The Effect of Implementation in Covid-19 Protocol and Workload: Nurses’ Performance and Work Motivation as a Mediation Variable in Hospital

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Abstract. This study aims to examine the influence of the implementation of COVID-19 health protocols and workload on nurses’ performance in hospitals in East Lampung with work motivation as a mediator. It utilized an explanatory quantitative approach with a causal type, involving a sample of 210 respondents. Data in this study were analyzed using SEM with the utilization of AMOS program. Results showed that the implementation of COVID-19 health protocols had a significant positive effect on nurses’ work motivation. Furthermore, workload significantly negative affected nurses’ work motivation. It was also found that the implementation of COVID-19 health protocols significantly positive affected nurses’ performance. Moreover, workload significantly negative affected nurses’ performance. Work motivation also significantly positive affected nurses’ performance. Importantly, this study found that the implementation of the COVID-19 health protocol positively affects the performance of nurses indirectly through work motivation. Another point was that workload indirectly significantly negative affected nurses’ performance through work motivation. Based on the results, hospitals are expected to implement improve the performance of nurses, particularly the quality of knowledge of nurses, and always motivate nurses to be responsible for their duties. They also regulate the workload of nurses in the distribution of work so that nurses are not overburdened, do not become tired, and set strict sanctions if nurses fail to implement the COVID-19 health protocol.

Keywords: health protocol · covid-19 · workload · performance · motivation · nurse

1 Introduction

Nurses are the largest human resource component in health organizations, and their performance has a direct impact on the productivity of health care and the quality of care provided by health care organizations [1], as up to 80% of health services are provided by nurses in the majority of countries [2].

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The emergence of the Coronavirus disease 2019 (COVID-19), which is now a global pandemic affecting numerous countries, poses significant challenges to the performance of nurses. As a stressful situation, the COVID-19 pandemic poses challenges never before encountered by every worker in the world, thereby affecting their performance [3].

During the COVID-19 pandemic, nurses who treat both COVID-19 and non-COVID-19 patients are required to use level 3 personal protective equipment (PPE) because they are among the most vulnerable groups to contracting the SARS-CoV-2 coronavirus [4]. The application of strict protocols without prior experience causes nurses to become unaccustomed to applying these regulations, resulting in nurses feeling burdened by wearing tight PPE, finding it difficult to communicate effectively with patients, and being unable to provide optimal service to patients. According to previous research, most nurses (62.2%) regularly increase their knowledge of infection control, while 13.9% of respondents apply infection control irregularly in the patient care process, endangering their own and the patient’s health. The most frequently cited reasons for violating infection control rules are increased workload and fatigue, as well as a lack of understanding of the importance of infection control in patient health care and inappropriate attitudes [5]. Health workers who use inappropriate medical procedures can also contribute to the spread of infectious diseases. As a pioneer of infection prevention and control in hospitals, infection prevention and control care has not performed optimally [6].

The workload factor is also expected to contribute to declining nurse performance [7]. The pandemic of COVID-19 has significantly increased the workload of nurses, thereby increasing the likelihood of burnout among nurses [8]. The research of Nikmah et al. (2021) demonstrates that workload has a substantial impact on performance [9]. In addition, research demonstrates that workload influences performance [10]. This study supports the findings of Pourteimour et al. (2021), that the mental workload of nurses increases during the COVID-19 pandemic and contributes to the decline in nurses’ behavior and performance [11].

Some of these studies clearly show that there is an effect of workload on the performance of nurses, there are also studies that show contradictory results, such as the research of Andriana et al. (2019), which found that workload had no significant effect on nurse performance [12].

Increased work motivation can counteract the decline in performance caused by the implementation of the COVID-19 health protocol and a heavy workload. According to Dessler (2015: 404), motivation can be increased by the individual, the work, and the work environment. Motivation is necessary for improved organizational performance. In the majority of hospitals, the performance of healthcare workers is driven by their motivation [13].

