ANALYSIS OF HEALTH WORKFORCE RESOURCE QUANTITY OPTIMIZATION USING THE HEALTH WORKLOAD ANALYSIS METHOD AT BANDUNG EYE CENTER HOSPITAL

Setiadi Nugraha[1], Tasya Aspiranti[2], Rachmat Suyanto[3]

[1] *Master of Management Study Program, Hospital Management Concentration, Bandung Islamic University, Indonesia*
[2] *Master of Management Study Program, Hospital Management Concentration, Bandung Islamic University, Indonesia*
[3] *Master of Management Study Program, Hospital Management Concentration, Bandung Islamic University, Indonesia*

ABSTRACT

Community demands for improving the quality of hospital services are increasingly felt important because people are increasingly critical of the service products they receive. In providing good health services, hospitals must have optimal health resources to support the effectiveness of clinical functions. To find out and analyze the optimal needs for Health Human Resources (HRK) at the Bandung Eye Center Eye Hospital.

The research method used in this study is descriptive with a quantitative and qualitative approach (Mix Method). Data collection techniques using interviews, observation and document review. Data analysis used the Health Workload Analysis method based on the Regulation of the Minister of Health of the Republic of Indonesia No. 33 of 2015. The aim is to find out the optimal number of human resource needs at the BEC Eye Hospital.

The results showed that 11 outpatient nurses were needed, of which 9 people were already available so there was still a shortage of 2 people. 7 people are needed for optical refractive power, while the number available is 6 people, so 1 person needs to be added. 6 people are needed for medical record personnel, while the number available is 3 people, there is a shortage of 3 people. Nutritionists need 2 people, while the number available is 1 person, so it needs to be added by 1 person. To meet the optimal number of manpower requirements based on workload analysis, it is necessary to rotate from work units with excess to work units with shortages or new recruitment.

Keyword : *HR Management, Health Workers, ABK Kes Method, Eye Hospital*

---

1. INTRODUCTION

A hospital is a business unit, if viewed from a microeconomic perspective. Economic analysis in a business unit usually starts from the rationale for efficient use of funds. This is understood, because the resources required for hospital service activities always exceed the capacity of existing funds. Apart from that, there are several conditions that encourage hospitals to be efficient, including expensive hospital resources, difficult hospital resources, and an atmosphere of competition between hospitals (Rachmat S et al., 2018),

The Bandung Eye Center Eye Hospital or called RSM BEC is a class C private specialty hospital. Historically the BEC Eye Hospital was originally a main clinic and was founded in 2001. The Bandung Eye Center Eye Hospital set

its vision, namely "To be an eye center leading in Indonesia" and its mission: "To provide eye services that prioritize patient satisfaction with the highest professional standards and the latest medical equipment". Therefore, in an effort to achieve this vision and mission, it is necessary to provide adequate facilities, infrastructure and tools (SPA) as well as human resources for health workers.

Based on data from health workers in 2022, the operations of the BEC Eye Hospital are supported by 76 health workers, as in the following table.

Table -1: Data on health workers at RSM BEC in 2022

No.	Health Type	Real	Provision Minister of Health Regulation No. 3 of 2020		Remark
			Tipy C	**Minimum amount**	
1	Medical specialist a. Eye Specialist: b. Other specialists:	26	+ +/-	1 0	Fulfilled
2	General practitioners	7	+/-	0	Fulfilled
3	Nurse : a. Inpatient Installation b. Outpatient Installation c. Emergency Room d. Surgical Room Installation	4 9 4 7	+	1	Fulfilled
4	Nutrition	1	+	1	Fulfilled
5	Pharmaceutical Staff: a. Pharmacist b. Pharmaceutical Medical Personnel	6	+ +	1 1	Fulfilled
6	Optician Refractionist	5	+	1	Fulfilled
7	Medical Recorder	3	+/-	0	Fulfilled
8	Medical laboratory expert	4	+	1	Fulfilled
9	Radiographer	0	+	1	Not Fulfilled
	Amount	76			

Source: HR BEC Eye Hospital

From the data in table -1 above, it shows that the BEC Eye Hospital still does not have radiographers and radiographer facilities in accordance with the standards of the Minister of Health Regulation of the Minister of Health of the Republic of Indonesia number 3 of 2020 concerning classification and licensing of hospitals, while the results of X-rays/radiographers are very important in relation to with one of the preoperative conditions. For the last 5 years, BEC Eye Hospital has used a third party to carry out radiographic examinations. This is less efficient considering that patients are required to undergo radiographic examinations outside the hospital which will take longer and there are possible health risks that will arise if patients with visual impairments have to move too far before carrying out surgery.

