



Nursing Personnel Needs Analysis Using the Workload Indicator Staff Need (WISN) Method in Installation Emergency Datu Beru Hospital Central Aceh

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Abstract

WISN is a resource management tool that analyzes staffing needs based on the workload for a certain staff category, as well as the facility and kind of health institution. This tool can be applied nationally, regionally, and to health facilities. It is simple to use on a technical, comprehensive, and practical level, and it facilitates the determination of variations in human resource requirements among various types of health services, such as health centers and hospitals. This study's objective is to examine the requirement for workload-based nursing staff utilizing the Workload Indicator Staff Need (WISN) approach at the Emergency Installation (IGD) Datu Beru Hospital, Central Aceh in 2021. A descriptive study using observational methods served as the research design. This study's population consisted of all 35 nurses at the Emergency Installation of RSUD Beru Takngon. This population was sampled using a total sample size of 35. 35 individuals. WISN analysis was used to analyze the data. After the researcher got data from completing the questionnaire based on observation, they recorded and made revisions to the documentation of the nurses' work in the emergency room. Research findings Using the WISN approach, it is determined that the Datu Beru Takengon Hospital Emergency Room has a nursing staff shortfall of three individuals. Working time, nursing staff activities, workload standards, the slack factor, and the nursing staff needs calculation have an effect on the nursing staff needs at the Emergency Installation of RSUD Datu Beru Takengon.

Introduction

A nurse is an example of an essential human resource that contributes to the provision of hospital services. In line with the requirements of Law No. 38 of 2014, a nurse is defined as an individual who has graduated from a nursing program of higher education, either domestically or internationally, that has been recognized by the government in accordance with the provisions of the law invitation.

It is essential for a hospital's human resource pool to correspond, in terms of both kind and service, to the requirements of the institution's patients. It is difficult for hospital management to bring in new quality resources due to the frequent occurrence of issues such as a shortage in the amount and qualifications of employees, low levels of competence and values, and limited financial resources. These issues commonly arise in hospitals.

A lack of adequate quality and quantity of health workers directly affects the quality of services produced, which in turn has an effect on the image of the hospital and minimizes the benefits

of a hospital (Mosadeghrad et al., 2011). The basic considerations of human resources in hospitals are plenary services, which become a very big energy in hospital development. In addition, a lack of adequate quality and quantity of health workers directly affects the quality of services produced. In addition, energy becomes a resource that cannot be acquired immediately, despite the fact that certain modifications are required before it can be used to its full potential in order to promote health and decrease morbidity.

Along with the strengthening of the economy and the general health of the population comes an increase in the need for high-caliber hospital services. In recent years, Indonesian hospitals have been seeing substantial improvements as a result of the issue of a variety of laws and regulations. These laws and regulations seek to encourage investment and provide better circumstances for the business of providing medical services. Business people are now becoming more involved in the process of actively investing in the Indonesian hospital sector (Sato, 2017). It is clear that the government is not the only entity that is obligated to offer health services to the population. This has been the primary factor that has led to the establishment of brand-new private hospitals throughout the course of the last several years.

In order to improve the quality of these services, skilled human resources that are capable of providing the highest level of service are required. The Human Resources department is the most important part of a corporation since they act as the planners, implementers, regulators, and controllers. A planning process is required for the management and development of human resources in order for those resources to be able to provide excellent service to patients (Kabene et al., 2006; Ramadevi et al., 2016). This planning process is a form of forward thinking that aims to control the future, forecasting, and decision making in an integrated manner, and it is a standard operating procedure within the organization. Due to the fact that the required dependable and high-quality human resources cannot be supplied immediately, this preparation is an imperative need. Planning for HR must begin far in advance of the time that will be required.

The Ministry of Health of the Republic of Indonesia issued guidelines for planning services for Health HR at the Provincial, Regency/City, and Hospital levels in 2004. These guidelines were issued through the Decree of the Minister of Health Number 81/MENKES/SK/2018. Within these guidelines, the method of calculating HR needs using the Workload Indicators Staff Need (WISN) method is the one that is the most interesting and appropriate to use in hospitals. The WISN technique is a way for assessing the requirement for health human resources based on the actual workload carried out by each category of health human resources in each work unit in health care facilities. This approach is known as the Workload Integrated Staffing Needs method.

The WISN technique is a resource management tool that determines staffing needs for a particular staff category and clearly specified facilities and kinds of health facilities based on the workload for that category of staff. This calculation is done using the WISN method. This tool can be applied on a national or regional scale to health facilities. It is simple to use on a technical, comprehensive, and practical level, and it makes it easy to determine how different kinds of health services, such as health centers and hospitals, have varying requirements for human resources.

