

Impact of Comprehensive Nursing Care on the Clinical Outcomes of Patients with Acute Gastrorrhagia

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1. Abstract

1.1. Background: Acute gastrorrhagia is a severe medical condition requiring immediate and effective nursing care. This study investigated the impact of comprehensive nursing care on the clinical outcomes of patients with acute gastrorrhagia.

1.2. Methods: A retrospective analysis was performed on 90 patients with acute gastrorrhagia, who were divided into a control group (n=45) and an intervention group (n=45). The control group received standard nursing care, including medication guidance and vital signs monitoring. The intervention group underwent comprehensive nursing care, encompassing prompt medication management, dietary modifications, psychological support, and behavioral guidance.

1.3. Results: There was no significant difference in general patient data between the two groups ($p>0.05$), indicating comparability. The average hemostasis time in the intervention group (3.35 ± 1.27 days) was significantly shorter than in the control group (6.52 ± 1.66 days) ($t=4.631, p<0.05$). Likewise, the average treatment time for the intervention group (6.52 ± 1.66 days) was significantly shorter than for the control group (8.93 ± 2.31 days) ($t=5.163, p<0.05$). The gastrorrhagia recurrence rate within three months of discharge was lower in the intervention group (15.55%, 7/45) compared to the control group (33.33%, 15/45) ($X^2=5.163, p<0.05$). Patient satisfaction with nursing services was significantly higher in the intervention group (95.56%, 43/45) than in the control group (62.22%, 28/45) ($X^2=5.651, p<0.05$). Self-rating anxiety scale (SAS) and self-rating depression scale (SDS) scores, as well as nursing quality scores, were

significantly better in the intervention group ($p<0.05$).

1.4. Conclusion: Comprehensive nursing care may substantially improve clinical outcomes, decrease the recurrence rate of gastrorrhagia, reduce treatment duration, and enhance patient satisfaction and emotional well-being. Therefore, comprehensive nursing care should be considered as part of the standard care for patients with acute gastrorrhagia.

2. Introduction

Acute gastrorrhagia, commonly known as upper gastrointestinal bleeding, is a serious condition that requires immediate medical attention [1]. It results from various pathologies, including peptic ulcer bleeding, gastric variceal rupture, and other hemorrhagic factors [2]. The condition can cause significant patient distress and carries a high risk of morbidity and mortality, especially in the absence of prompt and effective treatment [3]. Nursing care plays a vital role in managing patients with acute gastrorrhagia, ensuring their physiological and psychological needs are met throughout the treatment process [4]. Traditional nursing interventions primarily focus on medication guidance and monitoring of vital signs [5]. While these standard practices are integral to patient care, emerging research suggests that a more comprehensive approach, integrating behavioral and psychological elements, may enhance patient outcomes [6, 7]. High-quality nursing interventions, characterized by the application of evidence-based practices and a patient-centered approach, have shown potential in improving clinical outcomes across various medical conditions. These interventions often incorporate elements such

as timed medication management, dietary control, psychological counseling, and lifestyle modification guidance [8]. Such a holistic approach aims to address the multifaceted needs of the patient, promoting physical healing, psychological well-being, and overall patient satisfaction [9]. Nevertheless, the precise influence of these comprehensive nursing care approaches on the outcomes of patients suffering from acute gastrorrhagia has not been thoroughly investigated. Therefore, this study is intended to assess the clinical impacts of applying these comprehensive interventions in the management of patients with acute gastrorrhagia.

3. Methods

Our study employed a retrospective, comparative design to contrast two distinct treatment groups: a control group that received standard nursing care, and an intervention group that was administered high-quality nursing interventions.

4. Participants

Our study retrospectively analyzed the medical records of 90 patients diagnosed with acute gastrorrhagia. These patients were evenly distributed into two distinct cohorts, each encompassing 45 individuals. The age of the patients varied from 21 to 75 years, and all patients were admitted to the hospital within the first 24 hours of displaying symptoms. In terms of variables such as gender demographics, age, time from disease onset to hospitalization, and disease classification, both cohorts were suitably homogenous. The control group received standard care, primarily focusing on medication guidance and monitoring of vital signs. The intervention group received high-quality nursing interventions, including the following components: Medication Management: Timely and accurate administration of medications for patients, close monitoring for adverse drug reactions, and timely communication with physicians for necessary adjustments in the medication regimen. Dietary Control: Following physician's instructions for controlling patient food intake, strictly managing the timing and order of meals, and ensuring absolute fasting in severe cases such as gastric variceal rupture. Psychological Care: Maintaining a patient, kind attitude throughout communication, alleviating patient fear and anxiety, encouraging patient rest, and instructing relatives on supporting and comforting patients. Lifestyle Modification Guidance: Guiding patients to develop healthy eating and rest habits, and paying close attention to symptoms such as dizziness, palpitation, which could indicate disease progression.

