

Action Research: Development of a Diabetes Care Model in a Community Hospital

Praneetsin Chaowalaksakun, Pikul Nantachaipan, Wipada Kunawiktikul, Sirirat Panuthai, Natapong Kosachunhanun, Sue Turale

Abstract: Diabetes mellitus is a major global health problem and it is essential to develop and implement appropriate healthcare delivery to improve diabetes care. This action research study developed a diabetes care model at a 120-bed community hospital in northern Thailand. Thirty multidisciplinary healthcare providers and 19 people with type 2 diabetes engaged as participants in this study. The research process comprised four phases: planning; action and observation; reflection and revision; and model summarisation. Qualitative data were collected using focus group discussions, semi-structured interviews, team meetings and workshops, document review, and observation with note taking. Content analysis was performed on the qualitative data.

The developed Diabetes Care Model for Community Hospitals has three components: administrative support; the diabetes care delivery system; and diabetes self-management support. Piloting of the model showed that it was practical, fitted with the situation and context of the hospital, and tended to produce good clinical outcomes.

Further studies of the effectiveness of this model are warranted especially in a longitudinal study. This Model is proposed to healthcare professionals and hospital administrators to be potentially used in service delivery in other community hospitals in Thailand.

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Introduction

The prevalence of diabetes mellitus (DM) is increasing worldwide^{1,2} including in Thailand.³ Diabetes is a serious health problem causing chronic health complications, and costly long-term care.^{3,4} Health professionals and stakeholders need to be involved and collaborate at many levels to develop new strategies to combat increasing morbidity and mortality associated with DM. This includes providing education and health promotion programs at a primary health care

Correspondence to: Praneetsin Chaowalaksakun, RN, PhD Candidate, Chiang Mai University, Chiang Mai, Thailand 50200.

E-mail: Kpraneetsin@yahoo.com

Pikul Nantachaipan, RN, DNS, Assistant Professor, Faculty of Nursing, Chiang Mai University, Chiang Mai, Thailand 50200.

Wipada Kunawiktikul, RN, DNS, FAAN, Professor, Faculty of Nursing, Chiang Mai University, Chiang Mai, Thailand 50200.

Sirirat Panuthai, RN, PhD, Assistant Professor, Faculty of Nursing, Chiang Mai University, Chiang Mai, Thailand 50200.

Natapong Kosachunhanun, MD, Associate Professor, Faculty of Medicine, Chiang Mai University, Thailand 50200.

Sue Turale, DEd, RN, FACN Visiting Professor, Faculty of Nursing, Chiang Mai University, Thailand 50200 and Professor, Global Health and Nursing Department, Ewha Womans University, Seoul, Korea.

level, and treatment and care for those affected. In Thailand, diabetes treatment and care is provided by integrating primary, secondary, and tertiary prevention in three levels of hospitals within communities: these are health promoting hospitals, community hospitals, and general or regional hospitals. Community hospitals, for example, are expected to provide healthcare services to help people with DM to achieve optimal levels of glycemic control and vascular risk control.⁵ A 2012 Thai survey of 456 community hospitals and 8,571 people with DM revealed that the examples achieved optimal outcomes only at a low level.⁶ In addition, it was found that Chiang Mai Province ranked low in comparison with eight northern Thailand provinces, in terms of patient testing of HbA1C <7%, LDL-cholesterol <100 mg/dL, and blood pressure <130/80 mmHg.⁶ This poor ranking helps to confirm that it is essential to improve DM care systems in community hospitals in the province. Good self-care coping strategies by people with diabetes⁷ and the process or system of DM care are integral to improving health and reducing DM-related morbidity and mortality.

In the USA, the service delivery models including the acute care model and Kaiser Model underpin diabetes care.⁸⁻¹⁰ The Acute care model focuses only on acute problems, thus is not suitable for chronic conditions like diabetes.¹⁰ The Kaiser model, a model for health care delivery, is integrated services at three levels: level 1, primary care with self-care support; level 2, assisted care or care management; and level 3, intensive care management. Although research about the Kaiser model has demonstrated that patients can more easily access hospital admission and use of information systems,¹¹ it has many weaknesses in relation to management of chronic conditions, including DM care.^{8,11} For example, McGlynn et al. evaluated the quality of healthcare based on the Kaiser model delivered to American adults and found a low performance in chronic condition management. The percentage of those receiving recommended care was high, including interventions such as medication,

immunization, physical examination, laboratory testing, radiography, surgery, and history, but was inadequate in counseling or education (18.3%, 95% CI, 16.7–20.0).⁹ For DM care, adherence to quality indicators was inadequate.

