

Analysis of the Impact of Standardized Patient Teaching Model on Clinical Practice Results in Obstetrics and Gynecology

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Abstract: *Objective:* To explore the effect of the standardized patient teaching model on the clinical practice of obstetrics and gynecology. *Methods:* Interns of the hospital's Department of Obstetrics and Gynecology that were from the May 2022 to July 2023 batch were selected as the study subjects. A total of 42 people were selected, and they were separated into a traditional group and an observation group using a random number table method, with 21 people in each group. The former group underwent traditional teaching while the latter underwent standardized patient teaching. *Results:* The scores of interns in the observation group for theoretical knowledge, case analysis, and clinical practice were all significantly higher than those of the traditional group ($P < 0.01$). Besides, the interns in the observation group gave higher scores for teaching content, teaching methods, and teacher satisfaction than those of the traditional group ($P < 0.01$). *Conclusion:* The standardized patient teaching model is conducive to improving interns' professional skills and increasing their teaching satisfaction, so it should be popularized.

Keywords: Obstetrics and gynecology; Standardized patient teaching model; Internship effect

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1. Introduction

Obstetrics and gynecology is an important department in a medical institution that involves a wide range of professional knowledge. Its clinical work requires a solid foundation of theoretical knowledge and a high level of operational skills. There is a high demand for high-quality medical personnel. Based on the advancement of medical reform in recent years, the overall level of medical services has improved. In order to meet the growing needs of clinical service, it is particularly important to strengthen the cultivation of high-quality talents ^[1]. Obstetrics and gynecology diseases often involve private parts, so patients are often reluctant to cooperate with the treatment and require guidance from doctors. Moreover, medical disputes often occur in this department. In addition, patients' health awareness has been increasing in recent years, causing a surge in the number of patients admitted to obstetrics and gynecology. This has led to the increased workload of medical staff.

Therefore, it is imperative to improve their work efficiency and comprehensive qualities ^[2,4]. In view of this, the ways of strengthening the training of obstetrics and gynecology interns should be explored to better help them adapt to clinical work. The standardized patient teaching model, derived from past clinical encounters, is utilized to conduct simulated teaching sessions, immersing interns in real-life scenarios. This approach effectively nurtures interns' ability to respond to clinical emergencies, apply theoretical knowledge acquired in their studies to practical situations, and enhance teaching outcomes ^[5,6]. In this study, 42 interns were selected to study the effect of the standardized patient teaching model on obstetrics and gynecology interns, aiming to provide a reference for clinical teaching.

2. Materials and methods

2.1. General information

Interns of the hospital's Department of Obstetrics and Gynecology that were from the May 2022 to July 2023 batch were selected as the study subjects. A total of 42 people were selected, and they were separated into a traditional group and an observation group using a random number table method, with 21 people in each group. The traditional group consisted of 3 males and 18 females aged 22–27 (mean: 24.08 ± 1.66) years old; the observation group consisted of 2 males and 19 females, aged 22–27 (mean: 24.14 ± 1.49) years old. There was no difference in the baseline data of the interns ($P > 0.05$). This research was carried out in compliance with the Declaration of Helsinki.

Inclusion criteria: (1) Completed on-campus courses; (2) informed about the teaching content and model.

Exclusion criteria: (1) Withdrawal from the internship program; (2) poor compliance with the internship program.

2.2. Method

The traditional group followed the traditional teaching model. A teaching plan was formulated, including the schedule and syllabus, ward rounds, collecting medical history, and case analysis.

The observation group followed the standardized patient teaching model: (1) The teachers were required to possess extensive clinical and teaching experience. Besides, they should be familiar with the standardized patient teaching model, and they were responsible for selecting cases with clinical significance, pre-setting scenarios, scripting interpretations, and defining assessment criteria. (2) The teaching instructors designated simulated teaching topics to prompt interns to anticipate real-world challenges. Each intern was tasked with posing 1–3 questions and incorporating them into the simulated teaching scenario to heighten their engagement. Interns were encouraged to independently assign roles and utilize group dynamics. Following each simulation, the interns and teachers provided feedback to identify any areas for improvement ^[7]. Lastly, the teachers analyzed and summarized the performance of each intern.

