

A Study of Chronic Disease Management in Indonesian Primary Health Care

Febri Endra Budi Setyawan¹, Retno Lestari²

¹Lecturer, Faculty of Medicine, Universitas Muhammadiyah Malang, ²Lecturer, School of Nursing, Faculty of Medicine, Universitas Brawijaya

Abstract

Chronic disease management program in Indonesia (Prolanis) is a preventive and promotive program developed by Indonesian national health insurance. The initial survey showed that only 37.04% of primary health care perform chronic disease management programs optimally. Prolanis can succeed and be sustained if health care services included health care teams effectively address patient needs as well as increasing the quality of health services. For this reason, physicians as key roles in primary health care should enhance their competencies to deliver high-quality care. This study aimed to identify the impact of physician competencies on patient satisfaction in Indonesian primary health care. This study used a cross-sectional design with multistage random sampling which included 90 chronic disease patients in primary health care. The results revealed that the average physician competencies in providing health services to patients were 73.57%. In addition to this, as many as 73.64% of patients expressed satisfaction with physician skills. Lambda correlation test obtained a value of $r = 0.76$, so it was stated that the physician competencies had a strong influence on chronic disease patient satisfaction. It can be concluded that the more physicians master their competencies, the more confident patients seek treatment at primary health care.

Keywords: *Physician Competencies, Patient Satisfaction, Chronic Disease Management, Prolanis*

Introduction

Chronic disease becomes an epidemic every year and affects 75% of the national health service budget. Studies explored about 10 major chronic diseases in Indonesia, such as cerebrovascular disease, heart disease, diabetes mellitus, tuberculosis, hypertension, chronic lung disease, liver disease, accidents, pneumonia, and a combination of diarrhea and gastroenteritis. Currently, the government focused the

treatments on managing two major chronic diseases: diabetes mellitus and hypertension through the Indonesian national health insurance^{1,2}.

Chronic disease management program in Indonesia (Prolanis) is a preventive and promotive program developed by Indonesian national health insurance in collaboration with primary health care services. Prolanis is a medical system that combines health management and communication services for a group of chronic disease patients. Thus, primary health care services are expected to be able to improve community health status through holistic and comprehensive services. Coordinating care and controlling costs of Prolanis through integrating system is needed across the entire range of chronic care services^{3,4}.

Corresponding author:

Febri Endra Budi Setyawan

Lecturer, Faculty of Medicine, Universitas Muhammadiyah Malang Jl. Bendungan Sutami 188A, Malang, East Java, Indonesia
Email: febriensetyawan@gmail.com

The management of chronic diseases needs to be improved through holistic management by involving physicians and other health care teams working together through strengthening national health insurance financing⁵. The initial survey showed that only 37.04% of primary health care perform the programs optimally. The various obstacles faced by physicians in handling this case were the lack of control over the compliance of chronic disease patients in attending treatment regimens while at home, as well as the limited awareness of patients to immediately examine themselves when complaining symptoms of certain diseases⁶⁻⁷.

Physician competence is a crucial component in providing effective public health care. Physicians should master the competency standards and meet patients' expectations. Physician competency standards have been developed as guidelines to improve clinical practice and focused more on patient safety. These standards regulate the scope of activities relevant to day-to-day practice and ensure benefits for both physician and patient. Physician is required to implement professional competence by improving quality of health services. Patients' satisfaction could be widely used to evaluate health service quality. Issues in physician competence could contribute to medical errors and substandard health services quality. To evaluate physician competence, however, is challenging nowadays. In Indonesia, physician is required to comply with medical practices based on Indonesian Physician Competency Standards (SKDI)⁸.

Initial assessment is an essential part of chronic disease management. It could measure prior medical history and support effective treatment. It is therefore, physician should apply standardized assessment and interview protocols. Therapeutic interactions carried out by physicians can increase mutual trust between physician-patient. Repeated interactions with physician allowed patients to develop positive attitudes and expectations based on the history of interactions⁹⁻¹¹. Further, physicians had difficulties in

determining accurate diagnoses due to the inability to explore patient complaints, as certain patients have poor acknowledgment of feelings. Communication competence and clinical skills are needed in carrying out the initial history. Feelings of anxiety, fear, or other negative feelings could develop into distrust between physician-patient. Additionally, effective communication techniques could promote patient involvement in decision-making process. Previous studies identified that half of the failures of diagnosing chronic diseases from the beginning could affect the complexity of the health services. Providing holistic and comprehensive approach in managing chronic disease could be significant method when providing care^{7,12,13}.