5. Outcomes and Measures

The primary outcomes included hemostasis time and treatment duration. Secondary outcomes were gastrorrhagia recurrence rate within three months post-discharge, patient satisfaction with nursing care, and psychological status as measured by Self-Rating Anxiety Scale (SAS) and Self-Rating Depression Scale (SDS). The upper limit reference value of the SAS standard score is 50; <50 is normal, 50–60 is mild anxiety, 61–70 is moderate anxiety, and >70 is severe anxiety [10]. The SDS scale was divided into 20 items and the cut-off value

was 53 points (53–62: mild depression, 62–72: moderate depression, ≥ 72 : severe depression [11]). Patient satisfaction and nursing quality were evaluated using a self-designed satisfaction questionnaire and nursing quality scoring table. The patients also filled out a nursing quality scoring form one day before discharge. This form included items such as condition observation, daily care, humanized services, and health guidance. The scoring standard was: a full score of 100 points, with 90–100 points being rated as excellent, 80–89 points as good, and ≤ 79 points as average. Satisfaction rate was calculated as (number of very satisfied + average cases) / total number of cases $\times 100\%$.

6. Statistical Analysis

The data were analyzed using t-test for continuous variables and chi-square test for categorical variables. All tests were two-tailed, and a p-value of less than 0.05 was considered statistically significant.

7. Results

Our retrospective study presents data comparing the general characteristics of the two study cohorts: the intervention group and the control group, as shown in (Table 1). The intervention group consisted of 26 males and 19 females, aged between 21 and 75 years, with an average age of 46.3 ± 6.9 years. The time from symptom onset to hospital admission ranged from 1 to 24 hours, averaging 11.3 ± 3.4 hours. Regarding disease classification, there were 26 cases of peptic ulcer bleeding, 18 cases of gastric fundus variceal rupture bleeding, and one case of bleeding caused by other factors. The control group included 25 males and 20 females, aged between 22 and 75 years, with an average age of 45.1 ± 6.5 years. The onset-to-admission time also spanned 1 to 24 hours, averaging 11.5 ± 3.6 hours. In terms of disease type, there were 28 cases of peptic ulcer bleeding, 15 cases of gastric fundus variceal rupture bleeding, and two cases of bleeding due to other factors. A comparison analysis revealed no statistically significant differences between the general characteristics of the two groups ($p > 0.05$), ensuring the comparability between the cohorts (Table 1). This logical and consistent presentation of data reflects the retrospective nature of our study. In terms of primary outcomes, the intervention group experienced a significantly shorter hemostasis time (3.35 ± 1.27 days) compared to the control group (6.52 ± 1.66 days, $t = 4.631$, $p < 0.05$). Additionally, the average treatment duration in the intervention group was significantly reduced (6.52 ± 1.66 days) compared to the control group (8.93 ± 2.31 days, $t = 5.163$, $p < 0.05$). As for the secondary outcomes, the recurrence rate of gastrorrhagia within three months post-discharge in the intervention group (15.55%, 7/45) was significantly lower than that in the control group (33.33%, 15/45, $\chi^2 = 5.163$, $p < 0.05$). The satisfaction rate with nursing care in the intervention group was significantly higher (95.56%, 43/45) than the control group (62.22%, 28/45, $\chi^2 = 5.651$, $p < 0.05$) (Table 2).

Regarding psychological status, both the SAS and SDS scores were significantly lower in the intervention group compared to the control

group after the nursing intervention ($p < 0.05$), indicating improved mental health status in the intervention group. In addition, post-nursing intervention, the experimental group demonstrated superior nursing quality scores compared to the control group ($p < 0.05$), as shown in (Table 3). Finally, the overall effectiveness rate of nursing care, calculated as (number of markedly effective cases + number of effective cases) / total number of cases $\times 100\%$, was significantly

higher in the intervention group compared to the control group ($p < 0.05$). Detailed statistics and differences are presented in (Table 4). High-quality nursing interventions significantly improved patient outcomes in terms of hemostasis time, treatment duration, recurrence rate of gastrorrhagia, patient satisfaction, and mental health status. The clinical effectiveness of these nursing interventions was also superior to standard care in acute gastrorrhagia patients.

