Original Article

A Conceptual Structure of Chronic Care Competency for Thai Primary Care Providers

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Abstract

The purpose of this study was to develop a conceptual structure of chronic care competency for Thai primary care providers. The methodology used was a two-step approach. The first step was the concept analysis of chronic care competency based on Walker and Avant's method to perform the pre-specified domains of chronic care competency. The second step was interviews with Thai primary care providers to refine the pre-specified structure of chronic care competency in order to fit with the Thai primary care context. The results of the study were found to be organized into four domains consisting of specific components: behavioral risk management (components: behavioral risk assessment; behavioral consultation; behavioral follow up); symptom management (components: symptom assessment; symptom relief; symptom monitoring; referral management); basic medical care (components: first aid; treatment prescription); and health coaching (components: self care facilitation; effective communication; building a self-help network). The conceptual structure can be used to develop a chronic care competency scale, in future research, as well as primary care curricula to improve the chronic care competency of Thai primary care providers.

Keywords: chronic care competency; thai primary care providers

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Background

Health service development policies in Thailand aim to build equity through empowerment of sub-district health-promoting hospitals by decentralizing services normally offered at the main district hospitals. This aim has been launched nationwide and expanded into the primary care setting. Thai primary care providers (PCPs) are health care personnel such as public health directors, public health officers, public health staff, physicians, pharmacists, dentists, and nurses. Thus, PCPs play significant roles in the implementation of these policies, particularly when they deal with the provision of chronic care to the population (Ministry of Public Health, 2010; Siriruttanapruk, 2006). In reality, PCPs face many difficulties in their health delivery functions. For example, the presence of mixed skills among the multiple types of PCPs who provide chronic care is often lacking. As a result, many are confused about their roles because their professional experiences fail to fit well into their primary care roles (Chutinuntakul, 2004; Pongpirul, Starfield, Srivanichakorn, & Pannarunothai, 2009). They lack competency in some aspects of chronic care such as knowledge and specific skills. These problems, however, could be solved through the discovery and development of chronic care competency for all types of Thai PCPs. This is a competency that applies to all PCPs who provide chronic care. Because of this, the competency is general, and not specific to a profession. Currently, no rigorous evaluation has been conducted regarding chronic care competency of Thai PCPs. Additionally, the framework of chronic care competency for Thai PCPs has not been clearly defined. Therefore, the development of conceptual structure of a chronic care competency for Thai PCPs is much needed.

Aim

The purpose of this study was to develop a conceptual structure of chronic care competency for Thai PCPs.

Methods

Participants & Setting

The participants were purposely selected from Thai PCPs. Inclusion criteria were the PCPs who had provided chronic care in primary care settings for at least one year. To obtain participants who represent all types of PCPs in the Thai context, three people from each group of PCPs (i.e., public health directors, public health officers, public health staff, physicians, pharmacists, dentists, and nurses) were recruited. According to Polit and Hungler (1999), at least ten participants were needed for collecting qualitative data in this step. Therefore, twenty one participants were used in this study.

The study commenced after approval was obtained from the Ethics Committee of the Faculty of Nursing, Prince of Songkla University. The participants were informed about all aspects of the study before they

signed the consent form.