The basis for improved performance of healthcare organizations is the presence of competent, motivated, and skilled healthcare professionals [7]. The research of Nikmah et al. (2021) show that work motivation acts as a mediator between workload and performance of health workers [9]. Research by Rusmiati & Harjadi (2021) also shows that workload has an effect on employee motivation and performance [10].

The study above demonstrates that there is a phenomenon and empirical gap that encourages researchers to re-examine the effect of nurses implementing the COVID-19
health protocol and workload on the performance of nurses in East Lampung hospitals. The object was chosen based on observations in the field that nurses had difficulty maintaining a distance of one meter, masks were sometimes still opened and closed, sometimes not routinely and disinfecting environmental surfaces and other frequently touched objects, forgetting to wash their hands not in accordance with the COVID-19 health protocol standards, and sometimes do not immediately remove and dispose of PPE after leaving the treatment room. Concerning the workload, it is known that the workload has increased significantly, and there has even been an increase in working hours, plus there are colleagues who are also affected by COVID-19, so other colleagues must increase their working hours to replace colleagues who are self-isolating or being treated intensively. Furthermore, the average nurse is afraid of the pandemic because they frequently hear about colleagues who have died, and there is a fear of contracting the virus and transmitting it to their families at home.

The purpose of this study is to investigate further the impact of implementing the COVID-19 health protocol and workload on the performance of nurses in East Lampung hospitals, with work motivation serving as a mediator. The urgency of this research is to improve the performance of nurses during the COVID-19 pandemic so that they can handle COVID-19 cases more effectively by implementing the COVID-19 health protocol correctly and reducing their workload.

2 Conceptual Framework

The Effect of Implementing COVID-19 Health Protocols on Work Motivation

The role of implementing the COVID-19 health protocol as part of Infection Prevention and Control (PPI) has not been optimal due to a lack of support from hospital management, a lack of infrastructure, inadequate monitoring and evaluation, and the absence of appropriate incentives and sanctions [6].

Increased fatigue, a lack of understanding of the significance of infection control in maintaining patient health, and inappropriate attitudes are the most frequently cited reasons for infection control rule violations [5]. In high-risk situations such as the COVID-19 pandemic, nurses are required to provide care. Hospitals must ensure the availability of PPE to alleviate nurses’ fears and concerns [14], thereby increasing their motivation to work more effectively with patients.

The statement demonstrates that nurses’ implementation of the COVID-19 health protocol can motivate their work. Because it reduces the patient’s fear of exposure, availability and strict hospital policies regarding adequate standard precautions can support optimal performance. Based on this, the following hypotheses are proposed in this study:

H1: The implementation of the COVID-19 health protocol has a positive effect on nurses’ work motivation.

The Effect of Workload on Work Motivation

Workload is a traditional job requirement that is characterized by the need to work faster, provide faster responses, multitask, and complete multiple projects simultaneously [15]. During the COVID-19 period, nurses are becoming a more difficult profession due to its increased physical and psychological risks [16].
The statement demonstrates that nurses’ workload during the COVID-19 pandemic can reduce their work motivation. This is because the increased work intensity and demands for great responsibility cause nurses to experience stress and fatigue, interfering with mental health and lowering work motivation.

This study supports the findings of Nikmah et al. (2021) that workload has a negative impact on nurses’ work motivation. The statement demonstrates that a high and excessive workload in patient care by nurses can reduce their work motivation. A good workload, on the other hand, or one that is tailored to the abilities of nurses, can boost their work motivation [9].

Based on this, the hypotheses proposed in this study are:

The Effect of Implementing COVID-19 Health Protocols on Performance
The use of strict COVID-19 health protocols can protect nurses from infectious diseases on the one hand, but it can also interfere with work activities because it is an unnatural activity that requires thoroughness [17]. Nurses struggle with feelings of physical insecurity in response situations, such as when resources are limited due to insufficient supplies of items such as personal protective equipment (PPE). In such high-risk situations, such as the COVID-19 pandemic, nurses are required to provide care. Hospitals must ensure that PPE is available to help reduce nurses’ fears and concerns [14].

