

Practice of Internet Plus Mind Map in Ophthalmology Nursing Teaching

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Abstract: To explore the feasibility and effect of internet plus's mind map in ophthalmology nursing teaching. Eighteen nurses were selected from August 2022 to August 2023 in Inner Mongolia Forestry General Hospital. They were set as the experimental group in the teaching stage of mind mapping in internet plus and the observation group in the traditional teaching stage. The differences between the two groups were compared by questionnaire feedback. The experimental group and the control group were superior to the control group in problem-solving ability, learning efficiency, self-learning ability, memory and understanding ability and literature reading ability. There is no statistical difference between the experimental group and the control group in clinical thinking, learning interest, teamwork ability, doctor-patient communication ability and nursing skill operation. The application of internet plus mind map in ophthalmology nursing teaching is feasible, which can significantly improve the problem-solving ability, learning efficiency, self-learning ability, memory and understanding ability and literature reading ability of nursing students, and is worth popularizing.

1. Research background

In recent years, with the rapid development and wide application of Internet technology, the traditional teaching mode is undergoing profound changes. Internet plus's idea of mind mapping has gradually attracted the attention and exploration in the field of ophthalmology nursing education. With the increasing demand for the reform of ophthalmology nursing teaching, the application of Internet-based mind mapping tools has shown great potential in ophthalmology nursing teaching [1-3]. Problems and Challenges in Ophthalmic Nursing Teaching There are some problems and challenges in the traditional teaching mode of Ophthalmic Nursing. First of all, traditional teaching methods mainly rely on teachers' oral explanations, and students have a high degree of passive acceptance and lack enthusiasm and initiative. Secondly, the knowledge points of ophthalmology nursing are numerous and complex, and it is often difficult for students to integrate and summarize all the knowledge points, which leads to the unclear connection between knowledge. In addition, the acquisition and sharing of teaching resources and teaching content under the traditional teaching mode also has certain restrictions and difficulties. The application potential of "Internet +" mind mapping has brought new opportunities and changes to ophthalmology nursing teaching [4]. First

of all, the application of internet technology can break the limitation of traditional teaching time and space, and students can make use of network resources to study and explore independently. Secondly, mind map can help students integrate fragmentary knowledge points to form a complete knowledge structure, and mind map has the characteristics of illustration and clear logic, which is beneficial to students' understanding and memory. In addition, internet plus's mind map can be easily integrated and shared with other teaching resources, thus improving the teaching effect and resource utilization [5-7]. This study explores the feasibility and effect of internet plus's mind map in ophthalmology nursing teaching.

2. Object and method

2.1 Research objects and research methods

From August 2022 to August 2023, 18 nurses in the ophthalmology department of Inner Mongolia Forestry General Hospital were selected and divided into experimental group and observation group. The experimental group was taught by internet plus's mind mapping method, while the control group was taught by traditional teaching method to learn the theoretical knowledge and practical teaching of ophthalmology nursing.

2.2 Research methods

Assessment method: Satisfaction survey, with specific items including problem-solving ability, learning efficiency, self-learning ability, memory and understanding ability, literature reading ability, clinical thinking, learning interest, teamwork ability, doctor-patient communication ability and nursing skill operation recorded, with 5 points for each item.

Questionnaire: please answer the following questions according to the following grading criteria:

Learning Efficiency: Please rate your learning efficiency when using internet plus Mind Map.

- a.1 (Very inefficient)
- b.2 (Inefficient)
- c.3 (general)
- d.4 (high efficiency)
- e.5 (very efficient)

Self-learning ability: Please rate your self-learning ability when using internet plus's mind map.

- a.1 (very poor)
- b.2 (poor)
- c.3 (general)
- d.4 (good)
- e.5 (very good)

Memory comprehension: Please rate your memory comprehension when using internet plus's mind map.

- a.1 (very poor)
- b.2 (poor)
- c.3 (general)
- d.4 (good)
- e.5 (very good)

Clinical Thinking: Please rate your clinical thinking ability when using internet plus mind map.

- a.1 (very poor)
- b.2 (poor)
- c.3 (general)

d.4 (good)

e.5 (very good)

Interest in learning: Please rate your interest in learning when using internet plus's mind map.

a.1 (very low)

b.2 (low)

c.3 (general)

d.4 (high)

e.5 (very high)

Doctor-patient communication ability: Please evaluate your doctor-patient communication ability when using internet plus mind map.

a.1 (very poor)

b.2 (poor)

c.3 (general)

d.4 (good)

e.5 (very good)

Skill operation ability: Please rate your skill operation ability when using internet plus's mind map.

a.1 (very poor)

b.2 (poor)

c.3 (general)

d.4 (good)

e.5 (very good)

Teamwork ability: Please rate your teamwork ability when using internet plus's mind map.

a.1 (very poor)

b.2 (poor)

c.3 (general)

d.4 (good)

e.5 (very good)

Literature reading ability: Please rate your literature reading ability when using internet plus's mind map.

a.1 (very poor)

b.2 (poor)

c.3 (general)

d.4 (good)

e.5 (very good)

Problem-solving ability: Please rate your problem-solving ability when using internet plus's mind map.

a.1 (very poor)

b.2 (poor)

c.3 (general)

d.4 (good)

e.5 (very good)

2.3 Statistical methods

SPSS 20.0 software was used to analyze and process the data. The measured data were expressed as (x s), and the difference was statistically significant by t test and $P < 0.05$.

