

ANALYSIS OF NURSE PRODUCTIVE WORKING TIME PATTERNS IN THE INPATIENT UNIT OF PROF. Dr. ALOEI SABOE CITY OF GORONTALO

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ABSTRACT

This research was conducted in the inpatient unit RSUD Prof. Dr. Aloei Saboe Gorontalo City. This type of research is a quantitative research with a survey method. Researchers collect facts and information through questions to respondents who represent the relevant population productive working time of nurses in the inpatient unit of Prof. Hospital. Dr. Aloei Saboe.

The method used in the research is by make observations/observations by distributing questionnaires containing questions related to the use of time in carrying out work activities which will be distributed to nurses in the inpatient unit of Prof. Dr. Aloei Saboe as many as 40 respondents.

The research results show that Activities in the inpatient unit of Prof. Dr. Aloei Saboe consists of direct nursing and indirect nursing and nurses in the inpatient unit of Prof. Hospital. Dr. Aloei Saboe works productively during official hours with a proportion of productive time patterns of 373 minutes or the equivalent (6 hours 10 minutes) with a percentage of 85% of 100% of the total working time.

Keywords: Nurses, work time patterns, work productivity

PRELIMINARY

Human resources (HR) is the most important basis in developing Indonesia. Utilization of human resources (HR) is not only in the context of how to utilize the quality of human resources, but most importantly how to increase human resources so that they can support National Development goals because human resources are the main driving factor for the running of an organization [9].

One of the goals of the National Development is to improve the standard of public health. This must be supported by the existence of adequate and quality facilities and infrastructure in public

health services. Fulfillment of these facilities and infrastructure is important because it influences people's perception and awareness of health services. Some of these supporting facilities include clinics, health centers and hospitals.

A hospital is a health service institution that provides comprehensive individual health services that provide inpatient, outpatient and emergency services. Complete health services in question are health services that include promotive, preventive, curative, and rehabilitative [12].

Nursing services have an important meaning for patients. Along with its

development, people's demands become more complex and critical in providing nursing services. Quality and professional nursing services are targets to be achieved to improve quality in hospitals [4].

Health nursing in hospitals is a very important and goal-oriented service that focuses on implementing quality nursing care. This can be achieved through good nurse performance. Poor performance will have an impact on low service, patients will feel uncomfortable and dissatisfied [11].

One of the dimensions in measuring performance is the use of time at work. The aspect of working time is related to the allocation of time used to carry out their duties every day. The time element is a unique resource because it is a valuable resource, rare and cannot be played back or recycled, so nurses must use it productively [2].

Nurse work time productivity is a term used to describe the pattern of utilization of work time for productive activities related to their main tasks or functions.

Work time productivity is a measure of the pattern of utilization of the time element in relation to the main tasks and functions contained in the job description. In nursing activities productivity can be measured based on the use of working time by nurses to carry out their duties and functions as nurses. Nurses must have the ability to prioritize, schedule and carry out individual responsibilities for the sake of improving the quality of health services. An executive nurse must be able to use time well.

RSUD Prof. Dr. Aloei Saboe is one of the State Hospitals in the Province of Gorontalo which is currently still actively carrying out health services and is one of the referral hospitals in the Province of Gorontalo. The results of initial observations with one of the nurses on duty at the inpatient unit at Prof. Hospital.

Dr. Information was obtained from Aloei Saboe that the division of labor for nurses in the inpatient unit was carried out by dividing work shifts into shifts, namely the morning shift from 07.00 - 14.00, the afternoon shift from 14.00 - 21.00 and the night shift from 21.00 - 07.00. The division of work shifts is carried out to maximize the work of the nurses and keep the nurses from exceeding the workload.

From the results of the initial observations, information was also obtained that the pattern of productive work time for each nurse was different depending on the nursing activities to be carried out during the work shift. In carrying out nursing services there are several activities carried out by nurses such as direct nursing (direct service to patients), indirect nursing (making nurse notes). But on the sidelines of these nursing activities, nurses also often carry out personal activities (such as eating, drinking and praying) or unproductive activities (such as chatting outside of the main function, playing mobile phones or watching TV).

1. Working Time Pattern

Time is a series of moments when the process of an event, change or condition when an object takes place, the duration of a certain moment to do something, an opportunity, tempo, opportunity, when the moment, the condition of the day and the time determined based on the distribution of the globe. According to physics, time is a dimension that allows the distinction between two identical but different events that take place at the same point in space (space time). The interval between these two events forms the basis of measurement of time [5].