The argument demonstrates that the implementation of the COVID-19 health protocol by nurses can affect their performance. Because it reduces the patient’s fear of exposure, availability and strict hospital policies regarding adequate standard precautions can support optimal performance. This supports the following hypotheses that are put forth in this study:

H2: Workload has a negative effect on nurses’ work motivation.
H3: The implementation of the COVID-19 health protocol has a positive effect on the performance of nurses.

The Effect of Workload on Performance
During the COVID-19 pandemic, health workers are under the strain of a heavy workload. Fatigue can be caused by heavy loads [18]. Furthermore, acute fear of infection due to contracting affects performance [19]. Furthermore, nurses caring for COVID-19 patients have a significantly higher workload than other occupations [20].

After the COVID-19 outbreak, health workers are challenged to work in new contexts, exhausted due to heavy workloads and insufficient PPE, fear of contracting and infecting others, feeling powerless to handle patient conditions and managing relationships in this stressful situation [21]. The work demands of health workers are more varied than before the COVID-19 pandemic, so the workload of health workers must be regulated so that it has the right proportion and is not excessive in order to improve health workers’ performance, particularly in the prevention and control of COVID-19 in the community [9]. This study’s findings corroborate the findings of Pourteimour et al. (2021), who found that the increased workload of nurses during the COVID-19 pandemic contributed to a decline in nurse performance [11].

This supports the following hypotheses proposed in this study:
H4: Workload has a negative effect on nurse performance.

The Effect of Work Motivation on Performance
Work motivation is a competency factor that can change. Giving encouragement, appreciation, recognition, and individual attention to an employee’s work, for example, can positively affect an employee’s motivation and, thus, employee performance [22]. Nurse performance is directly affected by work motivation. Because intrinsically motivated nurses are aware of their performance and strive to be recognized [23]. Nurses face various difficulties in their work, especially in the era of the COVID-19 pandemic, for example, decreased work motivation. Nurses face various challenges at work, particularly during the COVID-19 pandemic, such as decreased work motivation. Motivation and its factors effectively improve nurse performance, particularly during the COVID-19 pandemic [24]. Based on this statement, the proposed hypothesis is:

H5: Work motivation has a positive effect on nurse performance.

Work Motivation Mediates the Effect of Implementing COVID-19 Health Protocols on Nurse Performance
The implementation of the COVID-19 health protocol is accurately related to work motivation and, as a result, will have an impact on an individual’s performance. The strict COVID-19 health protocol for nurses has revealed that there are still many nurses who die from COVID-19 [25], and this condition is predicted due to low work motivation, which has an impact on nurse performance. High motivation can help nurses who are experiencing a decrease in performance as a result of the strict COVID-19 health protocols.

Noncompliance with the COVID-19 health protocol implementation has been linked to an atmosphere of disharmony, dissatisfaction, and a lack of motivation in the workplace [26]. Motivation is required for improved organizational performance. In most hospitals, motivation is the driving force behind the performance of health workers [13]. Workers in the health sector have unique characteristics that cannot be neglected, and motivation can influence health workers’ performance [1]. Based on this statement, the hypothesis proposed in this study is:

H6: Motivasi memediasi pengaruh penerapan protokol kesehatan COVID-19 terhadap kinerja perawat.

Motivasi Kerja Memediasi Pengaruh Beban Kerja Terhadap Kinerja Perawat
Work motivation directs certain behaviors toward the achievement of specific goals [13]. Previous research has shown that motivated employees outperform unmotivated employees [1]. Furthermore, Shoja et al. (2020) discovered that staff who cared for COVID-19 patients had significantly higher total workload and mental health levels than those who did not care for COVID-19 patients.

According to the findings of Nikmah et al. (2021), the indirect effect of workload on performance was stronger than the direct effect of workload on the performance of health workers. As a result, if health workers are highly motivated at work, they can produce higher performance even if they have a heavy workload [9].

