

## Summary

Oxygen therapy is widely used in acute health care of children with respiratory insufficiency so the nurse who is caring for children under oxygen therapy should have good knowledge, attitude and performance regarding it.

This descriptive study aimed at assessing the actual nursing care given to children under oxygen therapy through:

1. Assess the actual knowledge, attitude and practice toward oxygen therapy.
2. Explore the pitfall that can contribute to complications.
3. Design guideline for oxygen therapy to overcome all this pitfalls.

### **The research hypo thesis:**

Pediatric nurse who has adequate knowledge regarding oxygen therapy can apply it in practice to detect pitfalls that can contribute to complications.

The study was carried out in pediatric and neonatal units at Benha hospitals. (University Hospital, Specialized Children Hospital,

Teaching Hospital) at their different pediatric unit (Pediatric medicine, surgery, Emergency, dialysis, oncology, and NICU)

The studied sample in previously mentioned setting was **237** nurses. With admission criteria, being a permanent nursing staff and having at least one year of experience in the work place regardless of their qualification and age.

**The tools used for data collection included.**

First tool: A predestined questionnaire sheet by interviewing, it was designed by the researcher and modified by the supervisor after reviewing related literature, the translation of the questionnaire and the content validity were assessed by expert consultants. It was written in simple arabic language to suit all nurses' level of education, included in the study, to assess the actual knowledge about oxygen therapy. It consisted of

- Part (1) Demographic characteristics of nurses as regards (age, level of education years of experience and their previous training)
- Part (2) It consists of (**23**) question in relation to. Why is oxygen considered as essential element? Is an oxygen therapy considered a treatment & Why. Indication, methods of administration, essential equipment & supply for administration, different doses of oxygen therapy, duration, ....., reasons for giving oxygen continuously, and stoppage it gradually,.....etc.

Second tool: Modified likert like type attitude rating scale it was used to assess the attitude of nurses toward oxygen therapy in pediatric field. It included (20) items

Third tool: Observational checklist was constructed to assess the actual practice of nurse's related to oxygen therapy administration through observation of nurses compliance. Each nurse had been observed (3) times for each type of different methods of oxygen administration (head box, incubator, mask, or nasal).

A pilot study was conducted before starting the actual data collection in May (2005) to evaluate the efficiency and reliability of the tools which was used in this study for data collection.

**The main study results revealed the following:**

Most of nurses who are caring for children under oxygen therapy, aged more than 25 years old, and were graduated from nursing school, they had less than 5 years of experience and hadn't previous training related to oxygen therapy.

No one of nurses had adequate knowledge toward oxygen therapy such as its indication, method of administration, doses, precautions, toxicity and complications. Their lack of knowledge lead to the fact, that the majority of them not reach the compliance level of performance

in practice that unable them to perform the task according to the standard procedure or guidelines. At the same time they have positive attitude toward oxygen therapy, regardless their age, years of experience, previous training and level of knowledge or performance.

There was a statistically significant correlation between nurses' knowledge and their age and qualification.

There was statistical significant correlation between nurses' practice and range of age 20 > 25 years old, years of experience 5 > 10 years.

Recommendations are suggested that Orientation program for new nurses who giving care for children under oxygen therapy. Periodical educational programs for nurses to refresh and improve their knowledge and performance. Daily nurses round under supervision by supervisor and improvement of nurses' communication, cooperation and give rewarding motivation. Use the design simple guidelines for nurses to improve knowledge and practice toward oxygen therapy. Further studies should be conducted to improve nurses' knowledge and performance regarding care of children under oxygen therapy.