Because of the limitations with the above models, the Chronic Care Model (CCM) was developed and is now the most studied model in DM care.^{12,13} The CCM is a framework for the care of those with chronic illness and originated in the U.S. with the work of Edward H. Wagner¹⁰ and is widely used and effective in DM care internationally.^{12,13,15-18} It has six components: healthcare organization, self-management support, delivery system design, decision support, clinical information systems, and community resources and policy.

The CCM is effective in DM care but it requires large system changes.^{18,19} A systematic review of 69 studies regarding the CCM for DM care reported that the CCM can improve outcomes as follows: HbA1c: – 0.46% (95% CI 0.38, 0.54), systolic blood pressure: – 2.2 mmHg (95% CI 0.9, 3.5), diastolic blood pressure: – 1.3 mmHg (95% CI 0.6, 2.1), and total cholesterol: – 0.24 mmol/L (95% CI 0.06, 0.41).¹⁷ However, implementation of the CCM with large system changes requires carrying out full components.^{18,19} Minimal system changes, such as the delivery system design and clinical information systems, imply difficulty in achieving the outcome.¹⁹ For this reason, it is not suitable for a hospital where there are limited resources such as in community hospitals in Thailand. In addition, researchers have recommended that it is necessary to determine barriers before implementing the CCM in each setting.¹⁹

The application of the CCM in community hospitals in Thailand was attempted at the policy level in 2013, and later applied in terms of improving the quality of non-communicable disease clinics. However an evaluation of this yet to be completed.²⁰ At present, improving DM care in hospitals in Thailand is still limited to establishing single

interventions and improving fragmented healthcare. For establishing single interventions, it includes nursing guidelines,^{21,22} exercise programs,²³⁻²⁵ and education programs.^{26,27} Examples of improving fragmented DM care include reducing the steps in receiving care in a diabetes clinic so that this is a one-stop service²⁸ and improving the referral system among healthcare networks of community hospitals.²⁹ The design of these studies did not involve multiple interventions, a system approach, or management of the DM care system while many studies have recommended that critical factors be integrated into DM care, including multiple interventions,^{10,13} a system approach,¹⁰ and multidisciplinary care.^{10,30} In addition, another study in Thailand pointed out that allocating proper human resources to a number of patients is necessary in diabetes clinics.³¹ Although, the CCM is effective in diabetes care in foreign countries,¹⁸ there is no evidence to that CCM implementation in diabetes care in community hospitals in Thailand is effective.²⁰ In addition, most existing interventions do not use a systems approach.²²⁻²⁹

Improving DM care involves changes in people with DM,^{7,32} healthcare providers' perspectives,^{10,30} and service delivery model.¹⁸ People with DM have a prime responsibility in controlling their diabetes and this being able to living well with the condition. They need to make and maintain their life style changes to generally have better quality of life. Healthcare providers have important roles in health promotion for people with DM to help them make their life styles changes and motivate them to maintain these.³² A service delivery model should emphasize collaborative care, involving the person with DM, the family and health care professions. This is becoming more important in DM care globally, and especially the establishment of self-management support remains relatively underdeveloped in many countries.³³

According to the recommendations of previous studies and accepted principles of chronic care, a desired care model should be practical in the setting

with multiple interventions,^{10,13} use a systems approach,¹⁰ involve multidisciplinary care,^{10,30} and overcome the problems through managing chronic conditions well.^{32,33} Listening to the voices and capacity of healthcare providers and patients is critical, for improving DM care requires the participation of all of them. The methodologies of action research provide a way for all participants to understand the situation, collaboratively develop the desired diabetes care model. Therefore, the aim of this study was to develop a suitable model for diabetes care in community hospitals to improve service delivery and the health of people with DM. The development of a diabetes care model was expected to benefit the community hospital.