Emergency room nurses have a significant amount of work to do since, in most cases, patients who are brought to the ER are patients who need medical treatments as promptly and properly as is humanly feasible. In order to provide care for patients whose quantity and severity are unable to be predicted, emergency room nurses are required to be on call around the clock. The amount of labor that emergency department nurses have to do varies from shift to shift, based not only on the total number of patients but also on the severity of each individual patient's condition, which in turn determines the kind of treatment that has to be administered to the

individual. Emergency department nurses have a variety of nursing administration chores to do in addition to the ever-changing volume of patient care that they are responsible for.

According to Ilyas (2002), a nurse, the workload analysis can be seen by looking at aspects such as the tasks that are carried out based on the main function and additional tasks that are performed, the number of patients who need to be treated, their work capacity in accordance with the education they receive, and the amount of working time that is used for nursing care. carry out their responsibilities as government servants in line with the working hours that are observed on a daily basis, in addition to providing full facilities that may assist nurses in carrying out their job in the appropriate manner.

According to the findings of a study that was carried out at the Hasan Sadikin Hospital in Bandung, it was determined that there was still a shortage of nurses when the number was computed utilizing the WISN method; more specifically, it was stated that the hospital required more than one hundred nurses in order to meet the demand for nurses.

The Datu Beru Hospital is a category B government hospital in the Central Aceh Regency that can be found on Jalan Qurata Aini No. 153 in the Kebayakan District of the Central Aceh Regency. This hospital is situated in the Central Aceh Regency.

According to a study that was carried out by direct interviews with multiple nurses working in the emergency department, this room is one of the rooms that has a busy number of patients a day, with the number of patients that visit the room ranging from fifty to one hundred. Additionally, there is a need for additional nurses in the emergency department, and those nurses may even require assistance from nurses working in other areas of the hospital.

There was a total of 35 medical professionals and 25 implementing nurses present in the room, along with a total of 5 teams. The morning shift runs from 8:00 in the morning until 14:00 in the afternoon, the afternoon shift runs from 14:00 in the afternoon until 20:00, and the night shift runs from 20:00 in the evening until 8:00 in the morning.

By dividing the number of nursing staff, it is known that there is a high workload because of excessive working hours. However, what if there are physicians who are on yearly leave or maternity leave as a result of an excessive number of patients, unusual occurrences, or epidemics? This circumstance directly increases the workload of nurses, as well as the afternoon shift doctors who have arrived but are still overburdened in their ability to carry out their responsibilities. As a result, the doctors work in the morning shift, whose working hours are from 8:00 to 14:00 but still work until 20:00 to 8:00 WIB. A strategy is required in order to fulfill a hospital's need for professional people. We will get a competent workforce that is in accordance with our demands if we calculate the necessity for labor based on the amount of work that is being done by the officer. Because the quality of the services provided by the hospital will increase if there is a skilled personnel there.

According to the findings of a study that was carried out, it is common knowledge that there are twenty-five nurses working in the emergency room, each of whom has an average workload that is high or higher. This situation is made worse by the absence of a comfortable working environment, which can be manifested in a number of ways, including an environment that is too noisy, too hot, filled with patients' families who visit too frequently, or even one that is not harmonious among coworkers. If suitable amenities are not provided, the working environment will deteriorate. In addition to these characteristics, all Bed Occupancy Rates (BOR) also have an effect on the burden that is placed on the nurse. For example, if the BOR is more than 80 percent, this might be interpreted as a sign that the nurse's job is particularly intense or that the workload is substantial. Because of the high proportion of BOR, it is possible for physicians to be required to work longer than the schedule that has been established, particularly the resources of doctors working in the hospital.

Methods

This study is a descriptive investigation that makes use of observational methodologies. The method that was utilized in the course of this observation was a work sampling form. In this form, the activities of the nursing staff that were observed were analyzed by means of the productive time that was obtained. Subsequently, the productive time was utilized in order to calculate the ideal number of nurses that should be working in the Emergency Installation (IGD) General Hospital. Workload Indicator Staff Need (WISN) is the methodology that was used by Datu Beru Central Aceh. The method that was utilized in the course of this observation was a work sampling form. In this form, the activities of the nursing staff that were observed were analyzed by means of the productive time that was obtained. Subsequently, the productive time was utilized in order to calculate the ideal number of nurses that should be working in the Emergency Installation (IGD) General Hospital. Workload Indicator Staff Need (WISN) is the methodology that was used by Datu Beru Central Aceh.

