Review

Determinants of Nurse Performance in Implementation of Infection Prevention and Control Using Employee Engagement Theory: A Literature Review

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**Abstract**

**Introduction:** Nurse performance is an important parameter in improving the quality of health services. Nurse performance is influenced by several factors, such as individual factors, psychological and organizational factors. The need for support for nurse performance can also be increased through an employee engagement approach. This study aims to identify factors determinant of nurse performance in the implementation of infection prevention and control using the theory of employee participation during a pandemic.

**Methods:** This study used the literature review method. The article search used four journal databases from 2019-2023 that were reviewed, including Garuda, Google Scholar, PubMed, and Scient Direct, and 15 articles met the criteria.

**Results:** Factors that influence nurse performance are individual factors, psychological factors, and organizational factors. Nurse performance influences employee engagement, engaged nurses will have high work engagement, and nurses who are not engaged will have low work engagement.

**Conclusion:** In the implementation of employee engagement during the pandemic there were still several factors that had not been widely intervened, so further research is needed to find out how the theory of employee engagement is applied to find out the performance factors of nurses in implementing infection prevention and control.

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INTRODUCTION

Coronavirus Disease 2019 (COVID-19) is an infectious disease caused by Severe Acute Syndrome Coronavirus 2 (SARS-CoV-2). SARS-CoV-2 is a new type of coronavirus that has never been previously identified in humans [1]. WHO stated that COVID-19 can spread between humans directly or indirectly (through contaminated objects or surfaces), or through close contact with an infected person through secretions from the mouth and nose.

Since the first case was announced on 2 March 2020, the spread of COVID-19 transmission has occurred rapidly in Indonesia, a response strategy is needed according to transmission at both national and provincial levels to slow and stop the transmission rate and delay the spread of transmission; provide optimal health services for patients; and minimize the impact of the COVID-19 pandemic on the health system, social services, activities in the economic sector and activities in other sectors [2].

Mathias & Jackson said that hospitals, as providers of health facilities, must be able to provide the best service. To achieve the best service, the productivity of health workers plays an important role in this success [3]. One of the health workers who plays an important role in health care facilities, including hospitals, is a nurse. Nurse is a dominant profession and a profession that provides non-stop nursing services for 24 hours. Nursing care services for patients are a form of professional service aimed at restoring and improving the patient's personal abilities. During the Covid-19 pandemic, nurses were on the front lines in providing professional services to infected patients [4].

Nurses face major challenges in providing care services with the highest risk of exposure to Covid-19. Impacts felt by health workers, such as suspected or confirmed cases due to high risk of infection, inadequate protection for health workers, lack of experience in disease control and treatment, longer working hours, negative feedback from patients, the emergence of stigma in society, and lack of social support from nearby communities [5]. Adams & Walls said that a high workload causes stress due to an increased risk of contracting the corona virus; therefore, to prevent transmission of the virus, nurses must implement health protocols such as wearing masks, gloves and using personal protective equipment, which results in difficult work situations [6]. Performance differences that occurred before and during the COVID-19 pandemic had an impact on nurses’ performance when caring for patients.

According to Huang et al. in their research, infection prevention and control (IPC) programs are important in dealing with COVID-19. Implementing the IPC program will be effective if the medical staff has good knowledge and education, adequate policies, the ability to analyze places at risk of infection, and good coordination in hospital units [7]. Success and performance are largely determined by the performance of nurses, so an increase in nurse performance is necessary and must always occur through a standardized system for better results [8].
Nurse performance is an activity performed by nurses to carry out actions or responsibilities that are necessary to achieve the main objectives of the profession and the main objectives of the organization [9]. Nurse performance varies from one nurse to another because, in the process, nurses also have different motivations to do their jobs. Research by Baljoon et al. says that personal and organizational factors influence work motivation. The age of the nurse, the length of service, the autonomy, the level of education, and the administrative position were found to be personal characteristics that influence the motivation for the work of the nurses. However, feelings of power, participation at work, salary and benefits, supervision, promotions, awards, work relations, and communication are organizational factors that affect the motivation of nurses at work [10]. According to Schaufeli et al., in addition to motivational factors, nurse performance is also influenced by other factors, one of which is nurse engagement, or known as employee engagement as positive and satisfying thoughts related to work and characterized by passion, dedication, and appreciation [11].