The BEC eye hospital itself does not have an ideal standard for the number of HRK and only uses WISN (Workload Indicator Staff Need) calculations to determine the HRK for each unit. RSM BEC has never carried out workload analysis calculations in accordance with Minister of Health No. 33 of 2015 concerning guidelines for preparing applicable health human resource needs planning. This is important for BEC Eye Hospital to pay attention to planning its human resource needs. A preliminary study conducted by researchers showed that there was a shortage of staff in the diagnostic unit, where patient waiting times for TTV (vital signs), basic visual acuity, refractometry, eye pressure and eyeglass correction examinations were only carried out by 1 nurse. and 2/3 optical refraction in one shift takes around 20 minutes per patient which makes the waiting time for the next patient sometimes exceed the ideal time while the ideal waiting time is less than or equal to 60 minutes.

The inpatient installation which has a low average BOR (Bed Occupation Rate) value of 7.9% in the last 3 months from September to November 2022, has 4 nurses on duty in the installation. Often inpatients do not have patients and nurses on duty are required to assist them in other installations. Apart from that, the emergency installation also provides assistance to other installations when they are not serving emergency patients. This shows that there is no equal distribution of the quantity of health workers.

According to health regulation no. 33 of 2015, the number and qualifications of human resources are adjusted to the results of workload analysis, as well as the needs and capabilities of hospital services. There are several human resource planning methods in the health sector, including planning health human resource needs (SDMK) based on the health workload analysis method (ABK Kes) in accordance with the Regulation of the Minister of Health of the Republic of Indonesia No. 33 of 2015. Implementation of health human resource needs planning based on The applicable government regulations are of course very strategic, because by implementing them, health service organizations submit and comply with regulations issued by the government as one of the main stakeholders of the organization and really support the operational sustainability of the health service organization.

Planning for health human resource needs (SDMK) based on the health workload analysis method (ABK Kes) is a method of calculating needs based on the workload carried out by each type of health human resource (SDMK) at each health service facility (Fasyankes) in accordance with their duties. principal and function. This method is used to calculate the need for all types of health human resources (HRK) (PERMENKES RI No. 33 of 2015). HRK Needs Planning aims to produce an appropriate HRK needs plan including type, quantity and qualifications according to organizational needs based on appropriate planning methods in order to achieve health development goals. HRK planning can provide several benefits both for organizational units and employees (PERMENKES RI No. 33 of 2015).

Based on this analysis, it is urgent to make changes to the formation of human resources at the Bandung Eye Center Eye Hospital so that it can achieve the ideal ratio in accordance with the health workload analysis method (ABK Kes) so that optimal health services can be provided, thus the author feels interested in conducting research entitled: "Optimization Analysis of the Quantity of Health Personnel Resources Using the Health Workload Analysis Method at the Bandung Eye Center Eye Hospital"

1.1 Problem Identification

Based on the description of the background of the problem above, the problem can be identified as follows:
1. What is the current quantity of health workforce resources at RSM BEC?
2. What is the ideal health human resource planning according to Minister of Health Regulation No. 33 of 2015 for type C private hospitals.
3. How to optimize the ideal quantity of health worker resources using the ABK Kes method at RSM BEC?
4. What is the management policy to optimize the quantity of health worker resources according to the ABK Kes method at RSM BEC?

1.2 Research Objectives

Based on the problem identification described above, the research objective is to find out and analyze:
1. Quantity of health worker resources using the ABK Kes method at RSM BEC.
2. Ideal health human resource planning according to Minister of Health Regulation No. 33 of 2015 for class C private hospitals.
3. Optimize the ideal quantity of health worker resources using the ABK Kes method at RSM BEC.
4. Management policies to optimize the quantity of health worker resources in accordance with the ABK Kes method at RSM BEC.

2. LITERATURE REVIEW

2.1 Management

Management is a process of planning, organizing, leading, controlling, directing the process of providing facilities for the work of people organized within the organization. Management is also an activity based on science and art to achieve predetermined goals with the help of other people in achieving organizational or group goals, and is also a process of a series of activities so that the implementation of work can take place effectively and efficiently."

According to (Wilson, 2016:26) Management is a process of cooperation between employees to achieve organizational goals in accordance with the implementation of the functions of planning, organizing, personnel, directing, leadership and supervision. This process can determine the achievement of predetermined targets by utilizing hospitals and other resources to achieve more efficient and effective results.

.2.2 Human Resources Management

Human resource management is a strategic and coherent approach to managing an organization's employees (Armstrong & Taylor, 2022). Human resource management (HRM) can be defined as the science and art of planning, organizing, directing and evaluating human resources when procuring, developing, compensating, integrating, maintaining and terminating employment, to achieve organizational goals and employee desires. , and community needs. This definition includes selecting employees who have the right criteria for position placement in the company (the right employees for a position), according to the company's criteria so that employees with these qualifications can be obtained, retained, and then develop their abilities according to the company's needs (Nurdin Batjo & Dr. Mahadin Shaleh, 2018).

Human resource management is an ongoing process designed to provide organizations and groups or organizations with appropriate personnel so that they can be placed in the appropriate portions and places when the organization needs them (Boris Kaehler & Jens Grundei, 2019). Human resource management is the attraction, selection, development, use and maintenance of human resources by an organization.