Patient satisfaction is the main indicator of the standard of health facility, and the quality of health services. Additionally, patient satisfaction with health services is very important because patients will adhere to treatment and intent to revisit health care facilities for ongoing treatment¹⁴⁻¹⁵. Patient satisfaction can be determined by its quality of health services, equity to access to health services, promotive-preventive approaches, decision-making process, financing system, adequate information, waiting time of services.¹⁴ Low patient satisfaction will have an impact on the number of visits; thus, it affects the quality of health services. Lack of professional attitude of physician also has an impact on reduced patient satisfaction. Furthermore, low satisfaction was related to lower trust to physicians, and in a long term, it had an impact on lower general life satisfaction. Measurement of patient satisfaction is an important element in providing better, more efficient and more effective services. Patients will be satisfied if the performance of the health services obtained is equal or exceeds their expectations and vice versa^{16,17}.

Prolanis can succeed and be sustained if health care services included health care teams effectively address patient needs as well as increasing the quality of health services. For this reason, physicians as key roles in primary health care should enhance

their competencies to deliver high-quality care. This study aimed to identify the impact of physician competencies on patient satisfaction in Indonesian primary health care.

Materials and Method

This study was an observational analytic study with a cross-sectional design. The study was conducted at primary health care in East Java, Indonesia. Multistage random sampling was used to choose respondents in primary-level health facilities. 90 patients were chosen based on a diagnosis of chronic disease from medical records. The researchers asked the patients whether they agreed to participate in the study. Consent was signed after each respondent had been explained with regards to the study purpose. Ethical approval was gained from the Ethics Committee, Faculty of Medicine, University of Muhammadiyah Malang. Written approval from the study site was also obtained.

Questionnaires were given to 90 patients who were treated at the primary health care. Seven physician competencies were evaluated: professionalism, self-awareness and self-development, effective communication, information management, knowledge, clinical skills, and management of health problems. Patient satisfaction was measured based on the quality of health services performed by physicians using “Decree of the Minister of State for Administrative Reform Number 25/KEP/M. PAN/2/2004”. There were five dimensions of health service quality: reliability, assurance, tangible, empathy, and responsiveness. The results of the validity test show $r_{count} > r_{table}$, where $r = 0.370$, so the questionnaires are valid. While the results of the reliability test using Cronbach’s Alpha value of 0.770, it is considered reliable. Data were analyzed using the Lambda correlation test to see the relationship between variables. The instruments of physician competencies and patient satisfaction in primary health care as follows:

Table 1: Instruments of Physician Competencies and Patient Satisfaction

| Physician Competencies |
|--|
| Professionalism |
| Physician able to identify and manage patient complaints |
| Physician able to handle patient cases based on socio-cultural aspects |
| Physician able to pay attention to legal ethics in handling patient cases |
| Self-awareness and self-development |
| Physician able to listen to patient complaints and find out the reasons based on evidence-based practice |
| Physician able to look deeper into problems of each patient cases |
| Effective communication |
| Physician able to interact with patient effectively |
| Physician able to understand patient concerns, and opinions |
| Information management |
| Physician able to provide information about the disease to the patient |
| Physician able to use appropriate technology when providing health information to the patient |
| Knowledge |
| Physician know the patient’s disease in detail |
| Physician know the management of chronic diseases at primary health care |
| Clinical skills |
| Physician able to assess symptoms of chronic diseases |

Cont... Table 1: Instruments of Physician Competencies and Patient Satisfaction

| Physician Competencies |
|--|
| Physician know standard precautions in the management of chronic disease |
| Management of health problems |
| Physician |
| Physician able to perform high-quality of chronic disease treatment |
| Patient Satisfaction |
| Reliability |
| Physician able to diagnose accurately and promptly on time |
| Patient feel better following treatment |
| Physician examine patient around \pm 15 minutes |
| Assurance |
| Patient is assessed by a physician |
| Patient is examined carefully |
| Physician able to assess and treat patient holistic and comprehensively |
| No discrimination showed by physician |
| Tangible |
| Physician able to convince patient |
| Physician conduct inspection using high-quality tools |
| Physician characteristics is well-known, using specific medical attributes |
| Empathy |
| Physician able to provide attention to patients |
| Physician able to identify patient complaint |
| Physician can communicate well during patient complaints |
| Responsiveness |
| Physician is responsive to manage patient complaints |
| Physician is responsive to each patient complaint |
| Physician can communicate effectively during visit time |
| Physician provide adequate information to patients |

Results and Discussion

The results of the study obtained data about the physician competencies, the level of patients' satisfaction and the influence of physician

competencies on the level of satisfaction of chronic disease patients. These results can be shown in table 1 below:

Table 2: Average Percentage of Physician Competency Domains and Patient Satisfaction

(N = 90)

| Variables | Average Percentage (%) |
|---|------------------------|
| Physician Competencies Domains | |
| Professionalism | 72 |
| Self-awareness and self-development | 70 |
| Effective communication | 78 |
| Information management | 71 |
| Knowledge | 74 |
| Clinical skills | 70 |
| Management of health problems | 80 |
| Patient Satisfaction Based on Quality of Health Services | |
| Reliability | 72 |
| Assurance | 74.2 |
| Tangibles | 72.8 |
| Empathy | 75.4 |
| Responsiveness | 73.8 |