Ten Brummelhuis et al. define employee engagement as a psychological presence in the performance of tasks, which is the focus of employee attention, employee responsiveness, and work energy directed at work-related tasks [12]. There are some factors that influence employee engagement, such as the work environment, leadership, team and co-worker, training and career development, compensation, organizational policies, procedures, structures, and systems, workplace well-being.

The outcome of employee engagement focuses on individual performance and organizational performance. The employee who is engaged or dedicated to his job tends to have positive behavior [13]. Engaged employees have more active organizational behavior. Based on Salanova et al. studied the relationship between employee performance, employee engagement, and organizational resources. Based on a survey of 342 hotel employees, organizational resources have a positive impact on employee engagement and employee engagement will also have a positive impact on employee performance [14]. Therefore, it is necessary to use Employee Engagement Theory in this study to describe nursing performance in implementing IPC during the COVID-19 pandemic.

The purpose of this review of the literature is to identify the determinant factors that influence nurse performance in the implementation of infection prevention and control using the theory of employee participation during the pandemic.

METHODS

This research was conducted using the literature review method. A literature review is a description of theories, findings, and other research articles obtained as reference material to serve as the basis for research activities [15]. The contribution of each author includes topic determination through Focus Group Discussion (FGD), writing review assistance, search for reference sources, and article reviews.
The literature search was conducted in April-May 2023. The data used in this study were secondary data obtained not from direct observation, but from the results of research carried out by previous researchers. Secondary data sources obtained were in the form of reputable journal articles both nationally and internationally with predetermined themes. The strategy used to search for articles uses the PICOS framework which consists of:

1. **Population / problem**, that is, the population or problem to be analyzed according to the theme determined in the literature review.

2. **Intervention**, which is an act of managing individual or community cases and the presentation of the implementation of studies according to the themes determined in the literature review.

3. **Comparison**, namely, intervention or other treatment that is used as a comparison, if there is none, you can use a control group in the selected study.

4. **Outcomes**, namely, the results or results obtained in previous studies that are in accordance with the themes that have been determined in the literature review.

5. **Study design**, namely, the research design used in the article to be reviewed.

The literature search in this literature review used four databases with high and medium quality criteria, namely Garuda, Google Scholar, PubMed and Scient Direct. Search for articles or journals using keywords and Boolean operators (AND, or NOT, or AND NOT) which are used to broaden or specify searches, making it easier to determine which article or journal to use. Keywords in this literature review are adjusted to Medical Subject Heading (MeSH) using keywords in English and Indonesian such as "engagement", "employee engagement", "work engagement", "performance", "nurse performance", "infection prevention control", "Implementation of infection prevention control", “2019-nCOV”, “coronavirus”, “Wuhan Corona Virus.” Next, issue articles that indicate duplication to select articles that are in accordance with the research theme. The articles were then carefully examined to assess eligibility based on title and abstract and to determine which articles would be selected for further discussion in this study. The pathway of the literature search is described in Figure 1.

At this stage of identification, 29,152 articles were identified through databases. At the screening stage, all articles will be checked to see if there are no similarities in titles or duplications, so around 24,263 articles were excluded. Furthermore, in the eligibility stage, all articles selected in this stage must meet predetermined research inclusion criteria. At the determination stage, around 15 articles were selected after going through a selection process referring to inclusion criteria.
<table>
<thead>
<tr>
<th>Criteria</th>
<th>Inclusion</th>
<th>Exclusion</th>
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<tbody>
<tr>
<td>Population</td>
<td>Front-line nurses</td>
<td>Other than the front-line nurses</td>
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<td>Intervention</td>
<td>(1) Infection and Prevention Control Program, (2) discusses the effect of work engagement on nurse performance, (3) discusses the factors of work engagement on nurse performance, (4) measures nurse work engagement, (5) measures nurse performance, (6) using original research.</td>
<td>(1) Non-Infection and Prevention Control Program, (2) research does not explain the factors of work engagement on nurse performance, (3) thesis, dissertation, or part of a conference</td>
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<tr>
<td>Comparison</td>
<td>No Comparator</td>
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<tr>
<td>Outcomes</td>
<td>The study result showed the dominant factors and the current status of front-line nurses’ work engagement, especially in the infection control program</td>
<td>Not described factors of work engagement in front-line nurses</td>
</tr>
<tr>
<td>Study design and publication type</td>
<td>A cross-sectional study, explanatory research, descriptive correlational study, prospective cohort study</td>
<td>No exclusion</td>
</tr>
<tr>
<td>Publication years</td>
<td>Post 2019</td>
<td>Pre 2019</td>
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<tr>
<td>Language</td>
<td>English, Indonesian</td>
<td>Language other than English and Indonesian</td>
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Fifteen articles that met the inclusion criteria were divided into two main themes, namely factors related to nurse performance (3) and employee engagement (11) and a study of both. Most of the factors that influence employee engagement and nurse performance use a cross-sectional design. In general, each study discusses the influence of work-engagement factors on nurse performance.