Method

Design: This study used the qualitative approach of action research that involved an enhancement approach.^{34,35} This approach allowed all participants to be involved in the development of the finalized Diabetes Care Model for Community Hospitals (DCMCH). The methodologies in this form of action research can provide opportunities for all participants to understand the DM situation; collaboratively develop the desired model; and enhance capacity of the healthcare providers to have the internal drive and dedication to help their patients. This all involves changing the providers' normal practices to achieve comprehensive changes in DM care.³⁶

Study setting: This was a 120-bed community hospital which, at the time of the study served 78,000 people in its catchment area and had 3,116 cases of people with DM receiving outpatient care. Most of them (n = 3,112, 99.88%) were diagnosed with non-insulin-dependent diabetes mellitus (E11, E110-E119) and the majority were female and of working age. The youngest was 17 years while the oldest was 96 years. The majority received DM care under the Thai national health care system which

provides universal coverage, (n = 2,417, 77.57%), while others received benefits under the civil service welfare system (n = 564, 18.10%), and a few had social security and patient self-payment. The community hospital that was this study's setting provides DM treatment, early detection of complications, and facilitation of lifestyle changes to the patients. There are 18 health promoting hospitals (HPHs) in a district and 15 HPHs were involved in this study.

Participants: This comprised two main groups:

1. Healthcare providers (HCPs) were multidisciplinary team members from the 120-bed community hospital and 15 registered nurses (RNs) from 15 health promoting hospitals (HPHs). The multidisciplinary team comprised 15 HCPs, and included seven RNs, (one the chief nursing officer and a researcher; five RNs working in the DM clinic; and an RN from a medical ward; a medical physician and two general practice physicians; and five other health professionals, a pharmacist, physiotherapist, nutritionist, laboratory technician, and an information technologist. The HCPs were purposively invited to participate in this study based on the following inclusion criteria: 1) working at the 120-bed hospital or HPHs, 2) working with people with DM receiving outpatient care for at least one year, and 3) willing to participate in this study. The multidisciplinary team was involved throughout the study.

2. People with DM comprised 19 participants who met the inclusion criteria of: 1) receiving outpatient care in a 120-bed community hospital for at least one year and 2) willing to participate in the study. They were recruited by poster announcement at the hospital and invited by RNs working in the DM clinic, and participated in Phase 1 of the study.

Ethical considerations: Study approval was obtained from the Research Ethics Review Committee, Faculty of Nursing, Chiang Mai University. Participants were provided with a written description about the research background, purpose, and process, and informed of their right to withdraw from the

study at anytime. The researcher upheld the principles of ethical conduct, including respect for persons, consent, privacy, and confidentiality, throughout the study.

Research procedure: The process of action research proposed by Kemmis and McTaggart³⁴ was adopted to develop a DCMCH, and was composed of: plan, action and observation, reflection, and revision. Each phase is described below in detail.

Phase 1: Plan. This phase was 12 weeks in length, and aimed to analyse the situation of DM care in the study setting and establish action plans.

Situational analysis of diabetes care. Data was collected on the situational contexts surrounding DM care, using 1) four focus group discussions (FGDs), including one group with five RNs, another group with 15 HPH RNs, and two groups of people with DM; 2) semi-structured individual interviews with three physicians; 3) document reviews; 3) group meeting and workshop; and 4) observation and note taking.

All participants in the FGDs as well as in group meeting and workshop were encouraged to share their opinions and give suggestions regarding desirable DM care services. The participants from each FGD and semi-structured interview were given the opportunity to review a summary of the interpretation of the data that obtained during their respective discussions or interviews. The researcher and five RNs analyzed the data at the study setting, validated interpretation of data, so as to gain understanding regarding the situation of DM care. The data were organized to identify and categorize topics of DM care problems. All topics including the constraints within the special clinic and DM clinic, the provision of healthcare services, needs, and relationships in DM care were presented to all HCPs through a mind map diagram by a researcher. The participants shared their opinions, reconsidered, and reached a consensus on the DM care problems.

Establishing action plans. Eight team meetings and workshops were organized with the multidisciplinary team and RNs from HPHs. The researcher moderated in each meeting to assure the purpose of the establishing action plans was being accomplished. Each of the meetings took place at the study setting and lasted approximately two hours. The participants were divided into two groups: five RNs and the multidisciplinary team. All meetings were conducted to find out solutions for DM care and establish action plans.

During meetings, participants were asked: “What activities should be included to solve each DM care problem?” They were encouraged to share their opinions and give suggestions regarding action plans based on information that obtained from situation analysis and by reviewing existing models suitable for DM care, principles of chronic care, and recommendations from previous studies until consensus was reached. The participants’ proposed action plans then were summarized by the researcher using a mind map diagram for each group. The multidisciplinary team also conducted one last formal meeting to summarize action plans.

Phase 2: Action and Observation. This phase was 20 weeks in length, and involved implementing action plans and observation. The HCPs provided healthcare based on action plans to all patients, who received healthcare at a DM clinic on three diabetic days a week in the study setting. Throughout this phase, team meetings, workshops, observations and note taking were undertaken.

