

## ORIGINAL RESEARCH

# Quality study on the demands of nursing education in the chronicity and disability era

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## Abstract

**Aim:** Through a qualitative descriptive study, researchers explored whether higher nursing education can meet complex needs of nursing job in the Era of chronicity and disability in China. Then propose some innovation measures about nursing education.

**Design:** a qualitative descriptive study method was designed for this study.

**Setting:** This study was done in three hospitals, two community clinics and three medical universities of Shanxi province, China.

**Subject:** A stratified purposive sample of 5 internists, 6 nurses and 6 patients suffering from chronic diseases from three hospitals, 4 doctors and 4 nurses from two community clinics, 6 student nurses and 6 senior nurse students from three medical universities was used.

**Method:** The study used the research strategy of qualitative description. Semi-structured in-depth interviews were conducted using a set of questions. The data collected in the interviews were analyzed using thematic analysis, and the themes were abstracted by analyzing, concluding interview material.

**Results:** seven dominant themes were identified by analysis. They revealed an actuality knowledge and competence of clinical nurses, community nurses, and student nurses about chronicity and disability, and patients' actual needs. As a result, it was expected that graduated nurses can service and care better for chronic diseases patients.

**Conclusion:** The actual training objectives, educational philosophy and curriculum content of domestic nursing higher education, to some extent, are not suitable for capability and quality requirement of nurses in the chronicity era. Meanwhile, teaching and evaluating methods are not beneficial to the students to master the skills needed to care the chronicity and disability. Therefore, some items related with chronicity and disability should be added, such as prevention and health care, health promotion, health education and so on. The related philosophy and thinking should be integrated into nursing education goals. The teaching and evaluating methods should focus on hospital and community practice.

## Key words

Innovation, Nursing education, Chronicity and disability

## 1 Introduction

Chronic disease is defined as any illness with a duration of at least 3 months, such as cardiovascular diseases, cancer, chronic lung diseases and diabetes mellitus. Chronic disease is now the dominant threat to health and becoming a challenge to economic advancement in developing economies<sup>[1]</sup>. Yet chronic disease poses an even greater threat to health in most low-middle income countries: particularly heart disease, diabetes, cancers and chronic respiratory diseases<sup>[2]</sup>. Together, they account for more than 60% of all deaths worldwide<sup>[3]</sup>. However, financial and political support for both action and research into chronic disease continue to be severely neglected<sup>[4]</sup> while their harmful impact on health and economies is increasing<sup>[5]</sup>. Chronic disease leads to impairments in daily routines, social and psychological functioning and recreational activities<sup>[6]</sup>. With the growing population of elderly and chronically ill individuals, care for chronic ailments became a major issue in the 21st century. The priorities of global health are changing. Developing countries themselves are beginning to turn their efforts toward chronic diseases<sup>[7]</sup>. Nowadays, the challenge in health care is to engineer more efficient use of shrinking resources while maintaining or even increasing quality outcomes in patient care<sup>[8]</sup>, and focus of healthcare is extended from disease prevention and treatment to rehabilitation and quality of life. In China, chronic diseases affect 0.16 billion ill-health individuals, yielding a morbidity rate of 15.11% computed by cases, and 12.33% computed by patients (total population of China is 1.30 billion)(Ministry of Health People's Republic of China [MHPRC], 2004)<sup>[9]</sup>. According to the Report on Chronic Disease in China<sup>[10]</sup>, Chronic disease is the leading cause of death.

The nurses play a key role in the prevention and control of chronic disease, but at the same time, some problems hamper the development of chronic disease nursing. Community and public nursing and health education have not become very popular<sup>[11]</sup>, because the development of medical and nursing work is much slower in community in China than in other developed countries.

The nursing managerial systems need to be perfected. In addition, whether the nursing education of medical colleges can meet patients' complex needs in the aspects of physiology, psychology and society to promote their quality of life is the top issue in training of qualified nurses in the Chronicity and Disability Era. In this study, for purpose of providing the theory evidence for chronic diseases nursing, we talked with the target audiences using semi-structured in depth interview, then analyzed the opinions and suggestions of target groups about the corresponding education.

