

Original Article

Application effect of continuous quality improvement measures on patient satisfaction and quality of life in gynecological nursing

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Abstract: Objective: To investigate the application effect of continuous quality improvement (CQI) measures on patient satisfaction and quality of life in gynecological nursing. Methods: A total of 183 gynecology patients in our hospital were randomly selected and divided into the control group (n=90) and the observation group (n=93). Patients in the control group were given routine nursing, and those in the observation group were given CQI nursing. Treatment satisfaction and quality of life of the patients were compared between the two groups. Results: The scores of nursing effect, nursing skill, nursing level and nursing attitude and the total score of nursing quality showed a significant difference between the two groups ($P<0.05$). The observation group had significantly higher nursing satisfaction and also significantly lower incidence of adverse nursing events than the control group, showing a statistically significant difference ($P<0.05$). Conclusion: CQI measures can optimize care quality management, improve the quality of clinical gynecological nursing, reduce nursing defects and improve both the maternal and newborn status, thus increasing patient satisfaction and improving quality of life.

Keywords: Quality improvement, gynecology, quality management, effect, analysis

Introduction

The essence of gynecological nursing is to care for the unique anatomical structure of the female body and support the pathological and physiological changes of the feminine body during different periods, aiming to provide patients with matching psychological and physical nursing [1]. Improving the health and survival rate of newborn babies is an important basis of gynecological nursing in order to effectively ensure women's safety, health and fertility. Therefore, gynecological nursing needs to prevent the adverse effects of nursing intervention in an appropriate way [2]. Gynecological nursing has a lot of risk factors, which can easily induce medical disputes if not properly handled [3, 4]. Comprehensive identification, scientific evaluation and effective prevention of nursing risks can achieve multi-scope and multi-dimension nursing risk management, combined with actively handling the current

risks. In this way, the risks can be reduced as much as possible, avoiding unnecessary economic and personnel loss [5].

Clinical nursing is indispensable in all aspects of hospital work. Meanwhile, effective nursing can guarantee good rehabilitation effects for patients after treatment to a great extent and continuously improve the quality of nursing, which is the goal that nursing management must focus upon [6]. Continuous quality improvement (CQI) is not only a strong guarantee to improve the safety of medical treatment, but also an effective way and measure to promote the innovative development of medical staff. CQI exists in different professions within society and focuses on the continuous improvement of any deficient work with the help of existing resources to achieve the goal of high-efficiency and high-quality work [7]. Gynecology is one of the most important departments in hospitals. The implementation of nursing

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management measures focuses on giving full play to the potential ability of nursing staff. CQI can significantly improve the nursing quality [4]. In order to effectively improve the quality of gynecological nursing, our hospital decided to adopt CQI measures in gynecological nursing, explore the positive role of CQI in a scientific way and evaluate its effect on nursing quality.

Nowadays, the question of how to provide satisfactory, efficient and high-quality nursing service for patients is an urgent problem to be solved in the development and management of hospitals [8]. The most direct and effective way to improve nursing quality is to establish a perfect quality management system, promote all kinds of work in strict accordance with nursing quality standards and use scientific concepts and advanced means to improve the quality of nursing staff [9, 10]. Different from other departments, gynecological patients are all female and have complex and diverse diseases that require higher quality nursing [11]. This study investigated and developed ways to enhance the effect of gynecological nursing, so as to provide patients with more satisfaction, better quality of life and better nursing measures.

Materials and methods

General materials

A total of 183 gynecological patients admitted to our hospital from June 2019 to June 2020 were randomly collected and divided into the control group (n=90) and the observation group (n=93).

Inclusion criteria: (1) Patients were over 18 years old; (2) The study was approved by the Ethics Committee of the Central Hospital of Wuhan, Tongji Medical College, Huazhong University of Science and Technology; (3) Patients were normal mentally and could communicate smoothly; (4) The study was agreed upon to participate in by patients and their families, and informed consent was signed.

Exclusion criteria: (1) Patients had other diseases; (2) Patients had mental illness; (3) Cachexia; (4) Patients withdrew voluntarily.

