Development of Professional Case Manager and the Impact to Satisfactory and Quality of Service at Patient Hall

Dr. Felix Kasim, dr., M.Kes.

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INTRODUCTION

Background of the problem

Globalization leads us to era of unlimited world, and Indonesia will face a great leap from agrarian society to industrial society. It is characterized by the focused issues on the customer, organization, competition, currency, and country. Also, this era is influenced by the force of the concept of free trade which is called ASEAN Free Trade Area (AFTA) in 2003 and the Asia Pacific Economic Committee (APEC), which have an impact on increasing competition in the field of health care services.

Improved quality of services globally in line with the principle of cost-effectiveness, patient satisfaction, and maintain the quality of service, which must be done continuously through continuous improvement.

In the health sector, to achieve excellent service quality, there are four basic elements to consider and implemented: (1) the technical quality of service, (2) efficient use of resources, (3) risk management, and (4) patient satisfaction.

Current efforts to improve the quality of health services are in accordance with the efforts to control the quality of human resources. Development of quality of care has shifted from the philosophy of excellent service (service excellence) to be excellent clinical services (clinical excellence). Clinical excellence requires quality improvement throughout the health professions,

including professional nurse who is spearheading the forefront of patient care in the living room of a hospital inpatient.

Any medical efforts generally contain risk, some risks are low or almost not clinically meaningful but there are also ones that have serious medical consequences. Diagnostic measures (e.g lumbar puncture, mielografi and endoscopy) or which are invasive, such as the installation of aids in the body (proteases, catheters) and surgery is not impossible to cause of disability, either temporary or permanently.

Therefore, in any medical action, standard procedure is necessary. The goal is to minimize the risks that may occur. In practice, efforts to minimize the risk sometimes ignored, either due to a routine activity or due time constraints and the available facilities. Even if it has done, ithere is a chance of not following the existing standards. Therefore, the quality of clinical services provided are not only selected the highest efficacy and safety, but also to be carried out by using the least potential risk.

In the United States, the risk for diagnostic or therapeutic measures is illustrated by the high medical error that causes death for Americans 44000-98000 each year. In Indonesia, the first medical error studies conducted in 15 hospitals in Central Java, and found the prevalence of error varies with the width range of between 1.82% - 88.8%.

On the other hand, many of the problems encountered in the services are: the gap between service units because there are some division that likely have more important role in the ministry, interpersonal miscommunication between each of the services, both between doctor and nurse, fellow doctors, fellow nurses, the doctors or nurses to some other professions in the hospital, etc.. These conditions eventually lead to a distortion of service to patients, either medical error or patient dissatisfaction. Errors that occur will lead to increased costs stemming from the diagnosis and treatment procedures that must be repeated. Error also causes the disappearance of the trust of patients to hospital, reduced satisfaction of service providers, the emergence of physical and psychological discomfort, decreased productivity, and ultimately decreases the level of public health.

Therefore, as a case management system is integrated into the main alternative is a need to improve the quality of patient care in bridging the gap that often occurs in every effort for a medical service which is still fragmented in the work culture of each part of the ministry. This study uses a tuberculosis (TB) as one aspect of the study. Tuberculosis is one disease which is considered a reemerging disease, with the trend of increasing numbers of cases and deaths at this time in developing countries. In Asia, the figure is 110 new patients per 100,000 population in Africa and 165 people per 100,000 population. Because of immaturity of the population of Asia more than Africa, the new patients per year in the continent of Asia was 3.7 times more than African.

Epidemiological situation of tuberculosis in West Java, every year found 41,000 cases of infectious TB that occur every 15 minutes, there is a person with TB, every week for about four people reported to health centers TB patients died. The findings of new cases of tuberculosis patients to 70% +, the rest are still infectious.

A variety of case management application that has been done is still in early stages of development and successful implementation has not been evaluated case management system.

Research purposes

In general, this study aims to determine the impact of disease by ICP Court of patient satisfaction, achievement of clinical indicators, and indicators of quality of care. Specifically this study aimed to:

1. Identifying the job description (job description) The Court based diseases.
2. Developing an integrated clinical guidelines (integrated clinical care pathway) for TB disease.
3. Identifying differences in quality of clinical care and patient satisfaction inpatient tuberculosis treated by the Court by ICPs compared with no MK.

