Efficacy of an Training Program Based Intervention in Changing Knowledge Nurses Concerning Medication Dosage Errors in Pediatric ward in Mosul City, Iraq

Jellan Mohammed, Ali Msc* Nasir Muwfaq Younis, PhD**

ABSTRACT

Background: Any avoidable event that might lead to inappropriate medication use or patient harm while the patient, healthcare professional, or consumer is in control of the pharmaceuticals.

Objective: The aim of the study to determine the efficacy of an training program based intervention in changing knowledge nurses concerning medication dosage errors in pediatric ward in Mosul City, Iraq

Methods: A randomized controlled trial with a true experimental design was used for the program from October 1, 2024, to May 1, 2025. Five public healthcare facilities with pediatric wards were included in the study. More than 250 questioners were distributed to nurses from pediatric wards in Mosul hospitals at random. The nurses were then selected for the study by either giving the questioners to one and leaving one on or two, or the other way around, giving the questioners to pediatric ward nurses and leaving one. The researcher then received 165 questioners, and approximately 90 nurses did not fit the criteria. Lastly, there is a chance that there will be 26 male and 34 female pediatric ward nurses in the two groups, each holding a different position.30 nurses who consented to participate in the study were included in the sample, and 30 nurses who work in pediatric wards were included in the control group. The experimental and control groups were created by random assignment. Version 26 of the Social Science Statistical Package (SPSS) was used in the investigation to analyze the data. The statistical techniques used to analyze data and assess results.

Results: The finding show that the changes in nurses' knowledge regarding medication dosage errors across the study phases. The mean score during the Pre phase was 7.888 (Fair level), reflecting a need for improvement. After the intervention, the Post1 phase showed a significant increase to 17.444 (Good level), demonstrating its effectiveness. By the Post2 phase, the mean score slightly decreased to 17.333 but remained at a good level, indicating sustained knowledge retention.

Conclusion: This study concluded that the program was effective through the three tests that were conducted on nurses in hospitals, as they were tested first and their knowledge of the directions of incorrect drug doses was weak and unacceptable, while when the intervention, i.e. the training program, was conducted, their knowledge became good in the second test and the researchers continued to follow them after the program for two months. They were tested for the third time and it was found that they still retained the same information, i.e. their knowledge remained in a positive and high direction at the same time.

Keywords: Efficacy, Training Program, Knowledge, Medication Dosage Errors

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* Nineveh Health Directorate
Al-Baaj Sector, Iraq.
E-mail: gelan.23nup25@student.uomosul.edu.iq

** Community Health Nursing,
College of Nursing/University of Mosul/Iraq
E-mail: nasir.mufaq@uomosul.edu.iq