Development of a Subjective Workload Assessment Technique Model as an Effort to Improve Performance Nurse in Home Inpatient Room Royal Prima Hospital

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Abstract: It is hoped that the performance of all medical and non-medical personnel at the Hospital will be in top condition. Nurses are expected to provide good service. This research aims to develop a subjective workload assessment technique model as an effort to improve the performance of nurses in the Inpatient Room at Royal Prima Hospital. This research is a quantitative study with a cross-sectional study design which was carried out in the inpatient ward of the Royal Prima Hospital from June to July 2023. The population was 120 people. Respondents who were selected (inclusion) or excluded through the selection process were those who had more than 3 months of experience working in a care unit or related work. Data were analyzed univariately, bivariately, and multivariately. The results of the research show that there is an influence of time pressure, working hour schedules, multiple roles, repetitive action on improving the performance of inpatient nursing personnel which is subjectively reasoned by inpatient nurses at Royal Prima Hospital. The variable that has the most dominant influence is the dual role variable. The suggestion of this research is that the health service should provide input in the context of continuous guidance to hospitals, especially in managing hospital management to improve better performance.

Keywords: Development; Performance; SWAT

Introduction

The development concept of the Government of the Republic of Indonesia is "Nawacita" to welcome and follow up on every issue of economic globalization, information, cultural preservation and everything in between. The meaning of nawacita quoted from the Ministry of Health is to participate in improving the quality of life of the community through a priority agenda of improving the quality of life of Indonesian people, people's productivity and competitiveness in international markets (Ramadhan, et al., 2020).

The mental crisis originates from a life without guidance and without clear orientation (Nisa, 2019). Mental crises which are often caused by over-stress can disturb the sufferer's mental health, resulting in a feeling of lack of self-confidence and a mentality that ignores responsibilities and forgets work procedures. What is called stress is basically if the level is normal, it is good for health because the body reacts normally, but if it is excessive and continuous, it can cause distress (pain) with various disturbing phenomena. This disruption can reduce performance values and if this happens to hospital service providers, the quality of their services will decrease, which can result in negative outcomes for customers (Ahimsa-Putra, 2019).

The Hospital Business (RS) must be involved in mental development activities on the part of its management, so the Hospital business is also part of the activities of cultivating Indonesia to "go global".

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including controlling stress phenomena. Globalization is not enough to just make a determination, but it is necessary to make targets for the health service community itself to be able to control stress, including for the patients served. So hospitals need to be able to condition the stress of their residents from overstress when facing work (TMF, 2022).

Competition in business cannot be avoided, precisely because competition dynamically stimulates improvements in service quality so that services become more effective and efficient in satisfying the market. Hospital leaders planned a nawacita which contained mental control movements, namely the process of achieving maturity in the nation's thinking and behavior (mind set and character). Indonesia needs to carefully improve the quality of life (life style), quality of performance, mutual cooperation activities in the life of the nation in accordance with the ideals of the proclamation, in accordance with the philosophy of Pancasila and the 1945 Constitution (Hardjana, 2022).

Hospital business is important in implementing service quality improvements. The Hospital Accreditation Commission (KARS) sets its goal as providing appropriate, humane health services, so that facilities and infrastructure are used effectively and efficiently (Chairina, 2019; Iamainar, 2020). Research on patient satisfaction, safety and welfare is usually given more attention by the majority of researchers, however, research on work distress, workload, workers' salaries and workers' rights is little known or kept secret. This condition would be better if the hospital services also paid attention to the problem of staff overstretch (Muwarni, 2019).

It is hoped that the performance of all medical and non-medical personnel at the Hospital will be in top condition. Nurses are expected to provide good service. The comparison of the number of nurses on duty with the number of patients being treated results in a high workload both physically and mentally (Amelia et al., 2022; Barahama et al., 2019). If the workload increases it will cause job stress. This will certainly cause nurses' performance to decline because they are unable to complete the tasks and responsibilities assigned to them (PPNI, 2022).

According to a survey in France, it was found that around 74% of nurses experienced stress. According to research by the Indonesian Nurses Association, nurses who experience work stress state that they often feel dizzy, tired, and have no rest, which is partly due to the workload being too high and the work taking up too much time (Purwati et al., 2023).

Stress can happen to everyone in certain forms, varying degrees of severity and in the long-short term. In Psychology, stress is defined as a condition where needs are not met adequately, giving rise to imbalance. Taylor describes stress as a negative emotional experience accompanied by changes in biochemical, physiological, cognitive and behavioral reactions aimed at changing or adapting to situations that cause stress. According to Hans Selye, stress is the body's general physiological and psychological reaction to every need (Selye, 2021).