## Research objective

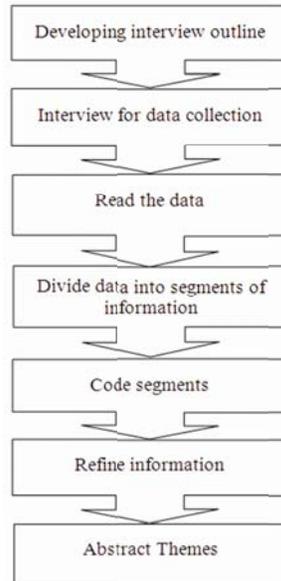
To analyze and study whether higher nursing education in the aspects of training objective, educational philosophy, curriculum content, curriculum implementation, curriculum evaluation can serve various needs of nursing job in the of Chronicity and Disability Era in China and then propose some innovative measures about nursing education.

## 2 Methods

### Design and procedure

With the guidance of three experts, a qualitative research was designed and used. Semi-structured in-depth interviews were conducted using a set of interview questions that was developed for the study. These questions mainly were related to the actuality knowledge and competence of clinical nurses for chronicity and disability, needs of patients suffering from chronic diseases and their families, and college education status about chronicity and disability nursing. The process ended when the researcher reached "theoretical saturation", the point at which no new datum are emerging<sup>[12]</sup>. Interview questions and responses were tape-recorded and then transcribed verbatim before analysis. Due to the large amount of data that could be generated in qualitative research, a data reduction process was used to aid analysis, then the themes were drawn by analyzing. This procedure includes reading and organizing the data, identifying emerging themes, categories,

and patterns. In analyst-constructed categories, the researcher attached a label to observed recurring events. Lastly, themes were abstracted (see Figure 1).



**Figure 1.** Study Procedure

### Participants

Inclusion criteria: willingness to participant in the study; ability to explain and express well. Participants were assured of confidentiality within the confines of each interview, and in the gathering, handling and storage of data. Anonymity and confidentiality were guaranteed in the study. The size of sample depended on data saturation reached. 10 nurses and 9 doctors with two years’ or more work experience about chronic illness from three top hospitals and two community clinics, 6 chronic illness patients without discernible cognitive impairment and 6 student nurses and 6 senior nurse students from three medical universities of Shaanxi province were interviewed (see Table 1).

**Table 1.** Overview of all the interviewees

Group(n)	Work/study experience	Educational level
Internists (5)	2 years for 1, 4 years for 2, 7 years for 1, 10 years for 1 doctor with work experience of chronic illness knowledge	2 doctor degree, 2 masterdegree,1 bachelor degree
doctors from community clinics (4)	2 years for 2, 3 years for 1, 5 years for 1 doctor with work experience of chronic illness knowledge	1 masterdegree, 1 bachelordegree, 2 diploma of junior college
nurses from hospitals (6)	2 years for 1, 3 years for 2, 4 years for 1, 6 years for 1, 7 years for 1 nurse with work experience of chronic illness knowledge	1 masterdegree, 2 bachelordegree, 3 diploma of junior college
nurses from community clinics (4)	2 years for 1, 3 years for 1, 4 years for 2 nurses with work experience of chronic illness knowledge	2 bachelordegree, 2 diploma of junior college
student nurses (6)	3 years or more study experience in a medical university	1 master degree candidate, 4 bachelor degree candidates, 1 diploma of junior college candidate
senior nurse students (6)	4 years study experience in a medical university	6 undergraduates
chronic illness patients (6)	2 self-employed people, 2 farmers, 1 teacher and 1 cotton spinner	2 bachelordegree,2 diploma of junior college, 1 graduated from high school, 1 graduated from primary school

## Data sources and collection

This study used the semi-structured focus interview, the interview were tape recorded and transcribed. The main interview questions were about the source of chronic diseases knowledge, whether the knowledge and skills related to chronic diseases can meet clinical needs, and if they should be added and emphasized in the school nursing education (see Table 2).

