

Progress in Management Evaluation and Application of Senile Dementia Symptoms

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Abstract: This paper summarizes the research hotspots of symptom management of Alzheimer's disease, and points out the research progress in the theory, evaluation tools and applications of Alzheimer's symptoms management. The methods of using the assessment tools, the applicable population, the reliability and validity of the assessment tools were introduced, and the advantages and disadvantages of each assessment tool were discussed. On this basis, the identification, evaluation and intervention of the management of Alzheimer's symptoms were prospected.

Keywords: Alzheimer's disease; Symptom management; Assessment; Assessment tools; Application

The World Alzheimer's Disease Report ^[1] pointed out that China currently has 9.5 million Alzheimer's patients, accounting for one-fifth of the world's total dementia population. Alzheimer's disease is a syndrome characterized by progressive cognitive decline, often accompanied by cognitive impairment, mental behavioral symptoms, pain, incontinence and other symptoms, and progressively worsened as the disease progresses ^[2-3], these symptoms It not only reduces the quality of life of patients with dementia, but also increases the burden on caregivers ^[4-8]. Related studies have proved that symptom management is an effective way to cope with symptoms ^[9-11]. This article reviews the evaluation and application of senile dementia symptoms management, in order to provide reference for improving the quality and effect of senile dementia patients.

1. Concept and Theoretical Basis of Symptom Management

"Symptom management" stems from the growing awareness of the limitations of drugs and surgery in the detection and cure of cancer-related symptoms and the importance of cancer patients' quality of life [12]. There is currently no uniform concept for symptom management. Fu et al [12] believe that symptom management is a dynamic, multi-level process, which means that patients intentionally and purposefully let health care providers or themselves take action on symptom perception to relieve, reduce or prevent the occurrence of symptoms. Spirig et al. [13] interpret symptom management as how patients make daily decisions about symptom management. Although the above scholars have different expressions on the concept of symptom management, the management of symptoms can affect the patient's symptom state, quality of life, treatment costs, complications and comorbidities, mortality, emotional state, functional status, etc. [14]. At present, the related theories of symptom management mainly include Symptom Management Theory (SMT) [14], Symptom Experience Model (SEM) [15], Symptoms Experience In Time (SET) [16], Theory of Unpleasant Symptoms, TUS) [17]. SMT divides symptom management into three interactive elements: symptom experience, symptom management strategy, and symptom outcome. It provides a theoretical framework for understanding symptoms, designing and testing symptom management strategies, and evaluating outcome indicators. The main body of SEM is symptom perception, and the influ

encing factors are disease and individual characteristics, demographic characteristics, and the symptom group is included in the theoretical model for the first time. SET presents symptomatic performance, symptom perception, and related symptom management processes in a time series, suggesting a time shift in symptoms. Symptom management theory can deepen the understanding of symptom management by researchers or health care providers, and provide guidance for the assessment and application of symptom management.

2. Research Progress of Management and Evaluation Tools for Senile Dementia Symptoms

2.1 The Symptom Management (Symptom Management at the End-of-Life in Dementia, SMEOLD)

Dementia End-of-Life Symptom Management Scale ^[18] measures the frequency of occurrence of 9 symptoms or signs at the end of life of dementia patients, including pain, shortness of breath, depression, fear, anxiety, agitation, calmness, skin damage, and resistance to care, using the Likert 6 rating, 0 for daily, 5 for never. The total score is 0 to 45 points. The higher the score, the better the symptom management. The Cronbach's α coefficient of the scale is 0.78, and the application of the scale has not yet been seen in China.

2.2 Edmonton Symptom Assessment System (ESAS)

The Edmonton Symptom Assessment Scale was developed by Bruera et al. ^[19] in Canada to assess patients with advanced cancer or to receive palliative care. Physical symptoms. Later, there were also applications in dementia ^[20]. The scale consists of 10 items: pain, fatigue, nausea, depression, anxiety, drowsiness, appetite, quality of life, itching, and shortness of breath. The score is 0 to 10 points, 0 means no, 10 means extreme, and the Cronbach's alpha coefficient of the scale is 0.79. The scale is currently available in Chinese and has good reliability and validity ^[21].

