

Analysis Of Doctor's Workload In Optimization Of Manpower Utilization In RSI Muhammadiyah Singkil

Anindya Ryan Pramudya^{1*}, Dwita Darmawati², Wahyu Siswandari³

^{1*}Universitas Jenderal Soedirman, anindyaryan16@gmail.com, Indonesia

²Universitas Jenderal Soedirman, dwita.darmawati@unsoed.ac.id, Indonesia

^{3*}Universitas Jenderal Soedirman, wahyu_swdr@yahoo.com, Indonesia

*Anindya Ryan Pramudya

ABSTRACT

One indicator of the success of an effective and efficient hospital is the availability of sufficient human resources with high quality, professional in accordance with the functions and duties of each personnel. One method in planning the needs of health workers in the agency is to calculate the workload. calculation can be done using the Workload Indicators of Staffing Needs (WISN) method based on the workload of personnel. This study aims to determine the needs of doctors using the Workload Indicators of Staffing Need (WISN) method at the Singkil Muhammadiyah Islamic Hospital. This research method uses descriptive quantitative with an observational approach. This research was conducted in April-May 2022. The sample of this study was all doctors at the Singkil Muhammadiyah Islamic Hospital. Based on the results of the study, it was found that the workload of doctors at Islamic Hospital was high (WISN ratio <1). So the hospital experienced a shortage of doctors. The results of this study are expected to be input, especially for the hospital in planning health workers, especially doctors.

Keywords: Workload, WISN doctors.

1. Introduction

1.1 Background

Hospital is a health service institution for the community with its own characteristics obtained by the development of health science, technological advances, and the socio-economic life of the community which must continue to be able to improve services that are more qualified and affordable by the community, in order to realize the highest level of health. This is in accordance with the definition of Hospital according to Law number 44 of 2009 concerning Hospitals.

To improve the quality of quality health services, one thing that must be considered by hospital leadership is to be better and more effective in handling human resources owned by hospitals, because to achieve an organizational success, be it hospitals or companies that play a role One of the important things is human resources (Satish 2015).

An organization requires great effort, large capital, sophisticated technology and abundant natural resources to achieve an organizational goal, but it will be in vain if it does not have human

resources who have the ability and competence to utilize these resources. (Napirah & Sulistiani 2015).

Human resources are a supporting element for the functioning of hospital operations. Hospital organizational resources are very important in order to provide complete service to patients. The hospital itself has human resources consisting of various professional associations such as doctors, nurses, pharmacists, nutritionists, analysts, physiotherapists and others. Of the professions in the hospital, the nurse profession has the highest number, which is 40% of the number of hospital health workers (Wahyuningsih 2014). Therefore, hospital managers must find ways to ensure a balance between the number of patients and the need for nurses to provide good service quality and excellent service to patients (Oetelaar et al. 2016).

The success of health development is largely determined by the presence of human resources (HR) where HR contributes 80% of all factors related to health development. Based on the Presidential Regulation of the Republic of Indonesia Number 72 of 2012 concerning the National Health System (SKN), efforts to fulfill the need for health human resources have not taken into account the condition of the number, type, quality and distribution.

The National Health System (SKN) in 2012 stated that human resources as one of the subsystems that have a very important role in overcoming various problems in health development in Indonesia. The human resources subsystem contains various efforts to develop and empower health human resources. These efforts include planning, procurement, utilization, as well as coaching and monitoring the quality of health human resources to support the implementation of health development in order to realize the highest degree of public health.

According to the Ministry of Health (2013), the total number of recorded health human resources is 877,088 people, consisting of 681,634 health workers and 195,454 non-health workers. Health workers consist of 90,444 medical personnel (specialist doctors, general practitioners and dentists), 288,405 nurses, 137,110 midwives, 40,181 pharmacists, and 125,494 other health workers. evenly, this has been a problem until now in Indonesia.

Judging from the ratio to the population, the number of specialists, general practitioners, midwives, and public health workers in Indonesia is in accordance with the Strategic Plan of the Ministry of Health for 2010-2014, but the distribution is not evenly distributed (Ministry of Health, 2013).

Workload analysis is an attempt to calculate the workload on a work unit by adding up all workloads and then dividing by individual work capacity per unit of time (Kepmenkes 81, 2004). HR planning method in Kepmenkes No. 81 of 2004 concerning Guidelines for the Preparation of Health HR Planning at the Provincial, Regency/City and Hospital Levels, it is stated that one method of planning the needs of health workers in institutions is to calculate the workload using the Workload Indicators of Staffing Need (WISN) method.