**Table 2.** The interview outline of this study

<p><b>For doctors</b></p> <ul style="list-style-type: none"> <li>• How do you feel today?</li> <li>• How many years have you been working?</li> <li>• Do you like your job?</li> <li>• Do you think your nurses can do their job well? For example.</li> <li>• Are you satisfied with your nurses' work? For example.</li> <li>• Do you think your nurses are familiar with chronic disease knowledge?</li> <li>• Are patients satisfied with your nurses' work? For example.</li> <li>• Are leads satisfied with your nurses' work? For example.</li> <li>• Do you think your nurses often learn knowledge about chronic diseases?</li> <li>• Do you think your nurses should learn what knowledge about chronic diseases?</li> <li>• Are the examination results of nurses good?</li> </ul> <p><b>For nurses</b></p> <ul style="list-style-type: none"> <li>• How do you feel today?</li> <li>• How many years have you been working?</li> <li>• Do you like your job?</li> <li>• What chronic disease knowledge you learned in medical college? Is it enough to your work?</li> <li>• What are teaching and evaluating methods in your medical college?</li> <li>• Do you know the training objectives and educational philosophy about chronic disease in your medical college?</li> <li>• Have you ever learned practical courses about chronic diseases in hospital or community in the university?</li> <li>• Can you do your job well now?</li> <li>• Are patients satisfied with your work? For example.</li> <li>• Are doctors satisfied with your work? For example.</li> <li>• Are leads satisfied with your work? For example.</li> <li>• Do you often learn knowledge about chronic diseases?</li> <li>• Do you think what knowledge about chronic diseases you should learn urgently ?</li> </ul> <p><b>For patients</b></p> <ul style="list-style-type: none"> <li>• How do you feel today?</li> <li>• Are you satisfied with your nurses' work? For example.</li> <li>• Do you think your nurses can do their job well? For example.</li> <li>• Is medical knowledge of the nurses enough for caring you?</li> </ul>
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## Data analysis

Recording of the conversation simultaneously, verbatim transcriptions of interviews were checked, read through and listened repeatedly to obtain a sense of the whole. Reading and analyzing all material carefully and repeatedly by using thematic analysis, coding and classify the viewpoint which appeared repeatedly. Adopting the Colaizzi 7 steps analytic method to analyze data, and the themes were abstracted and got by analyzing, concluding interview material. Experts discussed and modified repeatedly in every segment.

## Ethical considerations

This study is approved by the medical ethics committee of the Fourth Military Medical University. In the principle of voluntary respondents, the interviews conducted in the two sides agreed time and natural environment. Let the respondents

know the purpose, contents and methods of the study before the interview. Interviews were conducted in a natural environment and a relaxed atmosphere and interviewees had enough time to think for answering questions, propose tips and ideas.

### **3 Results**

We identified 7 themes. Revealed was an actuality about knowledge and competence of clinical nurses, community nurses, and student nurses for chronicity and disability, and patients' actually needed to care patients. Advice and ideas for nursing education innovation were identified.

#### **Theme 1: Lack of the chronic diseases knowledge in the nursing education program**

This theme concerned the requirements of chronic diseases knowledge that the nurse education program asked. In fact, the higher nursing education training program involved the less knowledge about chronic diseases care. There were 33 specialized nursing courses but none provided requirements of chronic diseases. It's maybe one of the reasons that restrict the development of chronic diseases nursing. One of the respondents said as follows: I didn't know which parts of chronic diseases knowledge I should master and the Nursing Certification Examination was expected to cover. I had seldom been involved in the related content, but when I became a nurse in the hospital, I found that some knowledge is necessary for the work.