Symptoms of stress can occur involving several aspects of the human self, namely: physical, emotional, intellectual and interpersonal. These symptoms differ from one person to another. Some symptoms of stress: headaches, difficulty sleeping, back pain, indigestion, restlessness, anxiety, irritability, difficulty concentrating, loss of self-confidence (Trimumpuni, 2009).

Nurses are the largest number of health workers in hospitals (Silalahi et al., 2019). As a result of the Nursing Workshop, a definition of nursing was formulated as a form of service in the health sector that is based on nursing knowledge and skills aimed at individuals, families, communities and communities, both sick and healthy, from birth to death.

The functions and roles of nurses in hospitals are very important, including: providing nursing care, acting as client advocates, educators, coordinators, collaborators, consultants and reformers. If the functions and roles of nurses are carried out well, it will certainly require a lot of interaction time between patients and nurses.

According to research results from the Department of Health and the University of Indonesia, in Prihartini, there were 78.8% of nurses carrying out cleaning tasks, 63.6% carrying out administrative tasks. The workload of nurses in hospitals includes physical workload and mental workload. The main task of a nurse who must provide good nursing care is quite difficult if the number of patients in the hospital is not proportional to the number of nurses available (Prihatini, 2017).

The physical workload of nurses includes lifting patients from wheelchairs or gurneys, taking patients from the ER or polyclinic to the treatment room, taking patients from wheelchairs or gurneys, taking patients to the Radiology Installation, bathing patients, and other nursing tasks (Prihartini, 2017).

The mental workload of nurses includes: working with special skills (inserting IVs, inserting feeding tubes, inserting catheters, carrying out blood transfusion procedures), the task of maintaining high standards, doing work that is not appropriate to their field, caring for patients who fail to improve (elderly patients, chronic pain patients, patients who died while being treated), changing shifts and so on (Prihartini, 2017).
The results of an initial survey conducted by researchers in the inpatient room at Royal Prima Hospital found that nurses who worked on the night shift tended to experience stress because they had to leave their families, especially if they had small children. Nurses also sometimes do administrative work such as writing patient statuses, completing medical record reports, handling patient care claims, administering patient insurance coverage such as Askes or Jamkesmas, writing prescriptions and so on. Nurses also often do around 25% of work outside their main duties and functions. Unequal levels of education also cause the abilities and skills of nurses to be unequal.

The development of the Subjective Workload Assessment Technique model as an effort to improve performance in the Inpatient Room at Royal Prima Hospital with a focus on Inpatient nursing services aims to explore why nursing services and why inpatients have been unsatisfactory for 3 consecutive years, then the BOR (Bed Occupancy Rate) indicator which is below regional and national standard levels. The average value is <50% (achievement), which is low compared to the national BOR standard of ≥70%. This value is considered inefficient by Barber Johnson standards, supposedly during the same period when there was the Covid 19 pandemic and health services from BPJS were fully subsidized by the government. In the average BOR for other hospitals and surrounding areas in the BPJS era, the occupancy rate (utilization) was >75% (observed by the researchers themselves) (Mustaqin, 2018).

The results of the initial survey conducted by researchers also found that the Royal Prima Hospital discovered 2 problems with type B hospitals. Namely, the achievement of the BOR (Bed Occupancy Rate) indicator always remained below 60% and could be related to the nominal value of the number of workers (nurses) who often quit. Many people's daily work is neglected. As a result, it is estimated that Royal Prima Hospital will find it difficult to achieve its work target of increasing BOR > 60%.

The BOR indicator is an indicator of the achievement of inpatient services in hospitals, whether they are effective and efficient or not. Parmenter as an important indicator is a benchmark for the competitive value of the hospital's work in managing inpatient unit services. In fact, indicators of the quality of inpatient services are not only in the classical medical field of nursing but involve administrative service systems that exist throughout the Royal Prima Hospital (Kinayan, 2017).

Researchers predict that the meaninglessness of workload pressure conditions has started from the mentality of service officers who feel inappropriate and dissatisfied from their perception. This means that the workload problem is assessed as varying from one respondent to another. This suggests that there is a problem with the quality of service provided by the staff (professional doctors or nurses and other workers in the inpatient unit) which they do not receive because the service itself is experiencing unpredictable stress.

Method

This research uses a quantitative research design with a cross sectional study design approach. A cross sectional study is defined as a type of observational research that analyzes variable data collected at a specific point in time across a sample population or a predetermined subset.

The types of data used in this research use data, namely: a) Primary data is all data related to factors related to nurse performance obtained from the results of respondents' answers on questionnaires that were prepared and distributed during the research. b) Secondary data is data obtained from RSU. c) Tertiary data is the result of research published in journals of international, national reputation and indexed by Google Scholar.

