

# Analysis of Management Strategies for Chronic Diseases in the Elderly with Cognitive Impairment

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**Abstract:** With the intensification of population aging in China, the problem of cognitive impairment in the elderly has become increasingly prominent, attracting widespread attention from all sectors of society. Geriatric cognitive impairment is characterized by chronicity, which not only seriously threatens the health of the elderly and reduces their quality of life, but also imposes a heavy burden on families and society due to its long course. Attaching importance to and strengthening the chronic disease management of elderly cognitive impairment has profound significance for delaying disease progression, improving patients' quality of life, and reducing the burden of family care. Therefore, this paper first comprehensively understands elderly cognitive impairment by briefly elaborating on its definition and characteristics; on this basis, it focuses on exploring effective strategies for the chronic disease management of elderly cognitive impairment, hoping to provide new ideas and methods for the management of this condition and offer useful references for relevant clinical research and practice.

**Keywords:** The elderly; Cognitive impairment; Chronic disease management; Strategies

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## 1. Introduction

Elderly health has always been a key issue of social concern. Geriatric chronic diseases refer to chronic illnesses specifically affecting the elderly, characterized by chronicity and progression. In recent years, with the continuous increase in the number of elderly patients with chronic diseases, their management has attracted growing attention. Among various chronic diseases, the prevalence of cognitive impairment in the elderly has been on the rise year by year, which poses a serious threat to the quality of life of the elderly. Considering the characteristics of elderly cognitive impairment, its management model should not focus solely on treatment, but gradually shift to a model suitable for chronic disease management. Through the organic combination of long-term care, symptom control, and quality of life maintenance, efforts should be made to significantly improve patients' quality of life.

## **2. Comprehensive analysis of elderly cognitive impairment**

### **2.1. Definition**

Cognitive impairment refers to a syndrome caused by various etiologies, characterized by clinical damage in one or more cognitive domains (such as attention, memory, and language ability) of varying degrees. Clinically, it is believed that elderly cognitive impairment generally goes through two stages, basically progressing from mild cognitive impairment to dementia<sup>[1,2]</sup>. Among them, Alzheimer's disease is the most common cause of senile dementia, followed by vascular dementia, Lewy body dementia, frontotemporal dementia, Parkinson's disease dementia, and other types. This profoundly reflects the complexity and diversity of the etiologies of elderly cognitive impairment.

As China gradually enters an aging society, studies have shown that the number of elderly people with cognitive impairment is increasing year by year, which has become a major public health issue of global concern. Data show that there are approximately 15.07 million dementia patients among the elderly aged 60 and above in China. The World Health Organization predicts that the global total number of dementia patients will surge from the current 55 million to 153 million by 2050. This set of data directly reflects the extremely severe prevention and control situation of elderly cognitive impairment<sup>[3]</sup>.

### **2.2. Characteristics**

#### **2.2.1. Complexity of symptoms and individual differences**

The complexity of symptoms and individual differences in elderly cognitive impairment bring many challenges to disease management and clinical treatment. Studies have shown that due to individual differences, the symptoms of elderly cognitive impairment vary. More specifically, if multiple patients are diagnosed with the same type of cognitive impairment (such as Alzheimer's disease), their symptom manifestations and progression rates may still differ significantly depending on the severity of the condition. Some Alzheimer's disease patients may present with language dysfunction in the early stage, such as word-finding difficulties, empty speech, and disorganized language organization; in contrast, other patients may present with spatial orientation impairment in the early stage, meaning they may get lost or have difficulty recognizing directions even in familiar environments<sup>[4]</sup>. Additionally, elderly patients often have multiple chronic diseases, and their cognitive impairment symptoms are easily intertwined with and masked by the clinical manifestations of other diseases. Taking "Parkinson's disease" as an example, some patients will exhibit typical motor symptoms such as stiffness and tremor, along with varying degrees of cognitive impairment. Common cognitive problems include inattention and decreased executive function. However, sometimes cognitive issues are overshadowed by more prominent motor disorders, which may increase the difficulty of diagnosis and identification, and in severe cases, delay the golden treatment period.