Table 3: Lambda Test Results for The Impact of Physician Competencies

on Patient Satisfaction

| Hypothesis | Value | Error Standard | T ^b | Sig. |
|----------------------|-------|----------------|----------------|-------|
| Patient satisfaction | 0.762 | 0.070 | 6.449 | 0.000 |

Based on table 2, physician competency related to the management of chronic diseases was the highest competency domain demonstrated by physicians in primary health care (80%). Meanwhile, the lowest competency was in the domain of self-awareness, self-development, and clinical skills. The mastery of physicians' competencies in all domains has averaged 73.57%. From this study, it is known that the highest satisfaction of Prolanis patients was in the dimension of empathy (75.4%) and the average

patients' satisfaction in all dimensions was 73.64%. The results of Lambda correlation test in table 3 showed that physician competencies could strongly influence the level of Prolanis patients' satisfaction with a correlation value of 0.76.

Rules and regulations with regards to physician competence in Indonesia were developed to improve the quality of care. Indonesian Physicians' Competency Standards (SKDI) is the standards'

reference for medical physician in Indonesia. Based on the guidelines; physicians must have sufficient competence to be able to provide health services that in accordance with these regulations¹⁸.

This study found that more than 70% of physicians in primary health care perform competencies in accordance with SKDI. Physician competencies in primary health care does not only assess patient complaints, but also includes providing motivation and encouragement so that patient can follow treatment effectively. Seven areas of physician competence in table 2 explained the need for holistic and comprehensive services to improve health services for Prolanis patients. Modification of a healthy lifestyle can be implemented gradually, started from developing emotional bonds between physicians and patients, empathetic attitudes of physicians in understanding patient problems. Then, physicians together with patients could find the best solutions to manage problems and being able to provide positive reinforcement on patient behaviour. The results of this study are also in line with previous study which stated that the quality of physician services in terms of technical abilities, interpersonal relationships and patient involvement positively influences the loyalty of outpatients in hospitals. Patient-centered care was identified as a core element of health services quality. Previous study revealed that factors that influence patient-centered care were levels of education, occupation, and social class. This explained that low health literacy and socioeconomic status were still a great issue in most aspects of life¹⁹⁻²¹.

The management of chronic diseases requires an increase in the quality of interactions between physicians and patients through five aspects: (1) leadership through promoting healthy behaviors, (2) knowledge by supporting changes in healthy behavior, (3) history skills, chronic disease management skills and (4) support from health teams and (5) foundations related through promotive, preventive and rehabilitative programs¹⁹. Developing the ability to have a high self-awareness is part of the aspect of

leadership that must be owned by a physician and this can be done through self-reflection, self-assessment and being able to receive feedback from others. This ability can build self-confidence and be able to be more consistent in decision making. So that physician can improve their communication skills effectively and be more open in addressing the problems faced by patients. Improving self-awareness could be done by spending time in self-evaluation and seeking feedback from others^{22,23}. In SKDI it has been stated that the competency of physician includes the ability to carry out effective interpersonal communication, make an accurate diagnosis and conduct comprehensive management. This comprehensive management includes promotive, preventive, curative and rehabilitative efforts by involving patients in planning the treatment^{24,25}.

The results of the study in Table 2 showed that 73.64% of Prolanis patients expressed satisfaction with the quality of physician services. Health service quality is based on the RATER dimension which includes reliability, assurance, tangible, empathetic, responsiveness that is included in service quality. An empathetic attitude has the highest value of 75.4%. When physician provide services, empathy is done by giving full attention to the patient's problems and identifying the patient's needs in accordance with the results of the analysis carried out²⁶. SERVQUAL was used to measure patients' perceptions of health services. It is a rating scale that includes several items that are concise with its reliability and validity, better understanding of service expectations and consumer perceptions which, as a result, improve the quality of health services. Previous study showed that five components of SERVQUAL: reliability, assurance, tangible, empathy and responsiveness were significant indicators to evaluate patients' satisfaction in the hospital²⁷⁻²⁸. This study showed that physician competencies have a strong influence on the patient satisfaction with a correlation value of 0.76. Thus, the more physicians master their competencies, the more confident chronic disease patients seek treatment at

primary health care.

Conclusion and Acknowledgement

Managing chronic disease in Indonesia has been a challenging task for decades. Health professionals, such as physicians should be able to perform their competencies based on national standards to enhance chronic disease management programs in primary health care. It can be concluded from this study, physician competencies have a strong influence ($r = 0.76$) on patient satisfaction. Providing high-quality of health services could encourage chronic disease patients to visit to primary health care, reduce hospital revenues, and minimize complications. We would like to thank all respondents as well as primary health care in East Java for their contribution to this study.

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