Table 1: The demographic and characteristics of two study groups

Group	n	Average age	Disease types		
			Peptic ulcer	Gastric variceal bleeding	Other factors
Control group	45	45.1 \pm 6.5	28	15	2
Intervention group	45	46.3 \pm 6.9	26	18	1
p		0.32 $>$ 0.05			

Table 2: Comparison of clinical symptom improvement between two groups ($\bar{x} \pm s, n\%$)

Group	Control group	Intervention group	X ² /t	p
	(n=45)	(n=45)		
Hemostasis time (d)	5.72 \pm 1.83	3.35 \pm 1.27	4.631	0
Treatment duration (d)	8.93 \pm 2.31	6.52 \pm 1.66	5.163	0
Disease recurrence rate	15 (33.33)	7 (15.55)	5.314	0.026
Satisfaction with nursing services	28 (62.22)	43 (95.56)	5.651	0.018

Table 3: Comparison of SAS, SDS, and Nursing Quality Scores between two groups

Group	n	SAS	SDS	Nursing Quality Scores
Control group	45	44.51 \pm 6.33	45.61 \pm 7.56	87.85 \pm 5.26
Intervention group	45	35.42 \pm 5.14	36.44 \pm 5.26	95.61 \pm 2.47
p	-	0.000	0.000	0.000

Table 4: Comparison of Nursing Effectiveness between two groups

Group	n	Significant Effective	Effective	Moderate Effective	Effectiveness Rate (%)
Control group	45	25	13	7	38(84.4%)
Intervention group	45	36	8	1	44(97.7%)
X ²	-	-	-	-	8.145
p	-	-	-	-	0.001

8. Discussion

In our study, we found that high-quality nursing interventions considerably reduced the hemostasis time, with the intervention group recording an average of 3.35 \pm 1.27 days compared to the control group's 6.52 \pm 1.66 days. This reduction is crucial as rapid hemostasis minimizes the risk of further complications, such as hypovolemia and shock, thus significantly improving patient prognosis and reducing mortality rates [12]. Additionally, we observed a significant reduction in treatment duration in the intervention group (6.52 \pm 1.66

days) compared to the control group (8.93 \pm 2.31 days). This finding aligns with earlier studies demonstrating that effective nursing interventions could streamline the treatment process and promote faster recovery [13]. A reduced treatment duration not only implies a shorter hospital stay, which mitigates the risk of nosocomial infections and reduces healthcare costs, but also facilitates a quicker return to daily activities for the patients, enhancing their quality of life [14]. Our findings are supported by a wealth of literature advocating the critical role of high-quality nursing interventions in improving patient outcomes in various health conditions [15, 16]. Nevertheless,

each medical condition demands tailored nursing interventions; as such, it is heartening to observe the efficacy of our specialized interventions in the context of acute gastrorrhagia. Furthermore, the three-month recurrence rate of gastrorrhagia in the intervention group was found to be 15.55%, substantially lower than the 33.33% noted in the control group. Gastrorrhagia recurrence can significantly affect the patient's quality of life and increases the risk of complications, including anemia and hypovolemic shock [17]. Therefore, a reduction in recurrence rate through our high-quality nursing interventions highlights their crucial role in not only the immediate management of acute gastrorrhagia but also long-term patient outcomes. Moreover, the satisfaction rates regarding the nursing services were significantly higher in the intervention group (95.56%) compared to the control group (62.22%). This finding reflects the central role of high-quality nursing interventions in enhancing patient experience and satisfaction, consistent with previous literature that emphasizes the positive influence of individualized and comprehensive nursing care on patient satisfaction [18]. Notably, the anxiety and depression levels, as measured by the SAS and the SDS, were significantly lower in the intervention group. This positive psychosocial impact underlines the holistic benefits of high-quality nursing care, supporting mental health alongside physical healing. While our findings show the marked advantages of high-quality nursing interventions in managing acute gastrorrhagia, it's important to note that these interventions should be personalized, taking into account the individual patient's physiological and psychosocial needs. Further studies with larger sample sizes and in different clinical settings are needed to further substantiate our findings and to develop more specific nursing protocols. However, the study is not without limitations. One potential limitation was the small sample size, which may limit the generalizability of the results. Future studies should include a larger, more diverse sample of patients to increase the generalizability of the findings. In addition, the study design did not allow for examination of the effects of individual components of the nursing intervention, such as medication administration, dietary guidance, or psychological support independently. Future studies should explore the specific impact of each of these aspects of nursing care on patient outcomes in acute gastrorrhagia.

9. Conclusion

In conclusion, this retrospective study provides persuasive evidence supporting the importance of comprehensive nursing care in managing patients with acute gastrorrhagia. Our findings revealed that these multifaceted nursing interventions substantially reduce bleeding and hospitalization duration, decrease the recurrence rate of gastrorrhagia, elevate patient satisfaction, and foster improved mental well-being, emphasizing the wide-ranging benefits of this approach. Fundamentally, our results highlight the invaluable role of comprehensive nursing care in clinical settings, advocating for a shift in healthcare

strategies towards more integrated, patient-centric care. The emphasis should be on equipping nurses with the essential skills and knowledge to implement such effective interventions, ultimately leading to enhanced patient outcomes in cases of acute gastrorrhagia.

10. Availability of Data and Materials

All data generated or analyzed during the present study are included in this published article.

11. Declarations

11.1. Consent for Publication: Not applicable.

11.2. Competing Interests: The authors declare that they have no competing interests.

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