Results and Discussion

Nursing Working Hours available at the Emergency Installation of RSUD Datu Beru Takengon

The effective time that nursing personnel have available to carry out their primary responsibilities in a work unit inside a hospital throughout the course of one year is referred to as the available working time of nurses. 300 days, 2400 hours, or 144,000 minutes are all examples of the amount of time that may be spent working as a nurse in the Emergency Room of RSUD Datu Beru Takengon in a single year. This indicates that nurses should devote a greater portion of their time to the primary responsibilities of their jobs.

The Datu Beru Takengon Regional General Hospital treats patients almost every day, but the Datu Beru Takengon Regional Hospital grants the right to national holidays, joint leave, and annual leave to all employees in accordance with the provisions of the relevant Minister, specifically based on the Joint Decree on National Holidays, based on the Joint Decree of the Related Ministers concerning National Holidays and Collective Leaves, in 2021 it is set 16 working days and 4 working days respectively for national holidays and collective leaves. However, even during national holidays and during periods of collective leave, emergency services at the Datu Beru Takengon Regional General Hospital will continue to be provided.

There are no provisions for nurses, but the provisions that apply at Datu Beru Takengon Hospital to attend training, courses, seminars, or workshops in one year are in place. In order to improve their competence and professionalism, every member of the nursing staff has the right to attend education and training in a given year. Due to the educational and professional development requirements of the nurses, Datu Beru Takengon Hospital allocated two full working days to this purpose.

According to the findings of a calculation, the total amount of available working time that nursing personnel in the emergency department of RSUD Datu Beru Takengon have in a given year is 2,080 hours, which is equivalent to 124,800 minutes. This indicates that the time is being used by nursing staff in order to carry out nursing duties in the most efficient manner possible. According to the findings of Amini & Hudiawati study (2020), the amount of time that nurses spend working at Bangkatan Binjai Hospital is 129,600 minutes per year. However, the amount of time that is available for work in the Datu Beru Takengon Hospital is much lower. This is because the Datu Beru Takengon Hospital's emergency departments each have their own policies on the granting of leave days and the length of time an employee may be absent from work. These policies vary from department to department.

While in the example calculation, in accordance with Kepmenkes No. 81 / Menkes / SK / I / 2018, the amount of allowable working time for the category of nurse is 214 days, which is

equivalent to 1712 hours per year or 102,720 minutes per year. Using this theoretical guideline, the amount of time spent working by nursing staff at the emergency installation of RSUD Datu Beru Takengon is greater than the amount of time actually spent working. This is due to the fact that there is room for variation in the calculation of the work week, the number of days off, and the amount of time missed from work.

Activity standards of Nursing Personnel at Datu Beru Takengon Regional General Hospital

The nursing staff at the Inpatient Installation of the Datu Beru Takengon General Hospital uses the work sampling technique as a method to get an overview of the workload of nurses by observing the activities of nurses with a work sampling form. This is done in order to determine how much work the nurses are expected to complete. According to the nurses' job productivity in the inpatient room, direct and indirect nursing tasks require much more time than non-productive activities.

For the purpose of this research, observers participated in all of the direct, indirect, and non-productive nursing actions. After obtaining a list of activities performed by nursing during available working time, the researchers categorized these activities based on Ilyas (2000) as direct, indirect, or non-productive nursing activities. This was done after acquiring the list of activities performed by nursing.

In light of this, the researcher intends to use the Workload Indicator Staff Need (WISN) approach in the hopes of obtaining an overall picture of the workload in the emergency department of RSUD Datu Beru Takengon in order to determine an accurate number of nursing staff requirements.

Standard of Nursing Workload in Emergency Installation at Datu Beru Takengon Hospital

The amount or quantity of work for one HR category over the course of one year is referred to as the standard workload. The standard workload for a primary activity is calculated by combining the amount of time needed to finish (the average amount of time) with the amount of time that is available each year for each kind of energy.

The researchers need the typical amount of time spent on nursing activities at the Datu Beru Takengon Regional General Hospital in order to formulate this standard workload. Once the researchers have this information, they can calculate the standard workload of nurses for each type of activity by dividing the total amount of available work time by the typical amount of time spent on nursing activities. As a result of the observations that were made, it is clear that the calculation of the standard workload, which involved contrasting the amount of available working time with the amount of time spent carrying out activities over the course of one year, yielded the result of 124,800 minutes per year.

in compliance with the Decree of the Minister of Health of the Republic of Indonesia Number 81/Menkes/SK/I/2018 pertaining to Guidelines for the Preparation of Health Human Resource Planning at the Provincial, Regency/City, and Hospital Levels. It is claimed that the time necessary to accomplish a key activity, by each category of HR in each work unit, is the average time. This time is taken into account. The amount of time necessary to finish operations is very variable and is impacted by service standards, standard operating procedures (SOPs), readily accessible medical facilities and infrastructure, and HR skills.