Factors that affect employees engagement

Work environment

According to Gilles in Ginting et al. [19] the evaluation of nursing work is carried out to find or identify the needs of nurses. One of the needs of nurses is a good physical work environment. A good physical work environment can create high performance for nurses. Whereas in research Suardi et al [21]
said that to increase work motivation and nurse engagement the hospital should create a good work environment, especially in the current pandemic situation, which forces nurses to be able to adapt to changing health protocols and work environments, so resulted in nurses not having a conducive work environment.

**Leadership**

In research conducted by Hentu & Pendit [9] showed that there was an increase in nurse performance in suppressing the spread of the COVID-19 virus due to good employee engagement from the leaders, both from the unit head or the nurse team leader. This is in line with research conducted by Feliciano et al. [23] which in his research stated that leadership is directly related to the work involvement of nurses. Being led by a boss will strengthen the nurse's involvement with the work and a sense of purpose, as well as a sense of pride.

**Team and co-worker**

Communication factors can affect performance because interpersonal communication is a support for nurses' activities at work. During a pandemic, the duties of nurses are very large because the number exceeds the capacity of the hospital. The lack of equipment requires nurses to build interpersonal communication in working with nurses and other health teams [26]. Nurse managers must organize their members to carry out activities to increase friendship such as involvement in joint activities which in the end nurses are encouraged to establish harmonious interpersonal relationships [17].

**Training and career development**

Training is an aspect of developing human resource capabilities. Training is related to improving the skills and knowledge of employees, which ultimately aims to improve performance. The results of Yulanti's research [25] found that the right nurse training variable can affect high work engagement during the COVID-19 pandemic. Research conducted by Pronajaya et al. [27] revealed that there is no significant effect of career development on employee engagement. Based on these results, it can be explained that higher career development will not affect employee engagement.

**Compensation**

Another factor that affects nurse work engagement is compensation or incentives. To increase work motivation in serving COVID-19 patients, the government provides incentives to health workers. Based on research conducted by Insan, Muhammad Yalzamul et al [24] that compensation/incentives have a positive and partially significant effect on work engagement in nurses. This indicates that an increase in incentives will result in an increase in nurse engagement. This is different from what was conveyed by Yanti et al. [10] where in reality there are still many nurses who say they lack attention regarding appropriate compensation both financially and non-financially. The results of the research conducted show that the majority of
nurses do not agree that the compensation received so far is in accordance with the workload carried out.

**Organizational policy**

Dessler in Hardianto et al [11] suggests that an organization consists of people with formally assigned roles working together to achieve a goal. But for an organization, the success of the organization is determined by how the performance of HR or the performance of nurses. This is also supported by research conducted by Theodorus [16] that organizational support and justice within organizations have a significant effect on work involvement with organizational trust as a mediating factor. Trust in the organization has a positive effect on work involvement, so hospital management can increase, especially regarding competence (organizational trust), implementation of work procedures (organizational justice), and attention to complaints (organizational support) to increase the involvement of nurses' performance. Unlike the research conducted by Yin, Yizhen et al. [20] suggested that practicing nurses have low engagement, high dedication, and medium-high work engagement. And around 43.9% of the implementing nurses are in the first two profiles, namely low engagement with high dedication. So that emotional, material, and organizational support is needed for implementing nurses to increase their work engagement in providing care for patients affected by COVID-19.

**Work well-being**

Occupational well-being is defined as the level of general health, mental health, emotional well-being, fatigue, personal achievement, satisfaction, love, and compassion. The overall well-being of the respondents with regard to psychosocial status is classified as good and has high participation in work [28]. Nurse managers should pay attention to the welfare of nurses such as pay systems and performance incentives [17].

**Factors affecting nurse performance**

Nurse performance is influenced by three factors, namely individual factors including ability and expertise, background, and demographics. Psychological factors include perceptions, attitudes, motivation, personality, and learning, as well as organizational factors.

