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Research on the Application of "Family-Centered" Communication Model in the Treatment of Critically Ill Elderly Patients in Emergency Department

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Abstract: *Purpose:* To explore the application effect of "family-centered" communication model in the treatment of critically ill elderly patients in emergency department. *Methods:* Composition of research subjects: a total of 90 critically ill elderly patients, case selection time: January 2024 to December 2025, randomly divided into two groups, including control group and experimental group, each with 45 cases. During the treatment process, the control group received routine emergency care, while the experimental group received emergency critical care with a "family-centered" communication model. The nursing effects of the two groups were evaluated and compared. *Results:* (1) During the treatment of critically ill elderly patients, after different modes of intervention, the rescue success rate of the experimental group (97.78%, 44/45) was higher than the control group (84.44%, 38/45), $P < 0.05$; statistics of rescue time and hospitalization time showed that the experimental group was shorter, $P < 0.05$; (2) In terms of the incidence of doctor-patient disputes, the statistical data of the control group and the experimental group were respectively 17.78% (8/45) and 4.44% (2/45). The comparison results showed that the experimental group was lower, $P < 0.05$; (3) The cooperation degree and satisfaction of family members in medical decision-making were statistically analyzed. Compared with the control group (81.54 ± 2.06 points, 82.47 ± 1.93 points), the experimental group (92.09 ± 1.88 points, 92.54 ± 2.01 points) was higher, $P < 0.05$. *Conclusion:* During the emergency treatment process, the "family-centered" communication model is effective. It can not only improve the success rate of rescue for critically ill elderly patients, shorten the rescue time and hospitalization time, but also improve the cooperation and satisfaction of family members in medical decision-making. It can effectively reduce the incidence of doctor-patient disputes and is worthy of vigorous clinical promotion.

Keywords: Critically ill elderly patients in emergency department; Treatment effect; Family-centered; Communication model; Satisfaction

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1. Introduction

The emergency department is an important part of the hospital. The common characteristics of elderly patients treated internally are: critical condition, rapid progression, and high degree of danger. Systematic investigations have found that most of these groups have underlying diseases, which will significantly increase the difficulty of clinical treatment [1]. In

specific practice, emergency department staff must not only pay attention to the changes in the condition of critically ill elderly patients, but also fully respect the needs of their families. During this process, a "family-centered" communication model can be introduced in a timely manner to actively introduce the condition, treatment measures, and prognosis of critically ill elderly patients to their families. Staff must also patiently answer all questions raised by family members, thereby improving family members' cooperation in medical decision-making, better carrying out relevant treatment measures, and ensuring the life safety of elderly patients [2,3]. In view of this, this article will select 90 critically ill elderly patients as reference objects, divide them into groups, and summarize the application value of routine emergency care and "family-centered" communication model in emergency critical care, in order to provide a reference for the clinical treatment of critically ill patients. The details are as follows:

2. Materials and methods

2.1. General information

90 critically ill elderly patients treated in emergency departments between January 2024 and December 2025 were selected as the research subjects and divided into control group and experimental group according to the random number table method. Control group: A total of 45 elderly patients were investigated in terms of age. The maximum value was 80 years old, the minimum value was 62 years old, and the average value was 71.09 ± 1.55 years old. In terms of gender composition, 20 were female patients and 25 were male patients. Experimental group: A total of 45 elderly patients were investigated in terms of age. The maximum value was 79 years old, and the minimum value was 64 years old. The average value was 71.55 ± 1.21 years old. In terms of gender composition, 22 were female patients and 23 were male patients. The above basic data (age and gender composition) are balanced and comparable. This study has high feasibility, $P > 0.05$.

Inclusion criteria: (1) The ethics department of the hospital approved this research activity; (2) After the age survey of screened patients, all patients were ≥ 60 years old, and all examination results were analyzed and consistent with the diagnostic criteria of "critical illness"; (3) Family members are legal guardians, have normal communication skills, and can assume major medical decisions.

Exclusion criteria: (1) Elderly patients with advanced cancer; (2) Those who died within a short period of time after admission, that is, ≤ 24 hours; (3) Family members of patients who are unable to fully participate in diagnosis and treatment cooperation and communication due to work or other reasons.

2.2. Methods

Control group: Routine emergency care. During the emergency treatment of critically ill elderly patients, relevant clinical work is carried out based on the previous process. Then the patient's condition and basic treatment plan are briefly introduced to the family members. During the actual treatment process, necessary information is conveyed and family members are asked to sign. There is no systematic communication link.

