**E-ISSN: 3116-5974 P-ISSN: 3116-5966**
DOI: https://doi.org/10.66206/eduheart.ijnhha.208

# Assessing Safety Practices and Perceptions of Pediatric Nurses in Preventing Cross-Contamination in the Pediatric Ward

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***ABSTRACT***

*This study assessed pediatric nurses' safety practices and perceptions in preventing cross-contamination in pediatric wards. Using a quantitative descriptive design, data were gathered through a structured questionnaire focusing on hand hygiene, PPE use, environmental cleaning, and adherence to standard precautions. Findings showed that nurses generally demonstrated good compliance with infection prevention measures and positive perceptions of their importance in reducing healthcare-associated infections. However, factors such as workload, time constraints, and resource availability may affect consistent practice. The study highlights the importance of continuous education, monitoring, and organizational support to strengthen infection prevention and pediatric patient safety.*

***Keywords****: Pediatric nurses, safety practices, perceptions, cross-contamination, infection prevention, pediatric ward.*

## INTRODUCTION

Infection prevention and control (IPC) is essential in healthcare to reduce healthcare-associated infections (HAIs) and protect patient safety. Effective hand hygiene and IPC programs can significantly prevent avoidable infections; however, many healthcare facilities continue to face challenges such as inadequate hygiene services, environmental cleaning, waste management, and limited infection control resources, increasing the risk of infection transmission worldwide.

### Statement of the Problem

This study aimed to determine the relationship between pediatric nurses' perceptions and safety practices in preventing cross-contamination in a pediatric ward in Antipolo City. It examines the nurses' demographic characteristics, perceptions of infection prevention, and level of safety practices. It also seeks to identify differences in perceptions and practices based on demographic factors, determine the relationship between perceptions and safety practices, and develop recommendations to strengthen infection prevention and control practices in pediatric care.

### Scope and Delimitations

This study examined pediatric nurses' perceptions and safety practices in preventing cross-contamination in hospitals in Antipolo City. Using a descriptive-comparative and correlational design, it assesses demographic factors, infection prevention perceptions, and practices such as hand hygiene, PPE use, equipment disinfection, and protocol adherence.

Participants were selected through purposive sampling, and findings are limited by self-reported data and may not apply to other healthcare settings or nursing specialties.

## Review of Related Literature

Preventing Cross-Contamination in the Pediatric Ward: Studies indicate that healthcare workers generally have adequate IPC knowledge, but challenges remain in consistent practice and compliance. Factors such as training, workplace support, institutional culture, confidence, experience, and availability of resources influence adherence to infection prevention measures. Continuous education, targeted IPC programs, and organizational support are essential in improving compliance, preventing cross-contamination, and reducing healthcare-associated infections in pediatric wards.

## Theoretical Framework

This study is guided by three nursing theories: Florence Nightingale's Environmental Theory, Dorothea Orem's Self-Care Deficit Nursing Theory, and Patricia Benner's Novice to Expert Theory. These theories emphasize the importance of a clean environment, nurses' responsibility in patient care, and the development of clinical competence through experience and training. Together, they provide a foundation for examining how pediatric nurses' backgrounds influence their perceptions and safety practices in preventing cross-contamination.

## Conceptual Framework

The conceptual paradigm shows that pediatric nurses' perceptions (independent variable) directly influence their safety practices in preventing cross-contamination (dependent variable). It illustrates that nurses' perceptions are expected to affect their compliance with infection prevention and control practices in the pediatric ward.

