

1. 研究テーマ・タイトル

Simulation Education on Pain Palliation in Cancer Patients for Undergraduate Nursing Students

2. 研究概要

【Purpose】 This study aimed to conduct a simulation education intervention focused on palliation of pain in cancer patients for Japanese nursing students and to evaluate its usefulness using objective indicators.

【Method】

- This study used a one-group, post-hoc design.
- Participants were 80 fourth-year nursing students at a public university in Japan.
- A questionnaire was administered after the simulation education was implemented. We used the following indices: *Satisfaction*, *Confidence*, and *Evaluations of Exercise Design*. Additionally, we placed a section containing open-ended questions to collect data on level of satisfaction, confidence, and reasons for the given evaluation on exercise design.

【Results】

【Table 1】

- The satisfaction score for SSSCLS was 3.61 ± 0.66 (mean \pm SD), and the self-confidence score for SSSCLS was 3.77 ± 0.56 .

【Table 2】

- The students alternated in the role of nurse, simulated patient, leader nurse, and observer and performed four simulations, but there was no significant difference in satisfaction or confidence in the role of nurse.

【Table 3】

- After completing the exercise, the SDS scores was 3.72, the SDS sub scores were as follows: 3.44 for objective and information, 3.77 for support, 3.77 for problem solving, 3.91 for feedback/guided reflection, and 3.85 for fidelity.
- In terms of satisfaction and self-confidence scores, the results of the exercise design were compared in two groups: a group less than the median and a group greater than the median. The SDS score was significantly higher in the group above the median than in the group below the median for both satisfaction and self-confidence.

【Discussion】

- In previous studies (Butler K. W. et al., Cantrell M. A. et al., Megel M. E. et al., Ito et al.), satisfaction was 4.00 to 4.34, confidence was 3.75 to 4.23, and the sum of satisfaction and confidence was 3.82 to 4.76. The average satisfaction and confidence in this study were lower than in previous studies. It suggested that there is improvement in this simulation education.
- There was no significant difference in satisfaction or self-confidence in the role of nurse. Regardless of the order in which they were in charge, performing various roles led to satisfaction and confidence.
- The evaluation of SDS was 3.72 in this study and 3.47 to 3.62 in the previous studies (Butler K. W. et al., Cantrell M. A. et al., Megel M. E. et al., Ito et al.), which was higher than the previous study.
- This research confirmed that this simulation education may be useful for teaching undergraduate nursing students how to care for patients with cancer experiencing distress symptoms.
- The scores for the SDS element of objective and information was the lowest among the five SDS elements. It is therefore necessary to carefully explain the purpose of the exercises, the practice method, the patient setting, and the necessary background knowledge to participants before starting the exercises.
- A high evaluation of the SDS suggested higher satisfaction and confidence. It is important to repeatedly evaluate and improve the contents of simulation education.

【Conclusion】 The findings of this study suggested that students performed various roles, which led to satisfaction and self-confidence, and that it was necessary to carefully explain at the start of the exercise.

Item	Mean	SD
1 The teaching methods used in this simulation were helpful and effective.	3.80	0.75
2 The simulation provided me with a variety of learning materials and activities to	3.77	0.67
3 I enjoyed how my instructor taught the simulation.	3.53	0.96
4 The teaching materials used in this simulation were motivating and helped me	3.53	0.94
5 The way my instructors taught the simulation was suitable to the way I learn.	3.65	0.81
Subtotal	3.61	0.66
6 I am confident that I am mastering the content of the simulation activity that my	3.35	0.88
7 I am confident that this simulation covered critical content necessary for the mastery of	4.00	0.64
8 I am confident that I am developing the skills and obtaining the required knowledge	3.72	0.71
9 My instructors used helpful resources to teach the simulation.	3.39	0.94
10 It is my responsibility as the student to learn what I need to know from this	3.96	0.65
11 I know how to get help when I do not understand the concepts covered in the	3.61	1.01
12 I know how to use simulation activities to learn critical aspects of these skills.	3.81	0.65
13 It is the instructor's responsibility to tell me what I need to learn of the simulation	3.89	0.78
Subtotal	3.77	0.56
Total	3.69	0.58