**Individual factor**

Research conducted by Allande-Cusso, Regina, et al. [22] revealed that there were significant differences between the level of involvement in work for gender, service units, and educational levels. A high level of involvement occurs in women in primary care and mental health units with a nursing diploma/graduate degree in nursing education. Research conducted by Yin, Yizhen et al. [20] also conducted research based on demographic data including age, gender, educational level, professional title, family situation, marital status, and work experience.

This data is also supported by research conducted by Zhang, Meng et al [18] that the
age of the nurses is around 30 years, the dominance of the female sex with a bachelor's degree. Other sociodemographic variables have a significant effect on work engagement.

**Psychological factor**

Hardianto, Tjutjuk, et al. [11] concluded that motivation has a positive and significant effect on nurse performance, meaning that the higher the motivation given to nurses, it will affect the increase in nurse performance or vice versa. Zhang et al. [17] stated that in their research it was found that nurses' jobs must be properly scheduled and prioritized so that they can contribute to redundant roles. An atmosphere and work support/motivation from the people around them are also needed for nurses, nursing managers must be able to create a supportive work environment so that nurses are motivated and become confident.

**Organizational factor**

Theodorus [16] argues that organizational support and fairness within the organization have a significant effect on engagement in work with organizational trust as a mediator factor. Trust in the organization has a positive effect on work engagement, so hospital management can increase, especially regarding competence (organizational trust), implementation of work procedures (organizational justice), and attention to complaints (organizational support) to increase the engagement of nurses' performance.