Method

This study uses action research methods and triangulation method. The study was conducted over 2 years at Immanuel Hospital in Bandung. The first stage of Diagnosing Action research (data collection & pre patient care) with a minimum sample of 30 patients with TB and 30 nurses. The second phase is the Planning Action. The third stage is Taking Action, and the fourth is Evaluating Action. Evaluation of a quasi-experimental (post test only design with equivalent non-group).

The minimum sample involving 153 people, using non-random sampling technique (purposive sampling). Immanuel Hospital for nurses with 30 people selected by criterion sampling technique. There are the independent variables (critical thinking skills, interpersonal skills and theoretical relations skills), and the dependent variable (training & job descriptions setting MK). Variables before and after implementation of the Constitutional Court is the internal satisfaction of patient satisfaction and nurse, which consists of: (1) standards compliance, (2) LOS, (3) reporting records, (4) the incidence of pressure sores, (5) the incidence of infection due to IV, (6) the cost of care of patients with TB (hospitalized).

Instrument is the researcher's own research, questionnaires, and checklists. The data collected through in-depth interviews, Focus Group Discussions, participant observation, and questionnaires, and interview. Trustworthiness by researchers, with the activities of thick description, triangulation, member checking, and prolonged engagement. Analysis of qualitative data using thematic analysis. Quantitative data by univariate (frequency distribution table), bivariate (comparative hypothesis test to test two independent samples t-test and Mann Whitney separated variance z-test)

Research

Demographic characteristics of TB Patients before and after long day care of TB patients experienced improvement, from 66.6% of TB patients who were treated 5 days or more, to only 38.59% after the intervention the Constitutional Court. But the decline in inpatient days is not followed by a decline in TB patient care costs, which actually

showed an increase in the cost of care after the intervention the Constitutional Court. This is caused by not only affected the cost of day care and maintenance classes, but also the co-morbidity, type of medication given and action. Can be informed by investigators that the variation in total cost of grade 3 patients ranged from 0.800 to Rp .4.593.700 Rp.590, - and class 2 patients ranges from Rp. 877. 000 - Rp. 3.08014 million, -. (See table 1, 2)

Indicators of Implementation of ICP

Table 3 shows that adherence to standards by using SPS sputum examination before Court intervention is only performed in about 20% of respondents, after the intervention to 33.3%. Increased compliance with tuberculosis diagnosis is very significant (> 65%). The accuracy of the order to the pharmacy as an indicator of the implementation of the ICP also increased. MK 100% before the intervention shows the delay lambatan pharmaceutical care services from order entry to medication received by patients in the inpatient room. After the intervention the Court found an increase to 54.9%. A decline in the incidence of infections due intravenous needle and pressure sores (from 6.7% to 0.7%). Completeness form of TB patients showed significant improvement, from absolutely nothing to complete (0.0%) to 68.6%. Suitability of the implementation of the DOTS strategy in the treatment of patients with TB (SPS specimen examination, the regularity of drug taking and recording and reporting) increased from 50% before intervention to 86.3% after intervention. (See table 3)

Characteristics of TB Disease

The characteristic aspects of the disease, Table 4 shows that the classification of pulmonary tuberculosis is the most AFB + pulmonary tuberculosis (96.70% and 64.05%). The definition of other categories were accompanied with TB disease co-morbidity. By category, on the stage before the Constitutional Court intervention is the largest category of failure (67.7%), after application of MK is the largest category of new cases (75.82%). Diagnosis has improved (from 60% to 48.37%). The use of microscopic examination of the SPS have shown improvement (from 36.7% to 45.1%). Classification of the smear + TB patients approximately 96.70% and 3.30% BTA pre-post intervention comparison MK MK intervention

consisting BTA + 64.05%, 14.38% of smear-and the remaining 20% belonging to other categories. Other categories are emerging in the absence of adequate information regarding the patient's disease classification.

