International Journal of Health Sciences

Available online at www.sciencescholar.us
Vol. 6 No. 3, December 2022, pages: 1501-1510
e-ISSN: 2550-696X, p-ISSN: 2550-6978
https://doi.org/10.53730/ijhs.v6n3.13133

The Analysis of Workload on Medical Records Assembling and Quantitative Analysis Officers Using the WISN method at RSAU dr. M. Salamun Bandung

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Manuscript submitted: 08 April 2022, Manuscript revised: 02 June 2022, Accepted for publication: 30 August 2022

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Keywords

analysis workload;
health;
medical record;
assembling;
quantitative analyze;

Abstract

The purpose of this study is to Quantitative analyze to get the main task, as the number of inpatient visits that must be compiled an average of 750 files per month. The number of patient visits resulted in medical records and delays in making reports, resulting in not achieving quality services. This research method uses descriptive quantitative through observation and interviews. Determination of the sample using a total sample where the number of samples is the same as the total population, namely as many as 2 assembly officers, and quantitative analysis. Based on the calculation of labor needs at Salamun Hospital, 267 working days/year, available working time is 112.140 minutes/year, the standard workload is 290,318 minutes/year, for standard allowance of 2 officers 0.0171 and calculation results of labor needs 4 people. The conclusion from the calculation using the WISN method is that the number of workers needed is 4 officers, but at this time there are two officers, so it is necessary to add 1 person in the assembly section and 1 person in the quantitative analysis section. So that the work becomes faster and more efficient.

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Contents

1 Introduction

Hospital is a complete individual health service institution that provides inpatient, outpatient, and emergency services. The hospital is one of the organizations that exist in the field of health services that are related to patients every day. The hospital is a health service system that can provide health services in the form of medical services, rehabilitation services, and care services the factors that support the success of improving the quality of health services is the implementation of medical records following applicable standard guidelines (Abduh, 2021; Al Aufa, 2018).

A medical record is a file that contains notes and documents about the patient's identity, examination, treatment, actions, and other services that have been provided to patients. Hospital medical records must be able to present complete information about the process of medical and health services in hospitals, both past, present, and future estimates of what will happen. The legal aspect of filling out medical records can provide legal sanctions for hospitals or health workers who neglect and make mistakes in filling out medical record sheets. Therefore one of the medical record activities is to check the completeness (assembly) (Kemenkes, 2008).

Assembling is the assembly of sorting and checking the completeness of the medical record file. By providing a checklist number in the medical record file and sorting the files according to the checklist number, checking the completeness of each medical record file (Leonard, 2020; Mirfatet al., 2017). Assembling has five main tasks, namely receiving medical record documents from the ward using an expedition book, sorting medical record documents, examining the completeness of medical record documents, controlling incomplete medical record documents, and distributing documents to the coding department. In analyzing the completeness of medical records, this study uses quantitative analysis (Pratama et al., 2021).

Quantitative analysis is a study or review of certain parts of the contents of medical records to find specific deficiencies in the contents of medical records relating to the documentation of medical records (Susanto & Sugiharto, 2017), Quantitative analysis consists of 4 (four) components, namely identification reviews, the report reviews the important thing is, authentication review and correct documentation review (Widjaya & Rosmaladewi, 2017), Medical record officers must carry out quantitative analysis activities to assist doctors in recording and filling out complete and accurate medical records (Susanto & Sugiharto, 2017). The benefit or purpose of this research is to assess the completeness and accuracy of inpatient health records owned by health service facilities.

Workload Indicator Staffing Need (WISN) is a method of calculating the need for health human resources based on the workload carried out by health human resources in each work unit in the health care facility, the Workload Indicator Staffing Need method is often used in hospitals, health centers, and health offices (Pamungkas & Hariyanto, 2015; Rusdiana & Sari, 2018). The WISN method has the advantage that it is easy to operate, use, apply and be realistic. And in this case, the implementation of the research will be carried out at the Indonesian Air Force Hospital Dr. M. Salamun (Ningsih, 2012).

Indonesian Air Force Hospital Dr. M. Salamun The Air Force Health Service is a Level II Military Hospital located in Bandung Regency, West Java. Air Force Hospital Dr. M. Salamun is the Technical Executor of the Diskesau which is located directly under the Head of the Air Force Health Service and as one of the health service institutions under the ranks of the Indonesian Air Force, currently RSAU Dr. M. Salamun has developed into a hospital that has received a Class B designation based on the Decree of the Minister of Health of the

Republic of Indonesia Number HK.03.05/I/523/12 dated March 17, 2011, and has passed the Plenary Accreditation in 2013 by the Hospital Accreditation Commission.