Phase 3: Reflection and Revision. The researcher and the HCPs conducted group meetings and workshops to reflect on the process, output, and outcomes of all solutions. The action plans were summarized to be maintained or revised. All summarized action plans were integrated until the solutions emerged as themes and all themes were presented by a researcher to the multidisciplinary team to assure their accuracy.

There was agreement among all participants that the revisions made in this phase were accurate.

Phase 4: Model Summary. This was conducted at the study setting, over two weeks in team meetings and workshops with all HCPs. Data collected at Phase 3 were used to evaluate the feasibility of the model. After that, thematic analysis was utilized to classify the theme of the data in order to identify an appropriate model on each component. The components and linkage of all components were established and discussed among the team. The researcher presented the components and linkage of the final model. All HCPs considered the attributions of each component and sub-component, linkages, and the appropriateness of a DCMCH. The finalized model was approved by the team.

Data collection: The activities of data collection in this study were conducted as follows:

Focus group discussions. Four of these were held in a conference room at the 120-bed community hospital: one for five RNs that have been working with people with DM in a 120-bed community hospital, another for 15 RNs from 15 HPHs, and two groups of nine and ten people with DM. Demographic data of each participant were collected at interview. After the participants gave permission, each FGD was digitally recorded, and the researcher acted as facilitator and encouraged their participation. Each group was lasted ~1–1.5 hours.

During FGDs, guidelines were used to explore the situation of DM care in the study setting. These guidelines were developed by the researcher and validated by two faculty members and one healthcare system expert (see Table 1). Probing questions were also used to obtain more in-depth data, and included: “Please tell me more about what the senior leader does to help you in DM care” and “Please tell me more about your suffering”.

Table 1 Focus group discussion guidelines

Groups of Focus Group Discussion	Questions
1. The five RNs	<ol style="list-style-type: none"> 1. What are the problems in current diabetes care which you face in the 120-bed hospital? 2. What are goals of diabetes care which you want to achieve? 3. What are your needs for improving diabetes care?
2. 15 RNs from 15 HPHs	<ol style="list-style-type: none"> 1. What are the problems in current diabetes care which you face in your health promoting hospital? 2. What are goals of diabetes care which you want to achieve? 3. What are your needs for improving diabetes care?
3. People with DM	<ol style="list-style-type: none"> 1. What are your problems relating the diabetes? 2. What are healthcare problems when receiving diabetes care in a 120-bed community hospital? 3. What are your needs for improving diabetes care?

Semi-structured interviews. Individual interviews were used to collect data from three physicians in an examination room at the hospital, and these were digitally recorded over ~30–45 minutes each. Questions were asked regarding the problems in a diabetes clinic, how to use a DM guideline, and the need for improving DM care.

Document review. The hospital data registry, reports of DM care outcomes, and medical records were reviewed by five RNs regarding: 1) the number of patients who received DM care at the diabetes clinic in the study setting; 2) outcomes of diabetes care; 3) the number of patients who accessed to annual health check-ups; and 4) the results of annual health check-ups. The data regarding glycemic control levels in overall and sub-population groups were used to help determine the real clinical problems and needs of the sub-population group of patients.

Observation and note taking. While conducting processes of four FGDs, semi-structured interview, and document review, participant observation was made and notes taken on the atmosphere, circumstances,

and behaviors of the key participants by a researcher.

Data analysis: Qualitative data were analyzed using six steps of qualitative data analysis.³⁷ All transcripts from FGD, semi-structured interview, and observation and note taking, were analyzed through organizing the data, reading the content, coding the details, generating a description of the setting, people, as well as categories of themes for analysis, deciding how the description and themes will be represented in the qualitative narrative, and making an interpretation or deriving meaning of the data.³⁷

Rigor and trustworthiness: We applied the principles of trustworthiness of Lincoln and Guba³⁸ including *credibility, transferability, dependability, and confirmability* to ensure the rigor of this study. Data were collected with multiple methods and from various sources to confirm accuracy of findings on patterns that emerged and conceptual links. The preliminary findings were given back to participants to enable them verify their interpretive accuracy and to confirm that all findings were derived from data.

Results

Based upon the findings of Phase 1, the following findings show how these data supported development of the model.