In terms of therapy, a decline in the use of non-OAT or combination antibiotic therapy is not for TBC / other group with OAT (53.3% to 20.92%). Long treatment of pulmonary tuberculosis (for 2 months) decreased from 76.7% to 46.41%. TB patient treatment outcomes (fail or not fit) is decreased, from 60% to 14.38%. Cure rates based on the conversion decreased from 96.70%% to 64.05%. There is no default before the intervention, after intervention occurred in 32.03% default TB patients. (See table 4)

Documenting completeness of tuberculosis and Patient Satisfaction
On stage before the Constitutional Court intervention, the system of recording and reporting of 70% is not correct and complete. After the intervention, 83% of recording and reporting of correct and complete. Pre Court intervention, 80% are dissatisfied with the services obtained, after the intervention, 88.89% are satisfied. This suggests that health services performed at Immanuel Hospital TB patients hospitalized with managed by MK are optimal. (See table 6)

Servqual Score Gap in Tuberculosis Patients

On tangible variables, score -1.36 -0.20 before intervention and after intervention showed hospital cannot meet consumer expectations relating of physical appearance, equipment, personnel and communication materials supplies in hospitals. Patient expectation score of 6.48, but the reality is received from the hospital only by 6.28 (-0.20 gap) before the intervention and the gap of -1.36 after the intervention. Hospital still cannot meet the expectations of consumers with a score of 0.20 before and 1.36 after the intervention. Reliability score of 0.14 on a variable indicates the hospital has been unable to meet consumer expectations related to the ability of hospitals to provide accurate and reliable. Reliability score is positive, meaning that Immanuel Hospital has been able to meet consumer expectations with a score of 0.14, but after the intervention gap score to -1.14, mean RSI after the intervention was not able to meet consumers' expectations of 1.14 after the intervention.

Variable responsiveness resulted in a score -0.22. -1.16 before and after intervention. Thus the TB patients have not been satisfied with the service received from the RS in relation to these variables and the RSI have not been able to meet consumers' expectations of 0.22 before and 1.16 after the intervention.

Assurance score variable yield gap -1.28 -0.29 before and after intervention. Thus the patient has not been satisfied with the service received from the RS in relation to these variables and the RSI have not been able to meet consumer expectations for 0.29 before and 1.28 after the intervention. Variable generates empathy gap score of -0.48 before and -1.08 after the intervention. Thus, the patient has not been satisfied with the service received from the RS in relation to these variables and the RSI have not been able to meet consumer expectations for 0.48 before and 1.08 after the intervention. (See table 7)

Cost and LOS Analysis

The cost of treatment with MK is higher than without seeing the total cost (cost) incurred. This is caused when the pre MK intervention study respondents were patients without co-morbidity, when the Constitutional Court intervention, 153 respondents 25% of them with co-morbidities. But the total cost decreased from Rp 2.735 million, - to $ 1.475 million, - in patients without co-morbidities. On parametric statistics for this hypothesis a comparative hypothesis testing two independent samples t test with the test. The results of the test statistic t count> t table or a substitute for t ($p = 0.032$, $p < 0.05$). Conclusions are statistically at $\alpha = 0.05$. The cost of patient care with the role of MK lower than without the role of the Court. Long day care with the role of the Court longer than before the role of the Court. LOS before (5.7 days) and after (7.1 days). This happens because at this stage of the implementation of ICP ($n = 153$), patients with co-morbidity, so that day care increases. Could be due to the onset of complications / variances for the duration of treatment or patients with a diagnosis Ranap go to other diseases, but in the course of their illness known to suffer from tuberculosis. On parametric statistics for this hypothesis a comparative hypothesis testing two independent samples t test with the test. The results of the test statistic t count> t table or a substitute for t ($p = 0.015$, $p < 0.05$).

Conclusions are statistically at $\alpha = 0.05$. Long day care with the role of MK MK shorter than without. (See table 8).

Analysis of Service Indicators

Compliance with the standard management of patients with TB with MK.

MK is better. Indicators used (DOTS components) that is looking to do or not do sputum examination SPS. Statistical analysis using non-parametric hypothesis testing comparative two independent samples (chi-square test). The results are calculated chi-square table <chi-square (p=0,12; p> 0.05). In conclusion, significantly at alpha = 0.05 compliance with the standard management of patients with TB with the role of the Court is not better than without MK. Conformity with the Court order pharmacy is better than no MK. Indicators used (DOTS components) that is OAT availability and continuity, speed of service from order entry to be accepted in the room no more than 30 minutes. Statistical analysis is a non-parametric hypothesis testing comparative two independent samples (chi-square test). The result of chi-square count> chi-square table (p = 0.023, p <0.05). In conclusion, significantly at alpha = 0.05 compliance with the Court order pharmacy is better than no MK.