Based on the results of a preliminary study conducted by the author at Dr. M. Salamun Hospital, there are 5 working days from Monday to Friday with the start of working time from 08.00 WIB to 15.00 WIB. At Dr. M. Salamun Hospital there are 2 assembling and quantitative analysis officers who get the main task, while the number of inpatient visits must be assembling an average of 750 files per month. The number of total patient visits resulted in the accumulation of medical record files and delays in making quantitative analysis reports which should have been completed on the 10th but exceeded the specified date, resulting in not achieving quality services (Sandra, 2013; Choirunisa & Widjaja, 2018; Winarti, 2013).

Based on the background of the above problems, the authors are interested in conducting research under the title "The Analysis of Workload On Medical Records Assembling And Quantitative Analysis Officers Using The WISN method at RSAU dr. M. Salamun Bandung".

Literature review

According to the Big Indonesian Dictionary, analysis is defined as the decomposition of a subject into various parts as well as the study of the parts themselves and the relationships between units to obtain a precise understanding and understanding of the meaning of the whole (Hobbs et al., 2016; Karsten et al., 2018).

According to Minister of Trade Regulation No. 12/2008, the workload is a job that must be borne by a position or organizational unit and is the product of the work volume and the time norm or the definition of workload is a job process carried out under normal circumstances within a certain time.

Workload analysis is an effort to find out the time used by an officer to carry out a task which is expected to be able to know the proportion of the number of officers needed in a certain work unit in an agency. Workload analysis must be carried out routinely to obtain information about the description of the workload of units in an agency (Pranoto, 2019).

The purpose of the medical record service is to support the achievement of an administrative order. Without a good and correct medical record management system, an orderly hospital administration can't succeed as expected. To improve health services in hospitals:

1) Implementation of medical record services to improve health services
2) Implementation of a system for receiving patients, recording, processing data, storing, retrieving medical records, and reporting
3) Implementation of an analysis system on medical record files for all health service activities.
4) Creating security for every archive/medical record file.
5) Improve the performance of the Medical Record Unit so that it can become an information center to support the Hospital management information system

Assembly (setting file) is an activity in the medical record unit that regulates form management, form control, form recording, and determining the resulting medical record (Wang & Luo, 2005; McMullan, 2006; Haines et al., 2006). Quantitative analysis is a review of certain parts of the content of medical records to find specific deficiencies related to recording medical records. In carrying out quantitative analysis, a Medical Recorder needs to know about:

1) Type of form used
2) Type of form that must exist
3) People who are entitled to fill out medical records
4) The person who has the right to legalize writing

Quantitative analysis is an activity aimed at the number of sheets of medical record files according to the length of treatment including the completeness of medical sheets, paramedics, and medical records support medical treatment according to established procedures (Okura et al., 2004; Roberts et al., 1996; McDonald et al., 1999). The officer will analyze each file received whether the medical record sheet that should be in a patient's file already exists or not. If there are incomplete patient files from certain sheets, they must immediately contact the treatment room where the patient is being treated (Depkes, 2006).

Workload Indicator Staffing Need (WISN) is a method of calculating the need for health human resources based on the workload carried out by health human resources in each work unit in the health care facility, the Workload Indicator Staffing Need method is often used in hospitals, health centers, and health offices. The WISN method has the advantage that it can be easy to operate, use, apply, and be realistic (Ningsih, 2012). According to Minister of Health Regulation No. 147/2010. Hospital is a health service institution that carries out complete individual health services that provide inpatient, outpatient, and emergency services.

2 Materials and Methods

This research method uses a quantitative theory approach. Used to test the population or sample by measuring the test equipment as research, Analyzing data with quantitative tests using statistics to determine the hypothesis to be determined. Quantitative techniques through surveys and experimental tests. Quantitative is a type of data that can be measured, tested, and calculated directly, in the form of an explanation expressed in the form of numbers.