Data collection

Two steps were used to collect data. The first was an integrated literature review from both national and international publications. Data was collected from a search of multiple data bases, i.e., CINAHL, Science Direct, Web of Science, and Medline. In addition, textbooks, journals and research reports were reviewed. Many keywords such as "chronic care", "competency', "chronic illness", "chronic care competency", and "chronic care in primary care setting" were used. All the searches were limited to documents published from 1991 to 2010. The 15 relevant articles were retrieved and used for analysis on the contemporary meaning, related concepts, attributes, and antecedents or consequences of chronic care competency for PCPs (Bonomi, Wagner, Glasgow, & VonKorff, 2002; Childs, 2005; Chutinuntakul, 2004; Corbin & Strauss, 1991; Hanucharunkul, 2003; Homteep, 2006; Lin, Hsu, Li, Mathers, & Huang, 2010; Liu, Yin, Ma, Lo, & Zeng, 2008; Lockyer, 2003; Meretoja, Isoaho, & Leino-Kilpi, 2004; Ministry of Public Health, 2010; Nontapet, 2008; Parsloe & Wray, 2000; Tiansawad, Yimyam, Senarattna, & Suchaxaya, 2002; Wensing, Lieshout, Jung, Hermsen, & Rosemann, 2008). The second data collection step was the use of in-depth interviews. An interview guideline form consisted of five open-ended questions. The interview questions were generated from the four pre-specified domains of chronic care competency from the first step, which were behavioral risk management, symptom management, basic medical care and health coaching, with eleven components. The sample questions were: What should the chronic care competency for PCPs be?, Why should PCPs possess chronic care competency?, How do PCPs use chronic care competency?, and How do PCPs provide chronic care and apply the chronic care competency such as behavioral risk management, symptom management, basic medical care and health coaching?

Data analysis

Data obtained from those two steps were analyzed. First, the concept analysis of chronic care competency from 15 articles using Walker and Avant's method (2005) as a guideline was conducted. Eleven attributes of the concept were specified to be the initial conceptual structure of the chronic care competency for PCPs. The pre-specified domains of the initial structure were generated to portray the chronic care competency of PCPs and used to retrieve qualitative data. Second, the qualitative data from the interviews was analyzed by content analysis. Constant comparison between the PCPs' viewpoints was performed and developed into the domains portraying the chronic care competency in the Thai context.

Results

Results from the interview indicated four themes, which were aligned with the pre-specified domains of chronic care

competency. These were behavioral risk management, symptom management, basic medical care, and health coaching. The first theme was behavioral risk control, which identified the components of the behavioral risk domain. The second theme was symptom control, which explained the components of the symptom management domain. The third theme was basic treatment service, which defined the basic medical care domain. The last theme was self care promotion, which was related to the health coaching domain. Therefore, the themes of chronic care competency for Thai PCPs were analyzed and formed into four specified domains, i.e., behavioral risk management, symptom management, basic medical care, and health coaching, which were categorized and broken down into 12 components. The comparison between pre-specified domains, the themes from the interviews, and specified domains can be seen in Table 1.

Table 1 Pre-specified Domains, Themes from the Interviews and Specified Domains of Chronic Care Competency

Four pre-specified domains	Themes from the interviews	Four specified domains
1. Behavioral risk management	1. Behavioral risk control	1. Behavioral risk management
1.1 Behavioral risk assessment		1.1 Behavioral risk assessment
1.2 Behavioral intervention*		1.2 Behavioral consultation **
1.3 Behavioral follow up		1.3 Behavioral follow up
2. Symptom management	2. Symptom control	2. Symptom management
2.1 Symptom assessment		2.1 Symptom assessment
2.2 Symptom relief		2.2 Symptom relief
2.3 Symptom follow up*		2.3 Symptom monitoring**
2.4 Referral management		2.4 Referral management
3. Basic medical care	3. Basic treatment service	3. Basic medical care
3.1 First aid		3.1 First aid
3.2 Treatment prescription		3.2 Treatment prescription
4. Health coaching	4. Self care promotion	4. Health coaching
4.1 Self-care facilitation		4.1 Self-care facilitation
4.2 Effective communication		4.2 Effective communication
		4.3 Building self-help networks**

* Removed component

** Added component

From Table 1, the attributes of chronic care competency for Thai PCPs include four specified domains with 12 components, which are described as follows.

Behavioral risk management: Behavioral risk management was indicated as a necessary chronic care competency for Thai PCPs by 18 of 21 participants. Based upon the participants' view, behavioral risk management can be defined as the PCPs' ability to reduce behavioral health risk by using assessment, counseling, and follow up. The three components in this domain are reflected in chronic care competency and described below.