Based on the division, time is categorized into three types, namely:

- a. Cycle time

Cycle time is the time between completion of two successive meetings, assuming constant for all meetings. It can be said that the cycle time is the result of direct observation which is stated in the stopwatch. The time required to carry out work elements is generally slightly different from cycle to cycle even though the operator works at a normal and uniform speed, each element in a different cycle cannot always be adjusted at the same time. This variation and time value can be caused by several things. One of them can occur due to differences in determining when to start or end a work element that should be read from the stopwatch [5].

b. Normal time

Normal time is the time needed by workers who have certain qualifications who work in a way that is usually used by workers to complete their work with a predetermined method [5].

c. Default/standard time

Standard time is the completion time that is reasonably required by normal workers to complete work done in the best work system at that time. Determination of the standard time to determine the production target is done by means of direct measurement using a stop clock. Measurements are taken because doing work is influenced by several factors that cannot be avoided, both internal and external factors. The standard time is obtained by multiplying the normal time by the allowance [5].

2. Productive Work

Productivity is a concept that shows a link between work results and the unit of time needed to produce the product of a worker [3].

Productivity is a result of the work of a worker. The work of this worker is a work process of someone in producing an item or service. The work process of this worker is the productivity of the worker. Productivity can also be interpreted as a comparison between output and input [7].

Productivity is a measure that states how well resources are managed and utilized to achieve optimal results [8].

From the various definitions above, it can be concluded that work productivity is the ability of workers to produce compared to the inputs used, a worker can be said to be productive if he is able to produce goods or services as expected in a short or precise time. Productivity can be used as a measure of the success of an agency in producing goods or services. The productivity cycle is one of the productivity concepts that discusses efforts to increase productivity continuously.

3. The characteristics of a productive employee

The characteristics of productive employees include:

- a. Constructive action
- b. Believe in yourself
- c. Responsible
- d. Have a love of work
- e. Have foresight
- f. Able to solve problems and be able to adapt to a changing environment
- g. Have a positive contribution to the environment (creative, imaginative, and innovative)
- h. Having the power to realize potential [7].

4. Work Productivity Measurement

One approach to determine the level of labor productivity is to use a method that classifies worker activities. In this study, observations

were made using the productivity rating method, where worker activities are classified into 3 things, namely Essential Contributing Work, Effective Work, and Not Useful (Ineffective Work) [3].

a. *essential contribution work*, namely work that is not directly, but part of the completion of the work, namely:

- 1) Waiting for another handyman with no work
- 2) Transporting work-related equipment
- 3) Read project drawings
- 4) Receive job instructions
- 5) Discuss work

b. Effective work, namely when workers do their work in the work zone.

c. Ineffective work (not useful), namely activities other than the above that do not support the completion of work. Such as leaving the work zone, walking in the work zone with empty hands and chatting with fellow workers so they don't work optimally.

Effective time is the time during which workers perform activities that qualify as working. Ineffective time is the time when workers carry out activities that can qualify as not working. The qualification of worker activity in this method is not absolute, meaning that it can adjust to conditions in the field to obtain the necessary data [8].

5. Benefits of productivity assessment

The benefits of measuring work productivity are as follows:

- a. Feedback on work implementation to improve employee work productivity
- b. Evaluation of work productivity is used for settlement, for example: giving bonuses and other forms of compensation.

c. For determination decisions, for example: promotions, transfers and demotions.

d. For training and development needs.

e. For career planning and development.

f. To find out the deviations in the staffing process.

g. To find out informal inaccuracies.

h. To provide fair employment opportunities [6].

6. Factors Affecting Productivity

To achieve high productivity in a company in the production process, there are several factors that can affect labor productivity that need to be known including education and training, mental attitude (discipline and work ethics), motivation, nutrition and health [8].

To achieve high productivity in a company in the production process, there are several factors that can affect labor productivity that need to be known related to education and job training, mental attitude (discipline and work ethics, motivation, nutrition and health, level of knowledge, work environment and social level, technology, social security, and individual relations [1].

7. Inpatient

A hospital is an institution whose main function is to provide services to patients-diagnostic and therapeutic-for various diseases and health problems, both surgical and non-surgical. Hospitals must be built, equipped and maintained properly to ensure the health and safety of their patients and must provide spacious facilities, not crowded and guaranteed sanitation for the recovery of patients. Hospitalization is hospital health care where the patient stays/lodges for at least one day based on referrals from health service providers or other health service implementing hospitals.