The hypotheses proposed in this study are based on this statement:

H7: Work motivation mediates the effect of workload on nurse performance.
3 Research Methods

The explanatory quantitative method was used in this study. Data were collected through questionnaires on an object of research using the independent variables of COVID-19 health protocol implementation and workload, the intervening variable of motivation, and the dependent variable of nurse performance. The participants in this study were East Lampung hospital nurses. The sampling design used probability sampling with simple random sampling. According to Hair et al. (2014), the minimum number of samples required was 210 respondents, and the minimum sample for this study was 210 respondents. [27] SEM research analysis techniques with the assistance of the AMOS program.

4 Research Results

The respondents in this study had the following characteristics: the majority were female, as many as 146 people (69.5%) and the rest were male, as many as 64 people (50.3%). The majority were aged 26–30 years, as many as 109 people (51.9%), and the majority had a diploma education, as many as 141 people (67.1%).

Overall, the indicators for the COVID-19 Health Protocol implementation gained a neutral response. This demonstrates that the use of health protocols by nurses at East Lampung Hospital is neither high nor low. This demonstrates that nurses pay more attention to the cleanliness of medical devices and immediately dispose of used needles and other sharp tools. On the other hand, some nurses continue to disregard respiratory hygiene principles and cough etiquette when dealing with patients.

All in all, the Workload indicators were well received. This demonstrates that the nurses’ workload at East Lampung Hospital is quite heavy. According to respondents’ perceptions, the work they were doing was frequently disrupted, making it challenging to finish on time, and the work was fairly busy. Respondents also expect jobs from other departments to be distributed more quickly so that their work is not hindered.

In general, there was positive feedback regarding the work motivation indicators. This has shown that nurses at East Lampung Hospital are highly motivated at work. Respondents reported feeling like they were wasting time at work. This indicates a large amount of work that is ineffective and inefficient. Respondents were also motivated to demonstrate their ability to complete the tasks assigned to them.

The results of the goodness of fit test show that most of this research model fits well, or that the criteria are good. Even though there are criteria, like RMSEA and AGFI, that do not match the limits. Thus So, the model proposed in this study can be accepted because the RMR, CFI, GFI, and NCP values meet the “fit” criteria.

The form of the path diagram of the processed data using AMOS 24 software obtained the following results Fig. 1.

Based on the above path diagram and the AMOS 24 output, the following relationships between variables can be derived in the form of a Table 1.
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Fig. 1 SEM Analysis Model

Table 1. Relationship Between Research Variables

<table>
<thead>
<tr>
<th>Path</th>
<th>Standardized Regression Weights</th>
<th>CR</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health_Protocol_Covid-19</td>
<td>0,415</td>
<td>6,775</td>
<td>***</td>
</tr>
<tr>
<td>Workload</td>
<td>-0,185</td>
<td>-3,014</td>
<td>0,003</td>
</tr>
<tr>
<td>Health_Protocol_Covid-19</td>
<td>0,174</td>
<td>2,533</td>
<td>0,011</td>
</tr>
<tr>
<td>Workload</td>
<td>-0,178</td>
<td>-2,804</td>
<td>0,005</td>
</tr>
<tr>
<td>Motivation</td>
<td>0,266</td>
<td>3,798</td>
<td>***</td>
</tr>
</tbody>
</table>

5 Discussion

The results showed that Implementing the COVID-19 health protocol significantly positively affected nurses’ work motivation. The magnitude of this influence can be explained as follows: the higher the nurse’s implementation of the COVID-19 health protocol, the higher the nurse’s work motivation. To increase the work motivation of hospital nurses in East Lampung, an internal COVID-19 surveillance task force is required.

Several factors determine the risk of transmitting COVID-19 to health workers. Some are non-specific, such as prolonged exposure, insufficient hand hygiene and personal protective equipment (PPE), short distance or rooms without negative pressure, or insufficient air changes every hour. Implementing the COVID-19 health protocol is a forerunner in hospital infection prevention and control. Due to a lack of support from hospital administration, a lack of infrastructure, and inadequate monitoring and evaluation, the role of implementing COVID-19 health protocols has not been optimal. Importantly, the application of the protocol to control the spread of COVID-19 is anticipated to become a new behavior in daily life as part of an effort to reduce COVID-19 transmission [17]. Previous research has demonstrated that healthcare professionals who
perform ineffective medical procedures can also contribute to the spread of infectious
diseases [6].