Means of intervention

Patients in the control group received routine nursing management. According to the original nursing process, their physical condition and

disease rehabilitation were closely and comprehensively monitored. Meanwhile, they were provided with health education in a visual way and easy-to-understand language, including treatment measures, treatment plans and the causes of the disease, so as to reduce their psychological burden. Besides, scientific psychotherapy measures were used to ensure that patients always maintained a relaxed and stable state of mind. Patients' life, diet and other aspects of nursing were also paid attention. They were urged to get an adequate sleep. In addition, medication care needed guidance to ensure that patients strictly abided to doctors' requirements. Common complications were prevented, and daily nursing was well conducted to control any hidden dangers.

On the basis of the nursing measures applied in the control group, the observation group received CQI measures. The specific care was as follows: (1) A special CQI nursing team was established and led by a quality controller and head nurses. Besides, relevant nursing staff served as members of the team and were trained specially in the preparatory work. (2) During the process of actual implementation, it was necessary to comprehensively summarize the existing problems, mainly including the common errors of nursing staff in their work. (3) Potential risks were evaluated. High-risk patients who had an advanced age, drug allergy history and susceptibility to infection were marked specially in a conspicuous position in the hospital bed, combined with the evaluation results. In terms of nursing and inspection, priority was given to unconscious, surgical, frail and elderly patients, and first-level nursing measures were given. Their families accompanied them 24 hours a day. (4) The principle of three inspections and seven verifications was strictly implemented. Drugs were checked carefully before distribution to ensure accurate infusion. Nursing staff formed mutual supervision in various tasks and work to reduce any possible errors and problems and to correct them in time. (5) Ward management was strengthened, especially the ward environment. Stable, health and a clean ward environment was maintained as much as possible to reduce the environmental risks. The temperature and humidity of ward were controlled within a reasonable range. (6) The work content of nursing staff was complicated. In this case, their psychology was prone to change, which also required full attention. So, they were provided with adequate guidance and comprehen-

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Table 1. Comparison of general clinical material between the two groups

General clinical material		Observation group (n=93)	Control group (n=90)	t	P
Average age (years)		34.01±2.03	35.03±2.10	2.135	1.576
Average course of disease (months)		4.52±5.78	4.45±5.95	1.089	0.935
Disease type	Pelvic inflammation	13	16	0.503	0.778
	Irregular menstruation	33	30		
	Cervicitis	47	44		

sive help to build a harmonious and positive working conditions. Regular nursing work summaries and immediate correction of mistakes and problems were also performed to achieve CQI.

Observation indices and evaluation standards

Nursing quality score scale: Evaluation standards with a centesimal system were established by Cai Qiuxiang et al., which were used to evaluate nursing quality in both groups. Higher scores indicate a higher nursing quality.

Life Satisfaction Index: Adrian White, a social psychologist at the University of Leicester in the UK, constructed the Life Satisfaction Index, which obtains life satisfaction through comprehensive cognitive judgment of personal life and mainly refers to the overall judgment and evaluation of individual life. Satisfaction surveys with a centesimal system were conducted before discharge in both groups. Scores of more than 80 indicate very satisfied, 60-80 indicate satisfied, and less than 60 indicate unsatisfied.

Statistical analysis

SPSS 20.0 software was performed for statistical analysis. Measurement data were expressed as mean ± standard deviation ($\bar{x} \pm s$). Counting data were expressed as [n (%)]. Student's *t* test was used to test the overall results of the experiment. *F* test was used to compare the difference between groups. $P < 0.05$ was considered statistically significant.

Results

Comparison of general clinical indices between the two groups

The general clinical indices showed no significant difference between the two groups ($P >$

0.05) and thus the groups were comparable (**Table 1**).

Comparison of the scores of nursing quality between the two groups

The total nursing score and the scores of nursing effect, nursing level, nursing skills and nursing attitude in the observation group were higher than those in the control group, showing a statistically significant difference ($P < 0.05$, **Figure 1**).

Comparison of the incidence of adverse events between the two groups

The total incidence of adverse events in the observation group was lower than that in the control group, showing a statistically significant difference ($P < 0.05$, **Figure 2**).

Comparison of nursing satisfaction between the two groups

The observation group showed higher nursing satisfaction indices than the control group, indicating a statistically significant difference ($P < 0.05$, **Figure 3**).

Comparison of indexes of quality of life between the two groups

The observation group had higher indices of quality of life than the control group, and both subjective and objective factors had a direct impact on the indices of quality of life. Subjective factors in the observation group were higher than those in the control group, exhibiting statistically a significant difference ($P < 0.05$, **Figure 4**).

