



The analysis of workload of outpatient officers based on health workload analysis method

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Abstract

Background: Workload can affect the work productivity of the outpatient claim officers. The purpose of this study was to calculate the workload and the number of outpatient claim officers' needs at Insurance Installation of Regional General Hospital based on the Health Workload Analysis method.

Method: This study was descriptive study carried out through observational survey with 9 respondents in carrying out their activities in the Insurance Installation of Sidoarjo Regional Hospital.

Result: The results showed that the most frequently used of activity time between productive activities and unproductive activities by file receiver staffs was the use of unproductive activities. Meanwhile, the most frequent use of activity time by coding, costing, outpatient monitoring and evaluation coordinators staffs was the use of time for productive activities.

Conclusion: The calculation of the need for outpatient claim officers by using Health Workload Analysis was 10 people.

Keywords: workload, outpatient claims staff, health workload analysis method

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INTRODUCTION

Law No. 44 of 2009 concerning hospitals states that hospitals are healthcare institutions conducting individual health services in a complete manner that provide inpatient, outpatient and emergency services (Presiden, et al. 2009). Administrative requirements also complement health services activities, one of which is the Indonesia national health insurance (BPJS) claim guarantee service. Every BPJS Health claim process can be carried out correctly and adequately and on time if supported by adequate human resources in terms of quality and quantity. If labor is not according to the existing workload, the work will result in work fatigue and reduce work productivity (Maharja, 2015; Markos, & Mekonen, 2017).

Since the commencement of the BPJS Health program as of January 1, 2014, there have been many problems arising from patient services and BPJS patient claims, which are large enough so that an installation that functions as a controller for BPJS Health services in Sidoarjo Regency needs to be formed. The Insurance Installation has two claiming parts, namely outpatient and inpatient care. The outpatient claim section has nine officers, including three file receiver officers, two coding officers, three costing officers, and one outpatient monitoring and evaluation coordinator *file receiver* (Kesehatan, 2014).

According to data from the Ministry of Health of the Republic of Indonesia in 2018 on the Indonesia Case Base Groups (INA-CBG) claim data, Sidoarjo Regency Hospital is the first-class B hospital with the highest number of patient claims in East Java sending patient claim data through the E-Claim application to the Data Center of the Ministry of Health of the Republic of Indonesia. The number of outpatient claim files in the Sidoarjo District Hospital Insurance Installation in 2017 reached 323,149 files. The number of outpatient claim files in 2018 up to November 2018 was 311,429 files. Based on these data, it can be seen that there are quite a lot of claim files in the outpatient claims department with 9 claimants.

If the age of the worker goes up, the level of productivity of the employee will increase because the worker is in a position of productive age and if the age of the worker is nearing old, the level of work productivity will also decrease due to the limitations of affecting physical and health factors (Kesehatan, 2014). Workload analysis is a process to determine the total time spent completing a particular job. In other words, workload analysis aims to ensure the number of employees

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Table 1. Use of Working Time in Units (minute/week)

Activity	File Receiver	Coding	Costing	Outpatient Cost Coordinator
Direct productive activity	1,328.55	1,658.73	2,375.79	3,026.88
Indirect productive activity	8.63	7.86	312.33	36.95
TOTAL	1,337.18	1,666.59	2,688.12	3,063.83
Unproductive activity	652.64	1,097.78	891.35	451.69
Personal activity	782.66	511.10	709.37	238.97
TOTAL	1,435.30	1,608.88	1,600.72	690.66

needed is in accordance with several workloads and specific responsibilities given to employees (Sari, et al. 2019). Workload analysis calculates the time and ability of employees to complete tasks. Not much attention is paid to workload so that problems that arise are often seen as a result of low work motivation and lack of incentives (Ariani, et al. 2019). The workload that is not by the number of human resources affects the work productivity of outpatient claim workers. The required number of qualified and competent human resources to realize an orderly and thorough service so that the administrative process runs well and smoothly according to established procedures.