Healthcare System Constraints. There were healthcare system constraints existing in the special clinic and the DM clinic, which inhibited the healthcare outcomes. These were: a tight schedule of healthcare services and a limited number of RNs; an excessive workload; an inappropriate ratio of patients to RNs in daily practice; working in an undesirable work climate, such as too many patients and fatigued RNs.

The RNs accepted that they could not find out the patients' more difficult problems, saying for example: *"We do not have success.... There is not enough time to discuss complicated problems."* One RN said: *"I wanted to talk with a patient longer, but I saw a large amount of patients who were waiting. I reminded myself, it's about time to stop my discussion."* The nursing team leader requested that the chief nursing officer recognize that these critical problems could not be solved by the nursing team alone.

Routine DM Care Delivery for the People with DM. As noted earlier, an excessive workload in the DM clinic caused an inappropriate ratio of patients-to-nurse in daily practice and the HCPs could not responded to clinical problems and specific problems in a specific group of patients. The data obtained from document review showed clinical problems in DM care, including almost half of patients having a high level of HbA1C and lipid those required suitable healthcare services. Additionally, the sub-population groups required tailored interventions, for example, those who were obese, the young, older people, disabled people, government officers, users of herbs, and Buddhist monks that had specific problems.

Non-Systematic Self-Management Support. RNs complained they had no time to provide sufficient education or support to their patients. As one of the RNs said: *"I know it is a necessity to spend more*

time for a complex case to find out his/her biggest problem, but I have not enough time. The discussions frequently are brief." Moreover, a pharmacist said: *"We teach but without follow-up."* One of the RNs also said: *"I don't know how many cases I taught. I don't know how many cases improved."* Based on this topic, the participants agreed to establish more effective health education. Then the identified problems and needs for DM care services obtained from the Phase 1 were used to develop the model.

The Diabetes Care Model for a Community Hospital.

The goals of a DCMCH are to control diabetes by providing proper treatment based on evidence-based guidelines; providing education, supporting the people with DM, and increasing their self-confidence in their self-management; and promoting continuity of DM care. This model is suitable for delivering healthcare to the entire, diverse group of people with DM type 2 those are receiving healthcare in a community hospital. As shown in **Figure 1**, the DCMCH has three components: 1) administrative support, 2) diabetes care delivery system, and 3) diabetes self-management support.

Based on this model, integration of administrative support in a vertical line can create a collaborative work environment. Integration of the three components can also enhance collaborative work in both vertical and horizontal lines, which can improve the outcomes of DM care, including clinical outcomes and hospital utilization. The collaboration among the healthcare team in a community hospital, the health promoting hospitals, and other agencies in the community can promote continuity of DM care. The details of each component are as follows:-

Administrative Support. This involves system management by senior administrators to solve critical problems and support diabetes care. Senior administrators, for example, the director of the community hospital, the patient care team leader, and the chief nursing officer, carry out administrative