Standards for Allowance for Nursing Personnel in the Emergency Installation at Datu Beru Takengon Hospital

To obtain an allowance factor for each category of HR, including the type of activity and the amount of time needed to complete an activity that is not directly related to or is influenced by

the high and low quality or number of main activities/services, the purpose of compiling the standard of allowance is to obtain an allowance factor.

After determining the typical workload of the nursing staff, the next stage is to establish the typical allowance, in which the time of slack refers to the amount of time required to carry out additional tasks that are not directly connected but are advantageous for current workers. Researchers observed members of the nursing staff who then participated in the study as research respondents in order to save up time for the nursing staff.

The number 0.195 per year was determined to be the standard of allowance via observations. This is achieved via many elements including as holding weekly meetings, creating activity reports, calculating requirements for drugs and equipment, and compiling needs for consumables.

Calculation of the Number of Nursing Personnel Needs in the Emergency Installation of RSUD Datu Beru Takengon

The availability of nursing staff in line with the requirements and situation of hospital demands is one factor that is extremely significant for achieving excellent service. This is because nursing personnel is required to provide direct patient care. Because of this, the planning that goes into satisfying the requirements of medical staff in hospitals has to be more comprehensive in order to prevent errors in the planning.

Inaccurate planning may lead to workforce levels that are either too low or too high. On the other side, an excessive amount of personnel may result in financial losses for the hospital if the absence of manpower leads to an increased burden, which in turn can lower the quality of care provided by the institution. The Workload Indicator Staff Need (WISN) technique is one of the many approaches that may be used in the process of meeting the demand for nursing staff in healthcare facilities such as hospitals. The Decree of the Minister of Health Number: 81 / Menkes / SK/2018, which has published Guidelines for the Preparation of Health HR Planning at the Provincial, Regency / City, and Hospital levels, serves as the guiding document for this procedure. In this guideline, the calculation of the need for nurses in hospitals using the Workload Indicator Staffing Need (WISN) method is the most interesting and appropriate for use in hospitals. The method of calculating needs based on workload, also known as the Workload Indicator Staffing Need (WISN), is an indicator that shows the amount of power that is required in health facilities. depending on the amount of work that has to be done in order to ensure that the workers who are assigned and relocated are more young and rational. The benefits of using this approach are that it is simple to run and use, straightforward and simple to apply technically, as well as comprehensive and practical (Depkes, 2009).

In this particular investigation, the technique of computation known as the Workload Indicator Staff Need (WISN) approach was used. the findings acquired from the calculation of the requirement for nurses based on the Workload Indicator Staff Need (WISN) approach in order to improve the condition of health professionals in a more efficient manner.

The Emergency Installation of RSUD Datu Beru Takengon requires a total of 38 nurses, according to calculations performed using the WISN approach. This figure was arrived at after using the procedure. In the meanwhile, over the course of this investigation, there were a total of 35 available nurses. When compared to the results of calculations performed using the WISN approach, there is only a lack of three nursing staff members. This is not too dissimilar from the findings that were obtained by utilizing the WISN method.

Conclusion

The total amount of available working time in nursing services at the Emergency Installation of RSUD Datu Beru Takengon is 124,800 minutes per year. This number is the result of calculations that take into account annual leave, education and training time, absence from

work due to national holidays, and the amount of working time per day. The time spent on direct nursing activities, indirect nursing activities, and non-productive activities are taken into account when determining the standards for the major activities performed by nursing staff. These three categories make up what are known as the primary activities of nurses. When it comes to the typical workload at the Emergency Installation of RSUD Datu Beru Takengon, administering oral and injectable medications takes the least amount of time, whilst attending weekly meetings takes the most. The administration of oral and injectable medications accounts for the biggest portion of the standard workload at the Emergency Installation of RSUD Datu Beru Takengon. Weekly meetings account for the lowest portion of the standard effort. At the Inpatient Installation of RSUD Datu Beru Takengon, the standard of allowance comprises attending monthly meetings, compiling activity reports, worshipping or following spiritual activities, compiling medication and equipment requirements, and compiling consumables needs. The allowance index is 0.195. When viewed from each room, there are advantages and disadvantages of different nursing staff needs in each room that were studied by researchers. The need for nurses in the Emergency Installation of RSUD Datu Beru Takengon using the WISN method that overall there is a shortage of nursing staff as many as 3 people. There are shortages and excesses of nursing staff in the Emergency Installation of RSUD Datu Beru Takengon, according to an examination of the number of nursing staff needs that utilized the WISN method in conjunction with the MOH method. This combination was performed in Nursing rooms that are still being utilized by the hospital. The Beru Takengon hospital will be responsible for carrying out repairs as well as planning.

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