2.3 Health Human Resources

Health Human Resources, hereinafter abbreviated as SDMK, is someone who works actively in the health sector, whether they have formal health education or not, which for certain types requires authority to carry out health efforts. One of the resources in the health sector that is very strategic is Health Human Resources (HRK). The availability of quality human resources can meet needs, be distributed fairly and evenly, and be utilized effectively and efficiently to ensure the implementation of health development in order to improve the level of public health to a high level which is absolutely necessary on an ongoing basis. For this reason, HRK needs planning, which initiates the overall aspect of HRK management, must be prepared as a reference in determining procurement which includes education and training for HRK, utilization of HRK, including improving welfare, and development and monitoring of the quality of HRK (RI Minister of Health Regulation No. 33, 2015).

3. RESEARCH METHODS

The research carried out was a descriptive analysis with a quantitative and qualitative approach (mix method) using observation, interview and document review techniques. The technique used in this observation to obtain the amount of time used for each activity pattern of health workers at the BEC Eye Hospital is to use a work sampling technique, where the activities of the health workers being observed will be examined every five minutes for three or two working days. Next, the use of the productive time obtained is used to calculate energy needs using the ABK Kes method, which is then analyzed on the results of the workload and energy requirements that have been obtained to determine strategies to meet the needs of health workers.

4. DISCUSSION

4.1 Characteristics of Research Objects

The object of this research is the health workers who work at BEC Eye Hospital, 1 or 2 people per unit who have appropriate competence (minimum 2 years of service and have SIP), carry out standard operational procedures (SPO) well and have a good work ethic. in the Inpatient Unit, Outpatient Unit, Surgical Room Unit, Emergency Room Unit, Diagnostic Unit, Medical Records Unit, Laboratory Unit, Pharmacy Unit and Nutrition Unit for observation**.**

Apart from that, the researchers also interviewed the HR Manager, head of the operating room unit, head of the outpatient unit, head of the ER unit, head of the inpatient unit, head of the medical records unit, head of the pharmacy unit, head of the laboratory unit, head of the diagnostic unit, and head of the nutrition unit to obtain data on workload standards in each unit and then observing the time norms for each workload standard in these units for a total of 22 people. The characteristics of the research objects in this study are used as a description of the data, to help researchers carry out analysis.

4.2 Current Quantity of Health Personnel Resources at RSM BEC

According to Minister of Health Regulation Number 14 of 2021 (attachment page 638) that hospitals must have permanent staff who work full time, at least 80% (eighty percent) of the total number of human resources. The permanent staff who work full time at RSM BEC have exceeded the minimum number determined by Minister of Health Regulation No. 14 of 2021. Based on data from health workers at the Bandung Eye Center Eye Hospital in 2022, operations are supported by 75 health workers, as in the following table.

Table -2 Types of SDMK and Quantity of SDMK at RSM BEC

No.	Types of SDMK	Quantity
1	Medical specialist a. Eye Specialist: b. Other specialists:	20 5
2	General practitioners	7
3	Nurse : a. Inpatient Installation b. Outpatient Installation c. Emergency Room d. Surgical Room Installation	4 9 4 7
4	Nutrition	1
5	Pharmaceutical Staff: a. Pharmacist b. Pharmaceutical Medical Personnel	6
6	Optician Refractionist	5
7	Medical Recorder	3
8	Medical laboratory expert	4
9	Radiographer	0
	Amount	75

Source: HR RSM BEC 2022

In the table above it can be seen that there are 75 health resources at RSM BEC consisting of 20 eye specialist doctors, 5 other specialist doctors (internal medicine, anesthesia and pediatrics), 7 general practitioners, 4 inpatient nurses, 9 outpatient nurses, 4 emergency room nurses, 7 operating room nurses, 1 nutritionist, 6 pharmaceutical staff, 5 refraction opticians, 3 medical recordists and 4 medical laboratory experts. The results of the data found by researchers show that the Bandung Eye Center Eye Hospital does not yet have radiographers and radiographer

facilities in accordance with the standards for type C eye hospitals contained in the regulation of the Minister of Health of the Republic of Indonesia number 3 of 2020 concerning hospital classification and licensing. In the interview session with the research object, BEC Eye Hospital is currently under construction of a radiology unit which will begin operation in mid-2023 to meet the standard qualification standards for type C eye hospitals and increase time efficiency and patient satisfaction.

4.3 Ideal health human resource planning according to Minister of Health Regulation No. 33 of 2015 for class C private hospitals.

In planning human resources for health, the government has regulated this by issuing Minister of Health Regulation no. 33 of 2015 which aims to provide a reference for each work unit from the institutional, district/city, provincial and national levels in carrying out planning for health human resource needs in accordance with their respective duties and functions. Where HRK needs planning is a systematic process in an effort to determine the number and qualifications of HRK needed according to the conditions of a region in order to achieve health development goals.

