# Implementation Of The Workload Indicators Of Staff Needing Method Based On Workload To Determine The Right Number Of Human Resources Requirements At The Medical Rehabilitation Poly Of H.Abdul Manan Simatupang Kisaran Hospital In 2021

Pratama Putra Nasution<sup>1</sup>, Chrismis Novalinda Ginting<sup>2</sup>, Tan Suyono<sup>3\*</sup>, Sri Lestari Ramadhani Nasution<sup>4</sup>

<sup>1</sup> Magister Student of Magister Public Health, Faculty of Medicine, Universitas Prima Indonesia <sup>2,3,4</sup> Magister Public Health, Faculty of Medicine, Universitas Prima Indonesia \*Corresponding Author:

Email: tansuyonojrnls@gmail.com

#### Abstract.

A good work program is needed by using the WISN (Workload Indicators of Staff Needing) method, which helps see the workload given to and received by medical workers in health facilities. This study aims to determine the appropriate number of employees using the WISN (Workload Indicators of Staff Needing) method to reduce the workload in the hospital's medical rehabilitation polyclinic. This research is a descriptive study with quantitative data analysis conducted at the H. Abdul Manan Simatupang Hospital in 2021. The data taken is medical record data on the total number of patient visits at the medical rehabilitation polyclinic and staffing data for the rehabilitation polyclinic. H. Abdul Manan Simatupang Kisaran Hospital. We found a relatively high number of visits at the Medical Rehabilitation Polyclinic; the workforce data obtained totaled four employees who handled patients directly. The study's results found that the available work time was not directly proportional to the existing standard workload, where the available work time is 135,360 minutes per year while the Standard Workload is 347,424 minutes per year. The workload in the Medical Rehabilitation Polyclinic is too high, and we can obtain the cause from the number of operational staff on duty.

**Keywords:** Workload indicators of staff needs, workload, human resources, and medical rehabilitation polyclinic.

### I. INTRODUCTION

Often hospital management does not realize that there are several parts of the hospital that require more staff, so in this case the medical rehabilitation poly division found that the number of medical personnel on duty did not match the number of daily patient visits. This led to excessive workload., the effect appears ineffectiveness in their daily activities. [12] Human resources in charge of an organizational or management system are something that is mandatory, and because of that human resources need to get more attention, often human resources who are employed carry out their activities excessively due to lack of attention from company management, often also because the number of workers employed does not match the amount of work handled for reasons of quantity and effectiveness. There are also rations given that are not appropriate, such as holidays, required training. In this way the work done becomes ineffective due to the workload. [3] Therefore, a good work program is needed, one of which is by using the WISN (Workload Indicators of Staff Needing) method which is useful for seeing the workload given to and received by medical workers in health facilities. Workload is something that is often experienced by officers or employees because of the work they do. The effect of workload can cause negative or unfavorable things that can cause bad things to the work safety of the human resources on duty. [2] H.Abdul Manan Simatupang Kisaran Hospital is a regional type C hospital where the only hospital in Kisaran that provides medical rehabilitation services.

This medical rehabilitation service can be accessed by all patients, both BPJS and non BPJS users. given related to the medical rehabilitation of hospital patients itself can be in the form of outpatient and inpatient care, where patients can come to the medical rehabilitation poly according to a predetermined outpatient schedule or for inpatients then active staff will come and provide services to the inpatient room inpatient patients who get recommendations for medical rehabilitation activities. [8] The number of

mandatory working days is 6 days a week, namely Monday to Saturday, the number of days off is based on holidays set by the government while for leave it is 7 days a year, but the number of days off is deducted according to the number of days off. The work system does not apply shifts or changes because there are only 4 active officers. The training period given to medical rehabilitation officers is 3 times a year, but so far the officers have stated that they have not taken the training schedule because all costs are borne by the medical officers themselves. The types of services available are Electro Therapy, Physical Exercise, Akino Therapy and other Basic Physical Therapy. This research aims to the number of days off is based on the holidays set by the government while for leave it is 7 days a year, but the number of days off is deducted according to the number of days off. The work system does not apply shifts or changes because the number of active officers is only 4 people. The training period given to medical rehabilitation officers is 3 times a year, but so far the officers have stated that they have not taken the training schedule because all costs are borne by the medical officers themselves.