The incidence of infection due to the MK IV is lower than without MK. Statistical analysis is a non-parametric hypothesis testing comparative two independent samples (chi-square test). The result is a chi-square calculated p> <chi-square (p=0,17; table 0.05). Alpha = 0.05 Conclusions on the incidence of infection due to the role of MK IV is not lower than without MK. The incidence of pressure sores with MK MK lower than without. The analysis used non-parametric statistical hypothesis testing comparative two independent samples with chi-square test. The results are calculated chi-square table <chi-square (p=0,25; p> 0.05). The conclusion at alpha = 0.05 for the incidence of pressure sores with the Court no less than in the absence of MK.

Completeness of medical records with the charging MK better than in the absence of the role of the Court. By using the indicator on the charging lakukannnya form TB 01, TB 02 and TB 05 (minimum) and other appropriate forms of TB ICP agreed to run. Statistical analysis used the non-parametric statistical hypothesis testing comparative two independent samples with chi-

square test. The result of chi-square count> chi-square table ($p = 0.045$, $p < 0.05$). The conclusion at alpha = 0.05, the completeness of medical records to fill the role better than without MK MK. Nursing care management process carried out by the Constitutional Court is better than the absence of the role of the Court. Observation and document review performed by ICP is the reference treatment of tuberculosis patient care in the hospital (referred to when there is also the co-morbidities and complications / complications arising during treatment performed variance charge sheet). Statistical analysis used non-parametric statistical hypothesis testing comparative two independent samples with chi-square test. The result of chi-square count> chi-square table ($p = 0.045$, $p < 0.05$). The conclusion is statistically at alpha = 0.05 case management process carried out by the Constitutional Court is better than the absence of the role of the Court.

Discussion

Methodology

This study combines qualitative and quantitative methods to the design of action research. Qualitative and quantitative are complementary, because the intensity of the high involvement of respondents in generating models of intervention through primary data collection in a qualitative way. The use of qualitative methods complement the results achieved through a quantitative approach. Several methods are applied as part of triangulation, i.e. using a structured questionnaire survey, focus group and participant observation to become the validation process and produce a consistent conclusion.

Action Research is research using non-probability sampling is sampling and purposive sampling criterion. Qualitative data collection needs much time, energy and resource intensive. Therefore, the researchers did not use probability sampling. Besides statistical representativeness is not a major requirement, because the goal of this research is to understand the disease process that occurs through the case management role of the Court. Researchers are not subject to randomization so that the probability of respondents to be the intervention and control groups are not the same.

This study not only examines specific phenomena or topic in different levels, but also incorporates two different research techniques and data processing unit puts one end of the study. According to Miles (1992) and Niff (2000) The difficulty encountered is the obtainment kinds of different answers from different methods as well. The results of qualitative research in the form of text and documentation activities, whereas quantitative research in the form of numbers. Therefore, researchers sought to overcome this obstacle by setting the unit of analysis, research Action Research is a system of action, not an individual or a group of 8. The author did trustworthiness, as part of the author attempts to prove the reliability, validity, objectivity of research, to convince the audience (or reader) that the results of this study need to be considered and taken into account. These results can be applied in different settings and if the data collected by other researchers, can be generated understandings of 12,. In this study, there is a threat to internal validity of research. Threats to internal validity are selection, history, maturation, regression and mortality. Selection and maturation factors pose a threat analysis and presentation of data related to the thoroughness of researchers in the review of negative cases or deviate from the existing evidence and theory are used. The solution the researchers be transparent and explain why the data is different from existing theories. This is one of the strengths of qualitative research. The data can be used to revise the theory to improve the reliability and reliability.

We conducted a test used to test the reliability and validity of research instruments that have been used. Researchers tested the instrument (external validity) based on the literature to construct and content validity. Testing construct validity using expert opinion (Expert judgment) with the experts. Once the instruments have been prepared covering the aspects to be measured and based on a particular theory, we then consulted with a minimum of three experts. The experts give an opinion whether the instrument can be used without repairs, the repair or overhauled.

The research material

Discussion of this study use thematic content analysis. From the search results in diagnosing action for 7 months, researchers found three primary functions in case management are: care coordination, cost containment, and continuity of care, which became the main focus on the weaknesses in the ministry of Immanuel Hospital. The parties involved are:
1. Medical personnel: custom, policy, cost of treatment varies, DOTS, relationship, health promotion, communication is hampered.

