An Analysis of Health Human Resources Needs With WISN and ABK Kes Methods

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ARTICLE INFO	ABSTRACT
Published Online: 29 June 2021 Corresponding Author: **Vidya Widowati**	A good management of the JKN program requires the availability of competent and sufficient health human resources (HHR). The calculation of HHR needs can be acquired by utilizing the Workload Indicator Staff Need (WISN) developed by WHO and Analisis Beban Kerja Kesehatan (ABK Kes) according to Peraturan Menteri Kesehatan Indonesia Number 33/2015. The limited number of personnel has caused delays in submitting service claims to the Badan Penyelenggara Jaminan Sosial (BPJS), thus it affected the process of reimbursing third parties for service costs to the hospital. The method is a qualitative method with a case study design model. The results of this study on the needs of human resources at Patient Administration and Claim Verification Installation of Grhasia Mental Hospital with the WISN method were 10 employees and with the ABK Kes method were 12 employees, it is necessary to increase the personnel needed in each section.
KEYWORDS: Health Human Resources; WISN; ABK Kes	

I. INTRODUCTION

The hospital is a complete individual health service facility that provides emergency, outpatient and inpatient services (UU RI Nomor 44, 2009). Hospitals are required to establish a relationship with Badan Penyelenggara Jaminan Sosial (BPJS) in a commitment to achieving Universal Health Coverage or often referred to as UHC, which was agreed upon by the World Health Organization in 2014. The government through Dewan Jaminan Sosial Nasional (DJSN) has implemented Sistem Jaminan Sosial Nasional (SJSN) in Indonesia as stipulated in Law Number. 24 of 2011 on BPJS. Jaminan Kesehatan Nasional program (JKN) has been implemented since January 1, 2014 by BPJS Kesehatan (Andria & Kusnadi, 2017). The management of the JKN program requires the availability of competent and sufficient health human resources (HHR). HHR planning is executed by organizations in order to meet the goals and objectives which are interrelated to each other.

The calculation of HHR needs can be acquired by utilizing the Workload Indicator Staff Need (WISN) developed by WHO and Analisis Beban Kerja Kesehatan (ABK Kes) according to Peraturan Menteri Kesehatan Indonesia No. 33 of 2015. Health services are also equipped with administrative activities, one of which is the BPJS Kesehatan. The claim process can run properly, correctly and appositely by having supportive HHR personnel in terms of its quality and quantity. When the number of HHR personnel is not in accordance with the workload, it may cause results in work fatigue and work productivity reduction.

Based on the information obtained from interviews with the Patient Administration and Claim Verification Installation officers of Grhasia Mental Hospital, the limited number of personnel currently made the claim work incomplete and caused delays in submitting claims to BPJS, Jamkesda and Jamkesos. Therefore, the service compensation payment/reimbursement process was disrupted. This was because the Head of Patient Administration and Claim Verification Installation has never calculated the amount of manpower required for this installation using the WISN method.

The availability of human resources in the implementation of health services in the era of National Health Insurance plays an important role in achieving Universal Health Coverage (UHC) (Okoroafor et al., 2019). Human Resources is the main supporting pillar as well as the driving wheels of the organization (Putra Suryapranata & Sutarsa, 2015). Lack of insufficient HHR personnel causes poor performance and outcome in service, burnout, and dissatisfaction of HHR work within HR productivity.

With the JKN program, health providers facilitate increased services due to a rising demand for health services. With the increase in visits, it is necessary to pay attention of

the amount of officers in carrying out claims submissions, thus there are no delays in submitting claims. It will also reduce claim deferrals, and so it does not affect the payment for health worker services (Leonard, 2016). When the hospital is late in submitting a claim, the compensation payment will also be late. Meanwhile, patients using insurance such as JKN, Jamkesda and Jamkesos are higher than patients who pay for services at their own expense. Most of the hospital income comes from claims and late payments will burden the hospital in meeting its operational needs.

The excess of HHR has implications for the cost of human resources because each workforce carries a consequent cost in the form of salaries, overtime, bonuses, training costs and health care costs. Hospitals are paid by means of packages, namely INA-CBGs (Indonesia Case Base Groups) and hospitals need to review related unit costs to offset human resource expenses. Before these results are implemented, the HR department needs to review the calculation results of WISN and ABK Kes with the minimum required personnel. HR managers do not have to move tasks from more to less places, but it is better if they shift the workload from more to less and examine the types of work that exist (Harijanto et al., 2014).