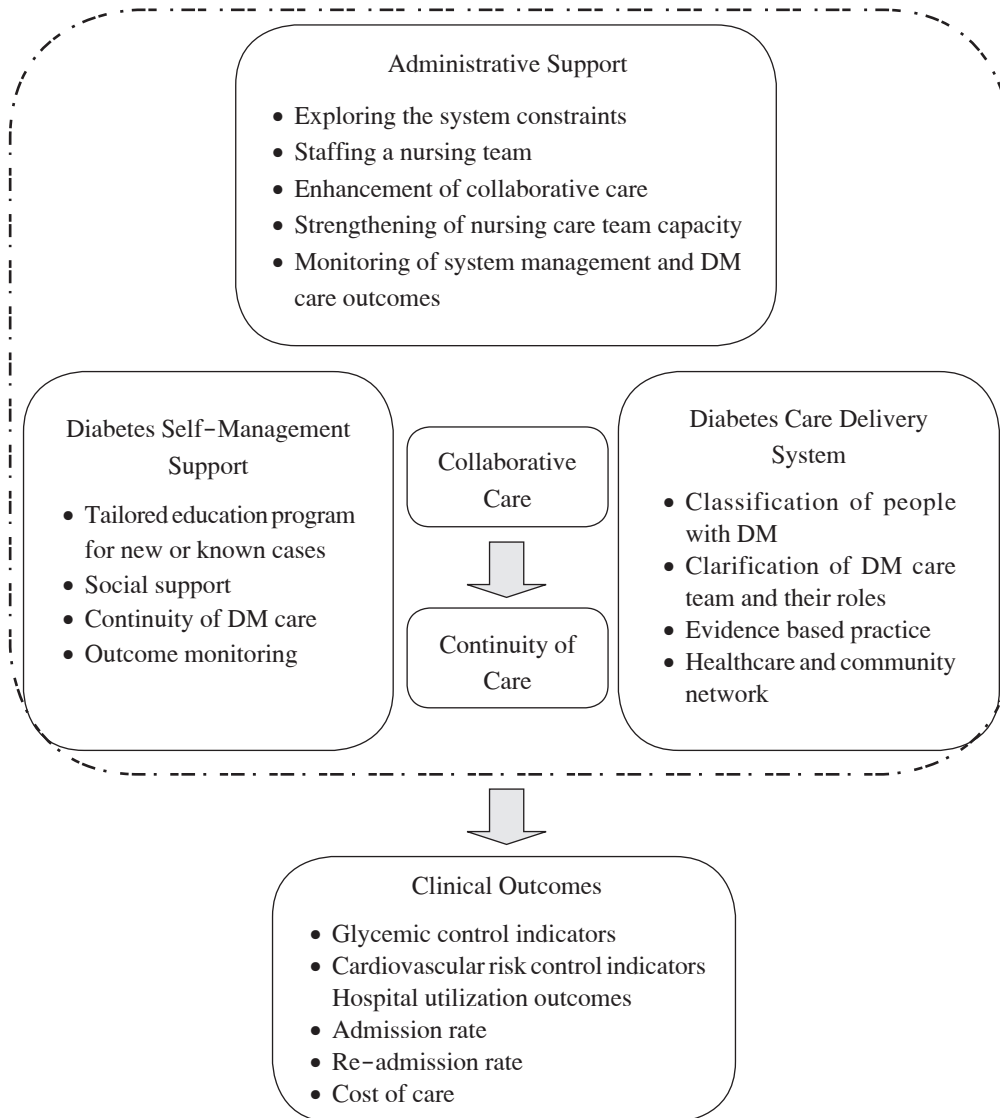


Figure 1 The Diabetes Care Model in a Community Hospital

support in a community hospital to influence the success of diabetes care. The critical actions of this component include exploring system constraints and management of critical problems, i.e., staffing of the nursing care team, enhancing the nursing care team's capacity, removing system constraints, enhancing of collaborative healthcare, and central monitoring. Through the support of hospital administrators, a central

monitoring system can be established. This involves monitoring for system management and DM care outcomes.

Diabetes Care Delivery System. This refers to the redesign of healthcare services in a diabetes clinic to respond to healthcare needs and the tailoring of the interventions for different patient groups. The diabetes care delivery design includes the classification of

patients, the role clarification of healthcare team, strengthening capacity of nursing team, rescheduling of healthcare services, enhancement of evidence-based practice, and the healthcare and community networking.

Diabetes Self-Management Support. This component includes providing knowledge and skills based on the patient's problem in order to promote their self-management. The activities of self-management support comprises determining the intermediate goals of DM care, scheduling self-management education, making appointments for OPD cases, providing self-management education and support for OPD cases and admitted cases, and monitoring behavioral changes or outcomes of diabetes care. The DCMCH uses teaching plans as guidelines. A person with diabetes can act as a lay person role model, voluntarily sharing his or her experiences and skills with the group and have the potential to have a powerful effect on the diabetes self-management.

The HCPs agreed that the DCMCH is practical to provide DM care for both new and known cases. The healthcare team satisfied that the healthcare system constraints in this study were managed effectively to support DM care. RNs improved their capacity that they could view clinical problems in both overall and at subpopulation levels, and share the information in diabetes care with the HCPs. The HCPs could collaboratively work together and provide self-management support to such a group of patients based on their own problems. Furthermore, the HCPs accepted that they could control their activities and interact with team members; and the people with DM satisfied that they had more contact time with HCPs, as well as available self-management support that was tailored to the specific groups.