Hospitalization is an individual health service which includes individual health services, which includes observation, diagnosis, treatment, nursing, medical rehabilitation, by staying in inpatient rooms at public and private hospital health facilities as well as treatment centers and maternity homes, where due to their illness the sufferer has to stay overnight [10]. In the treatment room there are services as follows:

a. Medical Services

These medical personnel can act as general practitioners or specialist doctors who are trained and are expected to have a high sense of dedication in providing services to patients. In addition to expecting medical personnel to know and cure their disease, patients also expect that these medical personnel can provide compassion, a sense of security, full attention and devotion, try really hard and treat and care for them [10].

b. Services for Paramedics

The job of nursing services is to provide good service to sufferers, namely to provide assistance based on expertise, to patients who experience physical and mental disorders, people who are recovering and people who are unhealthy and less strong. With this help those who need help are able to learn on their own to live with the limitations that exist in the environment [10].

RESEARCH METHODS

The approach used in this research is a quantitative approach. A quantitative approach is a method used to answer research problems related to data in the form of numbers and statistical programs [14].

The type of research used is survey research. Researchers collect facts and information through questions to respondents who represent the relevant populationproductive working time of nurses in the inpatient unit of Prof. Hospital. Dr. Aloei Saboe.

The data used in this study consists of two types, namely:

- a. Primary data, obtained through observations/observations during working hours of nurses in the inpatient unit of Prof. Hospital. Dr. Aloei Saboe.
- b. Secondary data, obtained from hospital data in the form of daily nurse activity schedules (consisting of direct and indirect nursing activities) as well as the number of nurse population in the inpatient unit of Prof. Dr. Aloei Saboe.

Sources of data were obtained through observation sheets in the form of questionnaires containing questions related to the use of time in carrying out work activities which will be distributed to nurses.in the inpatient unit of Prof. Dr. Aloei Saboe.

The population in this study were all nurses in Prof. Hospital. Dr. Aloei Saboe numbered 403 people. The sample used in this study was a total of 40 people who were taken randomly from nurses at Prof. Hospital. Dr. Aloei Saboe. The sample size is obtained through calculations with the following formula:

$$n = \frac{N}{1 + Ne^2}$$
$$n = \frac{403}{1 + 403 (15\% ^2)}$$
$$n = \frac{403}{1 + 403 (0,02)}$$
$$n = \frac{403}{10,06}$$
$$n = 40$$

Information:

n = Number of samples
N = Total Population

e = Margin error

Data collection techniques are the most strategic steps in research, because the main purpose of research is to obtain data. Without knowing data collection techniques, researchers will not get data that meets the established data standards [13].

The data analysis technique used in this research is quantitative descriptive analysis. The data obtained from data collection will then be analyzed univariately. Univariate analysis was used because the data contained only one variable and were not related to cause or effect relationships. The purpose of univariate analysis is to describe the data in a simple way to find patterns in the data.

Univariate analysis was performed using a calculation technique using the following formula:

$$P = \frac{X}{N} \times 100\%$$

Information:

P = Percentage

X = Number of events in the respondent

e = Total number of respondents

RESEARCH RESULTS

1. Average Distribution of Time for Each Nurse's Activity in the Inpatient Unit of PROF Hospital. Dr. Aloi Saboe Gorontalo City.

Nurse's activities in the Inpatient Unit of Prof. Hospital. Dr. Aloi Saboe Gorontalo City during official hours. This time is the average obtained from the results of recording the time of 40 nurses at the Inpatient Unit of Prof. Hospital. Dr. Aloi Saboe which is the subject of research. Each includes

No	Forms of activity	Average Time (Minute)	Average Time (O'clock)	percentage (%)
1	Productive Time	373	6 hours 10 minutes	85%
2	Unproductive Time	96	1 hour 35 minutes	15%
Total Time		469	7 hours 45 minutes	100%

direct nursing activities, indirect nursing and personal activities.

2. Average Time For Each Act Of Direct Nursing, Indirect Nursing And Personal Activities

Table 1 Average Time for Each Act of Direct Nursing, Indirect Nursing and Personal Activities

No	Forms of activity	Average Time (Minute)	Average Time (O'clock)
1	Direct nursing	217	3 hours 35 minutes
2	Indirect nursing	155	2 hours 35 minutes

3	Personal Activities	96	1 hour 35 minutes
Total Time		469	7 hours 45 minutes

Based on the table above, it can be seen that the average time for each direct nursing action, indirect nursing and personal activities carried out by nurses in the Inpatient Unit of Prof. Hospital. Dr. Aloei Saboe Gorontalo City during official hours. From this table, the average time used for direct nursing activities is 217 minutes or 3 hours 35 minutes, indirect nursing activities are 155 minutes or 2 hours 35 minutes and personal activities are 96 minutes or 1 hour 35 minutes. The total time spent is 469 minutes or 7 hours 45 minutes.