This method is a model adopted from WHO which has been developed since 1998. The WISN method has the advantage that it is easy to use, technically, comprehensive, realistic, and provides convenience in determining variations in human resource needs in various types of health services such as health centers and hospitals (WHO). , 2010). The completeness of secondary data is one of the keys to the success of the application of this WISN method (WHO, 2010).

1.2 Problem Formulation

Based on the problems mentioned above, what is the workload and need for general practitioners using the Workload Indicator Staff Need (WISN) method, and how is the distribution in RSI PKU Muhammadiyah Singkil?

1.3 Research Objectives

- General Objectives
Determine the workload and needs of doctors at PKU Muhammadiyah Singkil Hospital
- Specific Objectives This study aims to determine:
 - General practitioner workload by calculating the WISN ratio at RSI PKU Muhammadiyah Singkil.
 - The need for general practitioners by calculating the difference between the ideal number of general practitioners and the reality (WISN difference) at RSI PKU Muhammadiyah Singkil.
 - Distribution of general practitioners at RSI PKU Muhammadiyah Singkil.

1.4 Benefits of Research

The results of this study, are expected to be useful as follows.

- Theoretical Benefits
 - As a scientific contribution in the field of Hospital Management.
 - This research can be used as a contribution reference for further research related to workload analysis and calculating the number of nursing staff needs using the Workload Indicator Staff Need (WISN) method.
- Practical Benefits
 - As input for hospitals to improve the quality of services through planning a doctor's workforce in accordance with hospital needs based on their workload.
 - As a reference for hospitals to evaluate the number of doctors.
 - Can add knowledge, insight, as well as being able to apply and socialize the theory that has been taught during lectures

2. Literature Review

2.1 Human Resource Management Human Resource

Management consists of two different meanings are 'management' and 'human resources. Management itself has a broad meaning, namely moving something systematically, effectively and efficiently, which aims to make it easier for a person or group of people to carry out activities to achieve a goal that has been established. While human resources are sources of human strength that can be used or functioned as the interests of an organization to achieve a goal of the organization (Mardiyah et al, 2015)

Meanwhile, according to (Mardiyah et al, 2015) the function of Human Resource Management is as planning (planning, organizing, actuating and controlling for manpower procurement, development, compensation, integration, maintenance and termination of employment with human resources to achieve individual, organizational and community goals.

Health human resources as one of the seven subsystems in the 2012 SKN, are essential and have a very important role in the ongoing health development, where the strategic problem is the lack of harmony in planning the needs of health workers, their quality, and the uneven distribution throughout Indonesian territory. The results of research conducted by Oktorina and Sugiharto in 2011, the number of existing health workers is not sufficient and the distribution of health workers in health centers in remote areas, borders and islands is still not evenly distributed. Therefore, in the health planning mandated in the 2012 SKN, more emphasis is placed on efforts to determine the type, number, qualification, and distribution of health workers in accordance with the needs of health development. Research in Iran also found that equitable distribution of health human resources should be considered as a main philosophy of health care (Doulati et al., 2013). An evaluation of the placement of health workers in Buton Regency found that the ratio of doctors to the population was very low and there was an unequal distribution (Herman and Hasanbasri, 2008).

Good human resource management will certainly affect the quality of health services provided (Kabene et al., 2006). As was done in Blitar Regency, anticipating an increase in public accessibility to health services in 24 existing health centers by recommending efforts to regulate health personnel to improve service quality starting with an analysis of workforce policies (Laksono et al., 2012). A literature study conducted by Mohamed and Hameed (2015), states that effective HR management will have a strong effect on service quality and the development of hospital staff performance.

- **Methods of HR Planning The**

Decree of the Minister of Health Number 81 of 2004, among others, regulates several methods of planning for health workers to be selected according to the capabilities of each agency.

- Health Need Method, namely planning the need for health workers based on the epidemiology of the main diseases that exist in the community.
- Health Service Demand Method, namely the preparation of health personnel needs based on health demand requests.
- Health Service Targets Method, namely planning the needs of health workers based on the established health effort targets.
- Ratios Method, namely the preparation of the need for health workers based on a standard/ratio to a certain value.

In addition, Kepmenkes No. 81 of 2004 also presents several other development methods that can be applied in health human resource planning, namely the Employee List (DSP) method, Workload Indicators of Staffing Need (WISN), and also the preparation of manpower needs based on scenarios/projections. The DSP method can be used in various work units such as puskesmas, hospitals and other health facilities (Kurniati and Efendi, 2012), but this method has not been able to evaluate the gap between the number of health workers including their distribution (Kepmenkes 81, 2004). The WISN method is a method that can answer these problems, is very easy to operate, easy to implement, comprehensive, and also realistic (Kepmenkes 81, 2004).