Result and Discussion

The Effect of Time Pressure on Improving the Performance of Nursing Personnel in Inpatients as Subjectively Reasoned by Inpatient Nurses at Royal Prima Hospital

Based on the research results, it is known that of the 120 respondents studied, respondents stated that time pressure was high, namely 59 (49.2%) respondents. There were 41 (34.2%) respondents who stated that they had high time pressure and had poor performance, 18 (15.0%) respondents stated that they had high time pressure and had good performance.

Based on the results of the calculations above, it is known that the statistical test results obtained a significance p value of 0.000 < 0.05. So it can be concluded that there is an influence of time pressure on improving the performance of inpatient nurses according to standard workloads which are subjectively reasoned by inpatient nurses at Royal Prima Hospital.

The research results that researchers found at the Royal Prima Hospital regarding time pressure were nurses' perception that there was a scarcity of time to complete mandatory tasks. Nursing responsibilities have increased in complexity. Although a large workload can be difficult for nurses and must be done without sufficient assistance. In the results of this study, work stress was found to reduce the quality of nurses' performance because they had less time to show concern for the patients in their care. In addition, practice errors occur more frequently when work stress increases. Stress is related to time pressure which is recognized as
inadequate time to complete necessary tasks which compromises a person's ability to cope.

Under intense time pressure, it was found that nurses tended to increase information processing, hindering the quality of decision making. Simultaneously, the stress of time pressure has physical complications, such as increased blood pressure and increased cortisol levels. Time pressure reduces nurses' capacity to assess patient needs in acute care and influences nurses' risk assessment decisions. Time pressure on nurses at Royal Prima Hospital also creates negative emotions, increases anxiety, and causes nurses' emotional exhaustion or exhaustion. When in a state of high anxiety, a person's working memory resources are limited, significantly reducing resources for completing tasks and ultimately reducing the individual's effectiveness.

Nurses' perceived time pressure was negatively related to patients' perceptions of nurse dependability, accountability, responsiveness and certainty. Thus, to improve patient perceptions of the quality of care, nursing managers must develop ways to reduce the time pressure that nurses feel. Nurses' decisions in the healthcare context are also influenced by time pressure. Good decisions depend heavily on the information considered by the decision maker. However, new findings in psychology reveal that time pressure can cause nurses to misinterpret actual events and outcomes, in order to appear more favorable to others (Protzko et al., 2019). However, this was influenced by participants' beliefs about whether their true self was virtuous. Rand et al. (2014) proposes that a person's automatic responses develop from internalization of actions generally agreed upon as good for others in social exchanges. Keeping this idea in mind, when time pressure is imminent, a person may say what appears to be an appropriate response when it may not be an honest response. An example of this is when a nurse reports to the nurse manager that she has followed protocol and checked all necessary patient identifiers before administering medication during a busy shift, while in reality the nurse is telling the nurse manager what she thinks she wants to hear. These misjudgments can result in medication errors, which are among the most common and dangerous errors in health care.

Researchers assume that when people are in a time-crunch state, they often offer socially desirable answers or information as a default. A clash between a person's long-held self-concept and their role at work occurs. Thus, under time pressure, people often operate contrary to their true self-concept, responding consistently with internalized social norms about how the unit should operate from day to day.

**The Effect of Working Hours Schedules on Improving the Performance of Nursing Personnel in Inpatients as Subjectively Reasoned by Inpatient Nurses at Royal Prima Hospital**

Based on the research results, it is known that of the 120 respondents studied, respondents stated that the working hours schedule was high, namely 57 (47.5%) respondents. There were 47 (39.2%) respondents who stated that the working hours schedule was high and had poor performance, as many as 10 (8.3%) respondents stated that the working hours schedule was high and had good performance. Based on the results of the calculations above, it is known that the statistical test results obtained a significance p value of 0.000 < 0.05. So it can be concluded that there is an influence of working hours schedules on improving the performance of inpatient nurses according to standard workloads which are subjectively reasoned by inpatient nurses at Royal Prima Hospital.

Carrying out work effectively and efficiently so that goals are achieved is what all company management desires. Labor scheduling problems have specific characteristics, including fluctuating employee needs, labor capacity that cannot be stored, and customer comfort factors. Every company will definitely face various problems in creating a schedule to meet all working hour requirements according to the number of existing workers. Moreover, if in an organization or company the number of workers is very large, the number of working hours is very long (for example 24 hours a day, and 7 days a week) and there are many variations in work. A concrete example that can be taken in this case is the scheduling of nurses and scheduling of doctors in a hospital. The large number of patients who need health services is in stark contrast to the number of nurses and doctors in the hospital. This results in the hospital needing to set efficient schedules for all existing human resources, including nurses, so that all patients can be served well.

