

The Impact of Palliative Care on Agitation Behavior and Rehabilitation Treatment Compliance in Elderly Dementia Patients

Yuan Meng*

Tianjin Anding Hospital, Tianjin 300202, China

**Author to whom correspondence should be addressed.*

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Abstract: *Objective:* To explore the effect of palliative care on agitation behavior and rehabilitation treatment compliance in elderly dementia. *Method:* 80 elderly dementia patients admitted to our hospital from October 2021 to October 2023 were randomly divided into a control group of 40 cases, receiving routine care; Forty cases in the observation group were given palliative care on the basis of routine care. Score the patient's arousal behavior using the arousal behavior assessment form and observe their compliance with rehabilitation treatment. *Result:* The agitation behavior score of the observation group was significantly lower than that of the control group ($p < 0.05$), and the complete compliance rate was also significantly higher than that of the control group ($p < 0.05$). *Conclusion:* Implementing palliative care for elderly dementia patients can reduce their agitation behavior and improve their compliance with rehabilitation treatment.

Keywords: Senile dementia; Palliative care; Exciting behavior; Rehabilitation therapy

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1. Introduction

Patients with dementia not only exhibit symptoms of cognitive dysfunction but also experience varying degrees of mental and behavioral abnormalities^[1]. Agitation is one of the most common mental and behavioral abnormalities in dementia patients, characterized by symptoms such as cursing, aggression, irritability, wandering, restlessness, and inappropriate handling of objects^[2, 3]. Wei Zhihua et al. found that agitation is prevalent among dementia patients, with diverse manifestations related to mental intelligence, dementia type, and disease severity^[4]. The occurrence of agitation increases the risk of safety incidents such as fractures, falls, self-harm, or harm to others, which, once they occur, exacerbate the suffering of patients and their families. Agitation negatively impacts patients' daily functioning abilities, increasing the physical and psychological burden on caregivers^[5]. For society, the occurrence of agitation in dementia patients often

necessitates hospitalization, increasing the societal burden. When patients no longer respond to curative medical treatments, implementing hospice care, which provides comprehensive care from physiological, psychological, and social perspectives, can uphold the dignity of patients as human beings, offer them peace, and improve the quality of their end-of-life experience^[6]. This study primarily explores the impact of hospice care on agitation and rehabilitation treatment adherence in dementia patients, as reported below.

2. Materials and methods

2.1. General information

Eighty dementia patients admitted to our hospital from October 2021 to October 2023 were included in the study. Patients/family members provided informed consent for participation and were randomly assigned using a random number table to either an observation group or a control group, with 40 patients in each group. The observation group consisted of 19 males and 21 females, aged 60–82 years with an average age of (68.83 ± 5.33) years, including 14 cases of vascular dementia, 15 cases of Alzheimer's disease, and 11 cases of mixed dementia. The control group consisted of 22 males and 18 females, aged 60–85 years with an average age of (68.98 ± 5.42) years, including 16 cases of vascular dementia, 14 cases of Alzheimer's disease, and 10 cases of mixed dementia. There was no significant difference in general information between the two groups ($p > 0.05$).

2.1.1. Inclusion criteria

- (1) Age ≥ 60 years, gender not limited;
- (2) Diagnosed with dementia according to ICD-10;
- (3) Patients/family members provided informed consent.

2.1.2. Exclusion criteria

- (1) Coma;
- (2) Diagnosed with psychiatric disorders such as schizophrenia;
- (3) Incomplete medical records;
- (4) Severe cardiac, renal, or hepatic diseases;
- (5) Malignant tumors.

2.2. Methods

The control group received routine care, where nursing staff provided basic care, assisted with daily activities and movements, intervened in uncomfortable symptoms, and followed medical advice when agitation occurred, while ensuring the safety of both the patient and others. The observation group received hospice care in addition to routine care, as follows:

2.2.1. Prevention of complications

Regular rounds were conducted to comprehensively assess the patient's condition and evaluate the risk of complications and potential risk factors. Nutritional support was provided, with professional dietitians assessing the patient's nutritional status, identifying nutritional risks, and developing individualized nutritional support plans to reduce nutritional risks and enhance resistance to complications.

2.2.2. Improvement of sleep quality

The hospital environment was optimized, with appropriate temperatures maintained in activity and sleeping areas, and patients' favorite items placed to enhance comfort. Before bedtime, indoor lighting was controlled to reduce blue light exposure, and a quiet environment was maintained to minimize disturbances.

