Selection of nursing teaching strategies in mainland China: A questionnaire survey

HouXiu Zhou [a,1], MengJie Liu [a,b,1], Jing Zeng [a,c], JingCi Zhu [a,*]

[a] School of Nursing, Third Military Medical University, 400038 Chongqing, China
[b] Intensive Care Unit, The Affiliated Hospital of LuZhou Medical College, SiChuan 646000, China
[c] School of Nursing, Chengdu Medical College, Chengdu, Sichuan, 618000, China

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SUMMARY

Background: In nursing education, the traditional lecture and direct demonstration teaching method cannot cultivate the various skills that nursing students need. How to choose a more scientific and rational teaching method is a common concern for nursing educators worldwide.

Objective: To investigate the basis for selecting teaching methods among nursing teachers in mainland China, the factors affecting the selection of different teaching methods, and the application of different teaching methods in theoretical and skill-based nursing courses.

Design: Questionnaire survey.

Settings: Seventy one nursing colleges from 28 provincial-level administrative regions in mainland China.

Participants: Following the principle of voluntary informed consent, 262 nursing teachers were randomly selected through a nursing education network platform and a conference platform.

Methods: The questionnaire contents included the basis for and the factors influencing the selection of nursing teaching methods, the participants' common teaching methods, and the teaching experience of the surveyed nursing teachers. The questionnaires were distributed through the network or conference platform, and the data were analyzed by SPSS 17.0 software.

Results: The surveyed nursing teachers selected teaching methods mainly based on the characteristics of the teaching content, the characteristics of the students, and their previous teaching experiences. The factors affecting the selection of teaching methods mainly included large class sizes, limited class time, and limited examination formats. The surveyed nursing teachers primarily used lectures to teach theory courses and the direct demonstration method to teach skills courses, and the application frequencies of these two teaching methods were significantly higher than those of other teaching methods ($P = 0.000$).

Conclusion: More attention should be paid to the selection of nursing teaching methods. Every teacher should strategically choose teaching methods before each lesson, and nursing education training focused on selecting effective teaching methods should be more extensive.

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Introduction

Traditionally in mainland China, nursing teachers often use lectures for teaching theory-based courses and the direct demonstration teaching method (demonstrating nurse operational skills in front of students, allowing the students to learn this skill through imitation) for teaching skill-based courses. These traditional teaching methods are economic, efficient, and easy to implement (Manoj et al., 2015; Roya et al., 2014), but they lead to lower levels of student satisfaction, learning outcomes, and knowledge exploration and assimilation when compared with other interactive teaching methods, such as case teaching or PBL teaching (Sandhu et al., 2012). Exclusively using the lecture and direct demonstration teaching methods does enable students to learn the required knowledge and skills, but these methods often fail to cultivate students' multi-ability, such as communication skills, and nurse decision-making ability. Pale (2013) reported that the lecture-based approach had 15 shortcomings, including the following: lecturers and students find it difficult to simultaneously reach a good physical, spiritual, and emotional state; students do not have enough time for questions and discussion; and students have individual differences in ability, needs, and knowledge. Although the limitations of teaching via the traditional lecture method are widely recognized, it is still the most commonly used teaching method as it is efficient, economical, and easy to implement (Manoj et al., 2015; Sandhu et al., 2012; Pale, 2013; Gita and Mahnaz, 2013). Additionally, the direct demonstration teaching method can help students

* Corresponding author at: No. 30 GaoTanYan Central Street, ShaPingBa District, ChongQing 400038, China. Tel./fax: +86 23 68772416.
E-mail address: zhujingci@163.com (J. Zhu).
[1] Co-first authors.

to quickly master operational skills, but it does not provide enough space for thought and discussion, which is not conducive to cultivating students' abilities. In the past 100 years, despite great improvement in knowledge and technology in all fields, teaching methods have changed minimally (Jobeth, 2013). The scientific and rational selection of teaching methods plays an important role in the teaching outcome. Currently, scholars emphasize that teaching methods should be student-centric (Janice, 2010) and should promote the learning of new knowledge and skills through the use of a variety of teaching methods (Li et al., 2008). The consensus among contemporary nursing educators is that current nursing teaching urgently needs to explore alternate effective teaching methods to stimulate students' interest and enthusiasm (Tsai et al., 2014).