2.3 Neuropsychiatric Inventory (NPI)

The Neuropsychiatric Scale is a scale developed by Cummings et al ^[22] for dementia patients to assess the patient's mental behavior symptoms. The scale includes hallucinations, delusions, agitation/aggression, anxiety, depression, high mood/euphoria, irritability, de-suppression, abnormal motor behavior, appetite and eating disorders, sleep and nocturnal behavioral disorders. 12 common dementia mental behaviors symptom. According to the frequency and severity of each item, the frequency score is 1 to 4 points, 1 is very small, 4 is very frequent; severity is 1 to 3 points, 1 is mild, 3 is classified as severe; the psychological stress score is 0 to 5 points, 0 points means no at all, and 5 points means very serious or extremely serious. The sum of the frequency and the severity of each score is the sum of the total scores is the NPI total score. The higher the score, the more serious the patient's mental behavior symptoms. The scale has been Chineseized by Chinese scholar Ma Wanxin et al. ^[23], Cronbach's α coefficient is 0.851, the split-half coefficient is 0.83, and the total score-retest reliability is 0.86, which has good reliability and validity.

2.4 Caregiver Symptom/Signal Management Self-Efficacy Energy Scale (Caregiver Confidencein Sign / Symptom Management Scale, CCSM)

CCSM was developed by American scholar Piggott et al ^[24] to assess the self-efficacy of Alzheimer's caregivers in managing symptoms or signs associated with dementia. The scale consists of 25 items consisting of 4 subscales, which are the symptom/physical knowledge scale, the cognitive symptom/physical management scale, the medical symptom/physical management scale, the general medical problem management and response, and the use of Likert5. The grade score method has a total score of 25 to 125 points. The higher the score, the better the self-efficacy. The scale Cronbach's α coefficient is 0.92, and the test-retest reliability is 0.92, which has good reliability and validity.

2.5 Self-efficacy Scale

The self-efficacy scale was developed by American scholar Fortinsky et al. ^[25], which is used to determine the self-efficacy of dementia care for Alzheimer's caregivers. A total of 9 items, including two The self-efficacy factors are self-

efficacy for symptom management self-efficacy and community support services. Each item scores 0 to 10 points, 0 points are not certain at all, and 10 points are very certain. Symptom management self-efficacy and community support services use self-efficacy Cronbach's alpha coefficients of 0.77 and 0.78, respectively.

3. Progress in Applied Research of Senile Dementia Symptom Management

Symptom management was first applied in cancer treatment and subsequently used in diseases such as acquired immunodeficiency syndrome, multiple sclerosis, kidney disease, heart failure, and dementia. The symptom management of Alzheimer's disease can be divided into the management of single and multiple symptoms according to the number of symptoms. The management of single symptoms of dementia is more common at home and abroad, such as memory loss, anxiety, incontinence, eating difficulties, agitation, etc. Comprehensive management of symptoms is less common.

3.1 Management of individual symptoms Miltiades et al ^[26] used a tile placement game to intervene in 6 patients with Alzheimer's disease with memory loss for 10 weeks. Studies have shown that as the number of games increases, the accuracy of participant tile placement continues to increase, while the game provides a platform for Alzheimer's patients to learn and socialize. Evans et al ^[27] used simulated presence therapy to intervene for 4 weeks of anxiety in elderly patients with dementia. The study uses a familiar sound to appease anxious dementia patients. The results show that the method can achieve the goal set before the intervention in whole or in part. Engberg et al ^[28] used the urinary excretion method to intervene in the symptoms of urinary incontinence in Alzheimer's disease for 10 weeks, and the nurses (nurse practitioners, NPs) conducted 8 interventions per week in the patient's home. In the intervention group, the caregiver asks or checks for incontinence every two hours, encourages or reminds the patient to go to the toilet, and adjusts the time according to the patient's specific circumstances. The control group was followed up once every 1-2 weeks, and the topic of incontinence was not discussed. Urinary incontinence in 6 patients with dementia who eventually completed the intervention decreased by 60%.