1. Behavioral risk assessment. This refers to the PCPs' ability to assess health behavior risks related to chronic illness through screening, reassessment and case finding. The most common attributes of behavioral risk assessments that were found among the participating Thai PCPs are shown in the following statements.

"I screen all patients to identify behavioral risk factors that I think they may be exposed to."

"I reassess them every three months to monitor their behavior. The rigor of the reassessment depends on their age as recommended by the health policy."

"I find cases by listening to problems reported by relatives, neighbors, chance encounters and patients speaking to me regarding their health at the PCU or during a home visit."

2. Behavioral consultation. This refers to the PCPs' ability to reduce the behavioral risk by using counseling and other resources to help people change their behavior. Evidence supporting this component comes from interviews with Thai PCPs and are shown below.

"My consultations include traditional Thai foods and exercises for diabetic and hypertensive patients."

"I train village health volunteers to help me consult their friends and neighbors about health problems that are related to chronic illnesses."

3. Behavioral follow up. This refers to the PCPs' ability to provide scheduled behavioral follow ups for chronically ill patients. Statements supporting the participants' opinions are shown below.

"I normally follow up with the patient monthly. I do this by asking them questions when I meet them at the Primary Care Unit or home. I also follow up with them through observation when I see them in the community. I rely on patients' profiles to follow their behavioral risks."

Symptom management: Symptom management was expressed by 15 of 21 participants. They define symptom management as the PCPs' ability to provide control of the patients' symptoms to the best of their ability and resources by using assessment, relief, monitoring and referral management. The four components of this domain are described as follows.

1. Symptom assessment. This refers to the PCPs' ability to identify what has caused the symptom and measure the severity of a patient's symptoms during treatment. The participants shared their symptom assessment for chronically ill patients as shown

in the following statement.

"I can find the symptoms of my diabetic patients by asking them and their relatives' questions and testing their blood glucose."

2. Symptom relief. This refers to the PCPs' ability to aid in the relief of symptoms through the use of drugs and other forms of intervention. Some statements from the interviews with PCPs supporting these attributes are shown below.

"My therapies include the use of drugs and relaxation, ensuring the patient is in a comfortable position, providing emotional support and counseling."

"To control a patient's pain, I train relatives to use hot and cold therapy and massage."

3. Symptom monitoring. This refers to the PCPs' ability to find out how the patient is feeling at a later date. A statement supporting the claims by the participating PCPs is given below.

"If my diabetic patients have a headache, I usually arrange follow ups to check their symptoms in one week to prevent further complications."

4. Referral management. This refers to the ability of PCPs to manage and encourage a patient to attend a referral. This attribute is common to all PCPs who were interviewed. An example is given below.

"I encourage the patient and family to return to the hospital because he is getting worse. Then, I call an ambulance and prepare the referrals using the standard guidelines."

Basic medical care: The third domain, "basic medical care", was reported by all groups of Thai PCPs as the most significant chronic care competency. From the participants' opinions, basic medical care can be defined as the PCPs' ability to provide basic treatments for chronically ill patients. Examples of participants' responses are given below.

1. First aid. This refers to the PCPs' ability to provide both emergency and non-emergency care to chronically ill patients. Most Thai PCPs are concerned with this important issue, as indicated below.

"Their hypoglycemic symptoms include trembling in the hands and arms as well as decreased muscle coordination. My first aid is giving the person a high sugar drink to boost their blood sugar. "

"If their non-diabetic hypoglycemia is recurrent, I would perform glucose blood tests to help determine the cause."

2. Treatment prescription. This refers to the PCPs' ability to correctly prescribe the appropriate treatment for the chronically ill patient. Evidence supporting the treatment prescriptions component is given below.

"In the diabetic clinic at the PCU, my colleague and I refill diabetic drugs to control the symptoms of diabetic patients by following the protocol from the doctor in the community hospital."

"I usually prescribe antibiotic drugs to my diabetic patients and dress

their wounds if they have an infection."