The types of services available are Electro Therapy, Physical Exercise, Akino Therapy and Other Basic Physical Therapy. This research aims to the number of days off is based on the holidays set by the government while for leave it is 7 days a year, but the number of days off is deducted according to the number of days off. The work system does not apply shifts or changes because the number of active officers is only 4 people. The training period given to medical rehabilitation officers is 3 times a year, but so far the officers have stated that they have not taken the training schedule because all costs are borne by the medical officers themselves. The types of services available are Electro Therapy, Physical Exercise, Akino Therapy and Other Basic Physical Therapy. This research aims to but the number of days off is deducted according to the number of days off. The work system does not apply shifts or changes because there are only 4 active officers. The training period given to medical rehabilitation officers is 3 times a year, but so far the officer stated that he had not taken the training schedule because all costs were borne by the medical officer himself. The types of services available were Electro Therapy, Physical Exercise, Akino Therapy and other Basic Physical Therapy. This research aims to but the number of days off is deducted according to the number of days off. The work system does not apply shifts or changes because there are only 4 active officers.

The training period given to medical rehabilitation officers is 3 times a year, but so far the officer stated that he had not taken the training schedule because all costs were borne by the medical officer himself. The types of services available were Electro Therapy, Physical Exercise, Akino Therapy and other Basic Physical Therapy. This research aims to but so far the officers stated that they had not taken the training schedule because all costs were borne by the medical officers themselves. The types of services available are Electro Therapy, Physical Exercise, Akino Therapy and other Basic Physical Therapy. This research aims to but so far the officers stated that they had not taken the training schedule because all costs were borne by the medical officers themselves. The types of services available are Electro Therapy, Physical Exercise, Akino Therapy and other Basic Physical Therapy. This research aims tofind out the right number of employees using the WISN (Workload Indicators of Staff Needing) method with the aim of reducing the workload in the hospital's medical rehabilitation polyclinic. [16]

### II. METHODS

This research is a descriptive study with quantitative data analysis to find out the exact number of human resource needs using the WISN (Workload Indicator of Staff Needing) method based on workload in the medical rehabilitation polyclinic at H. Abdul Manan Simatupang Kisaran Hospital. This research was conducted at the H. Abdul Manan Simatupang Kisaran Hospital from 2021 to 2021. The data taken are medical record data for the total number of patient visits at the medical rehabilitation polyclinic and staffing data for the medical rehabilitation polyclinic at H. Abdul Manan Simatupang Kisaran Hospital. Calculations use the WISN method [6]. With the following formula:

a. Calculate working time available

$$AWT = \{A-(B+C+D+E)xF\}$$

Information:

AWT: Available working time in a year

A: Possible working days of the year

B: Annual Leave

C: Education and training in accordance with organizational rules

D: National Holidays

E: Absence from work

F: Working time in one day

b. Define workload components

The three workload components are:

- 1. The main health service activity is the activity carried out by all staff and has regular records.
  - 2. Supporting activities Namely the activities of all staff but there is no record.
  - 3. Additional activities Namely activities carried out by several staff and not recorded.
  - c. Set activity standards
- 1. Service standard is an activity standard for the main service activity expressed in units of time, namely the average time used in providing services and the average activity that can be completed in a certain time. The calculation starts from the beginning of service delivery until right before providing service to the next patient with the service. the same according to the local situation.
- 2. Allowance standards are activity standards for additional activities. There are two categories, namely:
- Category allowance standards (CAS): for activities carried out by all staff in a category and expressed as a percentage of working time.
- Individual allowance standards (IAS): for activities that are not carried out by all staff in a category and expressed in actual work time.
  - d. Determine the standard workload (Standart workload)

