

Observation of the Clinical Effects of Detail-oriented Nursing in Health Checkups at a Health Management Center

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Abstract: *Objective:* To observe the clinical effects of detail-oriented nursing in health checkups at a health management center. *Methods:* A total of 240 individuals undergoing health checkups at the hospital's health management center from June 2023 to June 2024 were enrolled and randomly divided into two groups according to a random number table method. The control group received routine nursing care, while the observation group received detail-oriented nursing care, with 120 cases in each group. Differences in checkup quality and nursing risk incidence were compared. *Results:* The form submission rate, project completion rate, and one-time checkup completion rate in the observation group were higher than those in the control group, while the checkup time was shorter ($P < 0.05$). The incidence of nursing risks such as item loss, falls, and patient-nurse disputes was lower in the observation group compared to the control group ($P < 0.05$). *Conclusion:* Applying detail-oriented nursing in health checkups at a health management center can effectively improve checkup quality and reduce the occurrence of nursing risks.

Keywords: Detail-oriented nursing; Health management center; Clinical effect

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1. Introduction

Health management centers integrate services such as health checkups, health consultations, health assessments, health education, and health record management, aiming to provide comprehensive and integrated health examination and management services^[1]. According to statistics, the number of health checkups in China reached 549 million in 2021, accounting for 6.48% of the total number of medical consultations nationwide^[2]. With the growing demand for checkups, the number of individuals undergoing health examinations at health management centers is increasing year by year. Due to factors such as complex patient conditions and high personnel turnover during checkups, nursing risks occur occasionally, affecting the quality of checkups and patient experiences. Li and Wan^[3] pointed out that the main causes of medical disputes during checkups include

excessively long waiting times, poor service attitudes, rampant queue-jumping, and shortages of medical staff. The quality of nursing services often manifests in the details, and paying attention to detail management can effectively reduce deficiencies that may occur during nursing, thereby reducing the incidence of nursing disputes. Detail-oriented nursing is a nursing model that emphasizes attention to detail. Its core lies in deeply understanding and analyzing patients' nursing needs and further optimizing nursing plans, thus comprehensively improving the quality of nursing services [4]. Studies have shown that detail-oriented nursing can significantly reduce the time required for checkups and improve patient compliance [5]. Therefore, this study aims to explore the clinical effects of detail-oriented nursing in health checkups at a health management center, providing a basis for optimizing nursing management in such centers.

2. Materials and methods

2.1. General information

A total of 240 individuals who underwent health checkups at the Health Management Center of Xuzhou Traditional Chinese Medicine Hospital were selected as the study subjects. They were randomly divided into two groups, with 120 individuals in each group, according to a random number table method. See **Table 1**.

Table 1. Baseline comparison of general information

Group	n	Gender		Age (years)	Educational level		
		Male	Female		Junior high school and below	Secondary and high school	University and above
Control group	120	54	66	46.19 ± 8.27	11	62	47
Observation group	120	49	71	46.45 ± 8.13	9	70	41
t/χ^2		0.425		0.246		1.094	
<i>P</i>		0.514		0.806		0.579	

2.2. Inclusion and exclusion criteria

Inclusion criteria: (1) Clear thinking and ability to communicate effectively; (2) Able to follow instructions from medical staff and adhere to hospital regulations; (3) Voluntary participation and signed informed consent.

Exclusion criteria: (1) Presence of severe dysfunction in vital organs such as the heart, liver, or kidneys; (2) Mental illness or cognitive impairment, making effective cooperation with nursing interventions impossible; (3) Withdrawal from the checkup process for personal reasons.

2.3. Methods

2.3.1. Control group: received routine nursing care

- (1) Reception and guidance for the health checkup: Received checkup individuals, answered their questions, and guided them through the checkup process, helping them become familiar with the layout of the departments and checkup areas.
- (2) Detailed explanation of the checkup process: Explained the health management center's checkup process to the individuals, distributed relevant checkup forms, and clarified the details of each checkup item.

- (3) Notification and identity verification before the checkup: A day before the checkup, individuals were reminded of the checkup time, location, and items via SMS. Upon arrival at the center, identity information was verified, and the individuals were guided to the appropriate checkup areas based on the intelligent guidance system.
- (4) Result distribution and health advice: Distributed checkup results to the individuals, explained the results, and provided health advice based on the individuals' queries.

