A mixed method evaluation of an integrated course in improving critical thinking and creative self-efficacy among nursing students

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ARTICLE INFO

ABSTRACT

Background: Critical thinking and creative self-efficacy are important for nursing students to provide quality patient care in an increasingly complex healthcare environment. Educators play a role in cultivation of corresponding skills in university settings.

Objectives: To develop an integrated course addressing the core elements of critical and creative thinking in one nursing program and evaluate its impacts on students' creative thinking disposition and creative self-efficacy.

Design: A mixed methods study using a quasi-experimental comparative design and a descriptive qualitative analysis of students' reflective journals.

Settings: A university pre-registration nursing program in Mainland China.

Participants: A total of 68 second-year nursing students.

Methods: The course was developed as a sixteen-week two-hour program. It was comprised of 7 modules covering the concepts, pathways, and skills of critical and creative thinking, related tools and the application in nursing. Quantitative and qualitative data were collected before and after the course to obtain a comprehensive understanding of the course effects. Quantitative outcomes included students' level of creative thinking disposition and creative self-efficacy measured by specific scales; qualitative outcomes were obtained through student journals. Paired sample *t*-tests were performed to compare the changes between pre- and post-tests. Thematic analysis was applied to analyze the qualitative data from students' reflective journals.

Results: Quantitative data showed that except in the self-confidence and originality dimensions, students' scores of overall creative thinking disposition, creative self-efficacy, and other dimensions were significantly improved after the 16-week course. Qualitative data revealed that students' understanding and practice of creative thinking and creative self-efficacy were deeply shaped by the social, cultural, and educational contexts.

Conclusions: This study demonstrated that an integrated course of critical and creative thinking exerted distinct impacts on increased levels of creative thinking dispositions and creative self-efficacy among second-year nursing students in China. Students favored and benefited from the course in both personal and professional domains.

1. Introduction

Critical thinking and creative thinking are two components of the 21st century skills for the young generation (Trilling and Fadel, 2009). They are crucial for real-world problem solving in every domain, especially in the globalization and information explosion era. The healthcare environment is changing rapidly due to the increasingly aging populations, complexities of disease management, and development of health technology (Chan, 2019). To effectively respond to the impending challenges and maintain high-quality care for clients, health professionals, including nurses, need to be equipped with competences for critical thinking and creative thinking to identify and solve problems based on quick and accurate analyses (Liu et al., 2019). Therefore, it is necessary to train and enhance healthcare students' critical and creative thinking skills in the university settings for promoting their smooth transition from theoretical to practical healthcare practice (Wong and Kowitlawakul, 2020).

Review

Effectiveness of simulation debriefing methods in nursing education: A systematic review and meta-analysis

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A B S T R A C T

Objective: This systematic review and meta-analysis aimed to evaluate debriefing methods' effectiveness on learning outcomes for nursing students.
Design: A systematic review and meta-analysis were applied according to the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) statement.
Data sources: Publications were searched in PubMed, EMBASE, The Cochrane Library, Web of Science, China National Knowledge Infrastructure, and WANFANG (China) databases from inception to 2020.
Review methods: Two researchers independently retrieved articles and evaluated their quality. Review Manager version 5.3 software was used to conduct the meta-analysis, following the PRISMA guidelines. Bias risk was assessed using the Joanna Briggs Institute manual. Heterogeneity was assessed by I^2 statistics. Standardized mean difference (SMD) and 95% confidence intervals (CIs) were used for effect size analysis based on learning outcomes.
Results: Sixteen studies were selected in the systematic review and 13 studies with 1637 nursing students were included in the meta-analysis. Five debriefing methods were used in the intervention group. The analysis showed that Debriefing for Meaningful Learning was more effective on the debriefing quality (SMD = 0.52, 95%CI [0.32, 0.72]), and that video-assisted debriefing was more effective on nursing students' experiences (SMD = 0.30, 95% CI [0.02, 0.58]) and critical thinking (SMD = 0.90, 95%CI [0.65, 1.15]) compared with the usual debriefing. However, written debriefing did not show better effects on students' experiences (SMD = −0.22, 95%CI [−0.51, 0.07]), and peer-led debriefing did not show better effects on the debriefing quality compared with the usual debriefing (SMD = −0.15, 95%CI [−1.43, −0.67]).
Conclusions: The study indicated that Debriefing for Meaningful Learning and video-assisted debriefing showed a positive impact on nursing education. Future studies that have larger sample sizes, high-quality debriefing methods, robust study designs, and other learning outcomes are required.

1. Introduction

Debriefing is the core component of simulation-based education, which has been widely used in nursing education recently (Cheng et al., 2014; Lee et al., 2020; Zhang et al., 2019). In simulation debriefing, students can express many perspectives, feedback, and reflections about clinical situations (Ryoo and Ha, 2015). Studies have demonstrated that effective debriefing promotes students' knowledge transformation and application (Kim et al., 2016; Yeun et al., 2020). However, ineffective debriefing can lead to negative effects, such as insufficient clinical reasoning skills, poor clinical judgment of learners, increased psychological stress, and low student satisfaction (Dreifuerst, 2012; Rossignol,

2017; Weaver, 2015; Zhang et al., 2020).