Increasing the number of staff is not enough to solve the problem of JKN implementation, but it requires a sufficient staff with necessary skills and abilities (competent and capable) to implement policies (Rahman, 2017). Many workload measurement systems are job-based. Workload measurement systems that incorporate measurable factors can better predict staff needs. No workload measurement system is adaptive enough to capture all the small changes in workloads (Swiger et al., 2016).

II. RESEARCH METHOD

This research is a qualitative research within a case study. The research participants were all the personnel of the Patient Administration and Claim Verification installation, consisting 1 medical record officer, and 5 drug nurses. The research object was all the activities implemented by workers in the Patient Administration and Claims Verification installation - medical record officers and drug nurses. This research began with observations for quantitative data collection, then the data were processed using the calculation of the Workload Indicator of Staffing Need and ABK Kes. Subsequently, it proceeded with interviews for qualitative data collection to explain and describe the results. The data validation technique used technical triangulation, source triangulation and member check.

III. RESULT AND DISCUSSION

The description of the research subjects is shown in Table 1 regarding the characteristics of respondents.

Table 1. Characteristics of Respondents

Respondent	Age (years)	Length of Work (years)	Education	Position
Respondent 1	26	4	D3	Frontliner
Respondent 2	29	4	Bachelor	Coder and Grouper JKN
Respondent 3	50	25	Senior High School	Grouper JKD and JKS
Respondent 4	50	25	Pharmacy High School	Drug Claim Manager
Respondent 5	40	15	D3	IPWL Claim
Respondent 6	35	10	D3	Head of Patient Administration and Claim Verification Installation

There were 2 respondents in the Grhasia Mental Hospital in the age range of 20-29 years old, 1 respondent aged 20-39 years old and 1 respondent aged 40-49 years old and 3 respondents 50-59 years old. 5 people have civil servant positions and 2 people have Badan Layanan Umum Daerah (BLUD) positions.

The calculation of HHR using the WISN method requires data related to working time availability. Working time availability is obtained from the number of working days minus work absences due to leave, national holidays, illness and education, then multiplied by the number of working hours per day. Based on the amount of working time availability, it is found that the employees of the Patient Administration and Claim Verification installation have 1718 hours / year or 130,125 minutes / year.

Standard workload is obtained from working time availability divided by the average time to complete main activities. HHR requirements are obtained from the total quantity of work divided by the standard workload. WISN standard workload and HHR requirements for each category of workforce are as presented as follows:

Table 2. Standard Workload and HHR requirements according to WISN

Employment Category	Standard Workload	HHR Needs
Frontliner	313,242	1.140
Coder and Grouper JKN	431,406	1.291
Grouper JKD and JKS	289,437	0.419
Drug Claim Manager	222,700	1.840
Claim Administration	142,255	2.071
IPWL Claim	196,796	0.414

The allowance standard is obtained from indirect activities, such as assemblies which are held every Monday and Thursday, sports, recitation, meetings and training. Then the total human resources are obtained from the sum of the HR needs and standards of independence. The results of the allowance standard and the total HRH requirements are shown as follows:

Table 3. Allowance Standards and Total HRH requirements

Employment Category	Allowance Standards	Total HHR requirements	Rounding off HHR Needs
Frontliner	0.18	1.321	2
Coder and Grouper JKN	0.18	1.475	2
Grouper JKD and JKS	0.17	0.591	1
Drug Claim Manager	0.17	2.012	2
Claim Administration	0.20	2.270	2
IPWL Claim	0.18	0.595	1

From the calculation of the energy requirements according to WISN, the WISN ratio is as follows:

Table 4. Ratio WISN

Employment Category	Current number (a)	Required number, based on WISN (b)	WISN Ratio (a/b)	Workforce problem
Frontliner	1	2	0,5	Shortage
Coder and Grouper JKN	1	2	0,5	Shortage
Grouper JKD and JKS	1	1	1	Balance
Drug Claim Manager	1	2	0,5	Shortage
Claim Administration	1	2	0,5	Shortage
IPWL Claim	1	1	1	Balance

From table 3, the ratio of less than one is found in frontliners, JKN coders, drug claims and claims administrators. The ratio equal to one is obtained for the JKD grouper and IPWL claims.