Item	Total		Satisfaction				P value	Self-Confidence				P value
	合計 (n=75)		< 3.83 (n=30)		≥ 3.83 (n=45)			< 3.86 (n=30)		≥ 3.86 (n=45)		
	Mean	SD	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
Objectives and Information												
1 There was enough information provided at the begining of the simulation to provide direction and encouragement.	3.09	1.15	2.27	0.83	3.64	1.00	< 0.001	2.33	0.92	3.60	1.01	< 0.001
2 I clearly understood the purpose and objectives of the simulation.	3.55	1.07	2.80	1.10	4.04	0.71	< 0.001	2.80	1.10	4.40	0.71	< 0.001
3 The simulation provided enough information in a clear matter for me to problem-solve the situation.	3.53	1.00	2.77	0.97	4.04	0.63	< 0.001	2.80	1.00	4.02	0.66	< 0.001
4 There was enough information provided to me during the simulation.	3.45	0.99	2.70	0.92	3.96	0.73	< 0.001	2.80	0.96	3.89	0.75	< 0.001
5 the cues were appropriate and geared to promote my understanding.	3.56	0.99	2.90	1.03	4.00	0.67	< 0.001	3.03	1.07	3.91	0.76	< 0.001
Subtotal	3.44	0.89	2.67	0.73	3.94	0.58	< 0.001	2.75	0.80	3.89	0.60	< 0.001
Support												
6 Support was offered in a timely manner.	3.69	0.85	3.27	0.87	3.98	0.72	< 0.001	3.33	0.88	3.93	0.75	0.004
7 My need for help was recognize.	3.87	0.72	3.40	0.81	4.18	0.44	< 0.001	3.43	0.82	4.16	0.48	< 0.001
8 I felt supported by the teacher's assistance during the simulation.	3.91	0.79	3.43	0.86	4.22	0.56	< 0.001	3.47	0.86	4.20	0.59	< 0.001
9 I was supported in the learning process.	3.63	0.98	2.90	1.00	4.11	0.61	< 0.001	3.00	1.02	4.04	0.71	< 0.001
Subtotal	3.77	0.73	3.25	0.75	4.12	0.47	< 0.001	3.31	0.77	4.08	0.52	< 0.001
Problem Solving												
10 Independent problem-solving was fcilitated.	3.85	0.73	3.43	0.86	4.13	0.46	< 0.001	3.40	0.86	4.16	0.42	< 0.001
11 I was encouraged to explore all possibilities of the simulation.	3.57	0.87	3.07	0.87	3.91	0.70	< 0.001	3.17	0.95	3.84	0.71	0.001
12 The simulation was designed for my specific level of knowledge and skills.	3.69	0.75	3.17	0.75	4.04	0.46	< 0.001	3.17	0.75	4.04	0.48	< 0.001
13 The simulation allowed me the opportunity to prioritize nursing assessments and care.	3.89	0.78	3.33	0.80	4.27	0.50	< 0.001	3.43	0.82	4.20	0.59	< 0.001
14 The simulation provided me an opportunity to goal set for my patient.	3.81	0.73	3.43	0.77	4.07	0.58	< 0.001	3.43	0.82	4.07	0.54	< 0.001
Subtotal	3.77	0.63	3.29	0.63	4.08	0.47	< 0.001	3.32	0.65	4.06	0.41	< 0.001
Feedback/Guided Reflection												
15 Feedback provided was constructive.	3.96	0.85	3.50	0.94	4.27	0.62	< 0.001	3.60	1.00	4.20	0.63	< 0.001
16 Feedback was provided in a timely manner.	3.97	0.75	3.63	0.85	4.20	0.59	0.002	3.73	0.91	4.13	0.59	0.054
17 The simulation allowed me to analyze my own behavior and actions.	3.92	0.78	3.43	0.82	4.24	0.57	< 0.001	3.43	0.82	4.24	0.57	< 0.001
18 There was an opportunity after the simulation to obtain guidance/feedback from the teacher in order to build knowledge to another level.	3.81	0.90	3.37	0.89	4.11	0.78	< 0.001	3.40	0.89	4.09	0.79	< 0.001
Subtotal	3.91	0.70	3.48	0.73	4.21	0.51	< 0.001	3.54	0.76	4.17	0.54	< 0.001
Fidelity (Realism)												
19 The scenario resembled a real-life situation.	3.91	0.74	3.47	0.78	4.20	0.55	< 0.001	3.50	0.78	4.18	0.58	< 0.001
20 Real factors,situations, and variables were built into the simulation scenario.	3.80	0.74	3.27	0.69	4.16	0.52	< 0.001	3.30	0.70	4.13	0.55	< 0.001
Subtotal	3.85	0.71	3.37	0.68	4.18	0.51	< 0.001	3.40	0.70	4.16	0.53	< 0.001
Total	3.72	0.62	3.18	0.50	4.09	0.37	< 0.001	3.22	0.56	4.05	0.40	< 0.001

Mann-Whitney U-test

3. 支援員数、依頼内容等

支援員数は、2名であった。
依頼内容は、資料整理、結果の解析、図表の作成、論文作成準備、投稿論文の推敲などであった。

4. 利用効果

支援員制度利用により、分析時間を確保でき、論文作成につながった。草稿において、データの確認、文章推敲を依頼し、完成度の高い投稿論文につながった。査読の応答も支援して頂き、迅速に対応することができ、総説論文の採択につながった。

5. 感想（まとめ）

令和2年度研究支援員制度を利用させて頂き、厚く御礼申し上げます。研究支援員、関係各所の皆様、学内さくらんぼ保育所の皆様に深謝申し上げます。
申請者は、育児の多くを担っている状況で、教育活動、委員会など学部・研究科・大学運営活動を行った上で、研究時間を捻出しています。この度、研究支援員制度を利用させて頂いたことにより、研究活動の維持・促進につながり、研究は中断することなく進展することが出来ました。また、2名の研究支援員を申請し配置して頂き、複数の研究課題に対して支援して頂いたことによる進捗も大きかったです。
研究支援員への効果として、支援員は、研究の進め方、論文検索方法、文献の読み方、論文の構成、結果の図表への表し方、査読の応答などの知識を実践的に身につけることができたことと実感しています。また、社会的問題や医療に関心を持ち、自分なりに課題を発見する力も身についたと報告していました。さらに、働きながら子育てすることは、研究時間の確保が大変であり、他者の手を借りることの必要性を感じたようです。今年度は感染症対策のためzoomを活用して研究会議を行い、時間調整しながら進めやすかった面がある一方、家庭内での男女平等も大切であると感じたようです。研究支援員は様々な側面から学んでおり、研究支援員のキャリア支援にもつ寄り寄ってきたと考えます。ありがとうございました。