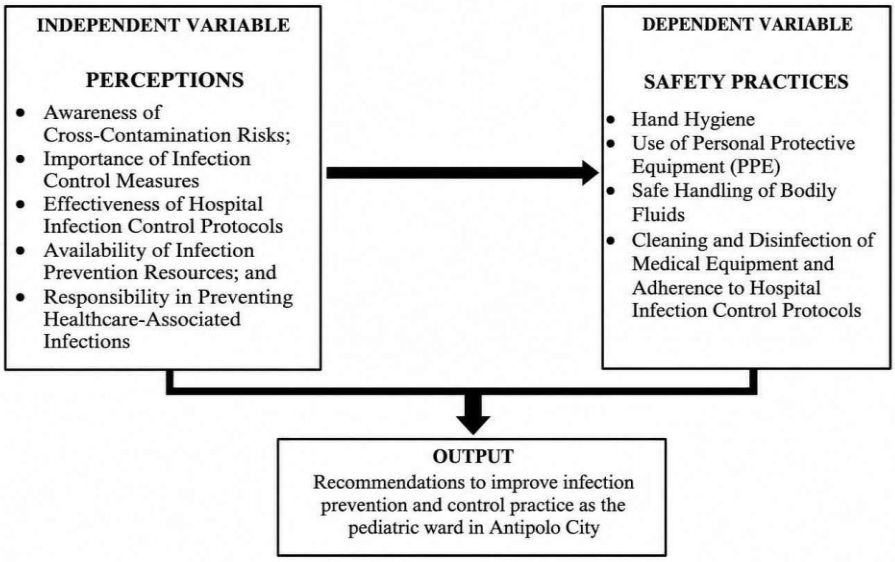


***Figure 1.*** *Conceptual Framework Showing the Relationship Between Perceptions and Level of Safety Practice.*

The study examines how pediatric nurses' perceptions influence their safety practices in preventing cross-contamination. It suggests that positive perceptions of infection risks and control measures improve compliance, while negative perceptions may hinder adherence. The findings will guide recommendations to strengthen infection prevention and control practices in pediatric wards.

## METHODOLOGY

### Research Design

The study will use a descriptive-comparative and correlational design to assess pediatric nurses' demographics, perceptions, and safety practices. It will identify differences based on demographic factors and determine the relationship between perceptions of cross-contamination prevention and infection control practices without manipulating variables.

### Research Steps

The researcher will secure approval, distribute validated questionnaires, collect responses from pediatric nurses, and analyze the data using appropriate statistical methods.

### Data Collection and Sample Selection

Data collection will begin after ethical and administrative approval. Registered pediatric nurses will provide informed consent before completing a 15–20-minute questionnaire on demographics, perceptions, and safety practices related to cross-contamination prevention. Data gathering will be scheduled conveniently while maintaining confidentiality, anonymity, and minimal disruption to nursing duties.

### Data Analysis Methods

Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to analyze the collected data.

### Research Hypothesis and Validation

The study tested whether significant relationships existed between nurses' demographic profiles, safety practices, and perceptions. The research instrument underwent expert validation to ensure reliability and accuracy. The questions were validated by the group of experts.

### Study Limitations and Ethical Considerations

The study will ensure ethical conduct through voluntary participation, informed consent, confidentiality, and the right to withdraw. Participants' privacy and anonymity will be protected, with data securely stored and destroyed after the study. Although no direct benefits or incentives are provided, the research aims to improve infection prevention practices and support better pediatric patient care.

## RESULTS AND VALIDATION

The study upholds ethical standards by ensuring voluntary participation, informed consent, confidentiality, and respondents' right to withdraw at any time without consequences.

## SUMMARY

The study found that pediatric nurses demonstrated high awareness, positive perceptions, and strong safety practices in preventing cross-contamination. IPC compliance was influenced by training, resources, and workplace support, while demographic factors showed minimal impact on infection prevention practices.

## CONCLUSIONS

The study concludes that pediatric nurses have high awareness, positive perceptions, and strong compliance with IPC practices, including hand hygiene, PPE use, and equipment disinfection. Their adherence to safety protocols remains consistent despite differences in demographic characteristics, indicating that infection prevention practices are well-established within the healthcare setting.

## RECOMMENDATIONS

Hospital administrators should ensure continuous access to PPE, hand hygiene supplies, and disinfectants. Pediatric nurses should maintain proper IPC practices even during demanding situations. Future researchers should use larger and more diverse samples, including more male nurses, and explore workplace factors through qualitative or mixed-methods studies. The DOH and policymakers may develop pediatric-specific infection control guidelines to strengthen safety practices for vulnerable patients.

## ACKNOWLEDGMENTS

The researcher extends sincere gratitude to Almighty God for His guidance and wisdom throughout this study. Appreciation is likewise extended to the research adviser, panel members, respondents, colleagues, and family whose invaluable support, encouragement, and contributions made the successful completion of this research possible.

## AI DECLARATION STATEMENT

AI-supported tools helped with grammar and structure in creating this article. No AI tools were used to collect, analyze, or interpret data; all authors are credited for their academic contributions.

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