Work sampling is an observational research technique widely used in business and healthcare research for many purposes, including measuring productivity and the impact of technology on work time. Work sampling methods may have been modified the technique essentially remains the same. Subjects (usually workers) are observed by independent, trained observers at random or predetermined intervals during the course of their normal workday to calculate the percentage of time spent performing each activity. The analysis of WS data initially involves summarizing activity frequencies and converting to percentages, so that results correspond to the proportion of time spent by workers on each activity. This can then be compared with the total work time available and the pattern of work can be identified (Blay et al. 2014).

This study used the Health Workload Analysis method based on the Regulation of the Minister of Health of the Republic of Indonesia No. 33 of 2015 concerning Guidelines for Preparation of Health Human Resources Planning because the calculation of workload in the Health Workload Analysis method aims to plan the needs of Health Human Resources both at managerial and service levels, following workload in order to obtain information on the needs of the number of employees who can describe plan employee needs in real accordance with the workload of an organization (Portoghese, et al. 2014). This condition underlies the researchers to analyze the workload and the number of needs of outpatient claims officers at the Sidoarjo District Hospital Insurance Installation using the Health Workload Analysis method to provide reasonable, fast, and appropriate administrative services.

METHODS

This type of research used in this study is a descriptive study conducted by the observational survey. This study's unit of analysis was the agency with direct activities related to the BPJS claim process for outpatient health, i.e., the Installation Insurance of Sidoarjo District Hospital with 9 respondents.

Data collection was carried out by the method of work sampling, a momentary and periodic observation of respondents in carrying out their activities in the Guarantee Facility of Sidoarjo District Hospital in the outpatient claim section using observation techniques for one month in six working days. The data in this study are presented in descriptive form due to the interpretation of the observations described in the form of tables and descriptions.

RESULTS

Use of Work Time with the Work Sampling Method

In this study, the calculation of the use of the work time of outpatient claim officers at the Sidoarjo District Hospital Insurance Installation used the work sampling method. From the observations of the outpatient claim officer activities for six working days each section with a total of 9 respondents, the data in **Table 1** were obtained.

Available Working Hours for Outpatient Claim Officers

Setting available work time aims to obtain available work time for outpatient claim workers who work for one year. This study used work time for 11 months, which is assumed to be working time in one year due to research limitations. **Table 2** shows the available work hours for outpatient claim officers at the Sidoarjo District Hospital Insurance Installation.

Standard Workload for Outpatient Claim Officers

The Workload Standard is obtained from calculating the time norm by dividing the amount of work time used by respondents during observation (6 days) by the number of claim files worked by respondents from each section during observation (6 days). In **Table 3**, we can see the results of the SBK for outpatient claim officers at the Sidoarjo District Hospital Insurance Installation.

Table 2. Available Working Hours for Outpatient Claims Officers

Code	Component	Total	Unit
A	Working days	288	Day/year
B	Staff Leave	12	Day/year
C	National holiday	21	Day/year
D	Training	1	Day/year
E	Absent	7	Day/year
F	Working time in a week	37.5	hour/week
G	Effective working hours	28.125	hour/week
WK	Working hours in a day	4.6875	hour/day
Working Time	Available working hours (day)	247	day/year
	Available working hours (hour)	1.157,81	hour/year
	Available working hours (minutes)	69.469	minutes/year

