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**Effects of a multi-component educational intervention on nurses’ knowledge and adherence to standard precautions in intensive care units**

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**Abstract**

**Background:** The standard precautions (SPs) should be disseminated and implemented by healthcare providers. This study aimed to examine the effects of a multi-component educational intervention on nurses’ knowledge and adherence to the SP guidelines in intensive care units (ICUs).

**Methods:** This small-scale study consisted of a cluster randomised trial. Two ICUs, located in different hospitals, participated in the study. Nurses (n = 15) in one ICU received the multi-component educational intervention. The intervention involved an educational (with multiple instructional media) and a behavioural (with hands-on practice) component. Nurses’ knowledge and adherence were assessed at pre-test and two and six weeks after the intervention.

**Results:** Results showed significant group by time interaction effects for both outcomes: a large improvement was found in the experimental group over time, but not in the control group. The experimental nurses’ knowledge improved from 15 ± 2.47 at pre-test to 19 ± 2.65 and 19.53 ± 0.92 at follow-ups. Similarly, their adherence increased from 19.87 ± 4.44 at pre-test to 29.20 ± 5.00 and 28.40 ± 4.37 at two and six weeks post-test, respectively.

**Conclusions:** The multi-component educational interventions had demonstrated initial effectiveness in enhancing ICU nurses’ knowledge and adherence to the SPs guidelines. The intervention is a promising approach for designing effective continuing education initiatives aimed to improve nurses’ practice.

**Keywords**

Education, knowledge, adherence, standard precautions, nurses, intensive care unit

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