2.3.1. Observation group: received detail-oriented nursing care

- (1) Nursing team management and training: (a) Established a detail-oriented nursing group, led by the head nurse, to enhance internal supervision and management, with accountability assigned to specific individuals, utilizing a reward and punishment mechanism to boost work enthusiasm. (b) Regular individualized training and unified assessments were conducted to ensure that the nursing staff had sufficient health knowledge and risk prevention awareness. (c) Through a quality management and quality traceability system, nursing tasks and responsibility areas were clarified, and monthly summaries of nursing issues were conducted to propose improvement plans.
- (2) Appointment checkups and process optimization: Introduced multi-channel appointment checkup methods, such as by phone, WeChat public account, mini-programs, websites, and apps. Checkup preparation reminders (e.g., regarding diet, exercise, and medication) were provided during the appointment.
- (3) Personalized nursing arrangements: (a) Collected the individuals' basic information, such as age, gender, medical history, medication use, and occupation, and established electronic health records. (b) Based on the individuals' general information, checkup sequences were reasonably planned. Checkup items were alternately scheduled to reduce waiting times and improve overall efficiency.
- (4) Health education and psychological intervention: (a) Before the checkup, common medical knowledge was explained in simple terms, correcting unhealthy behaviors. (b) For individuals with negative emotions, appropriate psychological interventions were conducted to alleviate their negative feelings.
- (5) Health education and communication guidance: While individuals were waiting, common knowledge about the causes, symptoms, progression, treatment options, prognosis, and nursing and preventive measures for diseases was introduced to them.
- (6) Pre-checkup guidance and safety assurance: (a) Before each checkup item, the purpose, process, and precautions of the checkup were thoroughly explained, and assistance was provided to ensure they were properly prepared. (b) In gynecological exams, female individuals' privacy was strictly protected by ensuring that no men entered the checkup area, with curtains drawn to safeguard privacy. (c) For elderly individuals or those with mobility issues, necessary assistive devices such as wheelchairs were provided, and nursing staff accompanied them throughout the process.
- (7) Environmental nursing: Clear warning signs were placed in areas prone to accidents, such as corners and restrooms, to reduce the risk of falls.

2.4. Observation indicators

- (1) Checkup quality: Recorded the form submission rate, project completion rate, one-time checkup completion rate, and checkup time.

(2) Nursing risk incidence: Recorded the occurrence of nursing risks such as item loss, falls, and patient-nurse disputes.

2.5. Statistical analysis

Measurement data (t) and count data (χ^2) in this study were analyzed using SPSS 24.0 statistical software. Data were presented as mean \pm standard deviation (SD) and [n (%)], and results were considered statistically significant when P was less than 0.05.

3. Results

3.1. Checkup quality

The checkup quality in the observation group was higher than that in the control group ($P < 0.05$). See **Table 1**.

Table 1. Comparison of checkup quality

Groups	n	Form submission rate	Project completion rate	One-time checkup completion rate	Checkup time (h)
Control group	120	103 (85.83%)	96 (80.00%)	100 (83.33%)	2.52 \pm 0.91
Observation group	120	119 (99.17%)	113 (94.17%)	116 (96.67%)	1.58 \pm 0.47
t/χ^2		15.375	10.705	11.852	10.054
P		< 0.001	< 0.001	0.001	< 0.001

3.2. Incidence of nursing risks

The incidence of nursing risks in the observation group was lower than in the control group ($P < 0.05$). See **Table 2**.

Table 2. Comparison of incidence of nursing risks [n (%)]

Group	n	Item loss	Falls	Patient-nurse disputes	Total incidence
Control group	120	9	12	2	23 (19.17%)
Observation group	120	3	2	0	5 (4.17%)
χ^2					13.100
P					0.001

4. Discussion

The Health Management Center uses health checkups and other methods to detect and intervene in health risk factors in individuals or groups, aiming to prevent and control the occurrence and progression of diseases [6]. The Health Management Center adheres to the principle of “people-oriented, health-first, and quality service,” and is dedicated to establishing a team with scientific management, modern equipment, expert physicians, and personalized services, providing comprehensive health management services to various groups [7].

Detail-oriented nursing further refines nursing measures based on routine care, combining the specific conditions of patients and the hospital environment, analyzing potential adverse factors, and formulating

corresponding coping strategies [8]. Chen [9] pointed out that applying detail-oriented nursing in the work of health management centers can provide higher quality nursing services to users, help improve their compliance with health management, increase their satisfaction with nursing services, and effectively reduce time costs. Lei and Gan [10] confirmed that the application of detail-oriented nursing in hospital disinfection supply rooms significantly improved disinfection quality, reduced work error rates, and increased nursing satisfaction.

The study results show that the checkup quality in the observation group was higher than in the control group ($P < 0.05$), indicating that detail-oriented nursing has significant advantages in improving the overall nursing effect in health management centers. This is because detail-oriented nursing emphasizes the management and training of nursing teams, ensuring that the nursing staff has higher professional competence and risk prevention awareness. Through clear task assignments and standardized management systems, the detail-oriented nursing model operates more efficiently and accurately, reducing errors and delays in nursing operations, and thereby improving the overall efficiency and accuracy of checkups.

By introducing multi-channel appointment systems and scientifically staggered scheduling, time wasted due to inadequate preparation on the day of the checkup was minimized, optimizing the coordination and process of the examinations, and shortening the checkup time. The observation group had a lower incidence of nursing risks, such as item loss, falls, and patient-nurse disputes, compared to the control group ($P < 0.05$), reflecting the effectiveness of detail-oriented nursing measures in preventing and reducing nursing risks. Through multi-channel appointment checkups and crowd control, overcrowding and chaos were avoided, reducing the probability of item loss and accidental falls. Staggered scheduling and process optimization reduced idle time in examination rooms and waiting times for individuals, enhancing the orderliness and safety of the checkup process.

By placing clear warning signs in areas prone to falls and arranging seating and tables appropriately, the environment was designed to meet safety and comfort requirements, reducing the likelihood of falls.

5. Conclusion

In summary, implementing detail-oriented nursing in the health management center's checkup process can significantly improve the overall quality of the checkups and effectively reduce the occurrence of nursing-related risks, demonstrating significant clinical effects and showing broad application prospects.

Disclosure statement

The authors declare no conflict of interest.

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