Standard workload is the number of jobs in a service workload of a health worker in 1 year. The calculation of standard workload depends on the service time which is expressed in units of time and the rate of working.

e. Calculating the allowance factor (Allowance Factor)

The allowance factor consists of:

- Category allowance factor (CAF), namely the multiplier factor to calculate the number of human resources needed to carry out health service activities and supporting activities
- Individual allowance factors (IAF) are the amount of resources needed for additional activities.

Data analysis using the WISN method can be carried out using two indicators, namely difference, namely by assessing the difference between the currently available human resources and the human resources needed. So that one can assess whether the unit under study has excess or lack of human resources. Ratio is assessing the workload of HR in their daily activities or work in the unit they are assigned. The ratio is obtained by dividing the HR currently available by the number of HR calculated by WISN. If the ratio is equal to one, it means that the workload with HR is balanced. If the ratio is greater small, the workload is high and vice versa if the ratio is large it means the workload is low in that unit.

# III. RESULT AND DISCUSSION

The research was conducted by looking at the results of medical records and data on the number of staff belonging to the hospital, which had previously been submitted for permission by the hospital, namely the Director and Head of the Medical Rehabilitation Poly Service. the availability of existing human resources affects the employees on duty. However, it is not a benchmark in determining research or even research results. To initiate the WISN research, calculations are needed to determine the exact value of Available Working Time in minutes in one year. Available Working Time will be a value that measures the

workload of available employees and determines how many employees should be available according to the workload that can be supported. Based on data analysis in the form of medical records and staffing data, it was found that the number of human resources currently available is 4 people where the number of visits per year is 13,706. So far, based on the number available and working time available for service, there are no complaints from patients at all due to predetermined visit schedules. This is in line with research [5] where the effectiveness, efficiency and productivity of hospital services are often not the main factors for hospitals but in the end to improve hospital quality this is something that must be taken seriously. However, from the results of interviews with active employees, this is felt to be quite heavy because there are several additional activities which result in increased workload.

The workload itself can reduce effectiveness and efficiency. Where when activities take place and the number of human resources decreases due to several additional activities, the workload increases high because the HR in charge has to carry out several activities at once or serve several patients at the same time. This is in line with research [7] where the workload and competence of HR affect the satisfaction and responsibility of the work being supported. From the results of this study, it was found that the existing workload was considered quite high because the amount of available work time with the existing workload was unbalanced and even too high to be carried out in accordance with the number of available human resources. Based on the WISN calculation results, the number of human resources that should be available based on the calculation results starts from Available Working Time, Workload Standards, Allowance Standards are obtained for 7 people while currently there are only 4 employees on duty, so it can be concluded that the workload is quite high. This is in line with research [20] with the results of a one year workload study adjusted to the available human resources, which is why it is necessary to increase the number of human resources to match the workload. This research also provides new insights in providing new insights in determining the right number of human resources. That the use of WISN in determining the appropriate human resources based on the workload being supported is more precise. So that the hospital can determine the number of available human resources in one year more precisely so that the hospital's performance optimal. This is in line with research [14] where the use of the WISN method can be used to obtain the right human resources according to the needs of the hospital in treating patients.

### IV. CONCLUSION

The cause of this high workload can be obtained from the number of active employees on duty at the Medical Rehabilitation Polyclinic which is not in accordance with the results of the study where there are currently 4 active employees while based on the exact research results there are 7 people. What can be concluded from the WISN method if The smaller the value, the higher the workload. With a high workload, it can be concluded that it will affect the effectiveness and efficiency in the activities of the Medical Rehabilitation Poly, thereby reducing the quality of the service itself. This also affects the available human resources itself where the available leeway standards have quite small results compared to the main activities that must be carried out.