The WISN method is a method of calculating HHR needs based on the actual workload carried out by each category of health units. The results of the research for working time availability at the Grhasia Mental Hospital Patient Administration and Claim Verification Installation are 130,125 minutes / year. Based on the results of the calculation, each type of power has a different WISN ratio. This might be caused by the unbalanced tasks given to each role. For JKN frontliners, coders and groupers, drug claims officers and claims administrators have a WISN ratio of 0.5, while for JKS and JKD grouper officers and IPWL claims have a WISN ratio of 1.

If the power ratio is one, it means that the amount of power in accordance with the demands of the workload or energy is sufficient. While the ratio is less than one, it means that the power is not in accordance with the workload or less power and if the ratio value is more than one, the amount of energy is excessive in relation to the workload. The smaller the WISN ratio, the greater the workload borne by each officer (WHO, 2010). Based on this, the current number of workers in the Patient Administration and Claim Verification Installation does not match the existing workload. The existing workload is greater than the number of existing officers.

In the calculation of HHR using ABK Kes, working time availability is in accordance with Perka Badan Kepegawaian Nasional for 6 working days, namely 1200 hours / year or 72,000 minutes / year. Jumlah Kebutuhan Tenaga Tugas Pokok (JKT) is obtained from the total work performance divided by the standard workload, the standard workload is obtained from the division between available work time divided by the time norm / average time to complete each

main activity. Standardized supporting activities are carried out by medical record officers and nurses. For instance, the activities are such as attending seminars and conducting professional organization activities, including PPNI (Persatuan Perawat Nasional Indonesia/ the Indonesia's National Nurses Association) for nurses and PORMIKI (Perhimpunan Profesional Perekam Medis dan Informasi Kesehatan Indonesia/ the Professional Association of Indonesian Medical Recorders and Health Information) for medical recorders. Drug claims officers, JKD and JKS groupers and claims administrators do not carry out supporting activities so that they are considered to have a supporting standard of value 1.

The following is the result of Jumlah Kebutuhan Tenaga Tugas Pokok (JKT) and supporting standards for each category of workforce:

Table 5. JKT and Supporting Standards ABK Kes

Employment Category	JKT	Supporting Standards
Frontliner	1.633	1.0118
Coder and Grouper JKN	1.849	1.0118
Grouper JKD and JKS	0.600	1
Drug Claim Manager	2.635	1
Claim Administration	2.967	1
IPWL Claim	0.629	1.0118

HHR needs are obtained from the multiplication of the number of personnel needed and supporting standards. The total HHR needs are as follows:

Table 6. HHR Needs for ABK Kes

Employment Category	HHR Needs for ABK Kes (JKT*Supporting Standards)	Rounding off HHR Needs
Frontliner	1.653	2
Coder and Grouper JKN	1.871	2
Grouper JKD and JKS	0.600	1
Drug Claim Manager	2.635	3
Claim Administration	2.967	3
IPWL Claim	0.637	1

From the calculation of HHR needs according to ABK Kes, the workload ratio and workload pressure are obtained as follows:

Table 7. Workload Ratio and Workload Pressure for ABK Kes

Employment Category	Current number	Required number, based on ABK Kes	Workload Ratio	Workload Pressure
Frontliner	1	2	0.50	Very High
Coder and Grouper JKN	1	2	0.50	Very High
Grouper JKD and JKS	1	1	1.00	Normal
Drug Claim Manager	1	3	0.33	Very High
Claim Administration	1	3	0.33	Very High
IPWL Claim	1	1	1.00	Normal

The workload pressure is said to be very high if the ratio between the numbers of available human resources to the number of human resources which should be ≤ 0.50. The workload pressure is said to be high if it has a ratio of 0.51 to 0.80 and it is said to be normal if the ratio is 1. From table 6, frontliners, JKN coders, drug claims and claims administration have high workload pressures.

The comparison of the results of HRH requirements with the WISN and ABK Kes methods is as follows:

Table 8. Comparison of the results of HRH requirements between WISN and ABK Kes

Employment Category	Current number	Required number, based on WISN	Required number, based on ABK Kes
Frontliner	1	2	2
Coder and Grouper JKN	1	2	2
Grouper JKD and JKS	1	1	1
Drug Claim Manager	1	2	3
Claim Administration	1	2	3
IPWL Claim	1	1	1
Total HHR	6	10	12

The results of the calculation of WISN and ABK Kes match the results for frontliners, JKN coders, JKD groupers, and IPWL claims. The JKD grouper and IPWL claims match the number of available personnel, while the JKN front liners and coders still lack 1 person per each type of staff. There is a difference of 1 worker for the calculation results of WISN and ABK Kes for drug claims personnel and claims administration. The WISN results for drug claim workers and claim administrators are 2 people for each type of staff, but the results for ABK Kes are 3 people per each staff. So that the total number of calculations on the WISN method is 10 people and the ABK Kes 12 people with the number of personnel currently available is 6 people.