#### **Theme 2: Little and superficial knowledge being known about chronic illness**

The knowledge about chronic disease in nursing courses of higher nursing education was short and rather superficial. All of the senior nurse students thought that the content about chronic diseases knowledge was too little. One of them said that the nursing measures of different chronic illnesses they had been taught were nearly the same except for minor differences. As a result, the nurse students didn't master enough knowledge of different chronic illnesses. Some of the junior students even had no idea of the chronic diseases crisis. They never heard the Chronicity and Disability Era. The majority students only gave some names of chronic diseases, a simple definition and some risk factors. Clinical nurses had a more comprehensive understanding of the diseases and spoke about the nursing measures. One of the nurses said the majority of their knowledge originated from the nursing experience for inpatients. The study found nurses knew about chronic diseases much better than undergraduate nursing students. Clinical senior nurses not only had mastered the knowledge, but also had understood and learned the patients' clinical and psychological characteristics. One physician nurse said as follows: I talked with the patients when I took care of them, I saw they were highly stressed and needed our encouragement through their words, and sometimes they lost their confidence in the long disease course and thought it was hopeless to cure. Some of the hospitalized patients felt sorry for their families because of the economic burden they made. Through observation, I also found they were always anxious and unbelieving, so they failed to coordinate with medical workers. According to the specialized knowledge we have learned, I gave them more enthusiasm, patience and sympathy, even when they blamed me rudely. All six nursing students knew the concept and harm of chronic diseases, but 50% of them had no idea about the related hazard factors. Most of the knowledge came from classes. One of them said that she knew the chronic disease era from the newspaper, but she wasn't interested in doing further study about it.

#### **Theme 3: The teaching and evaluating ways of higher nursing education need to be improved**

Teaching and evaluating methods about the chronic diseases were not suitable enough for students to grasp the knowledge and skills of chronic diseases care. According to respondents, the teaching models that they accepted in their studies are traditional and old. The students accepted knowledge passively. They contacted the majority chronic illness knowledge in

the internal medicine and nursing courses according to organs and systems as digestive system, respiratory system, the cardiovascular system and so on. In the conclusion of the course, written examination became the only assessment way. Characteristics of the Chronicity and Disability Era present a challenge to these methods. One of the senior nurse students told that most of her classmates preferred diversified teaching and assessment procedure.

#### **Theme 4: Educators should pay more attention to psychological nursing in chronic illness patients**

The patients with chronic diseases carried a heavy psychological burden and needed more guidance and encouragement from the nurses, other medical workers and their families. Therefore, psychological care was very important to chronic diseases patients. Increasing health education was one key to improve nurse management and patients' mental health. Nurses should not only promote medical skill and service, but also help them in psychological counseling, so as to alleviate psychological pressure, and keep psychological health. Psychological Well-being can increase people's confidence effectively, even help and promote medical treatment<sup>[13]</sup>. Psychological care is an essential element in clinical nursing of chronic diseases.

#### **Theme 5: Health education about chronic diseases needs to be strengthened**

In this study, patients told us that it's difficult to contact and communicate with health care professionals to get enough information about their diseases. Chronic care policy has focused on self-management, disease management, and case management, alongside a number of related initiatives<sup>[14]</sup>. In the direct management of patients, nurses share great part.

#### **Theme 6: Prevention of chronic diseases should be paid more attention**

The core issue of the chronic disease is that a majority of the population need take some precautions<sup>[15]</sup>. Thus nurses take vital state in patient care, so nurses should pay more attention to chronic diseases prevention. One of the nurses said that clinical nurses needed to master the science of chronic diseases prevention and health care urgently.

#### **Theme 7: Lack of scientific study ability about chronic diseases**

Research contributes greatly to the body of knowledge that forms the basis of the nursing profession. However, the clinical, nurses generally are unaware of research. One of the internists told us that nurses around him did not know how to undertake nursing research. Clinical nurses knew many psychological characteristics and disease features of inpatients and accumulated a lot of experience through observation and practice. These are favorable to nursing research.

## **4 Discussion**

As a result, it was expected that nurses can service and care better for patients suffering from chronic diseases.

Theme 1: Redesigning chronic disease management programme helped to optimize the use of different levels of skills and medical resources. They thought the content relevant to chronic diseases should be added in the nursing education program as soon as possible. With this, nurse students will adapt the nursing work better.

Theme 2: Without systematic study and perceptual knowledge to chronic diseases, nursing students can't speak out the special nursing measures about them.

Theme 3: The single teaching method and the appraisal measure couldn't make the students master and understand the chronic diseases well enough. Since students had little opportunity to put the theory into practice, more opportunities should be provided to them to practice what they have learned during the training period. For example, combining more internship with theory would do great help for students. As a result, they would have a more direct-viewing understanding

to chronic diseases. The heuristic teaching method is another choice to produce a better teaching effect. Instead of the written examination, teachers could let the nurses students prepare a lesson about chronic diseases nursing to impart the knowledge to other students, then discuss together. This would prompt them to learn more knowledge independently before class. It's helpful to cultivate student's comprehensive quality.