Based on the results of the research, the researchers made a comparison between the minimum HRK staff standards and the number of HRK in the BEC Eye Hospital, as follows:

Table -3: Comparison of HRK

No	Type of Employment	Class C		RSM BEC	Comparison
		Total	Permanent Power		
A.	Medical				
1.	Ophthalmologist:	1	0	3	+2
2.	Sub-specialist eye doctor:	0	0	17	+17
3.	Anesthesiologist	-	-	2	+2
B.	NURSING				
1.	Inpatient ward nursing	1/1 TT		4/15TT	-11
2.	Operating room nursing	3 / OK		7/ 3 OK	-2
3.	Outpatient nursing			9	-
C.	OTHER HEALTH PERSONNEL				
1.	Pharmacist	1		6	+5
2.	SMF/SAA	2		7	+5
3.	Associate Expert in Environmental Health	1		0	-1
4.	Associate Expert in Medical Records	1		2	+1
5.	S1 Medical Records	0		1	+1
6.	Health Expert Analyst (AAK)	1		4	+3
7.	Nurse Anesthetist	-		1	+1

Source: Processed Data (2023)

From the results of this comparison, it can be concluded that there are 3 units that still do not meet the minimum HRK standards set out in the manual 2 for health HR needs planning based on minimum staffing standards, namely inpatient ward nursing which has 4 nursing staff where in the minimum HRK standards it is recommended to have 1 nurse per bed while the BEC Eye Hospital has a capacity of 15 beds, which means there should be 15 inpatient nurses. Apart from that, operating room nursing also lacks 2 OK nursing staff, where in the minimum standard HRK is recommended to have 3 OK room nurses, while the BEC Eye Hospital has a capacity of 3 OK rooms, which means there should be 9 OK nurses. Lastly, an environmental health associate expert should have at least 1 person, while the BEC Eye Hospital currently does not have an environmental health associate expert staff. From the results of interviews with research objects, information was obtained that the calculation of the number of HRK at the BEC Eye Hospital uses the WISN (Workload Indicators of Staffing Need) method. WISN (Workload Indicators of Staffing Need) is an indicator that shows the magnitude of the need for personnel in health facilities based on workload, so that allocation/relocation will be easier and more rational. This method has been applied there for about 4 years and has never applied HRK calculations using the ABK Kes method before.

4.4 Optimize the ideal quantity of health personnel resources using the ABK Kes method at RSM BEC.

The ABK Kes method has 6 steps in its calculation. First, the researcher must determine the health facility and type of HRK, then determine the available working time (WKT), determine the workload components (main tasks, supporting tasks, job descriptions), and time norms after that calculate the workload standards. , calculate the standard of supporting activities and finally calculate the HRK needs per institution / health facility.

Based on calculations with the Kes crew, there is an excess of 1 person in the surgical room nurse, a shortage of 2 nurses in the outpatient unit, so there needs to be an additional 2 people, an excess of 3 emergency room nurses, an excess of 1 full-time general practitioner, an excess of part-time general practitioners 4 people, inpatient nurses have an excess of 3 people, Refractionist opticians/optometrists need 7 people while the number available is only 6 people so an additional 1 person is needed, medical laboratory technologists (Analysts/Biologists) need 4 people which means it has been fulfilled, medical recorders need 6 people while the number available is only 3 people so an additional 3 people are needed, the pharmacist's need for 6 people has been fulfilled and the nutritionist's need for 2 people has been fulfilled.

4.5 Management policies to optimize the quantity of health worker resources in accordance with the ABK Kes method at RSM BEC.

Optimization of human resources (HR) has an important role in the effectiveness of hospital management (Arash Apornak, Sadigh Raissi, Abbas Keramati & Kaveh Khalili-Damghani, 2020). One of the most important tasks of managers is optimal allocation of human resources (HR) and maximum facility productivity. The significance of this problem becomes clearer when organizations are faced with limited human resources, and the survival and development of institutions is subject to the identification, evaluation and selection of the most appropriate investment opportunities and allocation of funds to them. Managers need workforce planning as one of the main decision-making tools to decide how to allocate HR and control it, and to ensure that resources are used efficiently and efficiently (Costanzo MR, Fonarow GC, Rizzo JA, 2019).

So HR policies in accordance with statutory regulations in optimizing human resources (HR) are very important, to determine the optimal quantity of HRK, appropriate calculations are needed so that resources will be more effective and efficient in terms of various factors. Recapitulation of calculations for the need for Human Health Resources (HR) at the Bandung Eye Center Eye Hospital, shows:

Table -4: Recapitulation of Human Resource Needs at the Bandung Eye Center Eye Hospital

No	Types of SDMK	Number of HRK (Current)	Number of HRK (Should)	HRK gap	Circumstances
1	Surgical Room Nurse	7	6	+1	More
2	Outpatient Nurse	9	11	-2	Not enough
3	ER Nurse	4	1	+3	More
4	Full Time ER General Practitioner	2	1	+1	More
5	Part Time ER General Practitioner	5	1	+4	More
6	Inpatient Nurse	4	1	+3	More
7	Optician/optometrist Refractionist	6	7	-1	Not enough
8	Medical laboratory technologist (Analyst/Biologist)	4	4	0	In accordance
9	Medical Recorder	3	6	-3	Not enough
10	Pharmacist	6	6	0	In accordance
11	Nutritionists	1	2	-1	Not enough

Source: Processed Data (2023)

Based on table -4, it can be seen and concluded that there are still units that have a staff quantity that is not optimal. There are 3 units under the medical and nursing service manager that have excess human resources for nurses, namely surgical room nurses have an excess of 1 nurse, the emergency room and inpatient unit have an excess of 3 nurses while the outpatient unit has a shortage of 2 nurses.