3. Average Productive Time of Nurses

Table 4.3 Average Nurse Productive Time

Based on the table above, it can be seen that the average productive and unproductive time carried out by nurses in the Inpatient Unit of Prof. Hospital. Dr. Aloei Saboe, Gorontalo City during official hours, namely for productive activities carried out by nurses at the Inpatient Unit of Prof. Hospital. Dr. Aloei Saboe Gorontalo City during working hours is 373 minutes or 6 hours 10 minutes and the unproductive time during working hours is 96 minutes or 1 hour 35 minutes.

DISCUSSION

This research conducted in Hospital Inpatient Unit Prof. Dr. Aloei Saboe Gorontalo City with the aim of analyzing the productive working time patterns of nurses at the Inpatient Unit of Prof. Hospital. Dr. Aloei Saboe Gorontalo City. Success in providing comprehensive services involves human resources.

Among the human resources directly involved in providing services to patients are nurses. Nursing services are an integral part of hospital health services and make a very large contribution in determining the quality of health services. Nursing services provide full 24-hour service to patients, so that they can affect the quality of nursing services that are felt by patients.

In this study, the researcher then wanted to find out how the pattern of productive work time for nurses in the Inpatient Unit of Prof. Hospital. Dr. Aloei Saboe Gorontalo City during service time. Productive work time is the time needed to achieve the goal of a job in the form of increasing/improving work (Hidayat, 2017).

Productive working time is the proportion of time spent doing productive activities to the total working time. A person's working time determines his efficiency and productivity. Extending working time and not accompanied by high efficiency will usually show a decrease in productivity or performance [1].

This study focuses on the pattern of productive time for nurses in the G3 inpatient room at Prof. Dr. Aloei Saboe. At the time of initial observation it was found that the nurse's service time was divided into three work shifts, namely morning, evening and night service. Work shift time is around 7-8 hours per day. Each nurse has different work productivity time based on work shift time.

In his research, Andra, 2018 states that to show how long productive time takes to complete tasks can be known based on the large number of patients. The number of patient visits will have an impact on the number of productive activities that must be carried out by nurses, both direct activities based on

patient classification and indirect activities.

Nurses on duty in the morning get a higher workload than nurses on duty in the afternoon and evening. Normally nurses work in the morning shift because nurses need to meet the needs needed by patients in the morning shift such as changing verbans, checking vital signs, administering drugs, install and care for the catheter, change linen, change and improve the patient's sleeping position, take examination materials and so on. The high workload on the morning service is related to additional services from the hospital in the form of therapy and diagnostic services provided, while at night the nurses are more relaxed at work, namely looking after and checking patients, observing the patient's condition, monitoring infusion drops and reminding the patient of the actions to be taken. performed by the patient in the morning, so that it will affect the number of activities and productive use of nurses' work time. This shows that the proportion of the morning shift is higher than the evening and night shifts [4].

The research was conducted on 40 nurses in the G3 inpatient unit who were doing the morning shift work. Based on the results obtained, it can be seen that the average productive time for nurses working during official hours is 373 minutes or equivalent to (6 hours 10 minutes) with a percentage of 85% of approximately 469 minutes or equivalent to (7 hours 45 minutes) total service time at work. From this time, a time difference of 96 minutes or equivalent (1 hour 35 minutes) with a percentage of 15% is obtained which is used by nurses to carry out personal activities outside of their main tasks and functions so that it is classified as unproductive time.

Based on the theory of the International Labor Organization (ILO) in Hidayat (2017) states that a workforce is

considered productive if it is able to complete 80% of its workload. Andra (2018) also stated that the workload is said to be high if the proportion of productive activities is 80% or more of the total working time. Based on this theory, it can be concluded that nurses in the inpatient unit of Prof. Hospital. Dr. Aloe Saboe works productively during official hours with a proportion of productive time patterns of 373 minutes or the equivalent (6 hours 10 minutes) with a percentage of 85% of 100% of the total working time.

CONCLUSION

Based on the results of the research conducted, the conclusions in this study are:

1. Activities in the inpatient unit of Prof. Dr. Aloe Saboe consists of direct nursing and indirect nursing.
2. Nurse in the inpatient unit of Prof. Dr. Aloe Saboe works productively during official hours with a proportion of productive time patterns of 373 minutes or the equivalent (6 hours 10 minutes) with a percentage of 85% of 100% of the total working time.

SUGGESTION

1. For future researchers, they can carry out further research involving more research subjects and not only focusing on nurses in one hospital service unit
2. This research can be developed to assess the pattern of productive time in the three work shifts of nurses, namely the morning, evening and night shifts.

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