. *Asia Pacific Business Review*, 16(4), 493-504. <https://doi.org/10.1080/13602381003637609>
- Holt, C. L., Clark, E. M., Kreuter, M. W., & Rubio, D. M. (2003). Spiritual health locus of control and breast cancer beliefs among urban African American women. *Health Psychology*, 22(3), 294-299. <https://doi.org/10.1037/0278-6133.22.3.294>
- Hu, D., Kong, Y., Li, W., Han, Q., Zhang, X., Zhu, L. X., Zhu, X., Wan, S. W., Liu, Z., Shen, Q., Yang, J., He, H. G., & Zhu, J. (2020). Frontline nurses' burnout, anxiety, depression, and fear statuses and their associated factors during the COVID-19 outbreak in Wuhan, China: A large-scale cross-sectional study. *Clinical Medicine*, 24, 100424. <https://doi.org/10.1016/j.eclinm.2020.100424>
- Juan, Y., Yuanyuan, C., Qiuxiang, Y., Cong, L., Xiaofeng, L., Yundong, Z., Jing, C., Peifeng, Q., Yan, L., Xiaojiao, X., & Yujie, L. (2020). Psychological distress surveillance and related impact analysis of hospital staff during the COVID-19 epidemic in Chongqing, China. *Comprehensive Psychiatry*, 103, 152198. <https://doi.org/10.1016/j.comppsy.2020.152198>
- Kang, L., Li, Y., Hu, S., Chen, M., Yang, C., Yang, B. X., Wang, Y., Hu, J., Lai, J., Ma, X., Chen, J., Guan, L., Wang, G., Ma, H., & Liu, Z. (2020). The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. *The Lancet Psychiatry*, 7(3), e14. [https://doi.org/10.1016/S2215-0366\(20\)30047-X](https://doi.org/10.1016/S2215-0366(20)30047-X)
- Kawamura, K., & Rice, T. (2008). Body image among Asian Americans. In *Asian American Psychology* (pp. 587-608). Psychology.

- Kawohl, W., & Nordt, C. (2020). COVID-19, unemployment, and suicide. *Lancet Psych*, 7, 389–390. [https://doi.org/10.1016/s2215-0366\(20\)30141-3](https://doi.org/10.1016/s2215-0366(20)30141-3)
- Kim, T. Y., Lee, D. R., & Wong, N. Y. S. (2016). Supervisor humor and employee outcomes: The role of social distance and affective trust in supervisor. *Journal of Business and Psychology*, 31, 125–139. <https://doi.org/10.1007/s10869-015-9406-9>
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). Guilford Press.
- Koenig, H. G., & Larson, D. B. (2001). Religion and mental health: Evidence for an association. *International Review of Psychiatry*, 13(2), 67–78. <https://doi.org/10.1080/09540260124661>
- Korkmaz, S., Kazgan, A., Çekiç, S., Tartar, A. S., Balcı, H. N., & Atmaca, M. (2020). The anxiety levels, quality of sleep and life and problem-solving skills in healthcare workers employed in COVID-19 services. *Journal of Clinical Neuroscience*, 80, 131-136. <https://doi.org/10.1016/j.jocn.2020.07.073>
- Li, W., Yang, Y., Liu, Z. H., Zhao, Y. J., Zhang, Q., Zhang, L., Cheung, T., & Xiang, Y. T. (2020). Progression of mental health services during the COVID-19 outbreak in China. *International Journal of Biological Sciences*, 16(10). <https://doi.org/10.7150/ijbs.45120>
- Liang, Y., Wu, K., Zhou, Y., Huang, X., Zhou, Y., & Liu, Z. (2020). Mental health in frontline medical workers during the 2019 novel coronavirus disease epidemic in China: A comparison with the general population. *International Journal of Environmental Research and Public Health*, 17(18), 6550.
- Luthans, F., & Youssef, C. M. (2007). Emerging Positive Organizational Behavior. *Journal of Management*, 33(3), 321–349. <https://doi.org/10.1177/0149206307305562>
- Mount, M., Ilies, R., & Johnson, E. (2006). Relationship of personality traits and counterproductive work behaviors: The mediating effects of job satisfaction. *Personnel Psychology*, 59(3), 591-622. <https://doi.org/10.1111/j.1744-6570.2006.00048.x>
- Mudrack, P. E. (1989). Group cohesiveness and productivity: A closer look. *Human Relations*, 42(9), 771-785. <https://doi.org/10.1177/001872678904200902>
- Mukherjee, I. (2020). *The Influence of Employee Wellbeing on Citizenship Behaviour Towards Individuals and the Organization* (Master's Thesis). University of Wollongong.
- Mukhtar, S. (2020). Psychological health during the coronavirus disease 2019 pandemics outbreak. *International Journal of Social Psychiatry*, 66, 512-516. <https://doi.org/10.1177/0020764020925835>.
- Myers, J. E., Sweeney, T. J., & Witmer, M. (2000). The Wheel of Wellness Counseling for Wellness: A holistic model for treatment planning. *Journal of Counseling & Development*, 78(3), 251-266. <https://doi.org/10.1002/j.1556-6676.2000.tb01906.x>
- National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (2022). *The Belmont report: Ethical Principles and guidelines for the protection of human subjects of research*. <https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html>
- Okun, O. (2020). *The positive face of human capital, psychological capital, and wellbeing*. In Maintaining social wellbeing and meaningful work in a highly automated job market (pp. 145-170). IGI Global.
- Organ, D. W. (1988). *Organizational Citizenship Behavior: The Good Soldier Syndrome*. Lexington Books/DC Heath and Com.
- Osam, K., Shuck, B., & Immekus, J. (2020). Happiness and healthiness: A replication study. *Human Resource Development Quarterly*, 31(1), 75–89. <http://doi.org/10.1002/hrdq.21373>
- Pawirosumarto, S., Sarjana, P. K., & Gunawan, R. (2017). The effect of work environment, leadership style, and organizational culture towards job satisfaction and its implication towards employee performance in Parador Hotels and Resorts. *Indonesia International Journal of Law and Management*, 59(6), 1337-1358. <https://doi.org/10.1108/IJLMA-10-2016-0085>
- Pfefferbaum, R. L., Pfefferbaum, B., Nitiéma, P., Houston, J. B., & Van Horn, R. L. (2015). Assessing community resilience: An application of the expanded CART survey