Emergency room nurses and inpatient nurses have an excess number of nurses of 3 nurses, but this excess is not accompanied by the number of patients in accordance with the patient target set by the hospital, namely 30 patients per month for inpatient care and a high BOR (Bed Occupation Rate) percentage. according to WHO standards, namely 60% - 80%. Based on inpatient data from the Bandung Eye Center Eye Hospital, during 2022 the average inpatient BOR was only 6.3%, even in April 2022 the inpatient BOR was only 3.9%. So the researchers felt that this was ineffective and inefficient, ineffective because with the large number of SDMK, the workload in the two units did not match the number of patients available. And it is inefficient in terms of income, which is not much, but the hospital has to pay the salaries of the nurses and plus the burden of procuring consumable equipment and consumables in the unit.

However, an interesting thing found by researchers was expressed by respondents from the inpatient unit through interviews. The respondent said that with the current number of HRK for inpatient nurses, there is still difficulty in providing services to patients in the inpatient unit, if patients in the inpatient unit exceed a ratio of 1 nurse: 1 bed. So there is a need for additional nurses in the inpatient unit, so that it is hoped that this problem can be overcome. Furthermore, the researcher then confirmed with the HR manager regarding this matter, then said that the addition of nurses in units under medical and nursing services was not included in the annual Budget Plan (RAB) made by HR, because it was considered sufficient. Here the researchers see, based on the results of observations in the field, that this problem can be overcome by working between units that have a small workload, for example emergency room nurses can provide assistance to the inpatient unit or vice versa, so this will lighten the workload in the inpatient unit. inpatient and emergency room. This can also overcome the problem of optimizing the quantity of inpatient nurses said by respondents in the inpatient unit.

Next, the researcher's focus shifted to the results of calculating the quantity of HRK needs in the outpatient nursing department. It could be clearly seen that there was a shortage of 2 nurses. Based on the results of observations and data processing by researchers, this deficiency clearly has an impact on services in the outpatient unit being ineffective. For example, the activities of carrying out anamnesis and TTV examinations by outpatient nurses in the diagnostic unit can be taken.

Based on data on outpatient outcomes in 2022, the results obtained were 23,367 patients. The effectiveness of a nurse in carrying out anamnesis and TTV examination requires 2 people to be effective, however in its current implementation there is only 1 outpatient nurse in the diagnostic unit. Furthermore, in the assistance activities for specialist doctor services, the results showed that in carrying out these activities the outpatient unit needed 4 nurses, whereas currently there are only 3 nurses, because according to the head of the outpatient unit there is 1 nurse who is on maternity leave. If the nurse is active again working in outpatient care, this second problem can be resolved. However, from a researcher's point of view, researchers found the fact that outpatient units with the current HRK conditions are very dependent on nurses who have the potential to take maternity leave because 78% of nurses in outpatient units are female and 86% are married, so it is true It is necessary to add additional nurses or carry out rotation programs and derivative policies based on this fact, from medical and nursing service managers and then coordinate with HR managers to overcome the gap in HRK quantity in outpatient care.

Based on the results of observations and interviews in the outpatient unit, researchers were interested in interviewing medical & nursing service managers and then HR managers. Both parties agreed that it was necessary to rotate between units to meet the quantity according to the calculation results of the Health Crew, if this solution was felt to be less effective or could not be realized. So next, the researchers tried to provide a solution, namely by making units that have an excess quantity of nurses, including the ER, Inpatient and Surgical Rooms, create a written policy regarding outpatient assistance so that it is optimal, because you could say that the outpatient unit is the patient's entry point for treatment. to the Bandung Eye Center Eye Hospital.

Still in the medical and nursing services section, there is also an excess quantity of doctors in the emergency room unit for full-time and part-time general practitioners, an excess of 1 full-time general practitioner and an excess of 4 part-time general practitioners. In this case, researchers have opinions regarding how to create a more effective work

schedule, for example full-time and part-time general practitioners are made into 3 shifts, the morning shift and afternoon shift are filled by full-time doctors. Then, night and holiday shifts are filled by part-time doctors using the on call method if there are emergency room patients.