2.2.3. Pain intervention

The patient's pain intensity was assessed, and a combination of interventions was used to alleviate pain. Non-pharmacological pain management strategies included frequent conversations to divert the patient's attention to topics of interest, music therapy with light and soothing music played when pain did not necessitate medication or before bedtime, and encouraging participation in aerobic exercises such as walking or Baduanjin^[7]. When pharmacological interventions were necessary, analgesics were administered according to the patient's treatment status and complication profile, with guidance provided to patients and caregivers to alleviate concerns and emphasize the importance of pain relief in maintaining patient dignity.

2.2.4. Emotional therapy

A combination of videotapes, music, and photographs was used to guide patients in recalling past events, with nursing staff engaging in conversations to help patients recognize the emotions behind their behaviors and language. The causes of aggressive behavior were analyzed, and precursors to such behavior were identified to reduce stressors^[8]. When symptoms such as loneliness, withdrawal, and indifference were severe, empathy dolls were provided for patients to name and treat gently as their own infants, with daily contact lasting no less than 1 hour; nursing staff avoided confiscating dolls due to inappropriate patient behavior or language^[9]. Patients were encouraged to engage in activities they enjoyed with family members whenever possible.

2.2.5. Behavioral and psychological symptom therapy

The activity space was optimized to provide sufficient room for patients while ensuring safety. Patients were encouraged to participate in outdoor activities. Cognitive, memory, and thinking skills were trained through activities such as number sequencing, picture recognition, chess, and card games. Language communication skills were trained by fully utilizing gestures, smiles, and nods during conversations with patients^[10]. In daily life, assistance was provided without forcing patients to adhere to specific schedules or routes, minimizing psychological pressure. Patients' social adaptability was enhanced by organizing activities such as origami and flower watering, encouraging participation and helping patients identify their social roles.

2.3. Observation indicators and evaluation criteria

After one month of nursing intervention, agitation scores were observed before and after intervention. The community version of the Chinese Cohen-Mansfield Agitation Inventory was used for assessment, with a reliability coefficient of 0.86. The inventory consists of 23 items categorized into verbal and behavioral types, further subdivided into aggressive and non-aggressive verbal/behavioral types^[11]. Scores were assigned based on the frequency of behaviors over the past 14 days, ranging from 1 (never occurred) to 7 (occurred several times per hour). Total scores ranged from 23 to 161, with higher scores indicating more severe agitation. Rehabilitation treatment adherence was assessed using a self-designed questionnaire, evaluating whether patients could follow rehabilitation instructions, the frequency of rehabilitation, and daily rehabilitation duration. Patients were classified as fully adherent if they actively engaged in rehabilitation

under guidance, partially adherent if daily rehabilitation duration or weekly frequency was insufficient or methods were inappropriate, and non-adherent if unwilling to participate in functional exercises. The fully adherent rate was calculated.

2.4. Statistical analysis

Data were processed using SPSS 23.0, with *t*-tests for continuous data ($\bar{x} \pm s$) and chi-square tests for categorical data. The significance level was set at $\alpha = 0.05$.

3. Results

3.1. Comparison of agitation scores

As shown in **Table 1**, after intervention, all agitation scores and the total score significantly decreased in the observation group ($p < 0.001$). In the control group, physical aggressive behavior, verbal non-aggressive behavior, and the total score significantly decreased after intervention ($p < 0.001$), while physical non-aggressive behavior and verbal aggressive behavior showed no significant difference compared to before intervention ($p > 0.05$). Additionally, there was no significant difference in agitation scores between the two groups before intervention ($p > 0.05$), but after intervention, all agitation scores in the observation group were significantly lower than those in the control group ($p < 0.001$).