Comparison of the effect of CQI management between the two groups

The relevant data of the effect of CQI management in the observation group were higher than in the control group, showing statistically significant difference ($P < 0.05$, **Figure 5**).

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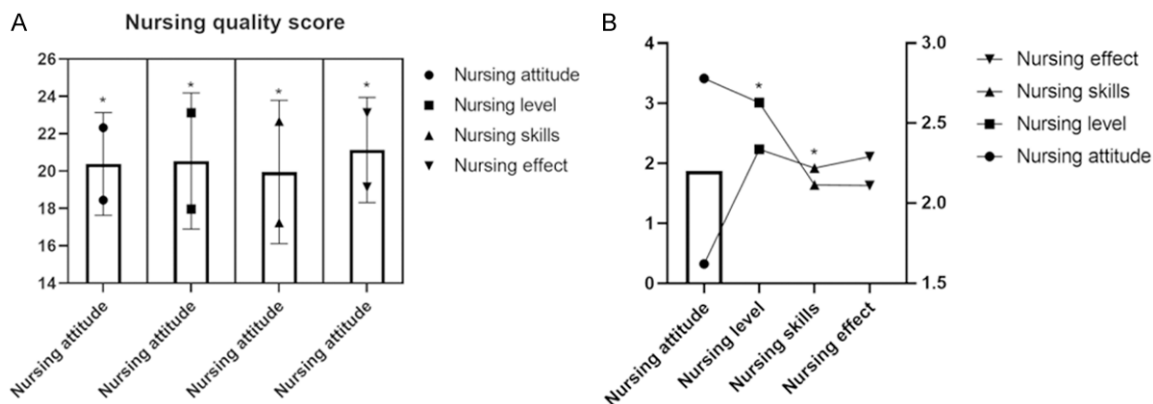


Figure 1. Comparison of the scores of nursing quality between the two groups. The observation group had a higher total nursing score, and also had higher scores of nursing effect, nursing level, nursing skills and nursing attitude than the control group, with the difference of statistical significance ($*P<0.05$).

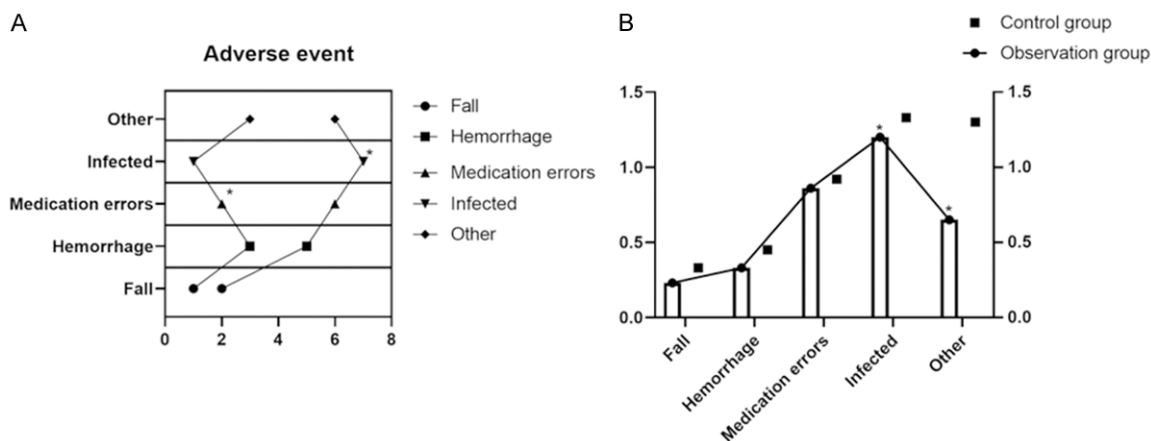


Figure 2. Comparison of the incidence of adverse events between the two groups. The observation group showed a lower total incidence of adverse events than the control group, and the difference was statistically significant ($*P<0.05$).

