



Work Engagement in Nurses during The Covid-19 Pandemic: A Literature Review

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ABSTRACT

In this research we aim to determine the factors that influence the nurse's work engagement to be a foundation of knowledge to guide best practice to COVID-19 pandemic healthcare. This review started with identification the main topic in work engagement. The database used in, was Google Scholar and Mendeley were limited to publish from 2019-2021. The review used 3 articles that fit the inclusion criteria. This review found that front-line perceived low stress and work load, but high work engagement. The difference in work engagement of nurses working on the frontlines of the COVID-19 situation depend on their social characteristics and support. In addition, organizational identity could directly affect nursing. It can also indirectly impact nurses' work engagement through the psychological resilience.

Keywords: Nurse, work engagement, Covid-19, Pandemic.

I. BACKGROUND

In December 2019, reports emerged about pneumonia clusters, of unknown cause, in Wuhan, China. After extensive epidemiologic investigation, it was identified a novel coronavirus (COVID-19) that can infect human with mild to more severe infections. As of March, 2020 case of COVID-19 infection has been reported in countries around the world, and thus the WHO declared the pandemic alarm. Until the time of the submission of this paper, the data of WHO showed about 181 million confirmed cases, including about 3.9 million deaths, while a total of 2.6 billion vaccine dosed have been administered. COVID-19 may exist for the long term and without an effective medication, and these unfavorable conditions may be a new challenge for healthcare workers.

Since the COVID-19 pandemic, the role of nurses goes beyond the care for the patients. Nurses play a very crucial role in preparing the healthcare services for managing and mitigation infectious diseases, as COVID-19, which are considered to be a top three cause of death worldwide (WHO, 2020). Nurses have an important role in the COVID-19 treatment management process, because they have direct contact with patients, collect clinical trial data, protect patient safety, and monitor patient functions. Nurses face a high risk of infection when treating patients with infections that cause fear and stress. With high work intensity, high risk of exposure to infection, limited information about COVID-19 and a complex work environment, it will affect the engagement of nurses in their work.

Work engagement refers to a positive, affective-motivational state of high energy combined with high levels of dedication and a strong focus on work (Schaufeli and Bakker, 2010). The nurse's engagement is used to describe how the nurses are fulfilled and committed to their particular position. This concept related to patient experience, efficacy and health. Nurse's work engagement is critically

important to consider when addressing any challenges of health system, including pressure reduction during COVID-19 health care, increasing demand for quality care, the nursing shortage and positive outcomes for patients. However, research on work engagement in professional nursing practice including determining the factors that influence the nurse's work engagement can be a foundation of knowledge to guide best practice to COVID-19 healthcare. This literature review is expected to provide insight into the work involving nurses in order to respond quickly to the pandemic situation.

II. LITERATURE REVIEW

Work Engagement

Work engagement has been concerned with individual relationships with work. Work engagement is seen as a positive, fulfilling, work-related state of mind characterized by vigor and dedication to the job (Schaufeli and Bakker 2004). Related to the nurse's work engagement, it represents the harnessing of self to work roles where nurse employ and express themselves physically, cognitively, and emotionally during role performance. In several literature, work engagement has similar definition with job engagement.

Work engagement has multiple drivers. Firstly, those relating to individual employees and how they engage with their roles, teams or organizations; the second is concerned with organizational strategy, stewardship dan policy to build an engaged workforce include a business strategy and operational or managerial elements (Turner, 2020).

The job demands-resources (JD-R) model has emerged as one of the more prominent models in explaining the antecedents and outcomes of employee engagement and assumes two distinct underlying psychological processes. These are the health impairment process which focuses on job demands as predictors of adverse psychological outcomes and a motivational process which is concerned with job and personal resources and their impact on motivation (Albrecht et al. 2018). The JD-R theory shows a close relationship between job demands and job resources, that is categories into two categories including internal resources (psychological factors) and external resources (organizational aspects). Sufficient job resources can effectively balance various job requirements and maintain a good working condition. It leads high job engagement.

The Social Exchange Theory (SET) explains that when employee-focused system formal and informal exchange obligations such as appraisals, development, social support, they will pay the organization back through cognitive, emotional and physical energy, intensity, and effort toward the job. Employees can increase or decrease their level of engagement depending on their evaluation of what is fair in the exchange. Individuals trying to balance the elements of 'supply push' with those of 'demand pull' in their own lives; and organizations trying to put in place people management to facilitate this, have a wide range of choices.

