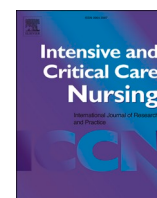




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Correspondence



How to guarantee the core competencies in redeployment during the patient surge from COVID-19 or other emerging infectious diseases

Dear Editor,

When nurses are redeployed, a supplementary training program is recommended for those without prior experience caring for patients with emerging infectious diseases (EID) (San Juan et al., 2022). It guarantees patient safety by boosting nurses' confidence (Lee and Lee, 2020). The training modules should be developed with real patient scenarios and problem-solving approaches to enhance nurses' self-directed learning (Dziurka et al., 2022; Guttormson et al., 2022). These efforts to ensure their competencies could be adopted in developing countries via an online platform that compensates for resource scarcity and contributes to the prevention of EID transmission globally (Walker et al., 2020).

Methods: The ethical approval was obtained for conducting the in-depth interview for developing training modules and the pilot test in 2020 and 2022. The modules were developed via content analysis of interviews with thirty-nine registered nurses from South Korea and the United States, working in intensive care or coronavirus disease 2019 (COVID-19) isolated units. They had three to five years of nursing experience prior to caring for COVID-19-infected patients for a minimum of one the year 2020–2021. A quasi-experimental study was conducted for the pilot test in seven general hospitals in South Korea.

Results: Fifty-five nurses participated in the pilot test among intervention (n = 25) and control (n = 30) groups (Supplement material 1). The modules covered issues from admission to discharge, and the training was provided to the intervention group. The modules dealt with the contents of infection control and prevention, ventilator management, end-of-life care, and teamwork. Five real case-based scenarios were added for the improvement of problem-solving competence (Supplement material 2). The developed questionnaire to assess the change of confidence has high reliability (Cronbach α 0.8760): The results of the intervention group showed increased confidence in COVID-19 patient

care, infection prevention and control, end-of-life care, and teamwork, and presented statistically significant differences in the pretest and posttest (Table 1).

Discussion: This study targeted nurses without prior experience caring for EID patients. The training modules gave the participants the adaptability to care for EID patients, and aligned with the findings of the previous studies for enhanced competencies (Vera San Juan et al., 2022). The result indicates its effectiveness in informing global health security from EID, and in improving nurses' competency and capabilities, as recommended by the previous research findings (Lee and Lee, 2020). Nursing facilities in developed or underdeveloped countries may differ; thus, certain adjustments should be made to the modules when applying the developed training data, main lectures, and case discussions. Additions or exclusions to the online or offline training could be considered the existing education levels of nurses in the health facilities and include selective training.

Implication and Limitation: The developed training program proved effective and improved of core nursing competencies required for caring for EID patients in this study. Therefore, this program can confidently be recommended as supplementary training for nurses prior to their assignment to EID units. Further studies are required to determine the outcomes of this training in different settings.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Table 1

Comparison of dependent variables between intervention and control groups (n = 55).

Variables	Groups	Pre-intervention M(SD)	Post-intervention M(SD)	Post-Pre Difference		Analysis of covariance F(p)	Paired t-test t(p)
				M(SD)	t(p)		
Nursing care	Experimental group	2.76 (0.83)	4.44 (0.51)	1.68 (1.029)	8.15 (<0.001)	1.84 (<0.001)	6.28 (<0.001)
	Control group	3.08 (0.91)	3.36 (0.86)	0.28 (1.32)	-0.82 (0.415)		
Infection prevention and control	Experimental group	2.76 (0.83)	4.64 (0.49)	1.88 (0.88)	10.66 (<0.001)	1.61 (<0.001)	6.73 (<0.001)
	Control group	3.36 (0.81)	3.36 (0.86)	0.0867 (0.96)	0.49 (0.625)		
End-of-life care	Experimental group	3.28 (0.74)	4.60 (0.64)	1.32 (0.94)	6.98 (<0.001)	0.94 (<0.001)	5.16 (<0.001)
	Control group	3.04 (0.88)	3.44 (1.08)	0.30 (1.23)	-1.47 (0.153)		
Teamwork	Experimental group	3.00 (0.76)	4.56 (0.50)	1.56 (0.96)	8.16 (<0.001)	4.22 (<0.001)	4.77 (<0.001)
	Control group	2.96 (1.02)	3.32 (0.90)	0.066 (1.23)	0.29 (0.769)		

M: mean; SD: standard deviation.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.iccn.2022.103372>.

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