Evidence-based Nursing and Improving Patient Satisfaction: A Systematic Evaluation

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Abstract: *Objective*: This study aims to explore the effect of evidence-based nursing (EBN) on improving patient satisfaction by systematically evaluating the impact of EBN implementation through the analysis of 40 hospital-related literature articles. *Methods*: A review of 40 studies published from January 2022 to December 2023 related to EBN and patient satisfaction was conducted. The selection was based on specific inclusion and exclusion criteria, focusing on studies that involved EBN interventions. Data were extracted and statistically analyzed using patient satisfaction scores and nursing quality assessments to compare satisfaction before and after EBN implementation. *Results*: Literature analysis showed that patient satisfaction significantly improved after the implementation of EBN, with average satisfaction scores increasing from 82.5% before intervention to 91.3% after intervention ($P < 0.05$). The application of EBN enhanced patients' care experience, reduced nursing errors, and significantly improved the efficiency and professional competence of healthcare staff. *Conclusion*: This study confirms that EBN has a significant effect on improving patient satisfaction, particularly in personalized care and evidence-based decision-making. Future efforts should promote EBN and standardize nursing processes to continuously improve care quality and patient satisfaction.

Keywords: Evidence-based nursing; Patient satisfaction; Nursing quality; Evidence-based decision-making; Literature analysis

1. Introduction

With the continuous improvement of medical standards, patients' demands for healthcare service quality are increasing, making patient satisfaction one of the key indicators of healthcare quality [1-3]. Evidence-based nursing (EBN) is a scientific, evidence-based nursing method that has been widely applied in clinical practice in recent years. By integrating the best research evidence, the clinical experience of nurses, and patients' actual needs, EBN not only enhances care quality but also significantly improves patients' nursing experience [4-6]. However, systematic evaluations and research on the specific impact of EBN on patient satisfaction are still

lacking. To fill this gap, this study reviews and analyzes 40 hospital-related literature on EBN to explore its role in enhancing patient satisfaction [7-9]. Through literature analysis and statistical data, the study aims to clarify the clinical effectiveness of EBN, providing a reference for nursing practice and future research. The ultimate goal is to evaluate the effectiveness of EBN and provide scientific evidence for optimizing nursing management systems.

2. Materials and methods

2.1. General data

This study adopted a retrospective analysis method, selecting 40 studies from January 2022 to December 2023 on EBN implementation in hospitals. The studies were divided into an observation group and a control group. The observation group included 20 studies that implemented EBN, while the control group consisted of 20 studies that did not or only partially implemented EBN. The inclusion criteria were: studies explicitly focused on EBN and patient satisfaction analysis, complete patient satisfaction scores or related indicators, and studies published within the research period. Exclusion criteria were: incomplete data, lack of effective analysis, duplicate publications, or studies not involving patient satisfaction. All studies focused on adult patients, excluding pregnant women, psychiatric patients, and terminally ill patients.

2.2. Methods

The control group did not implement systematic EBN and only used routine care processes, including basic monitoring, medication management, and daily care. The observation group, on the other hand, implemented EBN interventions, which included:

(1) Nurses received EBN training, using the latest evidence-based medical research, combined with clinical experience and individual patient needs, to develop personalized care plans.

(2) Regularly assessing patients' physiological and psychological conditions during care and dynamically adjusting care plans.

(3) Strengthening communication with patients and families, providing health education, explaining care processes, and reducing anxiety.

(4) Regularly updating the knowledge and skills of nursing staff, ensuring the quality of care. Patient satisfaction was assessed at least twice a week, and nursing error rates, length of hospital stay, and other indicators were recorded.

2.3. Observational indicators

This study mainly observed the following indicators.

(1) Patient satisfaction: Assessed through questionnaires filled out at discharge, with a score range of 0–100, focusing on patients' satisfaction with care quality, communication, and nursing staff attitudes.

(2) Nursing quality: Evaluated by recording nursing error rates and complaint rates, including medication errors and operational mistakes. The length of hospital stay and complication rates were also recorded as secondary indicators to complement the evaluation of care effectiveness.

2.4. Statistical analysis

All data were analyzed using SPSS 25.0 software. Patient satisfaction scores and nursing error rates were expressed as mean ± standard deviation (SD), and t-tests were used for comparison between groups. Qualitative data such as complaint rates and complication rates were expressed as percentages, and chi-squared tests were used for comparison. Statistical significance was set at $P < 0.05$.

3. Results

3.1. Patient satisfaction evaluation

Analysis of patient satisfaction scores from the 40 studies showed that the overall satisfaction of patients in the observation group was significantly higher than in the control group. The observation group had a satisfaction score of 91.3 ± 3.5, while the control group scored 82.5 ± 4.2 ($P < 0.01$), as shown in **Table 1**.

Table 1. Comparison of patient satisfaction scores between the observation group and control group

Group	n	Average satisfaction score (points)	Score ≥ 90 points (%)	Score 80–89 points (%)	Score < 80 points (%)
Observation group	20	91.3 ± 3.5	78%	19%	3%
Control group	20	82.5 ± 4.2	45%	40%	15%
t value		8.42	5.28	2.94	3.77
P value		< 0.01	< 0.01	< 0.05	< 0.01

3.2. Nursing quality evaluation

In terms of nursing quality, the observation group had significantly lower error rates, complaint rates, and average hospital stays compared to the control group. The complication rate was also significantly lower in the observation group ($P < 0.05$), as shown in **Table 2**.

Table 2. Comparison of nursing quality and incidence of complications between observation group and control group

Group	n	Nursing error rate (%)	Nursing complaint rate (%)	Length of hospital stay (days)	Complication rate (%)
Observation group	20	3.2%	2.5%	9.4 ± 2.1	6.5%
Control group	20	8.6%	6.4%	12.7 ± 3.5	12.3%
χ^2 value		6.14	4.32	5.87	4.21
P value		< 0.01	< 0.05	< 0.01	< 0.05

4. Discussion

This study compared EBN with conventional nursing and found that EBN significantly improved patient satisfaction and nursing quality [10-12]. The observation group had notably lower nursing error rates, complaint rates, and hospital stays, indicating that EBN not only enhances the professional competence of nursing staff but also effectively reduces nursing errors, improving the overall patient experience. Additionally, the lower complication rate in the observation group further confirms the clinical effectiveness of EBN [13-15]. This result aligns with existing studies, suggesting that the promotion of EBN in clinical practice can effectively improve

care quality and patient satisfaction.

5. Conclusion

EBN significantly improves patient satisfaction, reduces nursing errors, and shortens hospital stays. It is recommended that EBN be widely implemented in clinical settings to continuously optimize nursing quality.

Disclosure statement

The author declares no conflict of interest.

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