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*abstract*

## **Enhancing Pediatric Oncology Nurses' Competence in Chemotherapy Administration: A Training Intervention Study**

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## Enhancing Pediatric Oncology Nurses' Competence in Chemotherapy Administration: A Training Intervention Study

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**Introduction:** Pediatric oncology nurses play a critical role in administering chemotherapy to children with cancer. However, the complexity of chemotherapy regimens and the risks associated with their administration necessitate specialized training. Nurses need to demonstrate knowledge of these agents' mechanism of action, adverse effects, safe handling, and monitoring parameters. Competence of nurses administering chemotherapy needs to be assessed to ensure safety and quality care. Review of literature reveals that a comprehensive education program and skills validation are the most thorough means of assessing chemotherapy competency.

The objective was to evaluate the effectiveness of a training intervention in enhancing pediatric oncology nurses' competence in chemotherapy administration.

**Methodology:** A pre-post design study was conducted among 30 pediatric oncology nurses. The training intervention consisted of a workshop, including lectures, simulations, and hands-on practice in chemotherapy administration. Nurses' competence was assessed using a knowledge test, skills assessment, and self-reported confidence survey before and after the training.

**Results:** Significant improvements were observed in nurses' knowledge ( $p < 0.001$ ), skills ( $p < 0.01$ ), and self-reported confidence ( $p < 0.05$ ) in chemotherapy administration after the training. Nurses reported increased comfort and reduced anxiety when administering chemotherapy.

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**Conclusion:** This study demonstrates the effectiveness of a training intervention in enhancing pediatric oncology nurses' competence in chemotherapy administration. The findings highlight the importance of specialized training in ensuring the safe and effective administration of chemotherapy to children with cancer.