#### **2.2.2. Distinction from normal aging**

Accurately distinguishing between normal physiological aging and pathological cognitive impairment is a core link in early screening and intervention. Although elderly people with normal physiological aging will also experience a certain degree of cognitive function changes (such as memory loss and decreased reaction speed), these changes are usually gradual and mild, and more importantly, they basically do not affect daily life. For a simple example, some elderly people may occasionally forget something or the name of a familiar person, but they can recall it when reminded. In contrast, the degree and frequency of forgetting in patients with cognitive impairment will gradually increase; even with prompts, they basically cannot recall, and in more severe cases, they

may slowly forget the names of their family members and certain people or events with profound memories. It is worth noting that compared with elderly people with normal aging, patients with cognitive impairment usually face comprehensive damage in multiple cognitive domains, such as language ability, executive function, visuospatial ability, and memory ability <sup>[5,6]</sup>. For this reason, patients' quality of life is seriously affected. Some patients may gradually lose their ability to live independently, which provides an important basis for clinical differentiation.

### **3. Effective strategies for chronic disease management of elderly cognitive impairment**

#### **3.1. Improve public awareness**

In the entire non-pharmacological intervention system, health education is in a fundamental position and is an important prerequisite for improving management compliance and enhancing intervention effects. The first step in implementing health education is to comprehensively assess the basic situation of elderly patients, including their basic information, educational background, medical history, comorbidities, cognitive level, and the availability of social support from caregivers. This enables the development of personalized education plans, improving the pertinence and effectiveness of education. Some elderly patients with cognitive impairment have significantly reduced or even completely lost their self-management abilities. For these patients, the target audience of health education should extend from the patients themselves to their families and caregivers. The content of health education should cover various aspects such as disease etiology, risk factors, clinical manifestations, intervention strategies, treatment goal setting, lifestyle adjustments, professional care skills, and pharmacological and non-pharmacological treatment methods. The aim is to help educated individuals construct a systematic knowledge system to provide solid theoretical support for subsequent care and intervention <sup>[7]</sup>. Regarding educational forms, in addition to traditional face-to-face education, diverse educational approaches such as group education, peer experience sharing, community health promotion, online thematic lectures, and new media platform pushes should be actively introduced. This ensures convenient and timely access to information and enhances the interest and interactivity of health education.

It is worth noting that health education for elderly people with cognitive impairment is not a one-time event but a long-term and systematic process. Systematic and standardized health education can not only help patients and their families fully and correctly understand the corresponding disease and master various disease management skills but also effectively improve patients' self-management abilities and treatment compliance. While reducing the burden on families and society, it can further delay disease progression, improve quality of life, and benefit patients <sup>[8]</sup>.

#### **3.2. Construct a healthy lifestyle**

Physical exercise and rehabilitation exercises, as important links in lifestyle interventions for chronic diseases in the elderly with cognitive impairment, can strengthen the body and significantly promote the improvement of patients' cognitive functions. Among them, physical exercise such as standardized aerobic exercise plays a positive role in preventing cognitive decline caused by inflammatory reactions; on the one hand, it can improve overall cognitive function, and on the other hand, it can greatly reduce the incidence of senile dementia. It is worth emphasizing that physical exercise should be moderate and appropriate. Excessively high or low exercise intensity may be counterproductive. In the early stage of the disease, patients can choose regular and moderate