Then based on the results of calculating the quantity of HRK in the medical support unit. There is a shortage of 1 refraction optician, this shortage in terms of quantity clearly has an impact on the effectiveness of service to patients, this was revealed by the head of the diagnostic unit through interviews conducted. Then, based on the results of the researcher's observations in the field when collecting data regarding the average time norms for the workload components of refraction opticians on duty, the researchers found that there were indeed queues piling up for outpatients who would carry out initial examinations of patients in the diagnostic unit. The HR Manager through interviews conducted, to date there are no plans regarding additional human resources in the diagnostic unit, especially refraction opticians, because there is no budget related to this. In response to this, the researcher tried to provide suggestions regarding this matter, so that with the current condition of the quantity of refraction optician personnel they can be more effective in providing services, by dividing the workload components or in other words, the workload components which are the clinical authority of the nurses are carried out again by the nurses. according to career level. This method is felt to reduce the workload of the diagnostic unit.

Furthermore, based on the calculation of the number of HRK needs carried out by researchers for the medical records unit, there is a need for 6 medical recorders, whereas currently only 3 medical recorders are available, so 3 people are needed to fulfill this. According to the head of the medical records unit, through an interview conducted, he said that they really needed additional people to provide optimal service. Furthermore, the head of the medical records unit also said that the 3 medical recorders currently available had a big impact on the process of accelerating the hospital's progress to full capacity. can use E-Medical Record. The unit head, through the relevant manager, has several times proposed to add HRK to the medical records unit, but to date this has not been fulfilled.

Then there was a need for 6 pharmacists, whereas currently there are also 6 pharmacists available, so that the need for human resources in the pharmacy unit has been met. Lastly, the need for a nutritionist is 2 people, whereas currently only 1 person is available, so there is a shortage of 1 nutritionist, but based on observations and the results of interviews with the head of the nutritionist unit, there are 2 additional waiters whose job is to help with the workload of the nutritionist, So according to the head of the nutritionist unit, this really helps the duties and work of the nutrition unit.

5. CONCLUSION

Based on the research results and discussions that have been described, it can be concluded that:

1. The number of health workers at RSM BEC to support services, in terms of numbers, is in accordance with the provisions stipulated in Minister of Health Regulation Number 14 of 2021. However, if viewed from the type of health workers, the health workers at RSM BEC do not meet the provisions which is regulated in Minister of Health Regulation number 3 of 2020.
2. The implementation of Health HR planning at RSM BEC is not fully in accordance with minimum standards. The number of inpatient ward nurses, the number of operating room nurses, and the number of intermediate environmental health experts are still insufficient when referring to minimum standards.
3. Based on the calculation of the need for implementing nurses using the ABK Kes method, it is obtained that the need for surgical room nurses is an excess of 1 nurse, a shortage of 2 nurses for outpatient nurses, an excess of 3 emergency room nurses, an excess of 1 full-time general practitioner, an excess of part-time general practitioners 4 people, inpatient nurses have an excess of 3 people, Refractionist opticians/optometrists need 7 people while the number available is only 5 people so an additional 2 people are needed, Medical laboratory technologists (Analysts/Biologists) need 7 people while the number available is only 4 so 3 more people are needed, Medical Recorders need 7 people while the number available is only 3 people so 4 people need to be added, pharmacists need 6 people and nutritionists need 1 person.
4. Overall, both from units under the field of medical and nursing services and units under the field of medical support, there are still several units that require additional human resources, for example units under the field of medical and nursing services, namely outpatient and units under the field of medical support namely

diagnostics, medical recorders and nutritionists. This need for human resources certainly influences the direction of hospital management, especially human resources in the future, both in terms of the human resources management process, planning for human resources needs, and human resources functions. So that it will give birth to a strategic plan from the HR department itself.

6. REFERENCES

[1] A.A. Anwar Prabu Mangkunegara. (2017). Evaluasi kinerja SDM. Refika aditama.

[2] Agustini. (2018). Pengaruh Lingkungan Kerja Fisik Dan Budaya Organisasi Terhadap Kepuasan Kerja Karyawan Di PT. Bank Tabungan Negara Cabang Medan. NIAGAWAN, 7(1), 30-36.

[3] Arash Apornak, Sadigh Raissi, Abbas Keramati & Kaveh Khalili-Damghani(2020): *Optimizing human resource cost of an emergency hospital using multi-objective Batalgorithm, International Journal of Healthcare Management*, DOI: 10.1080/20479700.2019.1707415.

[4] Arash Apornak, Sadigh Raissi, Abbas Keramati & Kaveh Khalili-Damghani(2020): *Human resources optimization in hospital emergency using the genetic algorithm approach,International Journal of Healthcare Management,* DOI: 10.1080/20479700.2020.1763236

[5] Ardana, M. dan U. (2018). Manajemen Sumber Daya. Manusia. Yogyakarta: Graha Ilmu.

[6] Assauri. (2018). Manajemen Pemasaran (Dasar, Konsep & Strategi). Depok: PT. Raja Grafindo Persada.

[7] Ahmad, Muh. Ihsan Said, M. Hasan, Mustari, Nur Arisah. 2022. *Analisis Kebijakan Bisnis*. Indonesia: Bukel

[8] Armstrong, M., & Taylor, S. (2022). Armstrong's Handbook of Human Resource Management Practice. London: Kogan Page Publishers..