### Table 2

<table>
<thead>
<tr>
<th>Authors and years</th>
<th>Title</th>
<th>Study design, sample, variable, instrument, analysis</th>
<th>Outcome of analysis factors</th>
<th>Summary of results</th>
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<tbody>
<tr>
<td>Indra Theodorus, Wahyuni Dian Purwati, Mohamad Reza Hilmy (2021)[16]</td>
<td>Effect of perceived organizational support and organizational justice on nurses' work engagement with intermediate factors of organizational trust</td>
<td>Design: Quantitative-cross-sectional design Sample: 96 nurses Instrument: Utrecht Work Engagement Scale (UWES), The Survey of Perceived Organizational Support (SPOS), Measures of Trust, Trustworthiness and Performance Appraisal Perceptions and Organizational Justice Survey Analysis: Path Analysis</td>
<td>Studying the effect of perceived organizational support and organizational justice on work engagement with intermediary factors of organizational trust</td>
<td>The result of this study found that there was a significant positive effect of perceived organizational support on the engagement of work through organizational trust as an intermediary factor and a significant positive influence of organizational justice on the trust of the engagement of</td>
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<td>Na Zhang, Dingxin Xu, Jingling Li, Zhen Xu (2021) [17]</td>
<td>Effects of role overload, work engagement and perceived organisational support on nurses' job performance during the COVID-19 pandemic</td>
<td>Design: Multi-stage cluster sampling design Sample: 595 Chinese nurses Instrument: Questionnaire Analysis: A two-tailed t test and ANOVA</td>
<td>Work engagement partially mediates the relationship between roles and performance and interpersonal relationships. Work engagement also fully mediates the relationship between role and work dedication. Perceived organizational support moderates the relationship between roles and performance, interpersonal facilitation and work dedication.</td>
<td>Work engagement is the key link between roles and performance results. The implication for nursing management is that it can minimize the effects of role overload and create a more supportive organizational environment to improve nurse performance.</td>
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<tr>
<td>Ardin S Hentu, Saka Adhijaya Pendit (2022) [9]</td>
<td>Employee engagement and nurses performance in preventing the transmission of</td>
<td>Design: Cross-sectional study Sample: 73 nurses Instrument: Questionnaire</td>
<td>There is a significant relationship between employee engagement and the performance of</td>
<td>There is a relationship between the application of employee engagement and the performance of</td>
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<td>Covid-19 virus infection</td>
<td>Analysis: Spearman</td>
<td>Rank and performance of nurses in handling the spread of the COVID-19 virus</td>
<td>Nurses in preventing transmission of the COVID-19 virus infection. The application of employee engagement is considered to have been carried out, but has not been applied optimally. In this study, the performance of nurses has also shown good performance where nurses have performed their duties with full responsibility and played an integral role in suppressing the spread of viruses, especially COVID-19.</td>
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<td>Meng Zhang, Phing Zhang, Yu Liu, Hui Wang, Kaili Hu, Meichen Du (2020)[18]</td>
<td>Influence of perceived stress and workload on work engagement in front-line nurses during the COVID-19 pandemic</td>
<td>Design: Cross-sectional study Sample: 1,040 nurses Instrument: the STOBE checklist Analysis: t-test, one-way analysis of variance (ANOVA), chi-square test, Pearson correlation</td>
<td>Potential factors that affect work engagement are sociodemographic characteristics (married, rescue staff, field staff), stress (infection control, inconvenience in using PPE), and workload (mental demands, performance frustration)</td>
<td>Implementing nurses feel stress and low workload but have high involvement in work, especially in self-dedication. However, infection control, discomfort with PPE use and frustration were negatively related to the involvement of nurses in the work. Mental demands and good performance are positively related to the work of nurses. Interventions focusing on preventing infection control and increasing self-confidence are</td>
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<td>Tjutjuk Hardianto, Rahayu Puji Suci, Adya Hermawati (2021) [11]</td>
<td>Mediation of job satisfaction: motivation and employee engagement on nurse performance</td>
<td>Design: Explanatory research  Sample: 65 nurses  Instrument: Questionnaire  Analysis: Partial Least Squares (PLS)</td>
<td>Motivation has a positive and significant effect on job satisfaction, employee engagement has a positive and significant effect on job satisfaction, motivation has a positive effect on nurse performance, job satisfaction has a positive and significant effect on nurse performance</td>
<td>Research shows the role of job satisfaction in the influence of motivation and employee engagement on nurse performance</td>
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<tr>
<td>Rina Apulina br Ginting, Wahyuni, Reza Hilmy (2022) [19]</td>
<td>The influence of work motivation, physical environment, employee engagement on nurse performance at Taman Harapan Baru Hospital</td>
<td>Design: Cross-sectional study  Sample: 54 nurses  Instrument: Questionnaire  Analysis: multiple linear regression analysis</td>
<td>Work motivation, physical work environment, and employee engagement have a significant effect on nurse performance</td>
<td>Increasing the productivity and performance of health workers is very important in increasing the efficiency of health services. Nurse performance is strongly influenced by knowledge, skills, work motivation, physical work environment, and employee engagement.</td>
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<td>Yizhen Yin, Mengmeng Lyu, man Zuo, Shuyu yao, Hui Li, Juan Li, Jie Zhang, Jingping</td>
<td>Subtypes of work engagement in frontline supporting nurses during COVID-19 pandemic</td>
<td>Design: Cross-sectional study  Sample: 355 nurses  Instrument: UWES  Analysis: Multiple Logistic Regression</td>