physical activities to stimulate the release of neurotrophic factors and optimize cerebral blood circulation, thereby achieving the goal of improving cognitive function in the early stage. With the progression of the disease, after professional evaluation, the exercise load can be appropriately increased to help patients successfully break through the rehabilitation bottleneck period. The prominent advantage of cognitive rehabilitation training lies in repeated training of cognitive functions to maintain the excitability of residual nerve cells in patients and promote the functional reconstruction of damaged parts of the brain<sup>[9,10]</sup>. Common forms include speech training, memory training, puzzle activities, short-term memory training, daily living ability training, and executive function training. For example, nursing homes can regularly carry out a variety of puzzle activities such as tangram puzzles, poker games, and chess. Under the demonstration of caregivers, patients are guided to piece together patterns or improve their language abilities through word association training. In addition to physical training, nursing homes should also pay attention to sleep management and weight management of elderly patients with cognitive impairment. On the one hand, ensure that patients get adequate sleep, with a recommended daily sleep duration of 6–8 hours; on the other hand, for overweight or obese patients, on the basis of routine management, it is recommended to add no less than six months of lifestyle interventions. Through diet optimization and increased exercise, patients' weight can be controlled within a reasonable range, which can also invisibly reduce the risk of cognitive impairment deterioration<sup>[11]</sup>.

### **3.3. Strengthen psychological support**

With the progression of cognitive impairment, psychological problems have gradually become an important issue plaguing patient. Patients' psychological problems and cognitive functions interact with each other, which reflects the importance of paying attention to the prevention and resolution of patients' psychological problems. In the early stage of the disease, some patients often experience a strong sense of helplessness, anxiety, or depression due to the awareness of their declining cognitive abilities and social functions. As the disease progresses to the middle and late stages, trapped by unexpressed physical pain, adverse drug reactions, unmet care needs, or the impact of comorbidities, patients' emotional and behavioral problems may further worsen, manifesting as depression, anxiety, emotional fragility, etc., and some may even experience neuropsychiatric symptoms such as hallucinations, delusions, or delirium<sup>[12]</sup>. At any stage, what patients need most is systematic psychological support, which can free them from negative emotions, stabilize their behavioral performance, thereby delaying the decline of their overall functions to a certain extent, and ultimately improving the quality of life of patients and their caregiving families.

To this end, nursing homes should make the following adjustments:

Firstly, construct a patient-centered multidisciplinary collaborative psychological support system, with the joint participation of professionals such as psychiatrists, clinical psychologists, and cognitive rehabilitation therapists. Based on a comprehensive assessment of patients' cognitive and psychological status, personalized intervention plans are tailored for them. Of course, intervention plans are not static; they should be dynamically adjusted and optimized in real time according to patients' actual conditions. Secondly, integrate various intervention methods such as supportive psychotherapy, cognitive-behavioral therapy, reminiscence therapy, music therapy, and family system intervention to provide comprehensive and personalized psychological support for patients, helping them maintain normal mental health<sup>[13,14]</sup>.

### 3.4. Improve self-management

The core goal of improving self-management is to help patients maintain functional independence as much as possible and enhance their ability to take care of themselves. Firstly, in the early stage of the disease, nursing homes should focus on helping patients establish good self-management habits and invisibly improve their self-management abilities. For example, introduce external memory aids such as medication calendars, smart pill boxes, and electronic reminders to compensate for patients' lost cognitive functions; at the same time, simplify daily task processes, ensure patients get adequate sleep, and help them develop regular work and rest habits, which are also crucial for improving their ability to take care of themselves. Secondly, attach importance to personalized management. Nursing homes should establish exclusive electronic files for each patient, recording key points that should be focused on during care, especially the corresponding symptoms of each patient (such as getting lost when going out and emotional fluctuations). This can provide a scientific data basis for formulating personalized intervention plans. Of course, the management process is inseparable from strong technical and professional support. Nursing homes should actively introduce medication reminder apps, positioning devices, smart home equipment, etc., to provide effective assistance for patients' self-management; regularly arrange medical staff to provide professional training and on-site guidance for patients to improve their self-management level<sup>[15]</sup>.

## 4. Conclusion

In summary, based on the characteristics of elderly cognitive impairment and the actual needs of patients, nursing homes should actively try diversified management strategies. Through comprehensive interventions such as improving public awareness, constructing a healthy lifestyle, strengthening psychological support, and improving self-management, they can promote patients' health and effectively provide a more scientific and professional solution for healthy aging.

## Disclosure statement

The author declares no conflict of interest.

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