

QUALITY MANAGEMENT OF HYPERTENSION TREATMENT IN POLICLINIC OF TLOGOSARI KULON PUBLIC HEALTH CENTER

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Abstract

Public Health Center is a First Level Health Facility that was responsible for carrying out health development in its working area, performing Health Effort (UKM) and individual Health Effort (UKP). Quality of health services is health services in accordance with professional standards with the utilization of natural resources, efficient, effective, within the limits, the ability of the government and the community, and held safely in accordance with the code of ethics and satisfy customers with the level of satisfaction in the average population. Each Public Health Center will strive to position itself as best as possible in the eyes of customers to be trusted for fulfilling the needs in the health field. Hypertension is a condition in which systolic blood pressure ≥ 140 mmHg and / or diastolic blood pressure ≥ 90 mmHg. Hypertension is one of the major reasons of mortality and morbidity in Indonesia, and it is often referred to as a "silent killer". Unconsciously, the sufferers experienced the complications in vital organs such as heart, brain, or kidney. The research purpose is to know the compliance level of the doctors' in Tlogosari Kulon Public Health Center to SOP of hypertension handling in outpatient unit and patient satisfaction. This research was a descriptive survey, the method approach used cross sectional, the sample were two doctors at Tlogosari Kulon Public Health Center and twenty-three patients who had been suffered with hypertension in the outpatient Public Service Unit of Tlogosari Kulon Public Health Center. The priority of quality problem of hypertension handling in outpatient services used matrix problem priority method which was the lack of compliance doctors perform blood pressure checks. The reasons analysis of problems with the Paired Comparison Method were; (1) the nurse performed blood pressure checks, (2) there was only one tensimeter, (3) services in general outpatient units that did not only serve hypertensive patients, but also served all of patients, and (4) the socialization of new SOPs that had been revised was not optimal. The alternative problem solving were; (1) the procurement of two units tensimeter and made pictures of blood pressure examination, (2) using the tensimeter interchangeably and made the poster of blood pressure examination, (3) borrowing tensimeter from the other polyclinics and made flipchart of blood pressure checks. The problem-solving decisions were the procurement of two units of tensimeter and made pictures of blood pressure examination. The conclusion was doctors' compliances with the SOP were needed to be supported by tensimeter means, therefore the quality services would increase the patient satisfaction.

Keyword : Quality of Service, Hypertension, Outpatient

INTRODUCTION

Public Health Center is known as *Puskesmas*, which is a First Level Health Facility (FKTP) and it is responsible for conducting health development in its working area in one or part of the district area. *Puskesmas* organizes the Public Health Efforts (SMEs) and individual Health Effort (UKP) first level.¹ *Puskesmas* aims to create a society that has healthy behaviors including awareness, willingness and ability to live healthy, live in a healthy environment, have optimal health status for individuals, families, groups and communities, and able to reach quality health services.²

Quality of service is an important factor that can form patient's trust to Public Health Center, so it can create the loyalty as a consumer of health service. Public Health Center as an organization that produces service products in the health sector must have standard called SOP (Standard Operational Procedure) which must be obeyed by the officer in the implementation of its activity. Outpatient service at Tlogosari Kulon Public Health Center have the standard guidance, hence the quality of health service quality can be maintained well.³

A satisfactory service and quality will shape the loyalty of patients/customers, and satisfaction is very closely related to "word of mouth", then satisfactory service will also bring in new

customers. Further effects will continue in the process of developing an improved *Puskesmas's* image.⁴ Hypertension is one of the major reasons of mortality and morbidity in Indonesia. In most cases, hypertension is detected during physical examination for certain disease reasons, so it is often referred to as a “silent killer”. Unconsciously, the sufferers experience the complications in vital organs such as heart, brain, or kidney.⁵

The researchers are interested to do research about level of doctors' compliance of Tlogosari Kulon health center to SOP of hypertension handling in outpatient unit and patient satisfaction to hypertension handling in outpatient unit of Tlogosari Kulon Public Health Center.

RESEARCH METHODS

The scope of this research was in the field of public health science, especially about the handling of hypertension. This research was conducted at Tlogosari Kulon Public Health Center, Tlogosari Sub-district, Semarang. The study was conducted in May 2017. This research was descriptive survey research which explained the compliance of doctors to SOP of hypertension handling and patient satisfaction which got hypertension handling in Public Service Unit Outpatient of Tlogosari Kulon Public Health Center. The method approach used cross sectional by means of observation or data collection at one time (point time approach).⁶

The population of this study was three doctors at Tlogosari Kulon Public Health Center and all patients who had received hypertension treatment in the Outpatient Public Service Unit of Tlogosari Kulon Public Health Center. The samples of this study were two doctors at the Public Service Unit of Tlogosari Kulon Public Health Center and twenty-three patients who had been symptoms with hypertension in the Outpatient Public Service Unit of Tlogosari Kulon Public Health Center based on inclusion and exclusion criteria. The sampling method on service quality research was done by purposive sampling that the sampling was based on criteria which had been determined by the researchers.

