

Investigation on the Current Status and Effects of Online Course Learning for Nursing Students

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Abstract [**Objectives**] To explore the current situation and effects of online learning from the perspective of students, as well as the learning dynamics, and to explore the online teaching methods. It is possible to put forward relevant suggestions for the problems presented by online teaching, find effective teaching methods, and explore appropriate online teaching methods. [**Methods**] The nursing students of the 2020, 2021, and 2022 grades of Chengde Nursing Vocational College were selected as the research subjects. A self-made questionnaire survey method was adopted. The questionnaire had 5 items and 44 questions: 3 questions on personal information, 9 questions on the teacher level, 12 questions on the student level, 7 questions on the technical level, and 13 questions on online learning satisfaction. [**Results**] In the process of online teaching, the cooperation between family and school can be carried out to give full play to the important role of family supervision in online learning and other education, which is conducive to maintaining the discipline of online courses on the Internet, increasing the online learning effect of students, and avoiding the temptation of the Internet to the greatest extent. In the process, we should increase students' self-control in online learning, help students shape realistic goals, and thus improve the effect of online learning. Technical level: increase information-based teaching, enrich teaching content, and introduce virtual simulation software to simulate clinical operations, so as to increase students' interest and enthusiasm in learning. [**Conclusions**] This study is expected to provide a certain reference for the smooth and efficient development of online teaching and online learning skills.

Key words Online teaching, Learning status, Satisfaction

1 Introduction

Since 2020, in response to the COVID-19, the Ministry of Education of China issued instructions of "postponement but not delay in teaching, suspension of classes but not suspension of learning", colleges and universities across the whole country have actively launched online teaching courses. This is a new challenge for nursing students who require higher operational skills. The learning situation, results and satisfaction of college students have received close attention from the society. The sudden public health situation has made us realize that it is very necessary and important to carry out online teaching. Various network platforms, colleges and universities, and teachers are constantly overcoming software and hardware difficulties and continuously working on enhancing the effectiveness of online teaching, especially the introduction of the concept of "student-centered". It is increasingly important to grasp the learning status and effects of nursing students. In addition, the exploration and innovation of online teaching courses for public courses in the nursing major has become an important issue that needs to be paid attention to in the education and teaching reform of the nursing major. This article mainly focuses on the theme of "the learning status and effects of online courses for nursing students". It can better serve the online teaching of nursing students in special periods, and in the future learning and teaching methods of nursing and other majors, the healthy development and smooth progress of online course education and teaching, so as to be able to have the corresponding prep-

aration and ability to deal with possible crisis events in the future, and to provide a certain reference for the smooth and efficient development of online teaching and learning skills.

2 Materials and methods

2.1 Research subjects In this study, students from the nursing department of Chengde Nursing Vocational College who participated in online professional courses in 2020, 2021, and 2022 were selected as research subjects.

2.2 Inclusion and exclusion criteria Inclusion criteria: nursing students who participated in online courses; after explaining and understanding the purpose of the study, students voluntarily participated in filling out the questionnaire.

Exclusion criteria: students who took a leave of absence (within one year); students who participated in online courses for less than 3 months.

2.3 Survey method A questionnaire was developed through WJX, and a self-made questionnaire survey method was used. The questionnaire has 5 items and 44 questions: 3 questions about personal information, 9 questions about teachers, 12 questions about students, 7 questions about technology, and 13 questions about online learning satisfaction. The options are expressed using a five-point method: 1 point means strongly disagree; 2 points means disagree; 3 points means average; 4 points means agree; 5 points means strongly agree. 1 500 questionnaire copies were distributed through WJX, and 1 465 questionnaires were collected, with a response rate of 97.7%.

3 Survey results and analysis

3.1 Validity and reliability of the questionnaire The reliability coefficient Cronbach α value is 0.967, indicating that the

Received: June 23, 2024 Accepted: September 29, 2024

Supported by General Project "Research on the Current Status, Effects and Satisfaction of Online Learning of Nursing Related Courses Based on Students' Perspectives under the Epidemic Situation" (Y202214).

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questionnaire has high reliability, strong feasibility, and the analysis results are highly representative. Therefore, the practice and theory of this study are consistent, and the research significance is positive.

3.2 General situation Through the questionnaire analysis, the research subjects are: 54 students in the 2020 grade (3.69%), 527 students in the 2021 grade (35.97%), 884 students in the 2022 grade (60.34%), 325 males (22.18%), 1 140 females (77.82%), 252 students with urban household registration (17.2%), and 1213 students in rural areas (82.8%).