III. METHOD

This literature review started by selecting topics and keywords to search the relevant journals. The databases used are Google Scholar and Mendeley published in 2019 – 2021. The keywords in the journal search are engagement, nurse, and COVID-19 or pandemic. The criteria for selected journals are (a) the research discussed about factors that affect nurse engagement during COVID-19 or a pandemic, (b) original research, (c) in English, (d) research subjects are nurses who directly treat patients of COVID-19. The excluded journals are the articles that are not fit with the purpose of a literature review and review articles. From 80 articles obtained, there are 10 articles that are relevant and then 3 articles are taken for this literature review.

IV. FINDINGS

The selected articles are the quantitative study with a cross-sectional research design. The studies adopted the Utrecht Work Engagement Scale (UWES) developed by Schaufeli. The scale was converted into local language (Chinese and Korean) where the research conducted. All the research conducted at hospital in China and Korean and the participant was front-line nurses.

The literature review identified the potential influencing factors that impact to nurse's engagement during COVID-19. The summary of the research showed on table 1.

Table 1. Summary of 3 articles

Author (year)	Research Objectives	Theoretical Framework	Methods	Participants	Key Findings
Meng Zhang, Ping zhang, Yu Liu, Hui Wang, Kaili Hu, Meichen Du (2021)	To clarify both the potential influencing factors and the current status of front-line nurses' work engagement, and thus provide a reference for targeted interventions.	The job demands-resources (JD-R) theory	A cross-sectional and descriptive study	1,040 nurses	Front-line nurses perceived low stress and workload, but high work engagement, especially in self-dedication. However, infection control, PPE discomfort and frustration were negatively associated with nurses' work engagement, while mental demand and good performance were positively associated with nurses' work engagement.
Young-Jae Kim, So-Young Lee and Jeong-Hyung Cho (2020)	To investigate how social support influences the job engagement and job retention intention of nurses struggling in the continuing scenes of the COVID-19 pandemic.	The Social Exchange Theory (SET)	A cross-sectional study	382 nurses	Nurses' job engagement was depending on age and working experience. A higher age nurse leads to increased job engagement. Besides female nurse, has married, head of nurses and nurses with experience in caring for COVID-19 has higher level of job engagement. Nurses' job engagement was depending on category and type of social support. Nurse who received social support from family and recognized social support through mass media has higher level of job engagement.

<p>Hui Lyu, Ming Yao, Danying Zhang, Xueying Liu (2020)</p>	<p>To explore how the organizational identity and psychological resilience affect work engagement of the front-line nurses in the prevention and control of coronavirus disease 2019 (COVID-19) and to establish the relationship model based on these factors.</p>	<p>The job demands-resources (JD-R) theory</p>	<p>A cross-sectional study</p>	<p>216 nurses</p>	<p>A significant positive correlation was found between nurses' organizational identity, psychological resilience, and work engagement. The organizational identity could directly affect nursing and indirectly affect nurses' work engagement through the intermediary role of psychological resilience.</p>
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V. RESULT AND DISCUSSION

In view of the impact of the COVID-19 pandemic, the studies were to clarify the potential influencing factors of front-line nurses' work engagement included sociodemographic characteristics, organizational factors and personal factors.

Related to sociodemographic characteristics, the result of research showed the nurses who were married was more engaged than single nurses and young. In fact, single nurses may have less support from family, which had negative influence on their work engagement level (Naruse et al., 2013). The research showed that females nurses, higher age and the nurses with experience in caring for COVID-19 patients had a higher level of job engagement. Therefore, in such a difficult situation as a pandemic, team formation that includes a nurse who is older and more experienced could help heighten nurses' job engagement.

In the complex practice environment during the COVID-19 pandemic, nurses and their level of work engagement are affected by negative factors from work an organization such as stress and workload. The result of work engagement research was negatively correlated with stress and workload ($p < .05$). Infection control dan discomfort caused by PPE may be the most significant stress factors for COVID-19 frontline nurses. In addition, nurses' stress can be attributed to the threat of individual health rights, caused by infection risk increasing when frontline nurses when caring for COVID-19 patients without adequate protective measures (World Health Organization, 2020). Referring to Maslow's hierarchy theory (Maslow, 1943), the priority is to ensure an adequate supply of PPE to meet the basic needs of frontline nurses, ultimately increasing their work engagement to meet self-actualization. There are three dimensions of workload namely frustration that significantly in inverse correlation with work engagement, while other two dimensions, performance and mental demand are positive relationship with work engagement. Nurses get frustration as known as discouraged feeling that one felt while completing the task and shows good performance referred to perceived success in accomplishing the task. When the level of frustration was low and their performance increase, so the nurse work engagement during COVID-19 pandemic will enhance. As countermeasure, the organization should



focus to improve nurse self confidence to effectively handle COVID-19 nursing task, such as providing guidelines of self-protection, inspiring leader, related training and creating a collaborative work atmosphere around nurses (Van Bogaert et al., 2013). The results of the research showed that frontline nurses have low perceptions of stress and workload, while high work engagement, especially higher level of dedication in the COVID-19 pandemic. It may imply the essence of self-devotion in the nursing profession at pandemic situation. They felt nursing high meaning at work.

