Research on the Application of Teaching Methods in Clinical Nursing Teaching

Li Wang[1,*], Xiaoxiao Wang[2], Jingjing Liu[3]

[1]Anhui medical college, Hefei, 230601, China
[2]The Second Affiliated Hospital of Anhui University of Chinese Medicine, Hefei, 230001, China
[3]The Second People's Hospital of Anhui Province, 230041, China

*kcbycace@163.com

Abstract. Objective: To understand the understanding degree and use of 10 common clinical nursing teaching methods, and to analyze the factors affecting the utilization rate. Methods: From March 20 to April 10,2024,416 clinical nursing teachers from 7 hospitals in Nanchang were surveyed by questionnaire method. The questionnaire included the cognition and use of population sociology data and teaching methods. Results: The traditional teaching method has the highest understanding rate, reaching 94.71%. Assessment mechanism and teaching training are the independent factors affecting the utilization rate of teaching methods. Conclusion: Scientific incentive mechanism and assessment mechanism should be established, and teaching training should be organized to promote the use of quality teaching methods in clinical nursing teaching.

Keywords: Nursing teaching; Clinical teaching, Teaching method; Clinical nursing.

1 Introduction

Clinical nursing practice is an important part of applied theory for nursing students, and teaching is crucial in nursing education [1]. High-quality teaching and rich practice can improve nursing knowledge, skills and teaching satisfaction. Research shows that appropriate teaching methods can stimulate learning enthusiasm, improve efficiency and exercise comprehensive quality [2]. Currently, the use of belt teaching methods has not been reported in clinical nursing. This study aims to understand the use of 10 commonly used teaching methods, explore the internal and external factors affecting teaching methods and evaluation methods, provide reference for clinical nursing teaching management and training system, promote scientific development and improve teaching quality [3].

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2 Data and Methods

2.1 Subject Investigated

From March 20 to April 10, 2024, 416 clinical nursing teachers from 7 hospitals in Nanchang were selected for questionnaire survey.

2.2 Research Tool

The research team is composed of 4 members: 1 researcher, 1 head nurse, 1 assistant researcher and 1 undergraduate student. They jointly designed and performed the experiments. The questionnaire was designed based on the literature review and advice from clinical nursing teaching teachers.

The questionnaire explored the cognition and use of 10 commonly used teaching methods. The Likert rank classification was used to classify understanding levels as "very familiar", "familiar", "or" general "," unfamiliar ", and" completely unfamiliar ". Design questions, to explore the utilization rate and reasons of these teaching methods.

2.3 Data Collection and Analysis

The questionnaire is input into the questionnaire star platform to generate the QR code and the link. A nursing department teaching supervisor was appointed to explain the purpose, content and precautions of the questionnaire to the respondents and to obtain informed consent. The questionnaire was distributed to eligible clinical care teachers and encouraged to volunteer and anonymously.

2.4 Statistical Treatment

Statistical analysis was performed using the SPSS 25.0 software. Count data use case and percentage representation, comparison by chi-square test. Measurement data are expressed as $x \pm s$, outcome measures as binary variables, and comparisons by univariate binary logisitic regression. Significant variables were included in multivariable binary logisitic regression to analyze the influence factors of teaching methods. $P < 0.05$ were considered as significant difference.

3 Results of the Survey

3.1 Cognitive Situation

Among the 10 teaching methods, traditional teaching method (target teaching method, teaching method) (94.71%), case-based teaching method and clinical nursing pathway teaching method (hierarchical and phased teaching) (94.23%), and problem-oriented teaching method (93.03%) ranked the top three in terms of understanding rate. See Table 1.

Table 1. Clinical nursing teaching teachers' overall cognition of 10 teaching methods.

Teaching method	Very familiar with	Familiar	General	Understanding rate
Traditional teaching method	180 (43.27)	139 (33.41)	75 (18.03)	394 (94.71)
Case method	109 (26.20)	177 (42.55)	106 (25.48)	392 (94.23)
Clinical nursing pathway teaching method	103 (24.76)	170 (40.87)	119 (28.61)	392 (94.23)
Problem-oriented teaching method	109 (26.20)	154 (37.02)	124 (29.81)	387 (93.03)
Scenario simulation teaching method	99 (23.80)	161 (38.70)	121 (29.09)	381 (91.59)
Evidence-based nursing teaching method	73 (17.55)	144 (34.62)	158 (37.98)	375 (90.14)
Full tutorial system teaching method	77 (18.51)	154 (37.02)	140 (33.65)	371 (89.18)
Self-oriented learning teaching method	70 (16.83)	150 (36.06)	149 (35.82)	369 (88.70)
Team-based teaching approach	76 (18.27)	134 (32.21)	158 (37.98)	368 (88.46)
Service learning theory teaching method	70 (16.83)	140 (33.65)	154 (37.02)	364 (87.50)

3.2 Service Condition

The utilization rate of traditional teaching method and case-based teaching method was 88.94% and 81.73% respectively, ranking the top two; the utilization rate of scenario simulation, problem orientation and clinical nursing pathway teaching method all exceeded 70%. The utilization rate of self-oriented learning, team foundation, evidence-based nursing, service learning, multi-disciplinary cooperation and full-tutorial system teaching method was 58.65%, 57.45%, 53.13%, 52.88%, 48.80% and 44.47%, respectively.

3.3 Analysis of Influencing Factors

Univariate analysis. In the univariate analysis, the assessment mechanism and training participation are significant factors affecting the utilization of 10 teaching methods; the incentive mechanism for the utilization of 10 teaching methods (except evidence-based nursing methods); and the teaching hospital for 7 teaching methods. See Table 2.