[9] Angga Rahmadani. 2016. Rumah Sakit Pemerintah Sebagai Sebuah Organisasi: Struktur, Manajemen Dan Pengembangan Organisasi. Universitas Padjadjaran.

[10] Anna, Ferry. 2012. Kajian SDM Kesehatan di Indonesia. Salemba Medika. Jakarta Selatan.

[11] Boris Kaehler, & Jens Grundei. (2019). HR Governance: A Theoritical Introduction. SPRINGER BRIEFS IN BUSINESS.

[12] Costanzo MR, Fonarow GC, Rizzo JA. *Ultrafiltrationversus diuretics for the treatment of fluid overload inpatients with heart failure: a hospital cost analysis*. JMed Econ. 2019;22(6):577–583.

[13] Desilia dan Harjoyo. 2019. Manajemen Sumber Daya Manusia. UNPAM PRESS. Tangerang Selatan. Banten.

[14] Elba Diansyah. 2019. Manajemen Sumber Daya Manusia. CV IRDH.

[15] Ely Nurachma. 2007. Asuhan Keperawatan Bermutu di Rumah Sakit. Jurnal keperawatan dan Penulisan Keperawatan.

[16] Fayol. (2017). Dialih bahasa M Ladzi Safroni, Manajemen Reformasi Pelayanan Publik. New York.

[17] Feriyanto. (2016). Pengantar Manajemen (3 in 1),. Penerbit Media Tera, Yogyakarta. Group.

[18] Griffin. (2018). Perilaku organisasi: Manajemen Sumber Daya Manusia dan Organisasi. Jakarta: Salemba Empat.

[19] Goldwin, Rostina, C. F., Nazmi, H., Meilissa, & Zebua, E. V. U. 2019. Pengaruh Kepuasan Kerja dan Motivasi Kerja terhadap Kinerja Karyawan pada PT. Tanimas Soap Industries (Perusahaan Manufaktur dan Eksportir Sabun). *Jurnal Riset Manajemen & Bisnis*, *4*(1), 36–45.

[20] Hafizurrachman. 2009. Kepuasan Pasien dan Kunjungan Rumah Sakit. Jurnal Kesehatan Masyarakat Nasional

[21] Haryani. S. 2010. Analisis Pengaruh Komunikasi, Motivasi Dan Kepemimpinan Terhadap Kepuasan Kerja Dalam Meningkatkan Kinerja Karyawan.. Jurnal Manajemen dan Kewirausahaan, Vol. 13

[22] Hasibuan. (2018). Manajemen Sumber Daya Manusia. Edisi Revisi. Bumi Aksara, Jakarta.

[23] Hasibuan, Malayu S. P. (2019). *Manajemen: Dasar, Pengertian, dan Masalah*. Jakarta : Bumi Aksara

[24] Herman Sjahruddin. 2016. Kapasitas Sumber Daya Manusia dan Pemanfaatan Teknologi Informasi Konsekuensinya Pada Kinerja Karyawan E-Library STIE YPBUP Bongaya

[25] Jasmen, Manurung, dkk. 2021. Kebijakan dan Manajemen Pelayanan Kesehatan. Yayasan Kita Menulis: Medan.

[26] Kamaria. 2012. Capacity Building Birokrasi Pemerintah Daerah Kabupaten/Kota di Indonesia. MakassarNoe, Raymond A., dkk, 2006. Human Resource

[27] Kemenkes R.I.2015. Permenkes RI No. 33 Tahun 2015 Tentang Pedoman Penyusunan Perencanaan Kebutuhan Sumber Daya Manusia Kesehatan. 705, 11. ditjenpp.kemenkumham.go.id/arsip/bn/2015/bn705-2015.pdf

[28] Kemenkes RI.2020. PERATURAN MENTERI KESEHATAN REPUBLIK INDONESIA NOMOR 3 TAHUN 2020

[29] Kemenkes RI. 2009. Tentang Rencana Strategis Departmen kesehatan Republik Indonesia, Jakarta

[30] Kemenkes RI. 2004. Surat Keputusan Menteri Kesehatan No.81/MENKES/SK/I/2004 tentang Penyusunan Perencanaan Sumber Daya Manusia Kesehatan di Tingkat Propinsi. Kabupaten/Kota serta

[31] Kemenkes RI, 2009. Departemen Kesehatan RI dan *Deutsche Gesellschaft fur Technissche Zusammenarbelt (GTZ).* 2009. Perlengkapan Kerja WISN Perlengkapa Untuk Pengembangan Indikator Beban Kerja Petugas (WISN) Untuk Memperbaiki Perencanaan dan Manajemen Tenaga Kerja Kesehatan Dalam Sistem Kesehata Yang Di Desentralisasi.

[32] Kemenkes RI ,2020. Peraturan Menteri Kesehatan Republik Indonesia Nomor 3 Tahun 2020 Tentang Klasifikasi Dan Perizinan Rumah Sakit.

