



Lorestan University of Medical Sciences
Faculty of Khorramabad Nursing & Midwifery

Title:

***The effect of blended learning-based drug education intervention on
administration medication errors of Nurses in medical Wards.***

A Thesis:

*Presented for the
Degree of Master of Sciences
In Nursing*

By: Kolsum Farzi

Supervisor: Dr. Fatemeh Mohammadipour

*Advisors: Dr. Tahereh Toulabi
Dr. Khadijeh Heidarizadeh*

August 2020

Abstract

Background and Objective: Drug errors are one of the threats to patients' safety. Due to the role of insufficient drug knowledge in the occurrence of drug errors, education has been emphasized as the most important strategy to prevent drug errors. Therefore, this study was conducted to determine the effect of drug education intervention based on blended learning on administration medication errors of nurses in medical wards.

materials and methods: In this one-group intervention study before and after, 114 rounds of medicine of 57 clinical nurses in the medical wards of Shahid Rahimi Hospital in 2019-2020 were directly observed by the third type of non-participation using a researcher-made checklist. The checklist consisted of two sections: demographic information and correct drug principles (28 items). In contrast to the items, the criteria were "yes", "no" and "not applicable". The "yes" option was assigned a score of "zero" and the "no" option was assigned a "one" score. The data of the column "Not applicable" were not considered in the analysis. The mean scores of items 1-9, 10-20, 21-28 and 1-28, respectively, were prescribed as the score of deviation from the performance of safe medication, the score of preparation and medication errors, and the score of deviation from treatment. And the total score of drug errors was considered. The validity of the checklist was determined by the content validity method and its reliability was determined by the inter-observers reliability method. Data were collected before and one month after the intervention. Blended learning-based medication training intervention included face-to-face training and self-study learning. Data were analyzed using descriptive statistics and paired t-test.

Results: drug education intervention based on blended learning significantly reduced the mean score of deviation from the performance of safe drug (51.27 ± 20.99 vs. 37.52 ± 11.34), the mean score of errors Preparation and medication (58.33 ± 24.96 vs. 47.81 ± 16.66), mean score of deviation from prescribed treatment (75.85 ± 18.04 vs. 66.98 ± 13.42) and The mean total score of nurses' administration medication errors was (61.67 ± 19.24 vs. 50.09 ± 10.88) ($P < 0.001$).

Conclusion: The use of drug education intervention based on blended learning, in order to reduce nurses' administration medication errors and improve patient safety, seems to be essential.

Keywords: medication errors, nurses, medical ward, blended learning