2.2 Workload Analysis

According to Permendagri No. 12/2008, workload is the amount or severity of a job that must be done by a person, a position or an organizational unit which is the product of work time and work

volume. Workload is the most significant factor, which can affect hospital services (Naznin et al. 2013).

While the workload according to (Giammona et al. 2016) is a workload that is quantitative if it is calculated based on the number or number of actions taken by doctors in meeting patient needs, and workloads can be qualitative if the work done by doctors is the responsibility that must be taken. carried out by a profession.

Workload analysis is one way of planning human resource needs (Kepmenkes 81, 2004). Based on the Government Regulation of the Republic of Indonesia Number 15 of 2007 concerning Procedures for Obtaining Employment Information and the Preparation and Implementation of Manpower Planning, it is stated that in both micro and macro manpower planning, it is calculated based on the workload which is then stated in the manpower plan which is prepared within a period of five years. year. Every year an assessment is carried out to adjust to the development needs of each institution or company. The results of the workload analysis calculations are very useful as a measuring tool for human resource needs in an organization as a basis for the norms of work completion time, work efficiency levels, work performance, preparation of employee formations, and improvement of work procedure systems (Ministry of Health, 2013).

Currently, the challenges to the management of health services are increasing which is marked by the inadequate response of health workers in providing health services in accordance with the needs of the community due to the imbalance in the distribution of health workers between villages, urban areas, and also between the levels of primary, secondary, and tertiary services. WHO, 2010).

The results of a descriptive study on the analysis of the workload of nurses at 25 health centers in Seoul, found that the caseload on nurses should actually be increased (Ryu et al., 2003). This is in line with a retrospective study in Finland, which found that nurses' workload analysis was more influenced by nursing intensity and less by non-patient factors (Rauhala and Fagerström, 2007).

Another review of the workload measurement of nurses in Ireland, stated that there is a need for a workload measurement system that can better capture the real aspects of nursing (Brady et al., 2007). Research conducted at the Kedaton Public Health Center in Bandar Lampung found that the workload of general practitioners at the General Polyclinic was very high when compared to the number of patients who had to be served and the available working time. The workload of general practitioners is already excessive for one doctor causing less working time for patient care at the General Poly (Rusli et al., 2013).

2.3 Workload Indicator Staff Need (WISN)

Definition of the Workload Indicator Staff Need (WISN) Method The WISN method can be used to calculate the number of personnel needs on a large scale, for example in health offices and hospitals at the provincial, district/city levels and has been approved by a Ministerial Decree RI Health No. 81/Menkes/Sk/2004 (Ministry of Health, 2004). According to (Shieh et al. 2016) this method can rely on workload as an indicator of manpower needs, so that staffing will be easier to do. This method is technically easy to implement and holistic in nature, however, according to the Ministry of Health, this method has a weakness, namely, it relies heavily on the completeness of data recording because the data is used as the basis for data input, which will then determine the amount of the calculation results for manpower needs.

The Workload Indicator of staff need (WISN) is also useful for determining staff needs in each category based on the workload of the health facility. This study was conducted to estimate the quantity of staff needs based on activity standards and workloads (Shivam et al. 2014). Whereas the WISN Method according to (Satish 2015) is a dynamic and useful tool that offers workload-based support for National, regional, and local policy makers and facility managers to increase equity and distribution of worker health in an area or in similar facilities (Mugisha & Namaganda 2014) The WISN method aims to calculate the number of cadre health workers, based on the workload of a particular health facility, this provides two indicators to assess the staffing situation: (1) shortage or excess between the current number and required staff. (2) get the ideal number of staff based on workload (Mcquide & Forster 2015).

The WISN method has the advantage that it is easy to use technically, comprehensively, realistically and provides convenience in determining variations in human resource needs in various types of health services such as health centers and hospitals. However, the WISN method has a weakness, where it is necessary to have complete data which will later be analyzed statistically and will affect the accuracy of WISN results (WHO, 2010).