The data collected in this research was primary and secondary data. Primary data obtained from: a) The result of direct observation about officer compliance to SOP of hypertension handling by using check list. List of checks made in accordance with the socialized SOPs of revisions. b) The results of interviews on customer satisfaction who had received hypertension treatment by using a survey questionnaire of public satisfaction index of the Decree of the Minister of Administrative Reform. c) Interviews with program holders of Outpatient Services and Head of *Puskesmas*.

The secondary data in the form of general picture of Tlogosari Kulon Public Health Center was obtained from data archive profile of Tlogosari Kulon Health Center.

The workflow research were reviewing the existing SOPs of hypertension management, revising in accordance with the theory, looking for the approval of Head of *Puskesmas*, socializing to the doctors, creating checklists referring to the SOP for handling hypertension agreed by the Head of *Puskesmas*, modifying the customer satisfaction questionnaire, determining the research sample, conducting a direct observation of doctors' compliance with hypertensive treatment SOPs with pre-made checklists, conducting customer satisfaction interview on hypertension handling in Outpatient Unit of Tlogosari Kulon Public Health Center, assessing doctor's compliance to SOP for treating hypertension was seen from Compliance Rate (CR). If the value of CR <80%, then the level of compliance officers said less. CR value calculated:
$$\left(\frac{\sum \text{Yes}}{(\sum \text{Yes} + \sum \text{No})} \right) \times 100\%$$

Assessing customer satisfaction was seen from the value of Community Satisfaction Index (CSI), the basis of the measurement of CSI; identifying quality management problem in Outpatient Unit of Tlogosari Kulon Public Health Center from primary data and secondary data.^{7,8,9,10}

The flow of this research were determining the priority of the problem using the Problem Priority Matrix, analyzing potential causes using system approach analysis through brainstorming and confirmation with program holders in the Outpatient Services Unit, identifying the cause of quality problems of hypertension treatment in care unit with fish bone analysis (Fish Bone analysis); identifying the most probable cause of problems related to quality by using Pareto diagrams with Paired Comparison, determining alternative quality problem solving by means of brainstorming, determining quality problem-solving decisions using cost benefit approaches, preparing plan of action (POA) to solve hypertension handling problems in Outpatient Unit Tlogosari Kulon Public Health Center using table of implementation plan and intervention effort, including selection of communication media, intervening the result of plan of action (POA) related to decision of doctor compliance problem solving to SOP of hypertension handling and patient's satisfaction on hypertension handling quality in Outpatient Unit of Tlogosari Kulon Public Health Center, and providing educational media about hypertension handling quality in Outpatient Unit of Tlogosari Kulon Public Health Center.

Data analysis of this research was done by computer processing through stages: (1) Examination data (editing) was an activity to

know the completeness of data to be processed; (2) Code Examination (coding) was an activity to classify data based on their respective categories. The coding was done after the data was edited to facilitate data processing; (3) Data entry (processing) was the activity of data processing done by entering (enter data) into computer program; (4) Checking (cleaning) was the activity of checking back data which was already entered, if there was a mistake or not.

Data analysis was done after obtaining primary and secondary data. The problem was identified if the value of the doctor's compliance rate (SOP) against the SOP of hypertension handling in the Outpatient Public Service Unit of Tlogosari Kulon Public Health Center less than 80%. The problem was prioritized using the priority matrix of the problem. The next step was to determine the cause of the problem using a system approach analysis. After that analysis of factors causing the problem was included in the analysis diagram Ishikawa/ fish bone (fish bone). The most likely cause of the problem was searched using paired comparison techniques. The cause of the problem that had been selected sought alternative problem solving by brainstorming. Once the problem-solving alternatives were constructed, decision-making on problem solving was made using the benefit matrix rather than cost benefit. The next step was to develop a plan of action plan and the intervention, and delivery of communication media^{11,12}

RESULTS

A. Input Hypertension Handling in the Outpatient Unit

1) Man (Labor)

General practitioners as health workers who were responsible in the implementation of hypertension SOP handling in general outpatient units. In performing their duties, the general practitioner was assisted by a nurse in charge of filling out the patient register book, entering the data into the simpus and performing vital checks. The numbers of doctors were 3 people which divided into 2 functional doctors who served in general unit outpatient and 1 person structural physician served as head of health center. In the study of the level of adherence of doctors to SOP treatment of hypertension, the researchers observed two doctors.^{1,8}

2) Money (Source of funds)

For operational cost of hypertension handling in general unit of *Puskemas* outpatient used fund which came from two sources of fund, those were Budget of Regional Revenue and

Expenditure (APBD) and National Health Insurance (JKN)

3) Method (Ways of working)

Hypertension handling method in general unit of outpatient using hypertension handling of *Puskemas* Tlogosari Kulon compiled based on experience and theory as reference in work which then recorded/inventoried by program holder of general unit of *Puskemas*. For the sake of writing doctors given the hypertension proposal that had been revised according to a more complete reference to be used as a written about the compliance officer of hypertensive soup handling in the general unit outpatient.