Discussion

The development of a DCMCH aimed to control diabetes, enhance collaborative care, and the

continuity of diabetes care. A DCMCH is suitable and practical in community hospitals where there are similar contexts. It was developed by considering the barriers and using the full model in real local practice. Collaborative care is a crucial approach within the DCMCH since it enhances coordination between HCPs, people with DM, and their families, especially in community hospitals where there are limited resources, for example, budget, time, and strategies for addressing community resources and policies. This approach is beneficial for people with DM with chronic conditions that require coordinated healthcare services.^{19,33,39}

However, the meanings and activities of each component of the DCMCH are both similar and different from existing models, especially the CCM. First, the component of administrative support resembles the healthcare organization system of the CCM. The supports from senior administrators are very helpful for achieving changes in DM care and leads to their vision of healthcare delivery design and establishing self-management support. The developed DCMCH has elements that are congruent with previous studies. For example, firstly allocating proper human resources to a number of patients is necessary in diabetes clinics.³¹ Secondly, it is congruent with the CCM in that the DCMCH requires the removal of barriers in healthcare system and visible support of senior organization leaders; and these are major predictors of success.³⁶

Second, the DM care delivery system proposes the management of diverse and large numbers of patients in daily practice. Key activities such as clarification of the roles of the healthcare team are similar those of the CCM but the difference is that classification of the patients in this model can direct the flow of an enormous number of patients in daily practice, which is suitable for the context of a community hospital in Thailand. Classification of patients is benefit for both new and known cases. For the known cases, the specific groups that have different clinical problems can receive suitable healthcare and their chronic

conditions can be managed. This model can shift the routine healthcare service, which is acute care, to chronic care. These comprehensive changes are a result of the revision of healthcare delivery and enhancement of the healthcare team so that they can have mutual understanding, new perspectives, internal drive, and dedication to helping their patients.

Third, self-management support is a critical component of the DCMCH. Its function is to promote patient self-management by providing a program of tailored made education, support, and monitoring of outcomes. This component encourages an individual to have the ability to create and maintain his or her self-care, manage crisis and make lifestyle changes required to successfully control the disease.⁴⁰ However, in implementing a component of self-management, it is essential to overcome the constraints in healthcare system, which include: 1) patient-specific factors, including tailoring an intervention of self-management support to each individual depending on their health literacy and/or the complexity of their problems; 2) socio-environmental factors, i.e., avoiding following-up of the patient outside of their usual hospital visit because they might be afraid of losing their income; 3) healthcare delivery factors, i.e., establishing a transparent schedule of self-management education with easy engagement, and providing this using sufficient contact time; and 4) healthcare provider factors, e.g. assignment to provide self-management support for each relevant topic or issue by a nurse or multi-disciplinary team member, and monitoring the outcomes of this support.

A methodology for action research using an enhancement approach can create changes in DM care, resulting in patients possibly reaching desired outcomes. The participants fully participated in the FGDs, group meetings and workshops, document review, in presenting clinical problems, and in participatory appraisal and problem analysis. These participations led them to having increased opportunities to develop immediate and deeply-relevant understanding of

their situation, and to being actively involved in the process of dealing with problems.⁴¹ Active participation is the key to a sense of ownership, which motivates participants to pay attention throughout the research process.

In order to improve diabetes care, it was essential in this study to enhance the capacity of the healthcare team so that could have the capacity to perform effective healthcare. The enhancement activities include document review analysis and presentation of DM care problems; training inside and outside the hospital; and dialoging on concepts of acute care, chronic care, patient centered care, the difference of traditional education and self-management support, and establishing a manual for DM care and self-monitoring blood glucose. Participation in the practice of preliminary data analysis and the presentation of DM care problems enhanced the five nurses' understanding of the local healthcare problems and they possessed the power of having information. The activities of training, dialoging, and establishing manuals for DM care enhanced the participants' knowledge power and expert power. These activities can help the practitioners who face issues of readability and accessibility of current knowledge utilization. Finally, all of the HCPs were able to understand, imagine, practice, and improve the outcomes of diabetes care by themselves. This strategy was able to enhance the learning and growth among the participants.

Limitations and Recommendations

A DCMCH was developed through the participation of the HCPs and people with DM in a 120-bed community hospital. It was limited to a specific community hospital where there are specific contexts. A DCMCH can be used in community hospitals as a healthcare service delivery model in order to improve outcomes of diabetes care. The process of model development in this study can also be used in other community hospitals in order to

further develop the diabetes care model to fit the specific hospital problems and their context. The researchers recommend that longitudinal studies be undertaken of the DCMCH be done in order to test for its sustainable effectiveness over time.