The ABK Kes method is a method of calculating the need for the number of HHR based on the workload carried out by each HHR in health service facilities in accordance with the assignments of each HHR. Working time availability is already based on Perka BKN No. 19 of 2011 and Permenkes No. 53 of 2013. Effective working hours are 1,200 hours per year or 72,000 minutes per year for those who work 5 days or 6 working days per week (Badan PPSDM Kesehatan RI, 2014). Effective working hours will be a measurement of the workload generated by each health service facility.

The results of the need for frontliners using the ABK Kes method are 1.653 which are rounded to 2. The results of the need for JKN coders and groupers with the ABK Kes method are 1.871 which are rounded to 2. The results of the JKS and JKS grouper staff needs are 0.600 rounded to 1 and the results of the demand for claim staff The IPWL is 0.637 which is rounded up to 1. The results for these four types of power are the same as for the WISN method calculation.

For the results of the drug claim staff with the ABK Kes method, namely 2,635 which is rounded to 3 and the claim administration staff is 2,967 which is rounded to 3. These results are different from the WISN method, where the results with the WISN method for each are 2 people.

IV. CONCLUSION

The results of the HRH needs at the Grhasia Mental Hospital Patient Administration and Claim Verification Installation with the WISN method were 10 people, while the ABK Kes method was 12 people.

REFERENCES

1. Andria, F., & Kusnadi, N. (2017). Dampak Kepesertaan Bpjs Bagi Pekerja Informal Di Bogor. Jimfe (Jurnal Ilmiah Manajemen Fakultas Ekonomi), 3(1), 1–15. https://doi.org/10.34203/jimfe.v3i1.435

2. Badan PPSDM Kesehatan RI, T. P. S. K., & Pardjono,. (2014). Perencanaan Kebutuhan SDM Kesehatan Berdasarkan Metode Analisis Beban Kerja Kesehatan (ABK Kes).

3. Harijanto, W., Retriatmadja Moestopo, F., & Nusaria Nawa Indah, Y. (2014). Penentuan Kebutuhan Tenaga di RS HVA Toeloengredjo dengan Metode Workload Indicators of Staffing Need (WISN) untuk Efisiensi Sumber Daya Manusia. Jurnal Kedokteran Brawijaya, 28(1), 41–46. https://doi.org/10.21776/ub.jkb.2014.028.01.21

4. Leonard, D. (2016). Pengorganisasian Klaim Pelayanan Pasien Jkn Di Rsup Dr M Djamil Paandg. 10.

5. Okoroafor, S., Ngobua, S., Titus, M., & Opubo, I. (2019). Applying the workload indicators of staffing needs method in determining frontline health workforce staffing for primary level facilities in Rivers state Nigeria. Global Health Research and Policy, 4. https://doi.org/10.1186/s41256-019-0125-z

6. Putra Suryapranata, D., & Sutarsa, N. (2015). Kesiapan Petugas Puskesmas Renandg Dalam Mengimplementasikan Program Jaminan Kesehatan Nasional(Jkn) Kabupaten Karangasem Bali 2014. Intisari Sains Medis, 3(1), 64. https://doi.org/10.15562/ism.v3i1.68

7. Rahman, A. (2017). Analisis Implementasi Kebijakan Jaminan Kesehatan Nasional (Jkn) Di Rumah Sakit Umum Daerah (Rsud) Undata Palu. 3(1), 9.

8. Swiger, P. A., Vance, D. E., & Patrician, P. A. (2016). Nursing workload in the acute-care setting: A concept analysis of nursing workload. Nursing Outlook, 64(3), 244–254. https://doi.org/10.1016/j.outlook.2016.01.003

9. UU RI Nomor 44, Pub. L. No. 44 Tahun 2009 tentang Rumah Sakit (2009). http://dkk.balikpapan.go.id/assets/files/1.UU44-09-RS_.pdf

10. WHO. (2010). Workload Indicators of Staffing Need: User's Manual (A. Rasmussen, Ed.)