3.3 Teacher level Survey on the teaching situation of teachers in the teaching process from the perspective of students: 94.41% of students believe that teachers sincerely care about students during online teaching, 0.21% of students deny this view, and 5.39% of students have a general experience; 95.36% of students believe that teachers love teaching very much, but 4.44% and 0.21% of students believe that the degree of teachers' love for teaching is relatively poor; in the process of online teaching, 90.31% of students like the teacher's class division, but 9.69% of students think that the teacher's teaching style is not attractive; in the process of using the teaching platform, 94.54% of students believe that teachers can skillfully use online learning software, 5.46% of students believe that teachers are not proficient in the use of teaching platforms, and 92.29% of students believe that teachers can mobilize students' enthusiasm for using the learning software, and 7.71% believe that the enthusiasm is not fully mobilized; in the course of teaching, 96.11% of students received encouragement from teachers to participate in classroom interaction and be asked questions, and 96.45% of students believed that teachers can actively answer questions raised by students in online teaching.

3.4 Student level Based on the current situation of classroom learning from the perspective of students: 84.03% of students are willing to answer challenging questions and believe that they can learn new knowledge from them, 89.15% of students can answer and complete relevant questions and homework, 86.08% of students are very eager to show their abilities in online courses, and 89.35% of students hope to be recognized by teachers and classmates, and can concentrate on listening, participate in classroom interactions, and express their own views in class; however, 15.3% of students feel that they may not be able to concentrate during online learning, thus affecting the teaching effect, and the effect of participating in group discussions during online learning is relatively poor. 22.87% of students believe that they can analyze and participate in discussions based on existing materials, but 77.13% can read materials but are not very motivated to participate in discussions. During the duration of online teaching, 86.42% of students believe that their online learning situation is very good, but 13.58% of students believe that the learning situation is not optimistic.

3.5 Technical level There are many online learning platforms. The application rate of DingTalk reaches 96.04%, Tencent Con-

ference and Xuexi Tong are 87.03% and 84.03%, respectively, Tencent Classroom and Cloud Classroom are 53.08% and 54.54% respectively, and the application of WeChat group, QQ group and other platforms as online platforms is 40.34% and 11.33% respectively. Generally, they are used for problem feedback and off-class communication. In addition, 26.69% of students in Chinese universities use MOOC as an online learning platform for extracurricular knowledge consolidation and preview. 87.98% of students believe that online course learning software is simple to operate and easy to use, and they can quickly master the application skills of each platform. 86.14% of students believe that these platforms have the function of promoting students and can promote them to quickly master online learning skills. 81.77% of students believe that online learning can improve their learning ability and learning efficiency, but 3.62% of students do not think it has such an effect.

3.6 Online learning satisfaction Based on the survey results of online learning satisfaction from the perspective of students, more than 86% of students are satisfied with online learning content and teacher interaction, and 1.63% are relatively dissatisfied with online learning; 77.27% of students believe that online teaching is a very wise choice in special periods, and are willing to use online learning methods to learn, 95.56% of students believe that teachers are well prepared before class, and in terms of interactive methods, students believe that voice, barrage, and text are effective interactive methods, 44.3%, 46.69%, and 9.01% respectively, and the effectiveness of text is relatively poor; 70.72% of students believe that online learning has more resources, playback can better review, and free time, and better results, but 20.27% of students believe that online learning time is too long and lacks substance Supervision can easily lead to problems such as fatigue and poor concentration. In online courses, 69.69% of students can actively communicate with teachers through WeChat, QQ and other chatting methods, but 52.7% of students prefer to communicate with teachers on the display. In the overall teaching process, 59.59% of students can pay attention to the teaching plan, and can respond and put forward their own opinions when the teacher asks for opinions on the relevant teaching process. 40.89% of students can consult with teachers about exam-related content. At the same time, 6.83% of students have basically no communication with teachers. When checking the effect of online learning, the checking methods that students support more are the frequency of clocking in, answering questions, checking notes, classroom tests and homework. In addition, the checking methods of pre-class review and group discussion are relatively weak in the checking effect of online learning.

3.7 Word cloud diagram of opinions on improving students' online learning effects Among the opinions that can be improved and improved, students put forward the following opinions: in online learning, the management method of maintaining online class record rules can be maintained, more questions can be asked, and active interactions can be made to improve students'

