

# Observation on the Effect of Personalized Guidance on Elderly Patients with Diabetes in Community Care

Chunlan Wang\*

Community Health Service Center, Chengzhong Street, Taizhou 225300, Jiangsu, China

*\*Author to whom correspondence should be addressed.*

**Copyright:** © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

**Abstract:** Purpose: To explore and analyze the application effect of personalized guidance nursing model on patients in the process of nursing care for elderly patients with diabetes in the community. Methods: A total of 100 elderly patients with diabetes who were treated in our community from January 2024 to December 2025 were selected and divided into the conventional group and the observation group according to the lottery grouping method. There were 50 elderly patients with diabetes in each group. The blood sugar levels, self-management ability and satisfaction of the two groups of patients before and after care were compared. Results: Compared with the patients in the conventional group, the blood sugar level of the patients in the observation group was not statistically significant,  $P > 0.05$ ; after different nursing models were applied to the two groups of elderly diabetic patients, the blood sugar levels of the patients in the observation group were significantly improved compared with those in the conventional group,  $P < 0.05$ ; Compared with the patients in the conventional group, the self-management ability of the patients in the observation group in terms of diet control, exercise management, blood sugar monitoring and taking medicine on time has been significantly improved,  $P < 0.05$ ; the overall satisfaction of the patients in the observation group with the nursing process was significantly higher than that of the patients in the conventional group,  $P < 0.05$ . Conclusion: Judging from the research results, the application of personalized guidance has a very significant application effect for middle-aged and elderly diabetic patients in the community. It not only effectively improves the patient's blood sugar level to a large extent and improves the patient's self-management ability, but also promotes the establishment of a friendly relationship between nurses and patients, and is worthy of promotion and application in clinical practice.

**Keywords:** Personalized guidance; community care; elderly diabetes; application effects

**Online publication:** February 26, 2026

## 1. Introduction

In clinical practice, patients with chronic diseases such as abnormally high blood sugar levels and metabolic disorders are called diabetes. The occurrence of diabetes has a serious impact on patients' daily life and life and health. For patients with diabetes, their bodies are in a state of high sugar for a long time, which may cause lesions in other systems of the patient's body and tissue complications<sup>[1]</sup>. As a relatively complex lifelong chronic disease, whether patients can perform good self-management behaviors is a key factor that affects long-term prognosis. Scientific and reasonable self-management can effectively control patients' blood sugar levels. However, it can be known from relevant surveys that the overall self-management level of patients with type 2 diabetes in my country is still insufficient. In order to improve the clinical

---

outcomes of patients and control the probability of complications, our community provides health education to patients based on their own needs and goals<sup>[2]</sup>. In the traditional health education model, face-to-face knowledge transfer is usually the main focus, and the needs of personalized education and patient orientation are ignored. Community health education mainly cultivates patients' positive attitudes and awakens their active consciousness. With the assistance of information management, it can give full play to the educational advantages of theoretical guidance to a greater extent<sup>[3]</sup>. By using different nursing models on 100 elderly diabetic patients, this article explores and analyzes the application effects of personalized guidance nursing models on patients in the care process of elderly diabetic patients in the community.

## **2. Materials and methods**

### **2.1. General information**

A total of 100 elderly patients with diabetes who were treated in our community from January 2024 to December 2025 were selected and divided into regular groups and observation groups according to the lottery grouping method. There were 50 elderly patients with diabetes in each group. Among the patients in the conventional group, there were 27 male patients and 23 female patients. The patients were all between 71 and 84 years old, with an average age of  $(75.35 \pm 4.21)$  years. Among the patients in the observation group, there were 28 male patients and 22 female patients. The patients were all between 71 and 85 years old, with an average age of  $(75.65 \pm 4.34)$  years. Comparing the age, gender, basic situation, education level, living habits and eating habits of the two groups of patients, there was no significant statistical difference,  $P > 0.05$ , which means that the two groups of patients are comparable.

### **2.2. Method**

Patients in the conventional group used the conventional nursing model, including drug care, basic health education, vital sign monitoring, and risk factor control.

Patients in the observation group will receive personalized guidance based on the routine nursing model. The specific content includes: (1) Use open-ended questions to observe the patients' true thoughts on self-management behaviors, and guide patients to raise their own questions and difficulties. During this process, nursing staff need to closely observe the patients' mental state, help patients discharge their bad emotions, and encourage family members to support changes in patients' behaviors, so that patients can feel social recognition and family support, and increase patients' enthusiasm for changes in self-management behaviors. (2) Collect the patient's basic information, including name, age, job, hobbies and condition, etc., conduct an evaluation, communicate with the patient based on the evaluation results, and ask the patient about their concerns and troubles about the condition. Evaluate the patient's self-management level, living habits, and cognitive level, and provide targeted health education to the patient. Guide patients to reflect on their own unhealthy living habits, analyze the causes of their occurrence together with patients, and cultivate patients' ability to reflect in daily life. Through health education, patients can understand that their behavior may affect the change of the patient's condition, which is closely related to the patient's adverse reactions and prognosis; understand the difficulties and obstacles of patients' self-behavior change during disease treatment; provide corresponding health education to patients so that patients can deeply realize that improving self-behavior management capabilities can improve their condition in the short and long term (3) According to the different needs of patients, formulate targeted and personalized feasible plans, and promote patients to achieve health goals. The plan needs to include diet, exercise, medication, etc., and nursing staff will provide patients with advice from a more professional perspective. For patients with diabetes, dietary intervention is an important treatment measure. Patients should strictly implement the dietary principle of balancing caloric intake and consumption for a long time. Community medical staff can develop targeted recipes for patients based on their different dietary preferences, which need to include foods rich in dietary fiber, low-sugar fruits, and high-quality protein. At the same time, patients need to be reminded to strictly abstain from sugary foods, quit smoking and alcohol, eat small meals frequently, and do not eat dinner too late. Appropriate activities can be done after meals, such as walking. At the same time, medical staff should