Table 3. Standard Workload for Outpatient Claims Staffs

Task	Activity	Time (minutes/file)	Working Time (minutes/year)	SBK (file/year)
File Receiver	Receiving claim deposit from outpatient verifier	0.0558	69,469	1,246,069.00
	Checking incoming file at SIM-RS billing	0.1600	69,469	434,191.39
	Receiving complete patient file and transferring file through module application expedition file	0.0702	69,469	988,968.55
	Putting it into claim file container for file ready to coding	0.0005	69,469	151,265,757.04
Coding	Taking the claim file on the outpatient claim file container	0.0005	69,469	151,958,695.65
	Classifying the coding diagnosis based on icd 10 and action based on icd 9cm as diagnosed based on WHO guidelines	0.1303	69,469	533,179.37
	Analyzing the suitable writing diagnosis as well as actions that are performed by DPJP treated street	0,1059	69.469	655.704,37
	Writing diagnostic coding and action for each diagnosis and actions that are written on verification from outpatient	0.1296	69,469	535,886.23
Cost	Checking the file suitability on SIM-RS billing for visit and details of patient bill	0.0967	69,469	718,243.26
	Checking the patient file completeness before the process of data input in INA CBG's	0.2516	69,469	276,113.21
	Inputting the data in order and consistently	0.0677	69,469	1,026,324.58
Coordinator of outpatient cost	Assembling claim file of outpatient for each patient and each date	0.0765	69,469	907,694.46
	Monitoring and evaluating the hospital fee toward BPJS claim of the outpatient	0.2536	69,469	273,922.19
	Comparing the number of file in outpatient towards suitability number of file in SIM-RS	0.0500	69,469	1,388,511.78
	Making BPJS claim filling report of the outpatient	0.0520	69,469	1,335,740.23
	Submission of hospital recap file in a month	0.1055	69,469	658,607.97
	Doing TXT withdrawal verifier BPJS with softcopy and claim file	0.0158	69,469	4,395,749.09
	TOTAL			

Table 4. Supporting Task Standards of Outpatient Claim Officer

Type of Activity	Activity	Time (minutes/file)	Working Time (minutes/year)	Supporting Task Factor (%)	
File Receiver	Checking double patient data	325.66	69,469	0.47	
	Replace claim file of double data patient	253.82	69,469	0.37	
Supporting task factors in %				0.83	
Supporting task standards = $(1/(1 - \text{Supporting task factor}/100))$				1.04	
Coding	Reporting coding problem to supervisor	540.60	69,469	0.78	
	Supporting task factors in %				0.78
Supporting task standards = $(1/(1 - \text{Supporting task factor} /100))$				1.01	
Costing	Taking file from coder for data input process to INA CBG's	211.04	69,469	0.30	
	Sorting patient claim file from first minute until before being inputted	16,820.77	69,469	24.21	
	Supporting task factors in %				24.52
Supporting task standards = $(1/(1 - \text{Supporting task factors} /100))$				1.33	
Coordinator, Monitoring and Outpatient evaluation	Sorting the patient claim file that has been inputted from first minute until the end	2,104.10	69,469	3.03	
	Supporting task factors in %				3.03
	Supporting task standards = $(1/(1 - \text{Supporting task factors} /100))$				1.03
	Supporting task factors total				29.16
	Supporting task standards = $(1/(1 - \text{Supporting task factors total} /100))$				1.41

Standard Assistance Duty Outpatient Claim Officer

The standard value of the supporting tasks produced is the value used as a multiplier for the health human resource needs. Before calculating the standard of supporting tasks, the large percentage of Supporting Task Factors by knowing the time of activities from the calculation of the average time per activity of outpatient claim officers is calculated. The following is a calculation table for Supporting Assignment Officer Support Standards.

DISCUSSION

In the file receiver section, the most use of activity time by file receivers is an unproductive activity time of 1,435.30 minutes/week. Workload Analysis causes this by the process of making claims on the file receiver part easier and faster than other parts. Based on the conditions in the field during observation, the file receiver officer works on the claim file with a smaller amount for each officer than other parts. Thus, the use of unproductive time is more than the use of productive time. The use of excessive unproductive time should be

used to help the process of making claims on other parts that have more workload so that the claim process becomes efficient file receiver (Croome, 1999).