According to research, the most commonly cited reasons for noncompliance with
infection prevention rules are enhanced tiredness, a lack of awareness of the significance
of infection control in maintaining patient health, and nasty attitudes [5]. According to
research, nurses are being asked to care for patients in high-risk situations such as the
COVID-19 pandemic. Hospitals must ensure that PPE is available to help reduce nurses’
fears and worries, so that they are motivated to work harder in treating patients [14].

The results indicated that workload had a negative effect on the work motivation
of nurses. The magnitude of this effect can be explained by the fact that the nurse’s
work motivation decreases as their workload increases. Therefore, in order to increase
the work motivation of hospital nurses in East Lampung, it is necessary to balance their
abilities, number of tasks, and working hours so that they do not experience an excessive
workload that results in suboptimal service due to work fatigue.

Fast work demands, hard work, work that exceeds capacity, requires intense concen-
tration for an extended period of time, interruptions in completing work, and slow work
delegation from the department can all reduce nurses’ work motivation. The results of
the description show that the most complained-about workload is the task that is fre-
quently interrupted before completion, demanding you to return later; work is very busy,
so nurses feel they are wasting time at work.

The COVID-19 pandemic is a challenging time for workers, especially nurses. This
is because nurses are at the forefront of handling COVID-19. Every day, nurses have
to work extra beyond their normal activities, both nurses who have direct contact with
patients and non-COVID-19 patients. Nursing during the COVID-19 period can be a
difficult profession, and it is not without risks. In addition to the previously mentioned
risks (lack of protection, risk of transmission, and realignment of services), nurses’
mental health suffers as a result of their duties, and symptoms such as stress, depression,
anxiety, insomnia, and others can arise [16].

Because of the current pandemic, nurses constantly in contact with others have had
to change their daily tasks and work environment to comply with health prevention
regulations. Also, well-known stressors that correlate with the development of fatigue
syndrome are environmental changes and performing unusual tasks. [28]. This fatigue
can reduce work motivation because there is a fear of being exposed to both himself and
his family [23].

The analysis results show that implementing the COVID-19 health protocol has a
significant positive effect on nurse performance. The magnitude of this influence can
be explained as follows: the higher the nurse’s implementation of the COVID-19 health
protocol, the better the nurse’s performance. The good performance of nurses will have an
impact on increasing patient satisfaction and trust in hospitals, resulting in an increase in
the number of patients seeking treatment at East Lampung hospitals. To improve hospital
nurses’ performance in East Lampung, it is necessary to increase the implementation
of strict COVID-19 health protocols by raising awareness of the dangers of COVID-19
transmission and establishing a COVID-19 surveillance task force within the hospital.

Previous research has shown that adhering the instructions for using PPE is effec-
tive in preventing infection among health workers. Personnel adhesion to PPE (gloves,
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disposable shirts, goggles, and masks) was effective, as no staff reported contracting the virus, while all infected staff had removed at least one protocol [17]. Other research has revealed that nurses experience physical insecurity in response situations, such as when resources are scarce and supplies of items such as personal protective equipment (PPE) are insufficient. Nurses are required to help in high-risk situations like the COVID-19 pandemic. The availability of PPE must be ensured in hospitals [14].

Workload had a significant negative effect on nurse performance, according to the findings. The magnitude of this influence can be explained as follows: the greater the nurse’s workload, the poorer the nurse’s performance. Thus, in order to improve the performance of hospital nurses in East Lampung, it is necessary to balance the ability and number of tasks, as well as the working hours of nurses, in order to avoid work overload, which can result in less-than-optimal service due to work fatigue.