Theme 4: Psychological nursing is very important for chronic illness patients.

The chronic diseases brought a negative impact on patients' business, and some of them even lost the ability to work. This not only brought a career setback, but also economic losses. The patients often blame themselves. What's more, in the long duration of disease, patients lost confidence and felt hopeless. They became anxious, and depressed. Sometimes, the patients not only complained that the medical care personnel don't concentrate on the work but also blamed their families not care for them enough. The newly hospitalized patients were very nervous because of the strange environment and unknown treatment effect. The relationship between nurse and patient was based on trust. Nurses should carefully minister to the needs of them and get their trust by promoting publicity and education patiently. Tender care will relieve patients' tension and anxiety. Furthermore, in the treatment stage, sometimes, the extent of recovery or the check results are unsatisfactory. A patient who suffered from Bright's disease that develops slowly and can lead to renal failure, said he was frightened of excessive protein in his routine checks. So, nurses should provide psychological nursing for them.

Theme 5: Health education is very important to patients with chronic diseases.

The patients suffering from chronic diseases need a long-term care. Nurses are the executor of the various treatments, who taking care of the patients so nurses can and should carry out health education to patients. People who need lifestyle guidance and clinical consultation should receive individual health education. Through participation in health education, the patients will have more access to health knowledge, and put right their behaviors.

Theme 6: For chronic diseases patients, the nursing staff should develop and distribute a guidance manual which can tell and teach how to prevent, treat or slow the course of the illness.

It is also necessary to conduct health education among healthy groups, with a view to improving their knowledge of health and the ability of self-health care. Healthy lifestyle such as routine exercise, improving the diet, losing weight and stopping smoking can help to prevent and improve chronic diseases, so it should be advocated and publicized. Improving the nurses' health care ability can avoid diseases getting worse, improve patients' living quality, and save medical resources in some degree. The present condition of the healthcare system, health counseling, and health education is evaluated as follows: doctors, nurses, and nutritionists imparted group health education to people who came to the clinic in each health center<sup>[16]</sup>. Rapid developments in prevention and health care will result in great improvement in the prevention and control of chronic diseases.

Theme 7: Scientific study is one of the most powerful tools for validating or changing the current and shaping the future practice of nursing<sup>[17]</sup>. With a growing demand for high quality nurses, a greater number may begin their scientific study. The clinical studies or practice need more nurses to engage into nursing research. In the Chronicity and Disability Era, more innovations are needed in nursing work. It is essential to explore the nurse research about chronic disease. The patient who suffered from chronic renal disease said: In my opinion, although many nurses have had higher education and degree, the work they do is nearly the same. Greater efforts should be invested to explore new ideas in nursing study of chronic illnesses.

## Limitations

Qualitative interview study has the potential for respondent and interviewer bias. In order to minimize researcher bias, the researchers remained neutral during interviews to ensure interviewee's points were real and not influenced by them. In interview, researchers started as open questions, such as "How do you feel today", did not comment the attitudes and

points of view of respondents, only nod or answer “well, good, and so on”. All of them received professional training before the implementation. A sampling bias exists as the clinical nurses came from top hospitals in Shanxi province, and the sample size is small and only 12 nurses were interviewed. This limited us to know the demands and circumstance of nurses in different hospitals and areas. The respondents’ expressing ability was different due to the different professions, experience and education. This is a limitation of our research.

## 5 Conclusion

The actual training objectives, educational philosophy and curriculum content of domestic nursing higher education, to some extent, are not suitable for capability and quality requirement of nurses in the chronicity era. Meanwhile, teaching and evaluating methods are not conducive to the students to master the skills and ways for caring chronic disease patients. Therefore, the related philosophy and thinking should be integrated into nursing education objectives. Some items related with chronicity and disability should be added, such as prevention and healthcare, care and health promotion, health education and so on. The teaching and evaluating methods should focus on hospital and community practice.

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