### V. ACKNOWLEDGMENTS

Thank you to the supervisor who has guided to complete this research. And we don't forget to thank the family for the great support to the author.

## VI. ETHICAL CONSIDERATIONS

This research has been declared ethically compliant according to the WHO 7 Standards 2011 by the Health Research Ethics Commission (KEPK) University of Prima Indonesia.

### REFERENCES

- [1] Alam, S., Raodhah, S., & Surahmawati, S. (2018, December 30). Analysis of the Need for Health Workers (Paramedics) Based on Workload Using the Workload Indicator Staffing Needs (WISN) Method at the Ass-Syifah Polyclinic, UIN Alauddin Makassar. Al-Sihah: *The Public Health Science Journal*, 10(2).https://doi.org/10.24252/as.v10i2.6903
- [2] Bonfim, D., Mafra, ACCN, da Costa Palacio, D., & Rewa, T. (2022, January). Assessment of staffing needs for registered nurses and licensed practical nurses at primary care units in Brazil using the Workload Indicators of Staffing Need (WISN) method. Human Resources for Health, 19(S1). https://doi.org/10.1186/s12960-021-00674-0
- [3] Boon, C., Den Hartog, DN, & Lepak, DP (2019, January 14). A Systematic Review of Human Resource Management Systems and Their Measurement. *Journal of Management*, 45(6), 2498–2537. <a href="https://doi.org/10.1177/0149206318818718">https://doi.org/10.1177/0149206318818718</a>
- [4] Deliana Nurhasanah, S., & Gunawan, E. (2021, November 24). Analysis of Manpower Needs Based on Workload in the Registration Section at the Tanjungsari Medika Clinic. *Journal of Health Science*, 2(11), 1505–1514.https://doi.org/10.46799/jhs.v2i11.316
- [5] Ghahremanloo, M., Hasani, A., Amiri, M., Hashemi-Tabatabaei, M., Keshavarz-Ghorabaee, M., & Ustinovičius, L. (2019, January 1). A novel DEA model for hospital performance evaluation based on the measurement of efficiency, effectiveness and productivity. Engineering Management in Production and Services, 12(1), 7–19. https://doi.org/10.2478/emj-2020-0001
- [6] Gialama, F., Saridi, M., Prezerakos, P., Pollalis, Y., Contiades, X., & Souliotis, K. (2019, January 23). The implementation process of the Workload Indicators Staffing Need (WISN) method by WHO in determining midwifery staff requirements in Greek Hospitals. *European Journal of Midwifery*, 3(January). https://doi.org/10.18332/ejm/100559
- [7] Inegbedion, H., Inegbedion, E., Peter, A., & Harry, L. (2020, January). Perception of workload balance and employee job satisfaction in work organizations. Heliyon, 6(1), e03160.https://doi.org/10.1016/j.heliyon.2020.e03160
- [8] Ivanova, GE, Bulatova, MA, Polyaev, BB, & Trofimova, AK (2021, December 21). Application of the International Classification of Functioning, Disabilities and Health in the Rehabilitation Process. Bulletin of Rehabilitation Medicine, 20(6), 4–33. <a href="https://doi.org/10.38025/2078-1962-2021-20-6-4-33">https://doi.org/10.38025/2078-1962-2021-20-6-4-33</a>
- [9] Mabunda, SA, Gupta, M., Chitha, WW, Mtshali, NG, Ugarte, C., Echegaray, C., Cuzco, M., Loayza, J., Peralta, F., Escobedo, S., Bustos, V., Mnyaka, OR, Swaartbooi, B., Williams, N., & Joshi, R. (2021, Nov. 28). Lessons Learned during the Implementation of WISN for Comprehensive Primary Health Care in India, South Africa and Peru. *International Journal of Environmental Research and Public Health*, 18(23), 12541.https://doi.org/10.3390/ijerph182312541
- [10] Namaganda, GN, Whitright, A., & Maniple, EB (2022, January). Lessons learned from implementation of the Workload Indicator of Staffing Need (WISN) methodology: an international Delphi study of expert users. Human Resources for Health, 19(S1).https://doi.org/10.1186/s12960-021-00675-z
- [11] Nan Wangi, VK (2020, March 31). Impact of Occupational Health and Safety, Workload, and Physical Work Environment on Performance. *Journal Of Business Management*, 7(1), 40–50.https://doi.org/10.33096/jmb.v7i1.407
- [12] Perwitasari, D., & Tualeka, AR (2018, October 30). FACTORS RELATED TO SUBJECTIVE WORK FATIGUE IN NURSES AT RSUD DR. MOHAMAD SOEWANDHIE SURABAYA. *The Indonesian Journal of Occupational Safety and Health*, 6(3), 362.https://doi.org/10.20473/ijosh.v6i3.2017.362-370
- [13] Risti Anggraeni, S., Tri Ardianto, E., & Hendyca Putra, DS (2020, August 12). Analysis of Manpower Needs Using the WISN Method at PHC Surabaya Hospital. *J-REMI: Journal of Medical Records and Health Information*, 1(3), 155–164. https://doi.org/10.25047/j-remi.v1i3.1996
- [14] Silva, APD, & Dal Poz, MR (2022, January). An experience with the use of WISN tool to calculate staffing in a palliative care hospital in Brazil. Human Resources for Health, 19(S1). <a href="https://doi.org/10.1186/s12960-021-00680-2">https://doi.org/10.1186/s12960-021-00680-2</a>
- [15] Sinambela, S. (2020, February 29). The Effect of Workload on Job Stress, Work Motivation, and Employee Performance. *International Journal of Psychosocial Rehabilitation*, 24(04), 1373–1390.https://doi.org/10.37200/ijpr/v24i4/pr201109
- [16] Soesanto, D., & Ersyad, T. (2019, July 31). CALCULATING THE NEED FOR NURSING PERSONNEL BASED ON WISN IN GOTONG ROYONG HOSPITAL. *Journal of Health Sciences*, 12(02).https://doi.org/10.33086/jhs.v12i02.554