The work steps in the WISN method are in accordance with the 2010 WHO guidelines

- Determine the priority of the type of health worker and the type of health facility.
- Estimating available working time.
- Define the components of the workload.
- Define activity standards.
- Determine the standard workload.
- Calculate the allowance factor.
- Determine manpower requirements based on WISN.
- Analysis and interpretation of WISN results

The analysis of the WISN results consists of the difference between the available manpower and the required manpower and the calculation of the WISN ratio. The WISN ratio is a measurement of the daily workload pressure of health workers. Examining the two things between the gap and the WISN ratio is very important in determining how to properly develop health workers (WHO, 2010).

The application of the WISN method provides considerable benefits in managing human resources in an organization.

- **Planning for future workforce** The first use made in accordance with the results of WISN is as a basis for planning future needs for health workers at the health facility concerned. This plan must be able to anticipate the emergence of other workloads by increasing professional standards in accordance with the latest relevant standards, taking into account changes in labor conditions in view of the available working time, and also making adjustments to medical standards according to the calculated average time (WHO, 2010).
- **Allocation of health personnel** The results of WISN will be able to provide an overview of the impact of the lack of available health workers. Through efforts to allocate health workers, it is hoped that it can help ease the workload of the health workers concerned. If increasing the number of workers is not possible, it can be overcome by adjusting working time in alternating ways (WHO, 2010).

- Improving the quality of health workers A low WISN ratio will result in a low quality of output from the health services provided. Efforts to improve the quality of health workers become a priority according to the results of WISN if increasing the number of personnel is not possible (WHO, 2010).
- Efforts to distribute existing health workers and reduce workload pressure. Comparing the results of WISN in similar health care settings will help us in proper distribution. Which health service places are seen to have a shortage of health workers, how much workload pressure can be used as a basis for equitable distribution of health workers (WHO, 2010). The results of the overall implementation of WISN are incorporated into the workforce planning method (Dewdney, 2001), together with appropriate and detailed data from the HR information system (WHO, 2010).

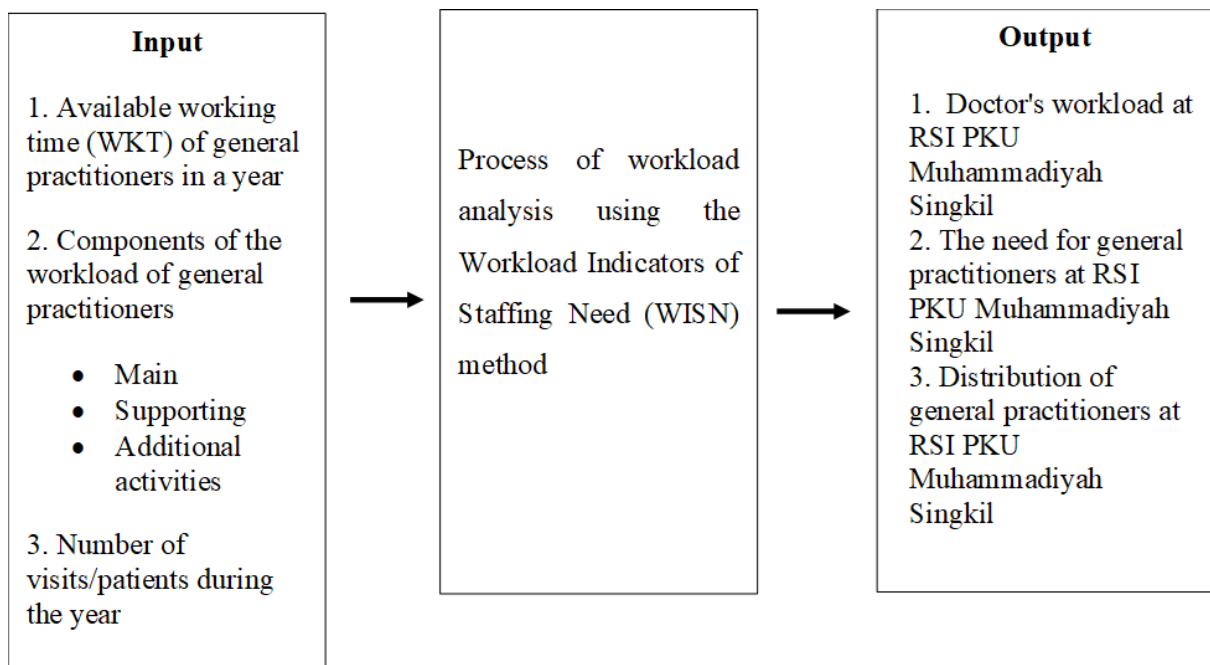
2.3 Hospitals

According to the Law of the Republic of Indonesia Number 44 of 2009 Article 1 concerning hospitals, hospitals are health service institutions that provide complete individual health services that provide inpatient, outpatient and emergency services.