Health coaching: The last domain, "health coaching", was emphasized as essential by 16 of 21 participants. From the Thai PCPs' perspective, health coaching can be defined as the PCPs' ability to act as a facilitator supporting self care, communicate effectively and build self-help networks to maintain healthy lifestyles for chronically ill patients. Most PCPs mention the gold standard in providing care is building the patients' capacity in self care, which is described in the following.

1. Self care facilitation. This refers to the ability of PCPs to aid chronically ill patients to care for themselves. Most of the participating Thai PCPs had a similar response that self care facilitation contributed to chronic care competency as is given below.

"My diabetic patient is in the early stages of learning to reduce their caloric intake. When we set goals at the end of the session, my patient selects to walk aerobically three times a week for 30 minutes. I schedule a follow up visit in one month to reassess his stage for behavior."

2. Effective communication. This refers to the PCPs' ability to communicate effectively with chronically ill patients and their families to help them change their lifestyle. The most influential factor the participating PCPs mentioned from the interviews is shown below.

"When I meet with my patient, I discovered that she was unclear about the specific recommendations for losing weight. So I discussed the importance of consuming less than 30% of calories from fat, reducing her caloric intake, and increasing her physical activity with a goal of walking at least three times a week for thirty minutes or more. I later found that she was able to successfully control her blood sugar."

3. Building a self-help network. It refers to the ability of PCPs to construct and maintain a network of people who are chronically ill. Some quotes from the participating PCPs supporting this evidence are shown below.

"I contacted the director of the local government to provide funding to set up a diabetic self-help network between villages in my catchment area."

"I encourage my chronically ill patients to exercise and have an active lifestyle. The people in this network care for themselves on their own except when they need my specialized care."

In summary, the four domains of chronic care competency for Thai PCPs are maintained with 12 specified components. All components are identified in Figure 1.

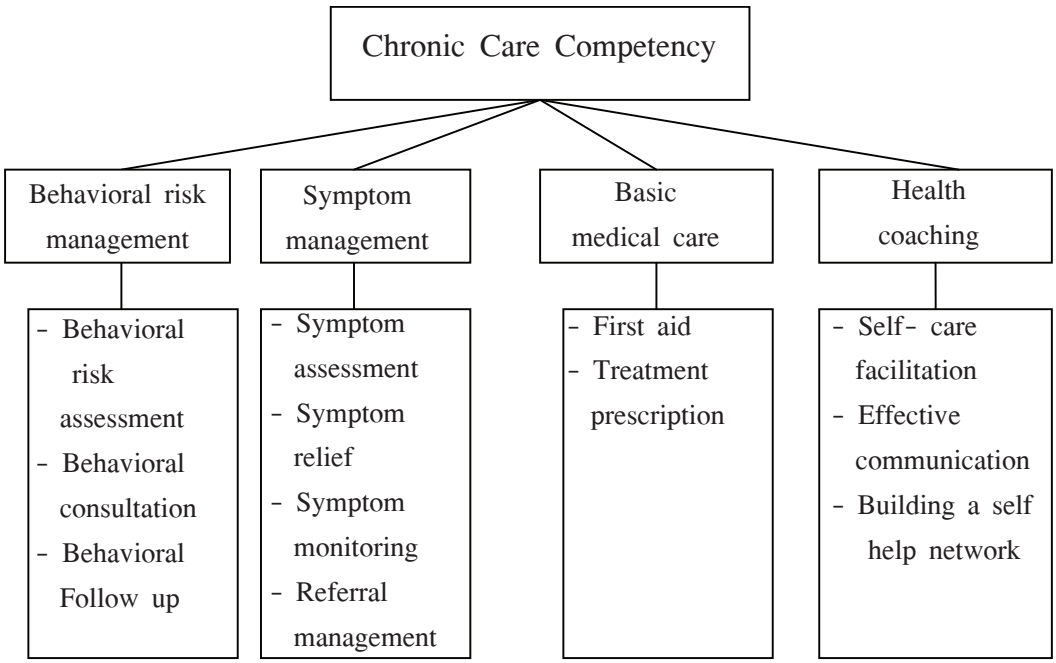

Figure 1 Domains and Components of Chronic Care Competency Identified by Thai PCPs