guide patients to engage in appropriate physical activities according to their own hobbies, such as walking, Tai Chi, soft ball, etc., and the amount of exercise should not be too large. Appropriate exercise is conducive to patients' weight control, and it also improves the patient's insulin sensitivity and improves the patient's blood sugar and lipid metabolism disorders. During the implementation of the second phase, the use of insulin and hypoglycemic drugs should also be communicated to patients in detail, and the dosage of the patient's drugs should be accurately adjusted. (4) Use public accounts, WeChat groups and other information methods to remotely manage patients<sup>[4]</sup>. Nursing staff need to regularly remind patients to complete their daily health plans and upload blood glucose measurement results so that medical staff can detect problems in a timely manner and provide professional guidance to patients. At the same time, relevant articles and videos about diabetes are regularly pushed to the public account and WeChat group, patiently answer questions raised by patients, and promote good self-management by patients.

### 2.3. Evaluation criteria

- (1) Compare the blood sugar levels of the two groups of patients before and after care, including fasting blood sugar and 2-hour postprandial blood sugar.
- (2) According to the self-management ability score sheet made by our community, including diet control, exercise management, blood sugar monitoring and taking medicine on time, each item has a full score of 100 points, and the score is directly proportional to the nursing effect.
- (3) Compare the satisfaction of the two groups of patients with this care based on the nursing satisfaction evaluation form made by our community, and divide it into very satisfied, generally satisfied and dissatisfied.

### 2.4. Statistical methods

The statistical software used in the statistical stage of this article is SPSS26.0, which is an internationally accepted statistical data analysis software. The measurement data is represented by  $\bar{x} \pm s$ . The test stage uses a two-sample independent test, expressed as *t*, and percentage (%) is used to represent the count data. The test method used is  $\chi^2$ . Whether *P* is less than 0.05 is considered a difference to determine whether it has statistical significance.

## 3. Results

### 3.1. Blood sugar level

The results are shown in **Table 1**. Before the two groups of patients received nursing care, the blood glucose levels of the patients in the observation group were not statistically significant compared with those in the conventional group,  $P > 0.05$ . After different nursing models were applied to the two groups of elderly patients with diabetes, the blood glucose levels of the patients in the observation group were significantly improved compared with those in the conventional group,  $P < 0.05$ .

**Table 1.** Comparison of blood sugar levels between the two groups of patients before and after care ( $\bar{x} \pm s$ )

Group	Fasting blood glucose (mmol/L)		Blood glucose 2 hours after meal (mmol/L)	
	Before intervention	After intervention	Before intervention	After intervention
Regular group (n = 50)	10.45 ± 2.38	9.95 ± 1.36	13.69 ± 3.15	11.97 ± 2.17
Observation group (n = 50)	10.64 ± 2.76	8.12 ± 0.76	13.57 ± 2.99	9.42 ± 1.26
<i>t</i>	0.3686	8.3058	0.1954	7.1858
<i>P</i>	> 0.05	< 0.05	> 0.05	< 0.05

### 3.2. Self-management ability

The results are shown in **Table 2**. After applying different nursing models to the two groups of elderly patients with diabetes, the self-management abilities of the patients in the observation group in terms of diet control, exercise management, blood sugar monitoring and taking medication on time were significantly improved compared to the patients in the conventional group,  $P < 0.05$ .

**Table 2.** Comparison of self-management ability between two groups of patients ( $\bar{x} \pm s$ )

Group	Diet control	Exercise management	Blood sugar monitoring	Taking medicine on time
Regular group (n = 50)	87.54 ± 4.64	84.23 ± 3.12	89.65 ± 3.47	88.26 ± 3.71
Observation group (n = 50)	76.63 ± 2.55	75.97 ± 2.35	78.73 ± 2.41	75.04 ± 3.52
<i>t</i>	14.5708	14.9531	18.2768	18.2786
<i>P</i>	< 0.05	< 0.05	< 0.05	< 0.05

### 3.3. Nursing satisfaction

The results are shown in **Table 3**. After different nursing models were applied to the two groups of elderly patients with diabetes, the overall satisfaction of the patients in the observation group with the nursing process was significantly higher than that of the patients in the conventional group,  $P < 0.05$ .