At present, there are several nursing education debriefing methods based on facilitators, frameworks, and tools (Table 1). Depending on the facilitators, debriefing methods include instructor-led, peer-led, and self-debriefing (Fang, 2018). Depending on the frameworks' features, debriefing can be classified into structured and unstructured (Fang, 2018). Debriefing for Meaningful Learning (DML) is one of the frequently used frameworks for structured debriefing (Dreifuerst, 2012). Regarding the tools, debriefing methods include verbal, video-assisted, and written debriefing (Fang, 2018). Usual debriefing is widely used in nursing education and refers to an instructor-led verbal discussion without structured frameworks or tools (Lee et al., 2020). Recently,

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Mediating role of career self-efficacy between clinical learning environment and professional identity in nursing students

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Abstract

Aims: To explore whether the clinical learning environment (CLE) has an indirect effect on professional identity through the mediation of career self-efficacy (CSE) in nursing students.

Background: The shortage of nurses has become a universal problem worldwide. Improving nurses' professional identity is considered an effective way to reduce the turnover rate of nurses. However, little is known about the relationship between the CLE, CSE and professional identity.

Design: An observational, questionnaire-based, cross-sectional study.

Methods: A web-based survey was completed by 212 undergraduate nursing students from June to August 2018. Measures included Chinese translations of the CLE, the Career Self-Efficacy Scale, and the Professional Identity Scale.

Results: Both the CLE ($r = 0.552$, $p < 0.01$) and CSE ($r = 0.868$, $p < 0.01$) correlated positively with professional identity. The indirect effect of the CLE on professional identity through CSE was positive ($\beta = 0.342$, $p < 0.05$) and the effect was 77.2%.

Conclusions: A better CLE and higher scores in CSE were associated with professional identity in nursing students, and a better CLE had an indirect effect on the professional identity of students through CSE.

KEYWORDS
career self-efficacy, education, mediation, nursing students, professional identity

1 | INTRODUCTION

Due to the imbalance ratio of nurses to patients and great work pressure, many nurses experience job burnout and leave their jobs. The shortage of nurses has become a universal problem worldwide (Wang et al., 2019). In view of this situation, improving nurses' professional identity (PI) is considered an effective way to reduce their turnover rate (Browne et al., 2018). PI refers to the ability to perform the functions of the profession; knowledge, as evidenced by education and/or certification; identification with a community of practice and with the values and ethics of the profession; and personal identification as a professional within an identified professional group (Fitzgerald, 2020). PI is often referred to as career, occupational or even vocational identity as well (Negru-Subtirica & Pop, 2018). Nursing PI was defined as 'the values and beliefs possessed by the nurse that guide his/her thinking, actions, and interactions with the patient' (Simmonds et al., 2020). It is the foundation of nursing practice and a developmental process in professional nurses' careers. As

Zihan Gao and Xiao Wei contributed equally to this article.

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Cognition of self-role among postgraduate nursing students：a qualitative study　　Yin Xiaomeng，Jiang Yuanyuan，Shen Xiufang，Zhao Yaling，Liu Qingwei，Zhu Xiuli

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Expectation on Role of Supervisors in Medical Postgraduates based on Role Theory: A Qualitative Study

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Abstract: **Objective** To explore the expectation on the role of supervisors by medical postgraduate, and to provide references for improving role behavior of supervisors and improving students' satisfaction. **Methods** The descriptive phenomenological method in qualitative study was applied. With convenient sampling, 16 postgraduates majored in clinical medicine, nursing, public health, pharmacy and basic medicine were chosen and a semi-structured interview was conducted face to face. The interview data were analyzed by Colaizzi phenomenological analysis method. **Results** There were four aspects in the expectation on the role of the supervisors including expectation on academic level; academic guidance, personality charm of the supervisor and teacher-student relationship. **Conclusion** There is totally positive evaluation on supervisors from medical postgraduates. Students expect to have more communication with supervisors and are particularly eager for humanistic care from supervisors. Full implementation of roles as educators and more personal achievement, people-oriented education and a harmonious and equal teacher-student relationship are conducive to improving medical postgraduates' satisfaction with their supervisors.

Key words: role expectation; medical postgraduate; supervisor; qualitative research

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Construction and application of cases pool of clinical nursing science for nursing master students　*Miao Xiuxin，Guo Huili，Zhu Xiuli，Liu Ting，Yao Xinyu. Department of Community Nursing and Geriatrics Nursing，School of Nursing，Qingdao University，Qingdao 266021，China*

Abstract：**Objective** To explore construction and application effect of cases pool of clinical nursing science for nursing master students. **Methods** The cases pool of clinical nursing science was constructed，and case-based teaching was conducted for 21 nursing master students by referring to Harvard case-based teaching method. The application effect of cases pool was evaluated by questionnaire and S-T analysis method. **Results** Totally 30 teaching cases for clinical nursing science were developed，which included case background，case summary，nursing problem，case analysis，case related knowledge and references. The overall score of master students' evaluation on case-based teaching for clinical nursing science was 94.1±2.02，and the scoring rate of relevance of case content，case practicality，case enlightenment，case teaching form and actual teaching effect were all above 85%. S-T analysis showed that the proportion of teacher-student interaction in case-based teaching classroom was appropriate and classroom organization mode was scientific. **Conclusion** The proposed construction plan of teaching cases pool is scientific and highly targeted，and its application is recognized by nursing master students.

Key words：master students of nursing；　case-based teaching；　construction of cases pool；　application of cases pool；　S-T analysis method

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