Discussion

The current study developed a specific conceptual structure of chronic care competency for Thai PCPs. This structure is divided into four categories. The first category, "behavioral risk management", consists of three components: behavioral risk assessment, behavioral consultation, and behavioral follow-up. These components were similar to previous studies in other countries (Cherry et al., 2001; Fireman, Bartlett, & Selby, 2004; Rothman, Bartels, Wlaschin, & Salovey, 2003). Based upon the participants' view, behavioral risk management is an essential chronic care competency. The results are also congruent with the new Thai health policy in primary care settings. This policy aims to relieve the burden of chronic illnesses and includes a surveillance program for risk factors such as hypertension and diabetes mellitus (Ministry of Public Health, 2009). Therefore, all types of Thai PCPs play roles in behavioral risk management.

The second category, "symptom management", consists of four components: symptom assessment, symptom relief, symptom monitoring and referral management. Many participants identified all of the mentioned components. Interestingly, all PCPs said symptom management was a significant chronic care competency. They used the standards and guidelines of primary care services in the Thai primary care setting to manage patients' symptoms (Ministry of Public Health, 2010). Furthermore, prior

studies state that all dimensions of symptom management are to control the symptoms of a chronic illness as early as possible or minimize the effects of the disease (Dodd, Miaskowski, & Paul, 2001; Johnson, Kassner, Houser, & Kutner, 2005; Glajchen & Bookbinder, 2001; Kim & Oh, 2003).

The third category, "basic medical care", consists of two components: first aid and treatment prescriptions. These components demonstrate a kind of competency that is related to basic medical care from past studies in Thailand and other countries (Doungkwan, 2004; Hanucharunkul, 2003; Homteep, 2006; Meretoja, Erickson, & Leino-Kilpi, 2002; Michelle & Kashka, 2004). The results from the present study are congruent with the role of the Thai PCPs who need to provide chronic care for chronically ill patients in multidisciplinary teams. All groups of participants reported that basic medical care is an indispensable chronic care competency. Therefore, basic medical care is maintained in all components as it allows PCPs to provide basic medical care in each phase of chronic illness trajectory, including the acute/crisis, stable, unstable, downward and dying phases (Corbin & Strauss, 1988; Woog, 1992).

The last category, "health coaching", consists of three components: self-care facilitation, effective communication and building a self-help network. Health coaching is a significant competency for PCPs in the Thai primary care settings. PCPs can actually help and encourage their patients to identify issues and concerns that may be a problem or help the patients change their lifestyles to ones that better fit with their chronic illnesses. Evidence supports the idea that health coaching is a critical competency needed for chronic care practice (Michelle & Kashka, 2004; Parsloe & Wray, 2000; Peltier, 2001).

As a result, each chronic care competency domain that fits within the Thai context is focused on behavioral risk management, symptom management, basic medical care and health coaching. This conceptual structure can solve a mixed skill problem that occurs when multiple types of PCPs, who provide chronic care, work together.

Conclusion and Implication

The findings of this study show the new conceptual structure of chronic care competency in the Thai primary care context. Chronic care competency refers to the PCPs' ability to reduce the behavioral risk, manage symptoms, provide basic treatment and support self care to maintain a healthy lifestyle to a healthy group, an at-risk group as well as chronically ill patients in the primary care setting. All categories of the conceptual structure for chronic care competency are capable of being used as a basis for developing a chronic care competency in both clinical practice and for further research. Thai PCPs can use these categories to assess their quality of chronic care services. Moreover, the results of this study can be

used to integrate into curricula for training health care providers in the primary care setting and other clinical settings. In addition, this conceptual structure could serve as a framework to develop a chronic care competency scale for Thai primary care systems or different contexts.

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