Researchers have different views on how educators should choose appropriate teaching methods. Some researchers believe that the most effective teaching method or teaching activity is paying attention to students' preferences and allowing students to gain the best learning outcome by meeting the needs of these learning preferences (Olson, 2000; Smith et al., 2006). Other researchers believe that teachers should choose their teaching method by following evidence-based concepts, as nurses choose nursing care measures for patients based on presented evidence (Anderson, 2011; Loyola, 2010; National Council of State Boards of Nursing, 2013). Finally, another group of experts has indicated that teaching methods should be chosen by comprehensively analyzing the literature search results (Halstead, 2006). However, there is no literature reporting on the attitudes and behaviors of nursing teachers when selecting teaching methods in mainland China. In this study, the authors investigate the attitudes and behaviors of nursing teachers in mainland China when they select teaching methods.

Methods

Purpose

This study aims to investigate the basis for and the factors influencing the selection of teaching methods and the application of different methods by nursing teachers in mainland China.

Study Design and Participants

A cross-sectional survey was used, and the data were collected through questionnaires. Using the non-random sampling method and following the principle of voluntary informed consent, the questionnaires were distributed through a network platform and a national academic conference platform. The inclusion criteria were as follows: (1) nursing teachers with teacher qualifications, and (2) nursing teachers with at least 3 years of experience in teaching theoretical courses and practical skills.

Tool

This study belongs to the survey project entitled "Knowledge, attitudes, and behaviors used in the teaching methods of nursing teachers in mainland China." This study used self-designed questionnaires for the survey, which were subjected to reliability tests ($\alpha = 0.780$). The survey contents included the following items: (1) What are your main bases for selecting teaching methods? (2) What are the main factors influencing your choice of teaching methods? (3) What are the most commonly used teaching methods in nursing theory courses? and (4) what are the most commonly used teaching methods in skill-based courses? Moreover, the questionnaires also included demographic data such as gender, age, nursing teaching experience, and professional qualifications.

Data Analysis

The data were statistically analyzed using SPSS for Windows 17.0 software. The statistical methods used included the total-score method, percentage and chi-square test.

Ethics Approval

This study was approved by the ethics community of the Third Military Medical University.

Data/Results

Demographics

The respondents included 262 nursing teachers who came from 28 provincial-level administrative regions in mainland China (there are 32 provincial-level administrative regions in mainland China; this study did not include the Gansu, Ningxia, Tianjin, and Taiwan regions) and included 71 nursing colleges. This study covered almost the entirety of mainland China. The main demographic information is shown in Table 1.

Results

To investigate the main basis for and the factors influencing the selection of teaching methods by nursing teachers, we listed 7 main bases and 8 influencing factors, which were based on the literature results (Bie, 2009) and the actual situation of nursing teaching. We then asked the respondents to choose the three most important items and arranged the three items in order of importance. The first item was given 3 points, the second item was given 2 points, and the third item was given 1 point. The total points and the scoring rate for each item were calculated. The statistical results are shown in Fig. 1 and Fig. 2.

To investigate the most frequently used teaching methods, we asked the nursing teachers to list their three most commonly used teaching methods for theory and skill courses, respectively; we then asked them to choose and arrange the three selected methods in order of frequency. The first item was given 3 points, the second item was given 2 points, and the third item was given 1 point. The total scores and the scoring rate for each item were calculated. The scoring rates of the 5 most frequently used teaching methods for theory course teaching are

Table 1
Demographic data of nursing teachers.

	Number (n)	Percentage (%)
Gender		
Male	5	1.9
Female	257	98.1
Age		
<30 years	27	10.3
30–39 years	98	37.4
40–49 years	78	29.8
50–59 years	55	21.0
≥60 years	4	1.5
Nurse teaching experience		
≤5 years	46	17.6
6–10 years	58	22.1
11–15 years	43	16.4
16–20 years	39	14.9
≥21 years	45	17.2
Professional qualification		
Professor	54	20.6
Associate professor	97	37.0
Lecturer	90	34.4
Teaching assistant	21	8.0