2.3. Evaluation criteria

The director and deputy director of the Department of Obstetrics and Gynecology jointly formulated the test paper for the intern exit examination, which involved three modules: theoretical knowledge (40 points), case analysis (30 points), and clinical practice (30 points). The higher the score, the greater the mastery of professional knowledge. The office of the college developed a questionnaire to investigate the interns' satisfaction with the teaching content, teaching methods, and teachers. The total score was 100 points with a higher score indicating a higher level of satisfaction. The Cronbach's alpha of the questionnaire was 0.79, indicating that it was valid.

2.4. Statistical analysis

The data obtained were analyzed using SPSS 26.0. the measurement data such as exit examination scores and teaching satisfaction scores were expressed as mean \pm standard deviation and compared using a *t*-test, with *P* < 0.05 indicating statistical significance.

3. Result

3.1. Exit examination scores

The theoretical knowledge, case analysis, and clinical practice scores of the interns in the observation group were all higher than those of the traditional group, (*P* < 0.01), as shown in **Table 1**.

Table 1. Comparison of examination scores between the two groups of interns (mean \pm standard deviation/min)

Group	<i>n</i>	Theoretical knowledge	Case analysis	Clinical practice
Traditional group	21	31.09 \pm 3.16	22.49 \pm 3.18	21.62 \pm 3.59
Observation group	21	36.77 \pm 3.98	26.44 \pm 3.49	25.98 \pm 3.77
<i>t</i>		5.122	3.834	3.838
<i>P</i>		0.000	0.000	0.000

3.2. Intern satisfaction

The interns in the observation group had higher satisfaction scores with teaching content, teaching methods, and teachers than those in the traditional group, (*P* < 0.05), as shown in **Table 1**.

Table 2. Comparison of satisfaction between the two groups of interns (mean \pm standard deviation/min)

Group	<i>n</i>	Teaching content	Teaching methods	Teacher
Traditional group	21	86.29 \pm 5.29	85.71 \pm 5.30	88.09 \pm 5.51
Observation group	21	90.76 \pm 5.62	92.07 \pm 5.88	93.58 \pm 6.11
<i>t</i>		2.654	3.682	3.058
<i>P</i>		0.011	0.001	0.004

4. Discussion

Teaching obstetrics and gynecology during internships poses challenges, primarily due to the complexity and abstract nature of theoretical knowledge coupled with limited opportunities for practical application. Obstetrics and gynecology cases often involve sensitive privacy issues, and patient participation in teaching sessions tends to be low, potentially leading to resistance and teaching difficulties^[8,9]. In order to effectively improve this difficulty, a standardized patient teaching model was proposed. The standardized patient teaching model offers valuable support for intern education by simulating patient scenarios. Through scenario-based simulations, pre-defined cases and roles prompt interns to engage in critical thinking, immersing them in various professional roles. This approach facilitates a deeper understanding of the subject matter and enhances interns' ability to apply theoretical knowledge to practical situations, thereby improving the quality of teaching and learning experiences^[10-12].

The standardized patient teaching model helps to cultivate the critical thinking skills of interns. Unlike

traditional teaching methods where interns may feel hesitant to ask questions and passively follow instructions, the standardized patient teaching model empowers interns to take an active role. Interns are encouraged to independently devise teaching plans and scenarios, engaging in continuous problem-solving and deepening their understanding of the subject matter^[13,14]. This approach also enhances interns' clinical adaptability.

Moreover, the standardized patient teaching model promotes teamwork among interns, transforming mundane teaching practices into dynamic and engaging experiences. By assuming different roles during interpretation and observation exercises, interns can effectively enhance their communication and teamwork skills, thereby improving their overall competence as future healthcare professionals^[15]. Our data showed that the theoretical knowledge, case analysis, and clinical practice scores of interns in the observation group were all higher than those of the traditional group ($P < 0.01$). These findings affirm that the standardized patient teaching model effectively simulates interns' interactions with patients and equips them with problem-solving skills to tackle potential challenges encountered in clinical practice. The teaching approach, drawing upon extensive clinical experience and simulated scenarios, continuously enriches interns' learning experiences and enhances their clinical adaptability. Furthermore, interns in the observation group expressed higher satisfaction levels with teaching content, methods, and instructors compared to those in the traditional group, underscoring the efficacy of the standardized patient teaching model. These positive outcomes suggest a strong foundation for widespread implementation and promotion of this teaching model.

5. Conclusion

In summary, the standardized patient teaching model is conducive to improving interns' professional skills, increasing their satisfaction with the program, and improving teaching performance.

Disclosure statement

The authors declare no conflict of interest.

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