[33] L.Primadani, S. Palgunadi, and B. Harjito,"Optimasi Produksi Menggunakan Algoritma Fuzzy Liinear Programming (Studi Kasus: Produksi Tas UKM Cantik Souvenir)," J.Teknol. Inf. ITSmart. vol.4, no. 2, pp. 63-72, 2015, doi: 10.20961/its.v4i2.1764.)

[34] Maqfiranti. 2014. Pengaruh Stres dan Lingkungan Kerja Non Fisik terhadap Kinerja Karyawan Pada PT. Bumi Jasa Utama (Kallatransport) Makassar. 1– 13.

[35] Mangkunegara. (2017). Manajemen Sumber Daya Manusia Perusahaan. Bandung : Remaja Rosdakarya.

[36] Management: *Gaining A Competitive Advantage, Third Edition. McGraw-Hill Companies*

[37] Mangkunegara, A. P. 2017. *Evaluasi Kinerja SDM*. PT Refika Aditama.

[38] Mathis Robert L, dan Jackson John H. (2006), Human Resource Management, alih bahasa. Salemba Empat. Jakarta

[39] Meidiawati, Christine. 2012. Analisis Beban Kerja Untuk Menentukan Kebutuhan Tenaga Perawat Dengan Metode Work Load Indicator of Staffing Need (WISN) Di Instalasi Rawat Inap Flamboyan Rumah Sakit Tugu Ibu Tahun 2012. Universitas Indonesia, Jakarta.

[40] Molan. (2019). Dasar-dasar Pemasaran. Jilid 1, Alih Bahasa. Jakarta: Penerbit Prenhalindo.

[41] Nurdin Batjo, S. Pt. , MM. , M. S., & Dr. Mahadin Shaleh, M. Si. (2018). Manajemen Sumber Daya Manusia. Penerbit Aksara Timur.

[42] OwaidhAO, et.el , 2018. *Patients Satisfaction with Health Care Servicesin Southern SaudiArabia.* EgyptJHospMed.2018;72(July):3857–60.

[43] Philip K dan Lane KK. 2009. Manajemen Pemasaran. Jakarta:Erlangga

[44] Putra, A. G. P. 2019. Pengaruh Motivasi Dan Disiplin Terhadap Kinerja Pegawai Dinas Komunikasi Dan Informatika Kabupaten Bogor. *StiamI*, *1*(1), 1–11.

[45] Rachmat S, Dadang K, & Muhardi. (2018). *Manajemen Keuangan Rumah Sakit. Konsep dan Analisis*. Bandung: PT. Refika Aditama.

[46] Rajagukguk, P., Hardani, Kartawijaya, F., Fadholi, A., & Utari, I. 2019. Pengaruh Pelatihan Kerja Terhadap Kinerja Karyawan Pada Deputi Direktur Bidang Keuangan Bpjs Ketenagakerjaan Jakarta BaraT. *Akrab Juara*, *4*(April), 239–250.

[47] Reny Nugraheni. (2022). *Manajemen Pelayanan Rumah Sakit*. Sumatra Barat: Insan Cendekia Mandiri.

[48] Robbins, Stephen P. 2001. Perilaku Organisasi: Konsep, Kontroversi, Aplikasi, Jilid 1, Edisi 8, Prenhallindo, Jakarta.

[49] Safelia, Susfayetti, Friyani. 2012. Pengaruh Teknologi Sistem Informasi Baru Terhadap Kinerja Individu: Jurnal Penelitian Universitas Jambi Seri Humaniora. 14 (2) : 19 – 24

[50] Silalahi, J. Y., Fitriani, A. D., & Megawati, M. (2019). Analisis Mutu Pelayanan Perawat Terhadap Kepuasan Pasien Rawat Inap KelasIii Di Rumah Sakit Advent Medan. Jurnal Kesehatan Perintis(Perintis's Health Journal), 6(1), 21–29. https://doi.org/10.33653/jkp.v6i1.165

[51] Sugiyono. 2017. Metode Penelitian Bisnis. Alfabeta, Bandung

[52] Suharto. 2012. Pengaruh Kualitas Sumber Daya Manusia, Komitmen Dan Motivasi Terhadap Kinerja Pegawai Ada Inspektorat Kabupaten Kediri : Jurnal Ilmu Manajemen, REVITALISASI 1(3) : 67 -79

[53] Suwati. 2013. Pengaruh kompensasi dan motivasi kerja terhadap kinerja karyawan pada pt. Tunas hijau samarinda : eJournal Ilmu Administrasi Bisnis. 1 (1) : 41 - 45.

[54] Undang-undang Nomor 36. Tahun 2009. Tentang Tenaga Kesehatan

[55] Undang-undang Republik Indonesia No. 44. 2009. Tentang Rumah Sakit.

[56] Widyaningrum, Harijanto dan Hartoto. 2015. Faktor-faktor yang Mempengaruhi Optimalisasi Unit Rawat Jalan di RS X. Jurnal Kedokteran Brawijaya, Vol.28. Malang.

[57] Wilson. (2016). Manajemen Sumber Daya Manusia. Jakarta: Erlangga.