Data collection techniques

Using technique (a). Observation of the hospital as the research location (b). Interviews with relevant informants, such as doctors, nurses, and patients, (c). Library Studies in the form of books related to research, archives, meeting notes, and others

3 Results and Discussions

Assembling procedures and quantitative analysis of medical record files in the Hospital dr. M. Salamun

1) Inpatient medical records after being filled in by the treating doctor and sent to the medical record section, the completeness is examined (resume, IC, etc.), and the number of contents of the medical record file
2) If it is not complete, it will be returned at that time to the treating doctor to be completed immediately
3) After being filled in by the doctor, the contents are examined and then matched with the data on the computer
4) After selecting the medical record, its completeness is arranged neatly
5) Medical record files that have not been completed will be reported to the Head of Medical Records to evaluate

Quantitative analysis procedure

1) Medical record files for patients who have returned home are prepared by the room staff no later than 24 hours to be taken by the officers.
2) The room clerk records the serial number, medical record number, and patient's name on the expedition book and sheet.
3) The medical record officer checks the expedition book and sheet from the room, whether the number, name, and the number of the patient's medical record submitted is following the medical record file received.
4) The Expedition Book is signed by the medical record officer as a receipt.
5) The expedition sheet is signed by the Head of the Room/room clerk as proof of delivery.
6) The return of the Medical Record is received by the assembling officer who then signs the shipping expedition book.

Analysis of the workload of the assembling section and quantitative analysis at the air force Hospital dr. M. Salamun

To determine the calculation of the workforce requirements for assembling officers and quantitative analysis based on the workload, the formula for the Workload Indicator Staffing Need (WISN) method can be calculated as follows:

Establishing work units and categories of human resources

Based on the results of interviews at the Hospital TNI AU dr.M.Salamun regarding the data or identity of the assembling and quantitative analysis officers, here are the results of the data that have been obtained:

Table 1
Work Units and Human Resources Categories

No	Activity	Sub Activity
1	Assembling	✓ Receive medical record files returning from inpatient care which include expeditions in the form of patient's name, medical record number, date of return, a signature from the officer, handover of inpatient officer, and assembling officer ✓ Melakukan proses assembling, meneliti kelengkapan isi dan merakit formulir rekam medis ✓ Menyerahkan berkas yang sudah di assembling ke petugas analisis kuantitatif
2	Quantitative analysis	✓ The patient's medical record file is checked for incompleteness after assembling ✓ Checking for incompleteness on each medical record sheet using a checklist sheet by marking the checklist sheet with (i), (0) none/filled ✓ Record the selection of files that come in from the room, such as patients who died being referred, and patients who refused to be given care ✓ Entering and calculating incomplete data, filling out medical records to the computer ✓ Make a report of the results of quantitative analysis every two weeks and reported to the medical ✓ Returning incomplete files to the inpatient room to be completed ✓ Submit a complete medical record file to the coding section

Set available working time

Obtained from effective work for 1 year for each category of HR working in the Hospital Medical Record Unit TNI AU dr. M. Salamun. The data obtained are as follows:

Table 2 Working Time Available

No	Unit of Work	Factor	Day	Description
1	Medical record unit	Working days	312	
2		Annual leave	12	
3		Training	5	
4		National holiday	16	
5		Absence from work	12	

6	Working time	7
7	Available weekdays	267
8	Working time available	1898
9	Total	112.140

The description of the calculation is as follows:

1) Available working days = (312-(12+5+16+12+5)) = 267 Working days/ Year
2) Available working time = 267(Day/Year) X 7 hours/Day = 1,898 working hours/Year.

Setting workload standards

The standard workload in the hospital TNI AU Dr.M.Salamun was obtained based on the results of the planning carried out by the hospital. The standard workloads are as follows. Calculating the standard workload in Hospital TNI AU Dr. M. Salamun. Calculation as follows:

1) Available working time = 112.140minutes/ year
2) Average time: (a). Assembly = 0.75 (b). Quantitative analysis = 2,936

Standard assembly workload $= \frac{waktu\ kerja\ tersedia}{rata-rata\ waktu} = \frac{112.140}{0,75} = 149.520$

Standard workload Quantitative analysis $= \frac{waktu\ kerja\ tersedia}{rata-rata\ waktu} = \frac{112.140}{2,936} = 38.194,822$

Establishing Allowance Standards

The standard allowance for sub-unit medical record assembling and quantitative analysis in hospitals TNI AU dr. M. Salamun adapted to the existing activities in the sub-unit are as follows:

Table 4
Allowance standard

No	Activity	Frequency	Hours	Total Hours
1	Medical routine meeting	1 x per month	2 x 12	24
2	Evaluation meeting	1 x per three months	2 x 4	8
3	Amount of allowance factor		32	32

The calculation is as follows:
Average time (hours) = 32 hours/year (calculation activities)
Available working time = 1.898

Standard allowance $= \frac{rata-rata\ waktu}{waktu\ kerja\ tersedia} = \frac{32}{1.898} = 0,0171$

Manpower needs per work unit

To calculate the need for human resources in the assembling and quantitative analysis section, calculations are carried out using the WISN method. To perform the calculations required. Based on the results of the calculation of the minimum number of medical record personnel needed in the assembling section and quantitative analysis at the hospital TNI AU dr. M. Salamun. Then the recording power medical currently needed to carry out all the activities in the assembling and quantitative analysis section are 4 people, but the current number of officers is 2 people (Nagai et al., 2006; Genové et al., 2005).

From the results of these calculations, the assembling and quantitative analysis officers at the Air Force Hospital dr. M. Salamun have to add 2 medical record personnel so that they can carry out their work

following PMK No. 55 of 2013. So that the implementation of medical records at the TNI AU dr. M. Salam Hospital is even better so that the existing workload can be quickly resolved.

Factors that hinder the work of assembling and qualitative analysis

1) There are still officers who don't know that medical records must be completed immediately a maximum of 24 hours when the patient has been declared home who doesn't know yet
2) The presence of the officer who came late to the room
3) There is writing that is not clear/illegible
4) Incorrect file arrangement and not according to SOP
5) One officer who doesn't on the sheet takes care of one outside service
6) The incompetent officer makes this officer look after the front and only finishes this task in the afternoon.

Efforts were made to overcome problems related to assembling and quantitative analysis
Conducting late guidance and evaluation of officers every week or 2 weeks every month to be reported to the head of the room and Ranap officials (Husariev et al., 2021).

Discussion

Based on the results calculation of the minimum number of medical record personnel needed in the assembling section and quantitative analysis in hospitals TNI AU dr. M. Salam, then the recording staff medical currently needed to carry out all the activities in the assembling and quantitative analysis section are 4 people, but the current number of officers is 2 people. From the results of these calculations, the assembling and quantitative analysis officers at the Air Force Hospital Dr.M.Salamun have to add 2 medical record personnel so that they can carry out their work following PMK No. 55 of 2013. So that the implementation of medical records at the TNI AU Hospital dr. M. Salamun is even better so that the existing workload can be quickly resolved.

4 Conclusion

The assembling procedure or assembling inpatient medical record files is carried out after the file is filled in by the treating doctor and sent to the medical record section, examined for completeness (resume, IC, etc.), and the number of contents of the medical record file. If the medical record is not complete, it will be returned at the time to the treating doctor to finish immediately. After the medical record is completed by the doctor, the contents are examined and then matched with the data on the computer. Then medical records are selected for completeness and arranged neatly. The incomplete medical record file will be reported to the Head of Medical Records for evaluation.

As for the quantitative analysis procedure, the patient's medical record file that has been returned is prepared by the room staff no later than 24 hours to be taken by the officer. The room clerk records the serial number, medical record number, and patient's name on the expedition book and sheet. After that, check the expedition book and sheet from the room, whether the number, name, and number of the patient's medical record submitted is following the medical record file received. Then, the expedition book was signed by the medical record officer as a receipt. While the expedition sheet is signed by the Head of the Room/room clerk as proof of delivery. After that, the return of the Medical Record is received by the assembling officer who signs the shipping expedition book.

Based on the results of calculations using the Workload Indicator Staffing Need (WISN) method, we found out that the number of workforce needs was 4 officers, but currently, there are two officers, so it is necessary to add 1 person in the assembling section and 1 person in the quantitative analysis section.

Several factors cause delays in assembling work and quantitative analysis, including the lack of knowledge of officers that medical records must be completed a maximum of 24 hours after the patient returns home; delays in the arrival of officers to the room, and writing that is not clear/illegible; the arrangement of files is

not correct and is not arranged according to SOPs, and; the officer does not on sheet one off guard one outside service and lacks the number of workers.

Late guidance and evaluation of officers are carried out once or twice a week to be reported to the head of the room and inpatient officials.

Acknowledgments

I say many thanks to reviewers and publishers who have provided important and valuable notes, so that the manuscript can be published perfectly.

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