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การพัฒนารูปแบบการดูแลโรคเบาหวานในโรงพยาบาลชุมชน

ประณีตศิลป์ เขาวนลักษณ์สกุล พิกุล นันทชัยพันธ์ วิภาดา คุณาวิกตีกุล ศิริรัตน์ ปานอุทัย
ณัฐพงศ์ โฆษคุณหนันท์ ชู ทูราเล่

บทคัดย่อ: โรคเบาหวานเป็นปัญหาสาธารณสุขที่สำคัญของโลก จึงมีความจำเป็นต้องพัฒนาการให้บริการสุขภาพเพื่อการดูแลโรคเบาหวานให้ดีขึ้น การวิจัยเชิงปฏิบัติการครั้งนี้มีจุดมุ่งหมายเพื่อพัฒนารูปแบบการดูแลโรคเบาหวานในโรงพยาบาลชุมชนขนาด 120 เตียง ตั้งอยู่ในภาคเหนือของประเทศไทย ผู้ร่วมวิจัยประกอบด้วยทีมสหวิชาชีพด้านสุขภาพ 30 คนและผู้ป่วยโรคเบาหวานชนิดที่ 2 จำนวน 19 คน กระบวนการวิจัยประกอบด้วย 4 ขั้นตอนหลัก ได้แก่ การวางแผน การนำแผนสู่การปฏิบัติและการสังเกต การสะท้อนคิดและการปรับปรุงแผน และการสรุปรูปแบบ เก็บรวบรวมข้อมูลเชิงคุณภาพจากการสนทนากลุ่ม การสัมภาษณ์กึ่งโครงสร้าง การประชุมกลุ่มการเก็บรวบรวมข้อมูลจากเอกสาร และการสังเกตรวมทั้งการบันทึกข้อมูล การวิเคราะห์ข้อมูลคุณภาพใช้การวิเคราะห์เชิงเนื้อหา

รูปแบบการดูแลโรคเบาหวานที่พัฒนาขึ้นประกอบด้วยองค์ประกอบ 3 ประการ ได้แก่ การสนับสนุนด้านการบริหาร ระบบการให้บริการโรคเบาหวาน และการสนับสนุนการจัดการการดูแลตนเอง การทดสอบรูปแบบเบื้องต้นพบว่าสามารถนำรูปแบบที่พัฒนามีไปปฏิบัติจริงได้ มีความเหมาะสมกับสถานการณ์และบริบทของโรงพยาบาล และมีแนวโน้มจะก่อให้เกิดผลลัพธ์ทางคลินิกที่ดี

การศึกษาครั้งต่อไปควรประเมินประสิทธิผลของรูปแบบและผลของการนำรูปแบบไปใช้ในระยะยาวต่อไป ควรนำเสนอรูปแบบนี้ต่อบุคลากรระดับวิชาชีพด้านสุขภาพและผู้บริหารโรงพยาบาลเพื่อผลักดันให้นำรูปแบบนี้ไปใช้ในงานบริการในโรงพยาบาลชุมชนอื่นๆ ในประเทศไทย

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คำสำคัญ: การวิจัยเชิงปฏิบัติการ รูปแบบการดูแล โรคเบาหวาน รูปแบบการดูแลโรคเบาหวาน การพัฒนารูปแบบ การพยาบาล การวิจัยเชิงคุณภาพ การดูแลโรคเบาหวานในประเทศไทย โรคเบาหวานชนิดที่ 2

ติดต่อที่: ประณีตศิลป์ เขาวนลักษณ์สกุล, RN, PhD (Candidate) นักศึกษาปริญญาเอก คณะพยาบาลศาสตร์ มหาวิทยาลัยเชียงใหม่ 110 ถ.อินทวิโรตต.ศรีภูมิ อ.เมือง จ.เชียงใหม่ 50200 E-mail: Kpraneetsin@yahoo.com
พิกุล นันทชัยพันธ์, RN, DNS, ผู้ช่วยศาสตราจารย์ คณะพยาบาลศาสตร์ มหาวิทยาลัยเชียงใหม่ ประเทศไทย
วิภาดา คุณาวิกตีกุล, RN, DNS., ศาสตราจารย์ คณะพยาบาลศาสตร์ มหาวิทยาลัยเชียงใหม่ ประเทศไทย
ศิริรัตน์ ปานอุทัย, RN, PhD, ผู้ช่วยศาสตราจารย์ คณะพยาบาลศาสตร์ มหาวิทยาลัยเชียงใหม่ ประเทศไทย
ณัฐพงศ์ โฆษคุณหนันท์, MD, รองศาสตราจารย์ คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่ ประเทศไทย
ชู ทูราเล่, DEd, RN, FCNA, Visiting Professor, Faculty of Nursing, Chiang Mai University, Thailand and Professor, Global Health and Nursing Department, Ewha Womans University, Seoul, Korea.