4) Materials (Facilities)

Puskemas Tlogosari Kulon Tlogosari Kulon had advice / facilities for general outpatient examination, elderly room, sanitation room, maternity room, medicine room, medical records room, Administrative Room (TU), hall, nutrition counseling room and immunization room, laboratory of service facilities with the ability of clinical laboratories with simple skill, puncture, *Puskemas*, basic essay neonatal obstetric and Emergency Unit (ER) 24 hours.

In outpatient units medical materials for handling hypertension included 3 stethoscopes, 1 digital thermometer, 1 tensimeter and 3 examination tables and 1 bed probe.

5) Marketing

SOP of hypertension handling in the proposed general outpatient unit was a SOP that had been revised and approved by the Head of *Puskemas*.

6) Environment

The number of visits of patients who had to get treatment of hypertension in an average outpatient unit ranged from 6 people out of a total of 107 patients per day. Area of outpatient unit which was 3.8m x 4m for service of two outpatient.

B. Process

1) P1 (Planning) Hypertension Handling in General Outpatient Unit

- Hypertensive treatment SOP in the revised outpatient general unit approved by the Head of Tlogosari Kulon Public Health Center was used as a guide for this writing.
- Sludge medical material such as stethoscope, tensimeter, and thermometer.
- Preparing non-medical materials include patient examination room, examination table, bed, medical records, and patient visit records.

- In the treatment of hypertension, doctors needed medical records, stationery, and computers that had the program Simpus.

2) P2 (Movement and Implementation)

Doctors were ready at 07.00 am until 14.00 pm on Monday to Thursday, at 07.30 am to 11:30 pm on Friday and Saturday. Doctors performed hypertension treatment that had not been completed after the agreed SOP.

3) P3 (Supervision, Control and Assessment)

Reporting conducted at *Puskesmas* Tlogosari Kulon consisted of daily, monthly and yearly reporting. The report responsibility holder was the head of the program and was collected monthly, quarterly reports, semiannual, and annual reports. Officers in general outpatient units were required to include hypertension management to the medical record and simpus, while monthly reports must be submitted by the officer to the SP3 Online.

C. Output

The coverage of outpatient visit examination of old and new patient of Tlogosari Kulon Public Health Center in 2016 had reached 100% each with outpatient visit number at Tlogosari Kulon Public Health Center 2016 as many as 34534 patients, average visit 107 patient/day. While the average visitation of hypertensive patients was 6 patients (5.6%) / day.

D. Outcome

To assess the quality of customer/patient satisfaction in *Puskesmas* Tlogosari Kulon, the quality team of customer satisfaction assessed the customer satisfaction that was recorded every year and used customer satisfaction questionnaire.

E. Impact

With the handling of hypertension, appropriate SOP was expected to control hypertension in the work area of Tlogosari Kulon Semarang Health Center.

Simple Problem

Identification of quality problems of hypertension handling in Public Unit Outpatient of *Puskesmas* Tlogosari Kulon. CR value the total adherence of doctors who handled hypertension was 37% which could be said that the level of compliance officers to the hypertension SOP handling in Public Unit Outpatient *Puskesmas* Tlogosari Kulon was less good. Based on the results on the checklist obtained CR results of less than 80% as follows:

- Doctors gave greetings and introduced themselves to patients.
- Doctors performed anthropometric examination.

- Doctors performed blood pressure checks.
- The doctors performed a pulse examination.
- The doctors performed a breathing examination.
- Doctors did anamnesa about history of disease.
- The doctors did a heart examination.
- Doctors performed limb examination.

1. Priority of Quality Problem of Hypertension Handling in Outpatient Unit of Tlogosari Kulon Public Health Center Using Matrix Problem Priority Method

So the priority of the selected problem was the lack of compliance doctors performed blood pressure checks, then confirmation and brainstorming with the outpatient unit program holders. Thus based on the results of priority problem determination above, then sought the cause of the problem.