The hospital is also a place for health maintenance and improvement activities that aim to seek optimal health degrees for the community. According to Siregar and Amalia (in Syilvi, 2021) what is included in health efforts are maintenance, health improvement, disease prevention, disease healing and recovery which must be carried out in harmony.

According to Law no. 44 of 2014, hospitals can be grouped according to the type of service and management. Based on the services provided, hospitals can be categorized into general hospitals and special hospitals. As for the management, hospitals can be divided into public hospitals and private hospitals.

- Image Research Concept



3. Research Methodology

3.1 Research Design

This study is a cross-sectional descriptive study.

3.2 Location and Time of

Research This research was conducted at RSI PKU Muhammadiyah Singkil with the implementation time starting from July - December 2022.

3.3 Determination of Data Sources

The research sample is the total population where all 15 functional general practitioners at RSI PKU Muhammadiyah Singkil become the research sample so that no sampling technique is needed. The data needed in this study is quantitative data obtained from interviews and direct observations of the activities of each general practitioner as well as analysis of secondary data.

3.4 Research Variables and Operational Definitions

Referring to the 2010 WHO WISN guidelines, there are several variables analyzed.

Table 1. Table of Research Variables and Operational

VARIABLES	OPERATIONAL DEFINITION	UNIT	CATEGORY/VALUE	SCALE
Working time available (WKT)	Working time for a year for general practitioners in carrying out their work by considering the official and legal attendance list.	Day	Calculation results using WISN software English Version 1.1.132.0	Nominal
components	Types of activities carried out by general practitioners on a daily basis include main, supporting and additional activities.	-	The results of the approval in the workshop	Nominal
Main Activities	Activities related to health services from all general practitioner health workers that are routinely recorded in annual statistics, including general patient examinations (anamnesis, examination, recording of medical records, excluding examination of blood pressure, temperature, weight), conduct inpatient visits, perform minor medical actions, consultations, and counseling.	Minutes	Measurement results with a stopwatch	Nominal

Supporting	activities Important activities that support health services from all general practitioner health workers, but are not routinely recorded in annual statistics, include attending regular puskesmas meetings, conducting sulinggih visits, first aid team, screening school children, immunization for school children , field surveillance, patient visits (TB/leprosy/psychiatric/malnutrition), counseling, mobile VCT, and posyandu or posbindu activities.	Hours	Secondary data for general practitioner support activities	Nominal
Additional	activities Activities that are not carried out by all general practitioners and are not routinely recorded in annual statistics include supervising the pustu, attending seminars/training, and doing general administration (BOK/JKN/JKBM).	Hours	Secondary data for additional general practitioner activities	Nominal
Standard activity	Time required by trained, skilled, and motivated general practitioners to do their jobs according to their workplace conditions.	Activities per unit of time (minutes or hours)	Calculation results using WISN software English Version 1.1.132.0	Nominal
standard	The number of activities contained in the health service workload component that can be carried out by general practitioners in a year.	Activities per unit time (minutes or hours)	Calculation results using WISN software English Version 1.1.132.0	Nominal
factor	Factors used to calculate the need for general practitioner health workers in carrying out activities that are not routinely recorded in annual statistics, namely supporting activities and additional activities.	Activities per unit time (minutes or hours)	Calculation results using WISN software English Version 1.1.132.0	Nominal
Manpower Requirement	The number of general practitioner health workers needed is based on the results of calculations using WISN for three types of workload components.	Number of doctors	Calculation results using WISN software English Version 1.1.132.0	Nominal

3.5 Research Instruments The

Instruments used in this study were observation guidelines, stopwatches, and recording forms for secondary data.

3.6 Research Procedure

This research is a research with quantitative method which is carried out in several steps.

- Observation (work sampling)

Conducted observations at RSI PKU Muhammadiyah Singkil to validate the data. Measurement of motion and activity time of each general practitioner using a stopwatch and observation guidelines was carried out by observers.

The average time obtained for each activity according to the workload component that can be observed is used as a time standard in calculating workloads using WISN software and will be used as a special time standard for general practitioners of RSI PKU Muhammadiyah Singkil.

- Secondary Data Collection

The next step is to collect secondary data by looking at patient visit reports, employee work plan books, attendance lists, and other related documents.

3.7 Data

Analysis Quantitative data analysis was performed using WISN English Version 1.1.132.0 software. The data is then presented in the form of tabs and narration.

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