<td>More than 40% of nurses are in the group with low work engagement and low dedication and absorption.</td>
<td>The importance of interventions in implementing nurses by considering their work-engagement patterns, especially during the COVID-19 pandemic</td>
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<td>Zhang (2022)[20]</td>
<td>latent profile analysis</td>
<td></td>
<td>There is an effect of motivation on work engagement, there is an influence of work motivation on the work environment, there is an influence of the work environment on work engagement, and there is no effect of work motivation on work engagement through the work environment.</td>
<td>Increase the work motivation and work environment of nurses by having discussions with superiors and subordinates, as well as fellow co-workers, providing appreciation and support to create work motivation and a good work environment for nurses. Hospitals must pay attention to work motivation and the work environment, especially during a pandemic, where situations force nurses to be able to adapt to health protocols and work environments that change according to conditions.</td>
</tr>
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<td>(Salwah Suardi, Andi Indawaty Sidin, Alimin Maidin, Fridawaty Rival, Irwandy, Syamsudin, Anwar Mallongi, 2022) [21]</td>
<td>The effects of work motivation and work environment to nurses work engagement during pandemic</td>
<td>Design: Cross-sectional study Sample: 107 nurses Instrument: Questionnaire Analysis: Chi-square</td>
<td>Significant differences exist between the level of work engagement and gender, working unit, and education. There is a higher level of engagement in women.</td>
<td>Nurses have high levels of work engagement (vigor, absorption, dedication, and overall work engagement). In addition, there are significant differences between the level of work engagement and gender, working unit, and education.</td>
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<tr>
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<td>Alfredo Z. Feliciano, Evelyn E. Feliciano, Abdallah Osman, Isabelito A. Nabong, Jasleen S. Yumang, Angela P. Apostol, Rolando L. Lopez Jr., Fritzie F. Salunga, Myron L. Roque (2022)</td>
<td>Integrating leadership with work engagement in nursing: A correlational study</td>
<td>Design: A descriptive-correlational study Sample: 325 nurses Instrument: MLQ and UWES Analysis: Chi-square</td>
<td>There is a relationship between multifactorial leadership and the work engagement of nurses.</td>
<td>Nurses who have a strong engagement with their work will feel a sense of purpose, pride, and value that are important to nurses because they are directly influenced by the way they lead.</td>
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<tr>
<td>Muhammad Yalzamul Insan, Soultan Saladin Batubara, Niken Wulandari (2022)</td>
<td>Determination of factors affecting nurse work engagement at Pirngadi Hospital Medan in the COVID-19 Era</td>
<td>Design: Quantitative descriptive Sample: 100 nurses Analysis: Multiple linear regression using the t-test</td>
<td>Incentives have a partially positive and significant effect on nurse engagement.</td>
<td>Intensive increases as indicators of social security, bonuses, awards, promotions, and promotions will increase the participation of nurses as well.</td>
</tr>
<tr>
<td>Retna Yulianti (2021)</td>
<td>The analysis of nurse performance during covid-19 pandemic: A case study from private hospital in Tangerang</td>
<td>Design: Quantitative Sample: 140 respondents Instrument: questionnaire, UWES Analysis: Path analysis</td>
<td>The results of the study found that proper nurse training affected high work engagement in the era of the COVID-19 pandemic</td>
<td>Hospitals must provide organizational support through the implementation of a safe working environment, providing complete and quality PPE, equipment to prevent infection, accurate information and training relevant to COVID-19.</td>
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<td>Mohammad Rokim, Erita Yuliasesti Diah Sari,</td>
<td>Performance of ASN nurses during the COVID-19 pandemic</td>
<td>Design: Quantitative Sample: 119 samples Instrument: questionnaire</td>
<td>Communicatio n factors can affect performance, because</td>
<td>Self-efficacy, altruism, and communication between nurses make important</td>
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<td>Authors and years</td>
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<td>Aulia (2022) [26]</td>
<td>terms of self-efficacy, altruism, and interpersonal communication</td>
<td>Analysis: Multiple regression analysis</td>
<td>interpersonal communication is a support for nurses’ activities at work. During a pandemic, the duties of nurses are very large because the number exceeds the capacity of the hospital. The lack of equipment requires nurses to build interpersonal communication in working with nurses and other health teams.</td>
<td>contributions to building nurses’ performance. However, there are still many things to consider in efforts to improve nurse performance, especially during a pandemic. Each hospital and the nurses who work there have different characteristics.</td>
</tr>
<tr>
<td>Gede Pronajaya, Rina Anindita, Rian Adi Pamungkas (2021) [27]</td>
<td>Self-efficacy model and career development to increase employee engagement and nurse performance</td>
<td>Design: explanatory research Sample: E00 samples Instrument: Questionnaire Analysis: structural equation model – multivariate analysis</td>
<td>Career development has no effect on nurse performance</td>
<td>Nurse career development does not affect nurse performance and nurse engagement at work</td>
</tr>
<tr>
<td>Michelle Engelbrecht, Asta Rau, Petrus Nel, Marisa Wilke (2019)[28]</td>
<td>Emotional well-being and work engagement of nurses’ moonlight (dual employment) in private hospitals</td>
<td>Design: Cross-sectional study Sample: 251 nurses Instrument: Questionnaire Analysis: Multiple regression</td>
<td>The overall well-being of the respondents from psychosocial status is classified as good and has high work engagement</td>
<td>Nurses who work part-time in health services have high levels of job engagement. Attention is needed to ensure the welfare at work of nurses to keep them at work.</td>
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DISCUSSION