Table 1. Comparison of agitation scores ($\bar{x} \pm s$, points)

Group	Time	Physical aggressive behavior	Physical non-aggressive behavior	Verbal aggressive behavior	Verbal non-aggressive behavior	Total score
Observation group	Before intervention	12.501.22	13.034.72	4.651.34	6.582.54	38.829.53
	After intervention	8.891.34	10.181.44	3.081.20	4.021.10	24.476.22
	<i>t</i>	12.599	3.653	5.520	5.849	7.975
	<i>p</i>	< 0.001	0.001	< 0.001	< 0.001	< 0.001
Control group	Before intervention	12.842.31	13.404.38	4.481.26	6.802.43	39.029.43
	After intervention	10.321.47	12.311.53	3.890.84	5.060.82	30.147.38
	<i>t</i>	5.821	1.486	2.464	4.291	4.690
	<i>p</i>	< 0.001	0.144	0.016	< 0.001	< 0.001
Between-group comparison before intervention	<i>t</i>	0.823	0.363	0.585	0.396	0.094
	<i>p</i>	0.414	0.717	0.561	0.693	0.925
Between-group comparison after intervention	<i>t</i>	4.547	6.412	3.497	4.794	3.716
	<i>p</i>	< 0.001	< 0.001	0.001	< 0.001	< 0.001

3.2. Comparison of rehabilitation treatment adherence

After the intervention, the full adherence rate in the observation group was significantly higher than that in the control group ($P < 0.05$), as shown in **Table 2** and **Table 3**.

Table 2. Comparison of rehabilitation treatment adherence (n, %)

Group	n	Complete compliance	Partial compliance	Non-compliance	Compliance rate
Observation group	40	22(55.00)	16(40.00)	2(5.00)	22(55.00)
Control group	40	11(27.50)	23(57.50)	6(15.00)	11(27.50)
χ^2	/	/	/	/	6.241
<i>p</i>	/	/	/	/	0.012

Table 3. Comparison of compliance rates in rehabilitation treatment (n, %)

Group	n	Complete compliance rate	Partial compliance rate	Non-compliance rate
Observation group	40	22 (55.00)	16 (40.00)	2 (5.00)
Control group	40	11 (27.50)	23 (57.50)	6 (15.00)
χ^2	/	5.158	1.801	1.25
<i>p</i>	/	0.023	0.180	0.264

4. Discussion

The philosophy of hospice care is to “preserve life, view death as a normal physiological process, neither hasten nor delay death, and manage pain and psychological issues”. Hospice care does not mean abandoning active treatment for patients but rather using professional methods to help them achieve the best possible quality of life. In this study, for physical pain in dementia patients, hospice care employed a combination of communication, music therapy, and exercise therapy. Strengthening communication with patients helped divert their attention and enhance their psychological resilience; music therapy reduced sympathetic nervous system activity, lowering pain thresholds and reducing physiological stress; exercise therapy alleviated physical pain, and all these measures diverted patients’ attention, reducing excessive focus on pain. When administering analgesic medications, emphasis was placed on improving compliance among patients and caregivers, alleviating their psychological burden. These measures effectively reduced physical pain in patients, decreased stressors, and subsequently reduced the occurrence of agitation.

The study results showed that after hospice care intervention, agitation scores in dementia patients were significantly lower than those in the control group, with statistical significance. Furthermore, compared to the control group, compliance with rehabilitation treatment was significantly higher in the hospice care group. These findings confirm that hospice care can reduce agitation and improve compliance with rehabilitation treatment in dementia patients.

To improve sleep quality in dementia patients, nursing staff created a favorable living and sleeping environment, reducing environmental stressors and alleviating patients’ feelings of insecurity, thereby ensuring better sleep quality. Nursing staff played soothing music for patients, activating central nervous system function and promoting the release of endorphins and melatonin, which had a calming, sedative, and sleep-inducing effect.

To reduce the occurrence of complications, nursing staff assessed patients’ conditions and identified potential risk factors for high-risk complications, facilitating early detection. Strengthening nutritional support improved patients’ physical condition and enhanced their resistance to diseases.

5. Conclusion

For agitation in dementia patients, hospice care emphasized patients’ emotional experiences during nursing, using various media to help patients recall past memories and understand their emotions. Nursing staff

employed empathy dolls to accompany patients, stimulating their protective instincts and facilitating emotional connections, making patients more receptive to these interventions. For agitation and other psychiatric symptoms, nursing staff created safe activity spaces for patients and encouraged participation in outdoor activities. Emphasis was placed on training patients' cognitive, memory, and thinking abilities to help them adapt to society, reducing stress and subsequently agitation. During interventions for psychiatric symptoms, hospice care did not force improvements in cognitive, memory, and thinking abilities but rather used demonstration and guidance to stimulate patients' interests, reducing resistance and improving compliance with rehabilitation treatment. In summary, implementing hospice care for dementia patients can reduce agitation and improve compliance with rehabilitation treatment.

Disclosure statement

The author declares no conflict of interest.

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