In the coding section, most activity time is the use of a productive activity time of 1,666.59 minutes/week. In this activity, the officer must adjust and write the diagnosis code and the patient's actions according to the guidelines that have been determined as a determinant of BPJS Health claims rates. If the number of workers in a function is too small, the workload per person will be high. As a result, the quality of service will be low, or even the function's performance is below standard (Setiawan & Wulandari, 2016). In the part of the outpatient monitoring and evaluation coordinator, the most use of activity time is the use of a productive activity time of 3063.83 minutes/week. Based on the conditions in the field, the outpatient monitoring and evaluation coordinator monitors and evaluates the claim file from the data entry results, starting from monitoring and evaluating the comparison of hospital regulations with INA CBG rates in the INA CBG's program to recapitulating submissions to BPJS claim verifiers. Therefore, the workload and time spent on productive activities in this section are more than in other parts. Under these circumstances, the outpatient monitoring and evaluation coordinator should reorganize the job description and add members to monitoring and evaluating the cost of health services to make the claim process smooth. Efforts to achieve excellent productivity it is necessary to consider the balance of workload and placement of workers in the right job. The underloaded workload indicates that the number of workers employed is too large. Thus, the company must allocate excess salary with the same level of productivity (Wardanis, 2018).

Working time is available for outpatient claim officers at the Sidoarjo District Hospital Guarantee Facility at 69,469 minutes/year. The workday of outpatient claim officers is 288 days/year, with 37.5 hours of work time in 6 working days. According to Presidential Decree No. 68 of 1995, government agency working hours have been set for 37 hours 30 minutes per week, both for five working days or six working days as determined by the respective regional head (Presiden, Republik, Indonesia, 1995). The calculation of available work hours for outpatient claim workers is adjusted to the study's time, which is 11 months. Still, the resulting available work time approaches the effective working hours that have been determined in one year. That is, officers still need to optimize performance by considering the competence between the officer and the job description of the officer (Vathanophas, 2006).

The Standard of Workload for outpatient claim officers in the Sidoarjo District Hospital Insurance Installation is 318,599,358.38 files/year, where the time limit for completing the main activities of outpatient claim officer is 1.62 minutes/file with nine officers. Too high

workload will eventually have an adverse impact, for example, quality errors in service. The workload that exceeds the ability of its officers can be analyzed the causes of the high workload (Portoghese, et al. 2014). A large number of files is one of the factors of the high workload with nine staff. Many claim files and the massive workload of outpatient claim workers make the use of productive work time quite large. Time pressure had a positive and significant effect on work stress. It had a positive and significant effect on turnover intention (Amiruddin, et al. 2019). All methods examine operator workload to find a level of comfort while working; it is the most important aspect because the high level of comfort when working can increase productivity (Siregar, et al. 2018).

Each part of the work of the outpatient claims officer has a different level of workload. The magnitude of the workload of the outpatient claim officer at the Insurance Installation positively affects the officer's performance, so there is a need to optimize existing human resources by improving personal performance to manage the time of completion of activities (Chase, et al. 2013). Also, evaluation or improvement can be made for each section by looking at problems in the work process and paying attention to productive work time (Leitão, Pereira, & Gonçalves 2019). To achieve good performance, the most dominant element is human resources, although the planning has been well and neatly arranged but if the people who implement are not qualified and do not have high morale, then the plan has been prepared will be in vain (Kaikatuy, Pasinringi, & Jafar 2018).

Based on the calculation of the number of outpatient claim officers' needs at the Sidoarjo District Public Hospital Insurance Installation using the Health Workload Analysis method, ten people were obtained. That is, the outpatient claim officer shortages as many as one person from the number of existing officers. Excess power can be used in other parts that are felt to require additional power without reducing the amount of energy. Vice versa, lack of energy can also use power in parts that are more than the workforce and increase the number of workers to reduce the workload. Also, the number of existing outpatient claim officers can be adjusted according to the division of work by looking at the workload and use of productive activities time and optimizing existing officers so that officers' performance is more effective and efficient.

CONCLUSION

The conclusion that can be drawn in this study is that the use of the most working time between productive activities and unproductive activities by file receiver staff is for unproductive activity. Meanwhile, the most activity time used by coding, costing staffs, and outpatient monitoring and evaluation coordinator is for productive activity time.

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