2. Paramedics: empathy, job descriptions, recruitment, paternalistic culture

3. Administrative and medical records: the standard tariff, control mechanisms, improving data collection and record keeping

4. Board of Directors of hospital: a key role, empathy, leadership, weakness, strength, opportunity, threat

5. Additional informants: competence of technical medical, nursing competence, communication, education, plan, do, check, action, controlling, evaluation

Implications of CM in Hospital

In the future takes the role of CM in the hospital with the patient and or his family since the arrival up to the return home. Some issues that need to be observed in the future are: (1) Conflict legal and medical disputes are likely to increase, (2) The regulations governing the legal relationship between patients, physicians, hospitals, and health care providers, (3) Patients post hospitalization, home care, (4) The role of CM on the payment by a third party, and (5) The entry of foreign competitors and investors in the healthcare field. Legal ethic cannot remove the quality health services that focus on the patient. Hospitals should maintain the quality of its services if his client did not want any complaints. Most of the customers who are faced by the hospital are sick people who feel uncomfortable, so the emotional conflict will be more apt to

occur.

To anticipate these things, the hospital must have qualified and professional human resources in the field to be able to carry out the vision and mission hospitals, monitoring and continuous evaluation of the implementation of medical services and non-medical hospital should continue to run.

Monitoring services to patients since the patients in the hospital until hospital discharge even the follow-up home care is a part of the duty of a Court.

In the future, authority should be given to the institution as a bridge of communication to deliver information to a third party (insurance or funders) matters of a general nature that do not violate the secrecy and medical ethics, and will give satisfaction to the patient and family for services given in accordance with what he expected.
Implications of CM for Nursing Management

By reviewing on the above studies, the nursing management in Indonesia should begin to dare to do the restructuring, reengineering and redesigning. Previous research in the U.S. showed that nursing care delivery system through the development of disease, case management that empowers nurses as CM.

CM empowerment through the implementation of disease management case preliminary structuring of nursing care delivery system and then expected to be followed by ICP models in cases of illness or clinical measures of treatment requires collaboration roles, functions and multi-disciplinary science, which emphasizes the substance of scientific nursing so that the quality of nursing care can be further improved.

Based on the premise of this research, disease management to empower the Constitutional Court case is the arrangement of the structure and process of nursing care onwards, thus allowing the provision of professional nursing care. In the aspect of the Court determined the amount of power based on the number of clients and ward placement. Determination of the Constitutional Court needs to be important, because if they do not fit the needs of the client, no time to perform

clinical nursing and collaborative action that should be done according to ICP.

Conclusion

1. Determination of job descriptions and training of Court Constitutional Court determines the resulting quality.

2. CM on inpatient room had not affected the professional satisfaction of nurses, client satisfaction, adherence to standard treatment of CM and the incidence of infections due intravenous needle and pressure sores.

3. CM affects the increase in the management of nursing care of tuberculosis patients with ICP and completeness of medical records charging.

4. MK long day care and reduce costs of care of tuberculosis patients in the inpatient.

Suggestion

For the Hospital

1. Improving the quality of clinical services in hospitals by developing a disease model of case management.

2. Developing of disease, case management should be accompanied by the development and manufacture of flow of the latest evidence-based ICP.

3. To encourage other hospitals to develop disease management case, this development is expected to be integrated in the assessment of hospital accreditation, in particular that has been integrated services (including nursing services, medical services, pharmacy services, clinical laboratory services, administration and finance).

4. Develop a more comprehensive system of tariff by the Court as a component of financing include fixed costs in total cost of patient care.

For nursing education

1. Enhance the ability of nurse Primer (PP) that can act as a Court and the provision of nursing care through a more specific level.

2. Changes in the pattern of client service on road maintenance and inpatient care by working patterns collaborate as a team from pre admission to discharge planning.

3. Provide individual advocacy, clinical practice, health education, research, and advocacy in the nursing care system.

For medical and nursing profession

1. Improving nurses' ability to use the ICP or care map or plan of multidisciplinary services to plan, to coordinate and evaluate nursing care for patients with high-risk groups.
2. Promoting collaborative practice teams of different disciplines to coordinate care on an ongoing basis during the period of illness and thereafter.

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