The data of research showed that a significant positive correlation was found between nurses' organizational identity, psychological resilience, and work engagement ($P < .01$). Organizational identity represents feeling of the organization members for both a rational sense of contract and responsibility in the organization and an irrational sense of belonging and dependence (Wang, 2004). Organizational identity is the extent to which the company and the people in the organization share the same values, goals, desires, and goals. When people in a company share the values of the organization, the company starts to get closer and starts working more like one big team as opposed to different departments managed by different individuals. The role of the nurse leader to strengthening nurse organizational identity during the COVID-19 pandemic will improve the level of nurse engagement. If the leader supports the nurses when coping with difficulties, then their energy, sense of dedication, job satisfaction will increase. In according to motivation theory, the nurses will be more concentrated and active.

The data of research indicated that psychological resilience was significantly correlated with the overall nurse work engagement in various dimensions ($P < .01$). Psychological resilience refers to the phenomenon that many people are able to adapt to the challenges of life and maintain mental health despite exposure to adversity. Psychological resilience enables nurses to positively adapt to stressors and adversity. It is a complex and dynamic process which varies over time and context and embodies both individual attributes and external resources. When nurses facing high-stress working environment during COVID-19 pandemic, nurses experience anxiety, stress, and insomnia (Wang N, et al, 2017). This situation can be counter measured by mindfulness meditation and transference skills training (Xiao H, et al, 2020).

Furthermore, the leader should conduct psychological counseling and other psychological health support for their staff, helping them deal with stressor (Catton, 2020). The countermeasures could stimulate nurses to improve their performance through psychological resilience. This model is in accordance with the Job Demand-Resources theory that an adequate work resources stimulate higher organizational identity and psychological resilience of nurse. Many studies have also confirmed that mental resilience, as an intermediary variable, has a positive effect on work engagement (Guo et al, 2018; Yu B et al, 2017; Yu M et al, 2018).

The research result indicated that social support reduces stress, helps overcome disasters as well as decreases burnout. The study showed the nurses who received support from their family showed the highest job engagement. Support from their family can decrease concern of nurse about exposure of family members to potential COVID-19 infection because of their work (Sun, et al, 2020). In addition, the research showed that social support through mass media causes high job engagement. The mass media is powerful influencing people and society (Purwanto et al, 2021; Ball et al, 1976) and providing positive information about individuals in mass media impacts nurse self-esteem, image, and sense of belonging (Rui et al, 2013). This finding lead people to support nurses who is available in front of COVID-19 patient, with continues message of encouragement through media.

Although the COVID-19 pandemic is getting worse, the work engagement of frontline nurses was at the median level even higher than before pandemic COVID-19. This is contrast to the Gallup 2021 report that globally, employee engagement decreased by 2 percentage point from 2019 to 2020. This phenomenon supported by Job Demand-Resource Theory and Social Exchange Theory, wherein the more nurse receives resources and social support, the more nurse 'engaged. On the one hand 'supply

push' factors such as emotional presence, positive leaders and line managers, organization identity, social support provided the foundation on which engagement built, is higher than 'demand pull' such as overwork, poor work life balance, poor physical working environment as potential factor to inhibit such engagement (Turner, 2020). This nurse engagement phenomenon is also relevant with Maslow's theory, since the security needs of nurse during treatment of COVID-19 patient were met, then nurse look for belongingness. These needs are fulfilled by social support, organization identity and supportive leader. In the further stage recognition from public through mass media and psychological resilience is vital for them to stay engaged and fulfill their esteem needs. The last level brings self-actualization, where nurses want to develop their skills and become expert in handling pandemic situation. This level boosts their potential that helps them to lead and motivate others.

VI. CONCLUSION

Previous research found that front-line perceived low stress and work load, but high work engagement. The difference in work engagement of nurses working on the frontlines of the COVID-19 situation depend on their social characteristics and support. In addition, organizational identity could directly affect nursing. It can also indirectly impact nurses' work engagement through the psychological resilience.

To effective counter of COVID-19 and appropriate prepare for a future COVID-19 pandemic situation, so decreasing front-line nurse's infection risk and improving their self-confidence may be recommendable to promote their work engagement. Besides family support as well as press media targeting nurse should be provided and more active. Furthermore, hospitals and nursing managers could enhance the level of nurses' job involvement by improving organizational identity, wherein it has a positive impact on psychological resilience.

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