

Examining the Relationships Between Confirmation Bias, Self-Determination and Clinical Decision-Making in Hospital Nurses

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Abstract

Background: In rapidly evolving healthcare environments, nurses' critical thinking and autonomous decision-making are essential. However, confirmation bias can hinder objective clinical judgments and affect patient safety.

Objective: This study examined the impact of confirmation bias on self-determination and critical thinking among hospital nurses. **Methods:** A descriptive correlational study was conducted with 124 nurses from large hospitals. Data were collected using validated scales measuring confirmation bias, motivation, and critical thinking. Statistical analyses included t-tests, ANOVA, Pearson's correlation, and multiple regression. **Results:** Confirmation bias showed significant negative correlations with self-determination ($r = -0.425$, $p < .001$) and critical thinking ($r = -0.468$, $p < .001$). Regression analysis confirmed that higher confirmation bias predicted lower self-determination and critical thinking abilities. In contrast, greater age, clinical experience, and education levels were positively associated with both outcomes. **Conclusion:** Confirmation bias undermines nurses' self-determination and critical thinking. Targeted educational interventions are crucial to promote evidence-based decision-making and improve nursing practice.

1. Background

Rapid developments in healthcare technologies have elevated the need for accurate clinical decision-making among nurses. Despite the demand for critical thinking and objectivity, cognitive biases, particularly confirmation bias, persist in clinical environments. Confirmation bias can hinder nurses from objectively assessing new information, leading to compromised patient care. Addressing this bias is essential for maintaining high-quality nursing practice and ensuring patient safety.

2. Objective

This study aimed to explore the extent to which confirmation bias influences self-determination and critical thinking in hospital nurses. Furthermore, it sought to determine how these cognitive tendencies ultimately affect nurses' clinical decision-making and to identify factors that mitigate the negative impact of confirmation bias.

3. Methods

A descriptive correlational design was employed. A total of 124 nurses from large general hospitals (≥ 500 beds) participated. Data were collected using three validated instruments: the Confirmation Bias Proneness Scale, the General Motivation Scale, and the Critical Thinking Disposition Scale. Statistical analyses included descriptive statistics, t-tests, ANOVA, Pearson's correlation coefficients, and multiple regression analysis to examine the relationships among variables.

4. Results

The study found that hospital nurses exhibited moderate levels of confirmation bias, with a mean score of 3.42 (SD = 0.68) out of 5. Correlation analysis revealed that confirmation bias was significantly negatively associated with both self-determination ($r = -0.425$, $p < .001$) and

critical thinking ($r = -0.468$, $p < .001$). Further, multiple regression analysis demonstrated that higher levels of confirmation bias significantly predicted lower levels of self-determination ($\beta = -0.385$, $p < .001$) and critical thinking ($\beta = -0.442$, $p < .001$), even when controlling for demographic variables. In contrast, factors such as older age, longer clinical experience, and higher educational attainment were positively associated with improvements in both self-determination and critical thinking abilities. These findings suggest that while confirmation bias negatively influences nurses' clinical decision-making abilities, personal and professional development factors may serve as protective elements enhancing critical thinking and autonomy.

5. Conclusion

Confirmation bias poses a serious barrier to the development of critical thinking and autonomous clinical decision-making among hospital nurses. Efforts to minimize confirmation bias through targeted educational programs and organizational support are urgently needed. Enhancing critical reflection skills and fostering an evidence-based nursing culture are key strategies for promoting patient safety and nursing excellence.

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