- instrument with affiliated volunteer responders. *American Behavioral Scientist*, 59, 181–199.
<https://doi.org/10.1177/0002764214550295>
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26(3), 513-563.
[https://doi.org/10.1016/S0149-2063\(00\)00047-7](https://doi.org/10.1016/S0149-2063(00)00047-7)
- Pranata, S. P. K. A., Yasa, P. N. S., & Sitiari, N. W. (2020). The effect of OCB towards work stress and performance of employees in Income Agency Regional City of Denpasar. *Jurnal Ekonomi dan Bisnis Jagaditha*, 7(1), 65-72.
<https://doi.org/10.22225/jj.7.1.1654.65-72>
- Procidano, M. E., & Heller, K. (1983). Measures of perceived social support from friends and from family: Three validation studies. *American Journal of Community Psychology*, 11(1), 1-24.
- Ryff, C. D. (1989). In the eyes of the beholder: Views of psychological wellbeing among middle and old age adults. *Psychology and Aging*, 4, 195-210.
- Saladino, V., Algeri, D., & Auriemma, V. (2020). The psychological and social impact of COVID-19: New perspectives of wellbeing. *Frontiers in Psychology*, 11, 577684
<https://doi.org/10.3389/fpsyg.2020.577684>
- Santisi, G., Lodi, E., Magnano, P., Zarbo, R., & Zammitti, A. (2020). Relationship between psychological capital and quality of life: The role of courage. *Sustainability*, 12(13), 5238.
<https://doi.org/10.3390/su12135238>
- Seligman, M. E. (2004). *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. Simon and Schuster.
- Sutton, A. (2020). Living the good life: A meta-analysis of authenticity, well-being and engagement. *Personality and Individual Differences*, 153, 109645.
<https://doi.org/10.1016/j.paid.2019.109645>
- Stroebe, W., & Stroebe, M. S. (1995). *Mapping Social Psychology Series: Social Psychology and Health*. Thomson Brooks/Cole.
- The Center for COVID-19 Situation Administration of Thailand. (2022). *More than 4,000 doctors have tested positive for coronavirus*.
<https://www.thairath.co.th/news/politic/2249700>
- van Tuin, L., Schaufeli, W. B., & van den Broeck, A. (2021). Engaging leadership: Enhancing work engagement through intrinsic values and need satisfaction. *Human Resource Development Quarterly*, 32(4), 1-23.
<https://doi.org/10.1002/hrdq.21430>
- Villani, D., Sorgente, A., Iannello, P., & Antonietti, A. (2019). The role of spirituality and religiosity in subjective well-being of individuals with different religious status. *Frontiers in Psychology*, 10, 1525.
<https://doi.org/10.3389/fpsyg.2019.01525>
- Wang, C., Pan, R., Wan, X., Tan, Y., Ku, L., Ho, C.S., & Ho, R.C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal Environment Reservation Public Health*, 17(5), 1729-1739.
- Wańkiewicz, P., Szylińska, A., & Rotter, I. (2020). Assessment of mental health factors among health professionals depending on their contact with COVID-19 patients. *International Journal of Environmental Research and Public Health*, 17(16), 5849. MDPI AG. <http://dx.doi.org/10.3390/ijerph17165849>
- Weir, K. (2020). *Grief and COVID-19: Mourning our Bygone Lives*. American Psychological Association.
- Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human Resource Management Review*, 12(2), 173-194.
- Witmer, J. M., & Sweeney, T. J. (1992). A holistic model for wellness and prevention over the lifespan. *Journal of Counseling & Development*, 71, 140-148.
<https://doi.org/10.1002/j.1556-6676.1992.tb02189.x>
- Wu, C. M., & Chen, T. J. (2018). Collective psychological capital: Linking shared leadership, organizational commitment, and creativity. *International Journal of Hospitality Management*, 74, 75-84.
<https://doi.org/10.1016/j.ijhm.2018.02.003>
- Yen, H. R., & Niehoff, B. P. (2004). Organizational citizenship behaviors and organizational effectiveness: Examining relationships in Taiwanese Banks. *Journal of Applied Social*

- Psychology*, 34, 1617-1637.
<https://doi.org/10.1111/j.1559-1816.2004.tb02790.x>
- Zaman, S., Abid, F., & Bilal, Y. (2021). Emotion regulation strategies, COVID-19 induced distress, and psychological wellbeing in Pakistan. *The Journal of Behavioral Science*, 16(3), 27-41. <https://so06.tci-thaijo.org/index.php/IJBS/article/view/251637>
- Zhang, L. F. (2011). Hardiness and the Big Five personality traits among Chinese university students. *Learning and Individual Differences*, 21(1), 109-113. <https://doi.org/10.1016/j.lindif.2010.05.006>