**Table 3.** Comparison of patient care satisfaction between the two groups (n/%)

Group	Very satisfied	Generally satisfied	Not satisfied	Overall satisfaction
Regular group (n = 50)	17	21	12	38(76.00)
Observation group (n = 50)	23	26	1	49(98.00)
$\chi^2$ false	-	-	-	10.6985
<i>P</i>	-	-	-	< 0.05

## 4. Discussion

The main feature of diabetic patients is hyperglycemia, which is due to the defect of insulin secretion in patients, resulting in the damage of biological effects of patients. According to relevant data, the number of diabetic patients worldwide has exceeded 530million, and type 2 diabetes is the main type. Therefore, diabetes is one of the factors that have a serious impact on the field of public health in China and the world<sup>[5-6]</sup>. At present, the clinical treatment of patients with diabetes is usually carried out through drug treatment. But because diabetes is a chronic disease with a long course of disease, it also needs scientific and effective nursing for patients.

It can be seen from the results of this study that the blood glucose level of the observation group was not statistically significant compared with that of the conventional group,  $P > 0.05$ ; After carrying out different nursing modes for the two groups of elderly patients with diabetes, the blood glucose level of the observation group was significantly improved compared with that of the conventional group,  $P < 0.05$ ; The self-management ability of patients in the observation group in terms of diet control, exercise management, blood glucose monitoring and taking medicine on time was significantly improved compared with patients in the conventional group,  $P < 0.05$ ; The total satisfaction of the observation group was significantly higher than that of the conventional group,  $P < 0.05$ . This result shows that the application of personalized guidance in community nursing can significantly improve the clinical outcomes of elderly patients with diabetes. It breaks through the limitations of traditional

---

nursing, through the patient-centered nursing concept, in-depth understanding of each patient's real thoughts and emotional state, effectively alleviates the psychological pressure of elderly patients. At the same time, the formulation of personalized health education makes the cognitive level of patients fit with the reality of life, and effectively improves the effectiveness of health education. In terms of the cultivation of self-management ability, because elderly patients with diabetes often have problems such as memory loss and learning acceptance ability decline, conventional health education is difficult to meet their special needs. The personalized guidance nursing mode can effectively help patients establish good living habits by guiding patients to reflect on their bad living habits. Information technology means further continues the nursing concept of personalized guidance. Through the application of wechat group and public account, it can effectively help patients monitor blood glucose data in time, and answer patients' questions, forming a continuous health management atmosphere<sup>[7-8]</sup>.

## 6. Conclusion

To sum up, personalized guidance, as a scientific and humanized nursing mode, has important application value in the management of elderly patients with diabetes in the community. It is suggested to further promote this mode in the future in the community nursing practice, so as to provide a more perfect solution for the health management of elderly patients with chronic diseases.

## Disclosure statement

The author declares no conflict of interest.

## References

- [1] Yang WW, Zhu QM, Wang SJ, et al., 2025, Effects of Dietary Guidance and Personalized Psychological Nursing on Blood Glucose and Negative Emotions in Elderly Patients with Diabetes. *New World of Diabetes*, 28(21): 149-152.
- [2] Li Q, Yang BL, Qiao Y, et al., 2024, Nursing Effect of Individualized Embodied Heart Appeal Nursing Mode on Elderly Patients with Type 2 Diabetes. *Chinese and Foreign Medical Research*, 22(21): 79-82.
- [3] Huang JF, Weng MH, Xing RN, 2024, Effect of Personalized Nursing on Self-Management of Elderly Patients with Type 2 Diabetes Mellitus Complicated with Acute Myocardial Infarction. *China Health Standard Management*, 15(12): 180-183.
- [4] Hou SY, Meng J, Chen L, et al., 2022, Effect of Personalized Psychological Nursing on Blood Glucose and Negative Emotions in Elderly Patients with Diabetes. *International Journal of Psychiatry*, 49(05): 919-922.
- [5] Song KY, Huang LH, 2024, Effect of Personalized Body Mass Management Combined with Integrated Health Education of Medicine and Nursing on Symptom Control and Self-Management Ability of Patients with Gouty Arthritis and Diabetes. *Grassroots Medical Forum*, 28(27): 90-92+113.
- [6] Xu X, Zhang YY, Kong QJ, 2023, Application Effect of Personalized Health Education and Nursing Intervention in Patients with Diabetes and Its Impact on Nursing Satisfaction. *Diabetes New World*, 26(02): 98-101.
- [7] Zhang WT, Zhang YL, Gui Q, 2025, Effect of Continuous Nursing Combined with Community Nursing Intervention on Health Behavior Changes of Elderly Patients with Type 2 Diabetes. *Smart Health*, 11(26): 151-153+157.
- [8] Liang YM, Shi QT, Mai LT, et al., 2025, Relationship Between Blood Glucose Control Status, Self-Management Behavior and Family Care of Elderly Patients with Type 2 Diabetes in Community. *Nursing Practice and Research*, 22(01): 93-99.

### Publisher's note

*Whoice Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.*