**Factors influencing employee engagement**

Employee engagement is an effort by work members or organizations to improve themselves in their role at work, this condition is individual about improving and expressing oneself physically, cognitively, and emotionally. Aspects of employee engagement involve employees' trust in their organization or superiors, work situations resulting in a positive attitude, and increased performance. Nurses need support from local leaders and organizations as an element of employee engagement to suppress the spread of COVID-19 virus infection, starting from using IPC to adequately carrying out protocols [9]. One of the efforts to ensure the participation and performance of nurses in the workplace during the COVID-19 pandemic is by increasing motivation by paying attention to and recognizing the dedication of nurses in the implementation and paying attention to infection control and discomfort due to the use of [18].

Based on several journals reviewed, employee engagement is influenced by several factors, both from personal elements and from the scope of work. Sari et al. [26] stated in their book that the internal element is a positive self-evaluation related to psychological resilience and refers to individual feelings about one's ability to be able to control the environment and the impact caused by the environment. Based on the study by Lyu et al., it was stated that psychological resilience and organizational identity have a significant relationship with nurse work engagement, energy, concentration, and dedication (P<0.01) [29]. The term "organizational identity" suggests that members of an organization share a common identity with the organization in various ways, such as their thoughts and actions. The negative aspects of work and organization impact nurses' levels of work engagement in the context of COVID-19. If nurses have the support of their leaders while dealing with hardships, their energy and feelings of devotion, also as a result of the fulfillment of their occupation, will increment; subsequently, they will be more focused and dynamic, as hypothesized by persuasive theory [30]. Consequently, during the COVID-19 pandemic, it is essential for nursing managers to advance the improvement of their leadership and the work environment with optimism and self-efficacy, and to improve nurses' work engagement by strengthening their organizational identity [31].

In addition, work is influenced by social support from colleagues, job feedback, expertise, autonomy, and opportunity. This was also conveyed by Sahir, Syafrida Hafni et al. [32] in a book entitled leadership and organizational culture where Schaufeli & Bakker stated that employee involvement is shaped by three aspects, namely vigor (strength, enthusiasm), dedication (playing a full role in the progress organization/company), absorption (ability to enjoy the work done).

Globally, the pandemic has impacted all layers, including health institutions. The existence of work demands in a pandemic...
situation will be a burden for nurses. The extraordinary stimulus from the COVID-19 pandemic has forced health workers, especially nurses, to work harder, protect themselves while maintaining professionalism. Theoretically, workers who are bound by their work will enjoy their work so they can work effectively and productively. Employees who have high engagement are able to work hard and have more positive emotions and enthusiastic attitudes toward their work [26].

**Factors affecting nurse performance**

The performance of nurses varies from one nurse to another, and in the process, nurses also have different motivations for doing their work. The approach that can be taken to motivate nurses’ work is the employee engagement approach. It was also stated that, apart from being influenced by emotional factors, nurse performance was also influenced by other factors such as nurse engagement or employee engagement [11]. In addition, nurse performance is also influenced by several factors such as peer relations, supervision/supervision, salary, and promotion [8].

Motivation is the factor that most influence individual behavior and performance, where the level of individual motivation will affect all aspects of organizational performance. Yanti et al. [10] in their journal said that the majority of nurses during the COVID-19 pandemic performed well. Nurses who are motivated to work well during a pandemic are often associated with implementing the use of appropriate IPC and compliance with hand washing to avoid the COVID-19 virus. Based on this statement, it can be shown that employee engagement affects nurse performance, meaning that if employee engagement is high, nurse performance is also high and if employee engagement is low, nurse performance is low.

In addition, performance is also influenced by factors such as motivation, education, abilities, skills and knowledge, work environment, leadership, work relations, and salary. Based on several articles that have been reviewed, age is also one of the factors that affect nurse performance with a high level of involvement occurring in women.

This study has several limitations. The factors affecting both nurse performance and employee engagement are too complex. This study cannot explain all the factors in detail. There is no evidence of how all of these factors interact with each other, and which one has the most impact on the variable. Therefore, the author looks forward to verifying the study result by doing further research on the interaction of each factor. There were still several factors that had not been widely intervened in the implementation of employee engagement during the COVID-19 pandemic, so further research is needed to find out how the theory of employee engagement is applied to find out the performance factors of nurses.

The implication of nursing practice in this study is to increase the awareness of nursing managers that employee engagement is important in determining nurse performance in implementing IPC in the era of the COVID-19 pandemic. With this awareness,
of course, there will be efforts made to improve employee engagement to obtain better nurse performance and awareness in implementing better IPC as well.

CONCLUSION

Factors contributing to employee engagement are work environment, leadership, team and colleagues, training and career development, compensation, organizational policies, and work well-being. Factors that influence nurse performance are individual factors, psychological factors, and organizational factors. Efforts to create employee engagement have been well established, but in the implementation of employee engagement during the pandemic there were still several factors that had not been widely intervened in, so further research is needed to find out how the theory of employee engagement is applied to find out the performance factors of nurses in implementing infection prevention and control.

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REFERENCES