Nurses face significant workload pressures during this pandemic and rising total healthcare spending. The enormous hardship of COVID-19 disease can cause fatigue. Increased working hours, poor sleep quality, fatigue, and the risk of becoming infected with this virus, putting family members at risk of life-threatening conditions, are the primary sources of psychological stress among healthcare workers. [18] Furthermore, nurses have a chronic fear of infection because of the contagious nature of this virus, unknown modes of transmission, close contact with patients, and infection from coworkers [19]. Workers with COVID-19 patients have a heavier workload than those who do not. In this study, nurses outperformed other occupations in terms of mental stress, physical stress, time (temporal) pressure, and frustration. Furthermore, nurses who care for COVID-19 patients have a significantly greater workload than other occupations [20].

The job requirements of health workers are more diverse than before the COVID-19 pandemic, so their workload must be governed so that it has the appropriate amount and is not disproportionate to improve health workers’ performance, particularly in the control and prevention of COVID-19 in the community [9]. During the COVID-19 outbreak, health workers are overworked because of high workloads and inadequate PPE, fearful of contracting and infecting others, and disempowered to manage patients’ conditions and connections. [21].

The results of this study support research indicating that the increased workload of nurses during the COVID-19 pandemic has a negative impact on their performance [11]. Other studies have demonstrated that nurses’ perceptions of their duties and responsibilities in relation to too much work or insufficient time to complete tasks are related to their workload [29].

The results showed that work motivation had a significant positive effect on the performance of nurses. The magnitude of this influence can be explained that the higher the motivation that underlies the nurse in working, the better the performance produced by the nurse. Thus, motivational training, awards given by outstanding nurses, attention from the head of the room for nurses, and equal opportunities to improve careers will be able to increase the motivation of nurses at work. The increase in motivation will be in line with the increase in the performance of hospital nurses in East Lampung.

Work motivation is a changeable competency factor. For instance, encouraging, appreciating, recognizing, and paying individual attention to an employee’s work can
have a positive effect on an employee’s motivation, thereby improving employee performance [22]. Work motivation has a direct impact on nurse performance. Because intrinsically motivated nurses are aware of their performance and work hard to obtain rewards [23]. Especially during the COVID-19 pandemic, nurses confront several difficulties at work, including a lack of enthusiasm. In the context of the COVID-19 epidemic, the motivational aspect and its components are an efficient strategy to boost nurse performance [24]. In most hospitals, motivation is the driving force behind the performance of health workers [1].

The findings indicate that the COVID-19 health protocol’s implementation indirectly improves nurses’ performance through work motivation. Accordingly, it can be assumed that the stricter the COVID-19 health protocol’s implementation will be, the more nurses will be motivated to perform well at work.

Noncompliance with the implementation of COVID-19 health protocols is linked to a lack or inadequate investment in working conditions, which, in addition to exposing healthcare professionals and patients to risk, results in a workplace atmosphere of disharmony, dissatisfaction, and lack of motivation [26]. Motivation is required for improved organizational performance. In most hospitals, motivation is the driving force behind the performance of health workers [13]. Workers in the health sector have unique characteristics that cannot be missed, and motivation can influence health workers’ performance [1].

The study’s findings indicate that workload indirectly positively affects nurses’ performance through work motivation; thus, the higher the workload received by nurses, the lower the motivation of nurses at work, which has an impact on nurses’ poor performance.

Workplace motivation guides specific behaviors toward specific goals [13]. The findings demonstrate that motivated workers are often more productive than disinterested workers [1]. Another study also showed that employees caring for COVID-19 patients had considerably higher overall workloads and lower mental health levels than those without interaction with COVID-19 patients [20]. According to Nikmah et al. (2021), work motivation had a more significant influence on the performance of health workers than did the direct effect of workload on performance. Health professionals with a reasonable workload and high work motivation will perform better [9].

6 Conclusion

This study found that using the COVID-19 health regimen significantly improved nurse performance and job motivation. Workplace motivation and nursing performance are negatively impacted by workload. Workplace motivation significantly and favorably affects nurse performance. Workload and the implementation of the COVID-19 health protocol have a significant and indirect impact on nurses’ performance.

Hospitals are expected to strictly implement the COVID-19 health protocol, regulate the division of work from other departments so as not to slow down the work of nurses, and increase nurses’ confidence in their ability to perform their duties by providing training or briefings prior to work.
References


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