Table 2. Univariate analysis of the utilization rate of teaching methods.

Teaching method	Appraisal mechanism	Attend training	Teaching hospital	Excitation mechanism
Traditional teaching method	16.115 (<0.001)	43.307 (<0.001)	8.729 (0.003)	5.383 (0.020)
Case method	31.182 (<0.001)	39.664 (<0.001)	8.280 (0.004)	16.801 (<0.001)
Clinical nursing pathway teaching method	46.190 (<0.001)	40.060 (<0.001)	5.080 (0.024)	14.010 (<0.001)
Problem-oriented teaching method	21.833 (<0.001)	52.328 (<0.001)	17.344 (<0.001)	10.415 (<0.001)
Scenario simulation teaching method	28.868 (<0.001)	16.427 (<0.001)	2.793 (0.095)	4.890 (0.027)
Evidence-based nursing teaching method	26.361 (<0.001)	9.983 (0.002)	8.179 (0.004)	4.299 (0.038)
Full tutorial system teaching method	16.574 (<0.001)	17.141 (<0.001)	4.250 (0.039)	4.59 (0.032)
Self-oriented learning teaching method	10.846 (0.001)	13.770 (<0.001)	2.793 (0.095)	2.986 (0.084)
Team-based teaching approach	16.636 (<0.001)	19.342 (<0.001)	2.668 (0.102)	9.764 (0.002)
Service learning theory teaching method	9.609 (0.002)	33.274 (<0.001)	4.784 (0.029)	5.648 (0.017)

Logistic regression analysis. Teaching methods are influenced by the number of students, including traditional, case, problem-oriented and self-directed methods. Years of work has influenced multidisciplinary cooperation and comprehensive tutoring. Multivariate analysis showed that the methods of assessing mechanism impact is not traditional, problem oriented, multidisciplinary collaboration and comprehensive guidance; training affects methods other than clinical care pathway and self-guidance. These findings are instructive for the selection and optimization of teaching methods. As shown in Table 3.

Table 3. Univariate and multivariate logistic binary regression [β (r)]

Teaching method	Univariate regression		Multivariate regression	
	Number of students	Working life	Appraisal mechanism	Attend training
Traditional teaching method	-0.12 (0.014)	-0.072 (0.008)	0.352 (0.433)	1.642 (<0.001)
Case method	-0.063 (0.039)	-0.016 (0.407)	0.797 (0.029)	1.021 (0.003)
Clinical nursing pathway teaching method	-0.044 (0.070)	-0.002 (0.998)	1.211 (<0.001)	0.997 (0.002)
Problem-oriented teaching method	-0.11 (0.001)	-0.012 (0.988)	0.43 (0.231)	1.292 (<0.001)
Scenario simulation teaching method	-0.018 (0.360)	0.02 (0.197)	1.111 (0.001)	0.482 (0.123)
Evidence-based nursing teaching method	-0.056 (0.006)	0.014 (0.314)	1.236 (<0.001)	0.034 (0.912)
Full tutorial system teaching method	-0.014 (0.398)	0.013 (0.368)	0.781 (0.022)	0.678 (0.025)
Self-oriented learning teaching method	-0.044 (0.07)	0.002 (0.898)	1.353 (<0.001)	1.089 (<0.001)
Team-based teaching approach	-0.017 (0.301)	0.006 (0.657)	0.673 (0.056)	0.698 (0.022)
Service learning theory teaching method	-0.011 (0.487)	0.029 (0.046)	0.114 (0.753)	1.524 (<0.001)

4 Discussion

4.1 Strengthen the Utilization Rate of High-Quality Teaching Methods

Full tutorial system (44.47%) and multidisciplinary collaboration (48.80%) were low. But combined with other teaching methods, the full tutorial system can improve the teaching quality and satisfaction [4]. Multidisciplinary collaboration enhances teaching quality and students' skills. Team foundation (57.45%) and self-oriented learning (58.65%) can improve classroom participation and problem solving ability. Hospitals should promote high-quality teaching methods. The new teaching model can improve the professional ability and professional identity of nursing students, but its effectiveness needs to be studied [5].

4.2 The Actors Factors the Utilization Rate

Appraisal mechanism. The assessment mechanism has an important influence on the utilization rate of clinical nursing teaching methods [6]. In order to achieve the assessment objectives, the teaching nurses will actively learn efficient teaching methods and improve the teaching level. Access assessment screening excellent teaching nurses to ensure teaching quality. However, the setting scheme of the assessment mechanism of teaching teachers still needs to be deeply studied.

Teaching and training. Teaching training is one of the independent factors affecting the utilization rate of teaching methods in clinical nursing. The results of this study showed that 80.05% of the teachers had participated in the relevant teaching training. In order to improve the teaching quality of nursing teaching, hospitals should carry out regular teaching and training [7].

4.3 Teaching and Training Needs

Teaching nurses participate in a variety of teaching and training methods, such as lectures, videos and teaching seminars [8]. The survey shows that clinical nursing teachers actively receive training in clinical teaching methods and skills, and tend to combine online and offline. Among the training content requirements, the general teaching methods and technology requirements are the highest, accounting for 67.61%. The teaching management team should organize training according to the needs of teachers, strengthen the theoretical basis of nurse education, and promote the development of clinical nursing teaching.

5 Conclusion

The sample is limited to teaching nurses in Nanchang, and the external validity needs to be verified; rare teaching methods were not included in the questionnaire. It is sug-

gested that the hospital teaching management team should establish an incentive mechanism and evaluation mechanism, provide standardized training for nurses, build a nursing education learning and communication platform, promote the application of high-quality teaching methods in clinical nursing, improve the teaching quality, and cultivate high-quality nursing talents.

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