Working hours for workers are also regulated in Law No. 13 of 2003 concerning Manpower, specifically articles 77 to article 85. Article 77 paragraph 1, Law No. 13/2003 requires every entrepreneur/agency to implement working hours provisions. These working hour provisions have been regulated in 2 systems, namely: 1) Seven (7) working hours in 1 (one) day or 40 (forty) working hours in 1 (one) week for 6 (six) working days in 1 (one week; or 2) Eight (8) working hours in 1 (one) day or 40 (forty) working hours in 1 (one) week for 5 (five) working days in 1 (one) week. In both systems the working hours are also working hours are limited, namely 40 (forty) hours in 1 (one) week. If it exceeds the working time provisions, then the normal working time is considered to be excess working time (overtime work).
so that workers are entitled to wages for excess working time (overtime work). In the labor law, Article 78 paragraph (1) point (b) states that overtime work can only be done for a maximum of 3 (three) hours in 1 (one) day and 14 (fourteen) hours in 1 (one) day.

According to Wickramasinghe et al. (2017) overtime working hours can be described in 3 indicators, namely: Working long hours, even at night. working longer than the normal working hours that have been determined due to work that must be completed or pressure that comes from excessive workload and time, such as work that must be completed in a hurry and deadlines. Work at certain times (end of month, end of year, and official holidays). Require health workers to work at the end of the month, end of the year, and official holidays if necessary. Bringing office work home Bringing office work home if the task has not been completed on that day. Impact of Excess Working Time/ Overtime (Overtime Work) Working overtime can have several impacts, both positive and negative impacts. One of the positive impacts is getting more income or income, apart from that, you will get more value from your superiors.

This is very useful because superiors will definitely like it if health workers or their subordinates work overtime, especially if the results are productive (Soegeng Haryadi). However, working overtime is not without risks or negative effects on the person doing the overtime, there are many impacts that can result from working overtime, such as: It is physically and psychologically burdensome for the overtime performer himself. There is also another opinion that working overtime too often can cause energy exhaustion.

Hours per week carries the risk of experiencing fatigue and overwhelm. Furthermore, working overtime can cause people to become stressed and depressed because of their income. This causes overtime workers to be confused about choosing because they are already physically tired, but overtime workers are still dependent on their overtime income. Excessive working hours can also negatively affect sleep quality. The impact of mental health problems on the job can have serious consequences for individuals as well as for organizational productivity. Fatigue is a protective mechanism for the body to avoid further damage so that recovery occurs after rest. The term fatigue usually indicates a condition that varies from person to person, but it all boils down to a loss of efficiency and a decrease in work capacity and body endurance.

Researchers assume that poor working hours can cause fatigue in health workers and can have an impact on the services provided. Health workers who work shifts of 12 (twelve) hours are at risk of experiencing fatigue and work errors compared to health workers who work 8 (eight) hours. In addition, health worker fatigue can cause a decline in the quality of health worker work.

**The Effect of Dual Roles on Improving the Performance of Nursing Personnel in Inpatients as Subjectively Reasoned by Inpatient Nurses at Royal Prima Hospital**

There are many factors at Royal Prima Hospital that can cause nurse performance to decline. Pressure to avoid mistakes or complete tasks in a tight time, excessive workloads, bosses who are always demanding and insensitive, and unpleasant coworkers are some of them. It can group these factors into task, role, and interpersonal demands. The low performance of nurses caused by work stress experienced by a person is influenced by factors that cause stress both from within work and from outside work. The factors that cause work stress discussed in this research are only organizational factors, namely factors that originate from within the job which include role demands. This research is in line with research conducted by Yanti et al. (2019) with the title "The Influence of Job Stress and Job Satisfaction on Nurse Performance at Ud.Garuda Agung Kencana". The results of the research show that work stress and job satisfaction have a significant effect on nurse performance, 2) work stress has a negative and significant effect on nurse performance, 3) work stress has a positive and significant effect on job satisfaction, 4) job satisfaction has a positive and significant effect on nurse performance. Pramudia found that role demands simultaneously had a significant effect on nurse performance, role demands being workload partially had a significant negative effect on nurse performance, work conflict partially had a significant negative effect on nurse performance. Researchers assume that the role demands felt by nurses at Royal Prima Hospital need to be reviewed. The role of the nurse must be in accordance with the nurse's competency, so that in carrying out their work, the nurse can work well and perform well.