- [17] Subhan, M., Wardani, R., & Ramdani, D. (2021, September 20). Analysis And Evaluation Of Pharmacist Power Needs With The WISN Method In The Pharmaceutical Installation Of Haji Hospital Surabaya. *JBMP* (*Journal of Business, Management and Banking*), 7(2), 89–106. https://doi.org/10.21070/jbmp.v7i2.1476
- [18] Tripković, K.,ŠqueuećMillićević, M., BathćMiladinović, M., Kovačević, L., BjegovićMikanović, V., & Vuković, D. (2020, July 16). Implementation of the Workload Indicators of Staffing Need (WISN) Method in Determining Staff Requirements in Public Health Laboratories in Serbia. Disaster Medicine and Public Health Preparedness, 16(1), 71–79. https://doi.org/10.1017/dmp.2020.133
- [19] Sri Wangi, NW (2017, July 6). ANALYSIS OF HEALTH PUSKESMAS HUMAN RESOURCE PLANNING USING THE WORKLOAD INDICATORS OF STAFFING NEEDS (WISN) METHOD IN LOMBOK BARAT DISTRICT. *JMM UNRAM* MASTER OF MANAGEMENT JOURNAL, 6(2).https://doi.org/10.29303/jmm.v6i2.108
- [20] Wijaya, HK, & Prayitno, S. (2021, June 24). Analysis of Manpower Needs with the Workload Indicator of Staffing Need (WISN) Method in the Pharmacy Installation of the Madiun Regional General Hospital. *JPKM: Journal of Public Health Professions*, 2(1), 31–54.<a href="https://doi.org/10.47575/jpkm.v2i1.206">https://doi.org/10.47575/jpkm.v2i1.206</a>