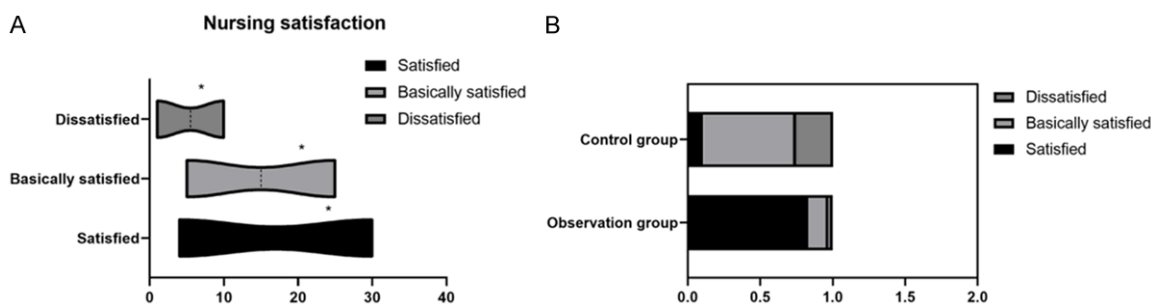


Figure 3. Comparison of nursing satisfaction between the two groups. The observation group showed higher nursing satisfaction indices than the control group, and the difference was statistically significant ($*P<0.05$).

Discussion

Nursing quality is not only an important reference standard for patients to evaluate hospital

nursing care, but also an essential evaluation standard for hospital nursing work. Besides, it also has a great impact on the overall performance of hospital. Good nursing work can

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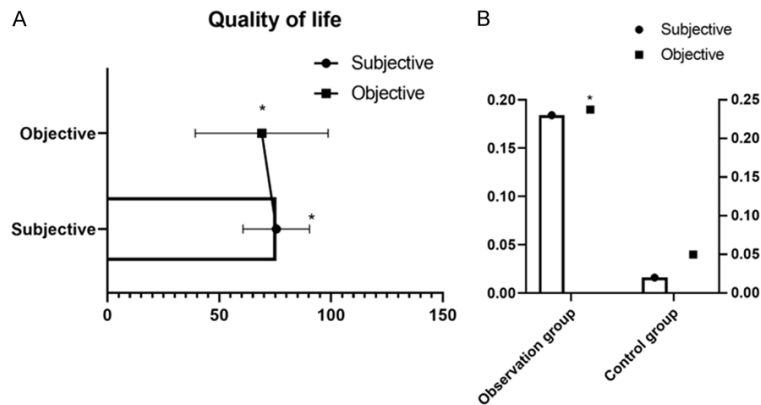


Figure 4. Comparison of indexes of quality of life between the two groups. The indexes of quality of life in the observation group were higher than those in the control group, and both subjective and objective factors showed a direct impact on the indexes of quality of life. Subjective factors were higher in the observation group than in the control group, and the difference was statistically significant (* $P < 0.05$).

enhance patients' trust in the hospital, so that patients cooperate with treatment more actively. Therefore, elevating nursing quality has a positive effect on improving the prognosis of patients [12, 13]. Nursing quality management refers to the effective coordination and control of the various elements of nursing quality on the premise of strictly following the ideals of nursing quality formation. Nursing quality management plays an important role in improving patient treatment satisfaction and hospital nursing quality [14].

As a critical department of hospital, the nursing work of gynecology department has special requirements. The implementation of rules and regulations cannot be overlooked. Common problems are comprehensively summarized and analyzed in depth to ensure the accuracy and efficiency of nursing work [15, 16]. In practical work, nurses usually fail to pay enough attention to various nursing risks and fail to prevent and deal with these risks, thus leading to a variety of adverse events [17]. Therefore, fully mobilizing nurses' enthusiasm and strengthening training and education are essential measures and means and also an effective way to improve the quality of gynecological nursing [18].

CQI is a mode which performs nursing management by centering on patients and uses scientific ways to gradually promote various improvement measures on the basis of routine nursing. It combines with previous professional nursing

knowledge and experience to continuously discover and correct existing problems [19, 20] and integrates the characteristics of nursing work with patients' individual situations to prevent risks. The essence of CQI lies in perfection and improvement, that is, to optimize nursing management, which can standardize the nursing workflow and nursing operation procedures, correct any errors and deviations, improve the effectiveness and scientific nursing services and promote quality management nursing system, step by step, thereby achieving the goal of continuous reconstruction of

nursing quality [21]. Through preventive improvement, process improvement and continuous improvement, CQI highlights the problems in real time, avoids nursing risks and maintains and optimizes the doctor-patient relationship [22, 23].