Chinese researchers have actively explored the management of individual symptoms in patients with Alzheimer's disease. Li et al ^[29] used the action research method to study the eating problem of patients with senile dementia. After identifying the problem, according to the process of "plan-action-observation-reflection" spiral cycle, formulate the practice of eating and nursing for patients with dementia. After 2 months of dietary intervention, the results showed that standardized feeding practice of senile dementia patients can significantly improve the patient's eating difficulties, increase their self-feeding behavior and food intake, and improve nutritional status. In the study of Zhou Jing et al ^[30], the control group received routine nursing care in the nursing home, and the intervention group performed a hand massage of 20 minutes per day on the basis of routine nursing for 14 days. After the intervention, the Cohenmans field Agitation Emotional Behavior Scale (CMAI) score of the intervention group decreased and was statistically significant. Liu Yan et al ^[31] divided Alzheimer's disease patients into 20 Chinese music groups, Western classical music groups and 20 control groups. The intervention time of the two intervention groups was 40 min each time, 2 times a week for 3 months. Studies have shown that the improvement of the music memory ability of the Chinese five-line music group is more obvious than that of the Western classical music group, while the control group is basically at the original level. In Zhang Shuying ^[32], the control group used conventional treatment and nursing programs for Alzheimer's disease, and the intervention group conducted systematic health education and psychological intervention, including daily life behavior education, health education and psychological intervention, and health education including diet care, build a social support system, prevent major adverse events, and so on. The results showed that the anxiety and depression scores of the intervention group were significantly lower than those of the control group.

3.2 Multi-symptom management For multi-symptom management, Brody et al ^[33] conducted training on home dementia symptom management programs for family health providers (143 registered nurses, 13 physiotherapists and 35 occupational therapists) to improve services. Service confidence and service quality for dementia and its caregivers. The project consisted of 4.5 hours of online training in the form of slides (pictures, texts, and voices). It was divided into 4 modules, which were the assessment and management of pain in patients with dementia, the evaluation and management

of depression in patients with dementia, and the mental behavior of patients with dementia. Symptom assessment and management and effective communication with healthcare professionals. The results showed that the knowledge and self-confidence scores of pain, depression, and mental behavior symptoms of the family health care providers after the intervention were improved and statistically significant compared with the pre-intervention, which not only improved the quality of caregivers and the quality of life of patients, but also reduced the cost.

4. Outlook

During the progression of Alzheimer's disease, patients will experience a series of symptoms such as memory loss, eating disorders, anxiety, depression, agitation, and incontinence. Assessing and managing these symptoms is the key to nursing work.

4.1 Pay attention to the patient's symptom experience, comprehensively evaluate the existing symptoms. There are currently symptom evaluation scales for patients with Alzheimer's disease in China. Some scales have been finished in China, but these scales are evaluated for a specific period or some kind of dementia. A type of symptom. Murray et al [20] found that the common symptom assessment scale missed some important symptoms through interviews with 150 patients with dementia and their caregivers. Therefore, it is necessary not only to develop an assessment model for the symptoms of Alzheimer's disease suitable for China based on the existing symptoms of Alzheimer's disease in China, but also to pay attention to the experience of the symptoms of Alzheimer's disease patients in order to comprehensively evaluate the presence of symptoms.

4.2 Pay attention to multiple symptoms of dementia and formulate comprehensive management strategies. The current study has paid more attention to the intervention of single symptoms of dementia, but there are many symptoms of dementia patients. Symptom management is not a list of single symptom intervention methods. Academic researchers And clinical practitioners should treat multiple symptoms of Alzheimer's disease as a whole, and develop a reasonable management strategy to comprehensively manage the symptoms of Alzheimer's disease patients.

4.3 Emphasis on the role of informal caregivers in symptom management and improve their symptom management ability. Most of the elderly patients with Alzheimer's disease in China provide the most direct and primary care by informal caregivers, but most caregivers lack Alzheimer's disease. Knowledge and care skills [34], the relevant symptoms can not be properly evaluated and dealt with, so the caregiver's symptom management ability should be improved, and the role of informal caregivers in symptom management should be fully utilized.

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