2. Identification of the Most Potential Causes

Identify the cause of the problem of the lack of adherence doctors perform blood pressure checks in the general outpatient unit, according to the standard treatment of hypertension reviewed by analysis of system approaches, namely:

- Man: The nurse performed blood pressure checks
- Material: There was only one tensimeter
- Marketing: Newly revised SOP socialization was not optimal.
- Environment: Outpatient services that did not only serve hypertensive patients, but also served all patients

3. Determining the Most Causable Cause

Analysis of the causes of problems with the Paired Comparison Method obtained the order of priority causes of the problem as follows:

- The nurse performed blood pressure checks: 2
- There was only one tensimeter: 3
- Services in general outpatient units that did not only serve hypertensive patients, but also served all patients: 0
- Socialization of new SOPs that had been revised was not optimal: 1

4. Creating a problem cause frequency diagram

The next step was to make the cause of the frequency diagram of the problem based on

the results of the tally, the highest value on the cause of the problem was the tensimeter that there was only one.

5. Creating Pareto Tables, by sorting the cause of the problem from the largest frequency to the smallest frequency.

Pareto diagrams were statistical tools used to select factistical and factual problems factors. Pareto revealed that by controlling a little 20%, it quickly gained control of a larger (80%).

Based on calculations with pareto analysis in solving a problem then selected one problem with cumulative percentage was less than 80% and the most frequent frequency was tensimeter which there was only one.

6. Alternative Problem Solving

Alternative I:

Procurement of two units of tensimeter and made the pictures of blood pressure examination.

Alternative II:

Using the tensimeter interchangeably and made the poster of blood pressure examination.

Alternative III:

Borrowing tensimeters from other polyclinics and made the flipchart of blood pressure checks

7. Problem solving decisions (cost benefit)

Decision-making problem solving with cost benefit matrix (benefit over cost) as follows

A. Rank I:

Procurement of two units of tensimeter and made the pictures of blood pressure examination.

B. Rank II:

Using the tensimeter interchangeably and made the poster of blood pressure examination.

C. Rank III:

Borrowing tensimeters from other polyclinics and made the flipchart of blood pressure checks.

Complex Problem

The total value of customer satisfaction questionnaire questions was not below 2.51 with a minimum score of 2.78. Earned 5 people (21%) of 23 patients, responded with a value of 2 which means less good. In question 3, there were 5 people (21%) answered with a value of 2 which could be said that the patient felt the identity of the doctor who checked himself was less clear. In question 6, there was 1 person (4%) answered with a value of 2 which could be said that the patient felt the doctor was less able to explain clearly about the illness suffered by the patient. In question 9, there was 1 person (4%) answered with a value of 2 which could be said that the patient felt the doctors were less friendly in

providing services to patients. After converting, the value of IKM obtained was 3.02, assumed with interval value of community satisfaction index 2.51-3.25 (Good). The Quality Score of hypertension handling in Public Inspection Room of *Puskesmas* Tlogosari Kulon was G. The Satisfaction Index Value after converted to Value of Service Unit Performance could be concluded that hypertension handling in general unit outpatient of Tlogosari Kulon Public Health Center was good.

Selection of Communication Media

Identify the selection of communication media appropriate to the problem of handling hypertension using still pictures about blood pressure examination. The background of the selection of communication media mentioned above was the message material contained there in the form of the importance of blood pressure examination on the handling of hypertension. The basics of this communication were expected to increase the commitment of *Puskesmas* Tlogosari Kulon carrying out the message. Outpatient physicians often overlooked the importance of re-examining vital signs, especially blood pressure checks that had been checked by the nurse. Despite knowing that accurate blood pressure checks would affect the selection of appropriate therapies especially in hypertensive patients. Compliance doctors as medical personnel less attention to the importance of meeting the SOP that had been established. SOP of hypertension handling would keep the quality of medical service in *Puskesmas*. The patients who received outpatient services in *Puskesmas* were only a few who were dissatisfied because they were less familiar with who examined them, lack of communication of doctors in introducing themselves and impressed doctors less friendly, less patients to get an explanation about the illness they suffered. Doctors need to be given a reminder medium with a still picture of the importance of an accurate blood test and improved the effectiveness of patient physician communication.

DISCUSSION

Outpatient physicians often overlooked the importance of re-examining vital signs, especially blood pressure checks that had been checked by the nurse. Despite knowing that handling would keep the quality of medical service in *Puskesmas* selection of appropriate therapies, especially in hypertensive patients. The accurate blood pressure checks would affect the compliance doctors as medical personnel less attention to the importance of meeting the SOP that had been established.

Patients who received outpatient services at the *Puskesmas* were only a few who were

dissatisfied because they were less familiar with who examined them, lack of communication by doctors in introducing themselves and the impression that doctors were less friendly, patients were less well informed about the illness. Doctors need to be given a reminder medium with a still picture of the importance of an accurate blood test and improved the effectiveness of patient physician communication. Doctor's compliance to hypertension handling SOP was influenced by the availability of easy to understand SOP, the availability of accurate and sufficient quantity of tensimeter equipment.

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