Wang et al. conducted a study on this subject, and they collected 60 patients and divided them into a control group and an observation group. The former received routine nursing management, while the latter received scientific and reasonable CQI management according to their actual situation [24]. Their results showed that compared with the control group, the observation group had much higher nursing quality scores (including nursing documents, first aid items, standardized service, ward management and grading nursing care), a lower nursing error rate (10% vs. 20%) and higher nursing satisfaction (96.67% vs. 83.33%), indicating that CQI management had a positive effect not only on improving patient satisfaction but also on increasing the quality of gynecological nursing.

This study utilized CQI measures based on routine nursing. In terms of the total score of nursing quality, the patients in the observation group scored higher. The scores of nursing effect, nursing skill, nursing level and nursing attitude between the two groups showed a significant difference ($P < 0.05$), indicating that CQI plays a positive role in improving the quality of gynecological nursing. In terms of the inci-

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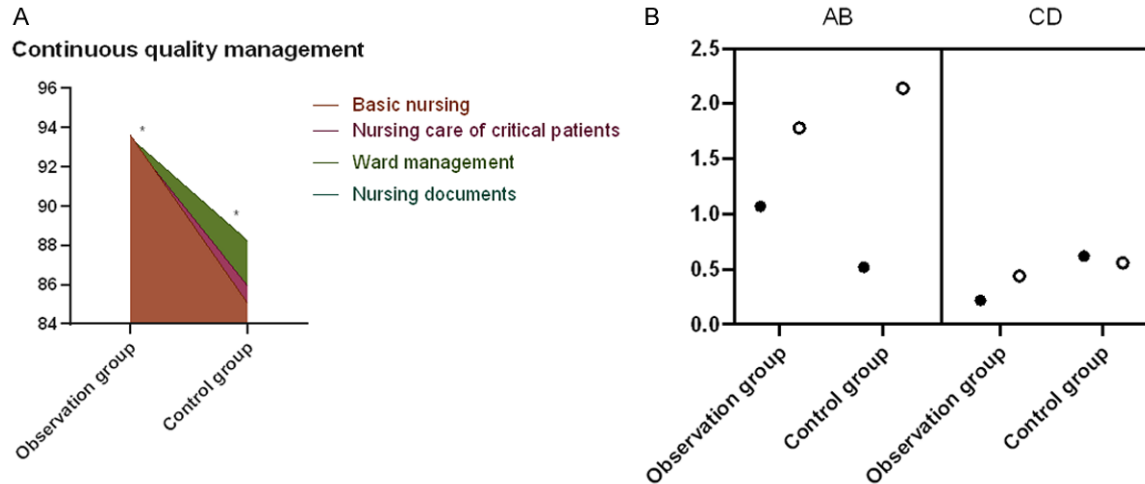


Figure 5. Comparison of the effect of CQI management between the two groups. The relevant data of the effect of CQI management in the observation group were higher than those in the control group, with the difference of statistical significance ($*P<0.05$).

dence of adverse events, patients in the observation group scored lower, suggesting that CQI measures can greatly reduce the incidence of gynecological nursing adverse events [25]. The above results are consistent with the conclusions of a previous study [26], which included 600 cases and then divided and nursed them in the same way as we did. After receiving CQI measures, the observation group showed better performance in both nursing quality and adverse events incidence than the control group, indicating that CQI measures can improve the quality of gynecological nursing and ensure the quality and safety of nursing to a great extent and deserves to be widely used in the clinic.

The implementation of CQI measures has greatly improved the quality of nursing, and nursing staff can pay more attention to the quality of nursing. Through comprehensive monitoring and examination of patients, consultation and evaluation, etc., nursing staff can actively adjust nursing measures and related methods in a variety of ways, so as to provide more safeguards for nursing safety. At the same time, it can effectively achieve continuous improvement of nursing quality, which has a positive effect on the quality of nursing staff, especially the effective improvement of professional skills of obstetrics and gynecology nursing staff. However, from the perspective of practical work, there are still many problems in the continuous improvement of nursing man-

agement. Therefore, it is still necessary to explore deeper problems, so as to promote the fundamental improvement and promotion of clinical nursing quality in obstetrics and gynecology.

To sum up, the application of CQI measures in gynecological nursing can positively eliminate the limitations of nursing work, increase the quality of nursing, improve the quality of life of patients to a great extent, reduce the incidence of adverse events, and it is worthy of further application in clinical practice.

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Disclosure of conflict of interest

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