**The Effect of Repetitive Action on Improving the Performance of Nursing Personnel in Inpatients as Subjectively Reasoned by Inpatient Nurses at Royal Prima Hospital**

The repetitive movements carried out by nurses at Royal Prima Hospital are repetitions of work movements with the same pattern as nurses often inject patients. Frequent movements that are too frequent will encourage fatigue and muscle tendon tension. Tendon muscle tension can be restored if there is a rest period used to stretch the muscles. The impact of repetitive movements will increase if the movements are carried out in awkward postures with heavy loads for a long time. The frequency with which body postures occur is related to the number of times repetitive motion occurs when doing work. Muscles occur because the muscles...
receive pressure due to continuous loads without getting the opportunity to relax.

Repetitive motion What nurses at Royal Prima Hospital do is count the number of body movements or the same movement pattern over a certain period of time, for example one minute. Repetitive or repetitive activities are carried out by nurses at Royal Prima Hospital continuously, such as lifting patients, pushing patients, installing IVs and measuring vital signs.

Repetitive work can cause pain due to the accumulation of metabolic waste in the muscles. Nurses' muscles will weaken and spasms usually occur in the hands or forearms when carrying out repetitive activities, rough and strong movements, including high-risk work. When moving muscles and tendons work by shortening and lengthening. Inflammation of the tendons and ligaments is very likely to occur if movements are repeated continuously without adequate rest.

Work at Royal Prima Hospital requires a nurse to remain in her position, changing work positions will cause work to stop. Bending posture, twisting when pushing a patient and inserting an IV, doing an EKG, measuring vital signs, nebulizers are often carried out by poly nurses so that body parts such as the neck, shoulders, elbows and back contribute to this position, because the nurse is on the patient's side which is opposite to the area where the activity will be carried out, when standing with support on one leg, and the angle of the body part being too flexed. If this is done for a long time and repeatedly it can cause muscle injury or what is usually called musculoskeletal disorders. Several influencing factors are the respondent's age, length of work, diet, and the most influential factor is work posture. In several studies, work postures with high risks are caused by positions that are not ergonomic and workers feel uncomfortable in that position.

Jobs with dynamic postures have a lower risk of decreased performance compared to jobs that require static postures. This is because static body posture can increase risks associated with decreased blood circulation and nutrition in muscle tissue. Movement is necessary for providing nutrition to the discs, so static work can reduce these nutrients. Apart from that, static work causes stretching of the muscles and ligaments in the back area, this is a risk factor for decreased performance. Nurses at Royal Prima Hospital are very susceptible to back pain. Apart from that, nurses at Royal Prima Hospital also rarely stretch the body and straighten the spine (60).

The unique back construction allows for flexibility and provides protection for the spinal cord. The abdominal muscles play a role in lifting weights and as a means of supporting the spine. Obesity, structural problems, and overstretching of these means of support lead to decreased performance. Age-related degeneration of intervertebral discs into dense, irregular fibrocartilage is a common cause of back pain, L4-S1 experiences mechanical stress and presses along these nerves. Decreased performance and activity limitations create problems for clients who experience decreased performance.

In carrying out their activities, nurses often do not pay attention to important things which are risk factors for decreased performance. Of the many work consequences, decreased performance is the most frequently reported. Decreased performance occurs due to the use of excessive force, excessive repetition of activities with the wrong body such as bending, prolonged static positions and rotating movements. According to researchers, repetitive motion in nurses at the Royal Prima Hospital is a body movement that is counted the same number of times or the same movement pattern over a certain period of time, such as lifting a patient, pushing a patient and so on. Repetition of work movements with the same pattern, this can be seen where the frequency of work that must be done is high, so workers have to continuously work in order to adapt to the system.

Conclusion

Based on the results of research conducted by researchers, this research produces several conclusions as follows: a) There is an influence of time pressure on improving the performance of inpatient nurses according to the standard workload which is subjectively reasoned by inpatient nurses at Royal Prima Hospital. b) There is an influence of working hour schedules on increasing the performance of nursing personnel in inpatient settings which is subjectively reasoned by inpatient nurses at Royal Prima Hospital. c) There is an influence of dual roles on improving the performance of nursing personnel in inpatient settings which is subjectively reasoned by inpatient nurses at Royal Prima Hospital. d) There is an influence of repetitive action on improving the performance of nursing personnel in inpatient settings which is subjectively reasoned by inpatient nurses at Royal Prima Hospital. e) The variable that has the most dominant influence on improving the performance of inpatient nursing personnel as subjectively reasoned by inpatient nurses at Royal Prima Hospital is the dual role variable.

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