Experimental group: Emergency and critical care with a "family-centered" communication model. The specific contents are as follows: (1) Communication group. Under the responsibility of the head nurse of the emergency department, a special communication group is created. During this process, highly motivated and experienced personnel can be selected as team members. Secondly, professional training is arranged. The core content is: communication with family members, that is, how to create a trusting relationship with family members, how to accurately and clearly express information about the condition of critically ill elderly patients, how to help family members improve their mood, etc., thereby improving the overall ability of the staff in the group. (2) Condition assessment and treatment. After a critically ill elderly patient is admitted to the hospital, members of the communication team need to contact their family members as soon as possible and ask them for relevant information, such as the cause of the elderly patient's illness, specific symptoms, past medical history, allergic history, etc., and enter the above information into a special system to create a medical record file. Secondly, the staff also need to use popular language to inform the family members of the elderly patient's preliminary

diagnosis results, clearly inform the family members of the need for further examination, and introduce the relevant processes and advantages. In addition, after clarifying the condition of the elderly patient, the staff also needs to explain the personalized treatment plan to the family members to ensure that the family members can understand the patient's real-time dynamics. (3) Family meeting. Set a fixed communication time. During the emergency stage of the critically ill elderly patient's condition, family meetings need to be held twice a day, including morning (10:00) and afternoon (16:00); after the condition is stable, once a day shall prevail. During the meeting, the leader of the communication team will preside over and mainly introduce the elderly patient's latest condition, examination results, and rescue measures, and clarify the next treatment plan. After the introduction, medical staff must encourage family members to actively ask questions and patiently answer their questions. (4) Visual communication tools. In the process of communicating with family members, clinical staff need to introduce visual tools, that is, use organ anatomy diagrams to present to family members, and use different colors to clearly mark the location of lesions and severity of illness; at the same time, when critically ill elderly patients are hospitalized for treatment, staff can also make blood routine and biochemical test results into histograms and compare them with normal values, so as to better facilitate family understanding. (5) Psychological support. Analysis of elderly patients shows that because their condition is more critical, their self-decision-making ability will be limited, and their family members will feel more anxious during the treatment process. Therefore, members of the communication team need to pay close attention to the emotional changes of the family members, patiently comfort the family members, listen to the family members' appeals, and show great understanding of the family members' concerns, thereby creating a good doctor-patient relationship; at the same time, members of the communication team can also guide the family members to the rest area and provide them with hot water to reduce the psychological burden. In addition, for elderly patients, after their condition is relatively stable, nursing staff need to strengthen their encouragement, instruct patients to take a deep breath and relax, guide family members to pay more attention and accompany them more, and give patients strong confidence, thereby improving treatment cooperation and shortening the length of hospitalization.

2.3. Evaluation indicators

(1) Compare the differences in treatment effects between the two groups, including: rescue success rate, rescue time, and hospitalization time;

(2) Compare the incidence of doctor-patient disputes. Common types include: complaints and disputes;

(3) Compare the medical decision-making cooperation and satisfaction of family members of critically ill elderly patients; among them, medical decision-making cooperation can be analyzed using a self-made scale, including: examination and treatment cooperation, diagnosis and treatment plan execution, communication and cooperation, etc., with a total score of 100. The higher the measurement data, the higher the family cooperation. In terms of satisfaction, it is based on a self-made questionnaire in the hospital. The reference items include: medical staff's appearance, service attitude, professional skills, etc. The total score of the scale is 100. The higher the measurement data, the higher the satisfaction of the family members.

2.4. Statistical data

The counting data and measurement data included in this study were organized and analyzed using SPSS 26.0 software. Among them, the rescue success rate of critically ill elderly patients and the incidence rate of doctor-patient disputes were tested using Chi-square test, and the representative form was mainly %. The rescue time, hospitalization time, cooperation, and satisfaction of family members in medical decision-making were tested using *t*-test, and the representative form was mainly mean ± standard deviation (SD). In the comparison results between groups, $P < 0.05$ proved that the data differences were significant.

3. Results

3.1. Comparison of treatment effects

Compared with the critically ill elderly patients in the control group, the rescue success rate of the experimental group was higher, $P < 0.05$; for the rescue time and hospitalization time, the experimental group was shorter, $P < 0.05$. See **Table 1** for details.

Table 1. Comparison of the treatment effects of the two groups (%, mean ± SD)

Group	Rescue success rate (%)	Rescue time (min)	Length of stay (d)
Control group (n = 45 cases)	38（84.44）	52.43 ± 3.48	22.59 ± 1.88
Experimental group (n = 45 cases)	44（97.78）	33.56 ± 2.71	15.76 ± 1.92
χ^2/t	4.939	28.699	17.050
P	0.026	0.000	0.000

3.2. Comparison of incidence rates of doctor-patient disputes

Compared with the control group, the incidence of doctor-patient disputes in the experimental group was significantly lower, $P < 0.05$. See **Table 2** for details.