2.4 Questionnaire survey on teaching effect of experimental group and control group

The score of self-learning ability in the experimental group was 8.10 0.91, and that in the control group was 7.40 0.94, $P < 0.05$. The difference was statistically significant, and the self-learning ability in the experimental group was better than that in the control group. The learning efficiency score of the experimental group was 8.50 0.69, while that of the control group was 7.40 1.23, $P < 0.05$, with statistical significance, and the learning efficiency score of the experimental group was better than that of the control group. The score of memory and comprehension ability in the experimental group was 8.75 0.44, while that in the control group was 7.60 1.47, $P < 0.05$, with statistical significance. The score of memory and comprehension ability in the experimental group was better than that in the control group. The overall satisfaction score of the experimental group was 8.45 0.83, while that of the control group was 7.80 1.11, $P < 0.05$. The difference was statistically significant, and the overall satisfaction score of the experimental group was better than that of the control group. There is no statistical difference between the experimental group and the control group in clinical skills, clinical thinking, problem-solving ability, learning interest, teamwork ability and doctor-patient communication, this is shown in Table 1.

Table 1: Score of questionnaire survey on teaching effect of experimental group and observation group

Questionnaire survey items	Score of experimental group (n=18)	Observation group score (n=18)	F	P
Self - learning ability	4.60±0.92	3.40±0.91	0.98	0.00
Learning efficiency	4.19±0.59	3.58±1.33	5.08	0.04
Memory comprehension ability	4.75±0.54	3.70±0.52	0.93	0.00
Literature reading ability	4.90±0.55	4.00±0.95	2.98	0.60
Clinical thinking	4.01±0.76	4.11±0.75	0.97	0.35
Problem solving ability	4.65±1.06	3.75±1.02	0.93	0.01
learning interest	3.21±1.24	3.22±1.18	0.91	0.05
Team cooperation ability	4.25±0.93	4.19±0.96	1.07	0.43
Communication between doctors and patients	4.05±0.98	4.01±1.11	1.28	0.11
Nursing skill operation	4.45±0.79	4.33±0.77	0.95	0.32

3. Discuss

The application of Internet technology can break the limitation of traditional teaching time and space, and students can make use of network resources for autonomous learning and exploration. Mind mapping can help students integrate fragmentary knowledge points to form a complete knowledge structure, and mind mapping has the characteristics of illustrations and clear logic,

which is beneficial to students' understanding and memory^[8].

Research Status at Home and Abroad There have been some researches on the application of internet plus's mind map in ophthalmology nursing teaching at home and abroad. Foreign scholars mainly focus on the design and application of mind mapping tools, how to combine mind mapping with teaching content, and the evaluation of mind mapping on students' learning effectiveness. However, domestic research mainly focuses on the application effect of mind mapping in ophthalmology nursing teaching and the exploration of teaching reform(138). Internet plus's mind map has the following advantages in ophthalmology nursing teaching: 1. Teaching content arrangement and presentation: Using the mind map tool, the knowledge of ophthalmology nursing can be systematically arranged and classified, and the mind map can be constructed to present the relationship between different themes and sub-themes, so as to help students better understand and remember the concepts, skills and processes related to ophthalmology nursing. 2. Sharing and communication of learning resources: Through the Internet platform, information, cases and other resources in ophthalmology nursing teaching can be shared and communicated online. Students can learn and discuss with other students or professionals by visiting learning platforms or social media on the Internet, and share experiences and knowledge with each other. 3. Distance teaching and distance tutoring: Using Internet technology, distance teaching and distance tutoring can be realized. Teachers can explain and interact online through the network platform, providing real-time guidance and answering questions for students. At the same time, students can also study and review through the Internet anytime and anywhere^[9]. 4. Autonomous learning and evaluation: Mind mapping tools can support students' autonomous learning and self-evaluation. Students can use mindmanager to create personal learning maps, record and sort out what they have learned, and conduct self-test and review. This can help students actively participate in the learning process and improve the learning effect. 5. Data analysis and research: Through the Internet platform and mind mapping tools, we can collect and analyze the data in ophthalmology nursing teaching and conduct related research. Through the data analysis of students' learning behavior and achievements, we can understand students' learning situation and problems, and provide basis for teaching improvement and optimization^[10]. These research directions can discuss the application effect and influence of internet plus's mind map in ophthalmology nursing teaching, as well as the difficulties and challenges in the implementation process. This kind of research is helpful to improve the effect and quality of ophthalmology nursing teaching and promote students' learning and development^[11].

To sum up, the application of internet plus mind map in ophthalmology nursing teaching is feasible, which can significantly improve nursing students' problem-solving ability, learning efficiency, self-learning ability, memory and understanding ability and literature reading ability, and is worth popularizing.

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