Table 2. Comparison of the incidence of doctor-patient disputes between the two groups (%)

Group	Complaint	Disputes	Total (%)
Control group (n = 45 cases)	3(6.67)	5(11.11)	8(17.78)
Experimental group (n = 45 cases)	1(2.22)	1(2.22)	2(4.44)
χ^2	-	-	4.050
P	-	-	0.044

3.3. Comparison of family members' cooperation in medical decision-making and satisfaction

Regarding the family members of critically ill elderly patients, the experimental group had higher cooperation and satisfaction scores in medical decision-making than the control group, $P < 0.05$. See **Table 3** for details.

Table 3. Comparison of the cooperation and satisfaction of family members in medical decision-making between the two groups (mean ± SD)

Group	Cooperation of family members in medical decision-making (points)	Satisfaction (points)
Control group (n = 45 cases)	81.54 ± 2.06	82.47 ± 1.93
Experimental group (n = 45 cases)	92.09 ± 1.88	92.54 ± 2.01
t	25.376	24.242
P	0.000	0.000

4. Discussion

With the rapid development of social economy and the smooth transportation network, the number of various emergency and critical patients is also increasing. The condition of emergency critical patients develops rapidly and their conditions change unexpectedly. The mortality rate of emergency critical patients is high, and they are often accompanied by abnormal conditions such as cardiac arrest and suffocation. In addition, the sudden onset of disease makes many medical supplies and facilities not fully prepared. In addition, there are few medical staff, so patients cannot receive timely rescue work,

increasing the incidence of medical disputes [4]. If critically ill patients receive timely treatment, the best rescue time can be grasped, thereby reducing their mortality, which plays an extremely important role in the patient's treatment and recovery. The rescue of critically ill patients is an important task in medical care, which reflects a hospital's emergency response capabilities and overall medical care level [5]. The group characteristics of elderly patients often require medical staff to be more patient and careful. This study aims to explore the application of the "family-centered" communication model in the treatment of critically ill elderly patients in emergency departments. After experiments and record analysis, the results were obtained: (1) Analysis of critically ill elderly patients showed that the rescue success rate was 84.44% (38/45) in the control group and 97.78% (44/45) in the experimental group. The comparison results showed that the experimental group was higher, $P < 0.05$; the rescue time and hospitalization time were shorter in the experimental group, $P < 0.05$. (2) Statistics on the incidence of doctor-patient disputes showed that the experimental group (4.44%, 2/45) was lower than the control group (17.78%, 8/45), $P < 0.05$; (3) Regarding the family members of critically ill elderly patients, regarding the degree of cooperation and satisfaction in medical decision-making, the experimental group had higher scores than the control group, $P < 0.05$. The specific analysis is: the "family-centered" communication model is highly systematic and can form a communication mechanism for the three parties of "patients, family members, and medical staff" to ensure that family members can fully participate in the emergency department treatment process; among them, creating communication groups and strengthening training measures can effectively enhance the staff's awareness of self-responsibility and improve the professional level of the staff's overall ability; for critically ill elderly patients, timely clinical assessment is required after admission. In specific practice, staff also need to actively communicate with family members to gain a more comprehensive and detailed grasp of the relevant situation and develop special medical records; at the same time, follow-up examinations and introduction of treatment plans can also enable family members to fully understand the condition of elderly patients and improve their cooperation in medical decision-making. The regular holding of family meetings can provide an effective platform for direct communication between medical staff and family members. In the process, it can help family members understand the changes in the elderly patients' condition and treatment progress in a timely manner, and correct their misconceptions. The introduction of visual communication tools can also simplify complex medical information and present it to family members in a more intuitive way, thereby avoiding misunderstandings [6]. In addition, in terms of psychological support, members of the communication team need to take the initiative to care for the families of elderly patients, patiently comfort and provide enthusiastic services, enhance the trust of family members, and better avoid disputes. Among critically ill elderly patients, staff can guide family members to provide care and companionship, and give full play to the role of family support, thereby helping elderly patients rebuild their confidence in overcoming the disease and improve cooperation [7]. The combination of the above measures is comprehensive and can effectively meet the needs of critically ill elderly patients and promote early recovery from the disease.

5. Conclusion

To sum up, during the emergency treatment of critically ill elderly patients, the "family-centered" communication model is more effective. On the one hand, it can shorten the rescue time and hospitalization time of elderly patients, and improve the success rate of rescue. On the other hand, it can also improve the cooperation and satisfaction of family members in medical decision-making, effectively avoid doctor-patient disputes, and has significant clinical promotion value.

Disclosure statement

The author declares no conflict of interest.

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