

Dementia In Old Age: Prevention, Intervention & Care

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Abstract

The review & discussion of research articles, journals, and some books help us to understand dementia. This review article may help to understand What is dementia? How to prevent dementia? What care we should take to minimize the possibility of dementia? The number of dementia patients is increasing day by day. Dementia is very common in old age. At least 7% of geriatric people aged 60 and above are suffering from dementia. The multitude of geriatric people including those with dementia is arising and the adolescent/teenager people death rate is reducing. Dementia is an unusual part of getting old. The common risk factors of dementia might be physically inactive, excessive alcohol intake, depression, hypertension, illiteracy, unable to hear, social isolation, smoking, diabetes, traumatic brain injury, chronic stress, etc. Dementia is not only caused due to risk factors but also it causes because of genetic, clinical, and neurological characteristics. About 50-80% of dementia cases are suffered because of Alzheimer's Disease. Alzheimer's disease and further neurodegenerative disorders begin sometime before the clinical symptoms appearing. Alzheimer's Disease, Parkinson's Disease, Psychiatric Disorders, Vascular Dementia, and other neurodegenerative diseases like Lewy Body Dementia and Frontotemporal Dementia are also common causes of dementia. Some types of dementia are common in first-degree relatives e.g. Frontotemporal dementia (FTD). Geriatric people suffer from dementia because of the degenerative changes in the brain which occur during aging. Only 25-40% of moderate-stage dementia is acknowledged in primary care. Patients suffering from dementia normally reject the fundamental independence accessible to normal people. Till now dementia prevention, intervention, and care will significantly improve living and dying for the benefit of a patient suffering from dementia and their families, and thus society.

KEYWORDS Alzheimer's Disease, Frontotemporal Dementia, Neurodegenerative Disorder, Lewy Body Dementia, Vascular Dementia, Depression, Hypertension, cognitive impairment, cholesterol, blood pressure, stroke, etc.

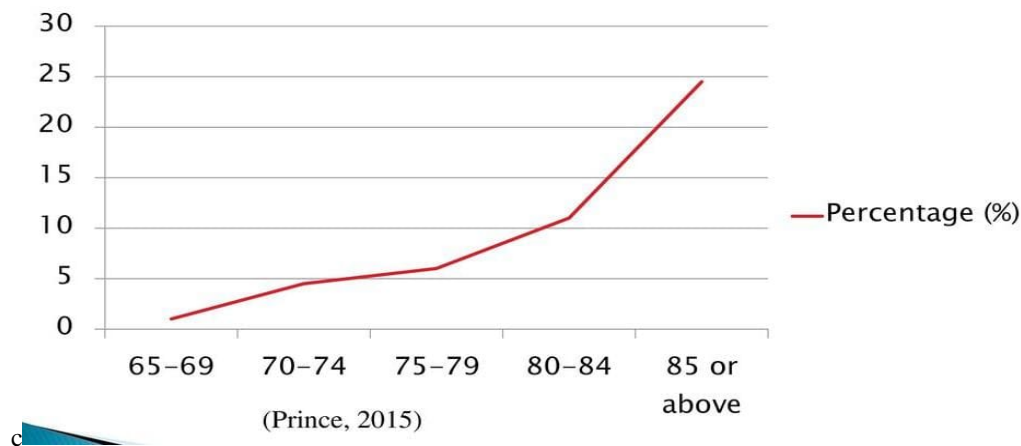
INTRODUCTION

Dementia is a neurological condition that consequence in reducing in different intellectual domains. This goes along with psychological and physical disability. Patient diminishes their self-sufficiency, so they patient gets unable to conduct their daily routine activities. Dementia is a common mental health problem in the elderly. Worldwide, approximately 55 million people have dementia.¹ Dementia means impaired ability to think, remember, and problems solving. The person with dementia also faces some difficulties to perform daily activities. People may experience various types of symptoms including cognitive, behavioral, psychological, and physiological. The symptoms may include lack of memory, anxiety, restlessness, delusion, hallucination, thinking ability, agitation, insomnia, lack of

concentration & confidence, depression, etc. Mostly, geriatric people suffer from dementia. It is usually caused in old age due to degenerative changes in the brain. The symptoms of dementia are progressive and they could worsen with time. In some cases, people suffer from dementia due to past medical history like stroke. Dementia can have primary neurologic, neuropsychiatric, and medical conditions as its causes. Neurodegenerative dementias, like Lewy body dementia and Alzheimer's disease, are most usual in old age.² People suffering from mild deficits, especially those who do not comply with the requirements are contemplated to have mild cognitive impairment (MCI). The person suffering from MCI may undergo a lot of troubles like language, memory, judgment, or thinking which is greater than the intellectual changes anticipated with normal aging.³ A phenomenon known as dementia occurs when cognitive ability declines more rapidly than may be expected given the typical effects of biological aging. Some studies show that people can reduce the possibility of cognitive decline and dementia by staying emotionally strong, reducing their alcohol intake, quitting smoking, controlling their weight, taking a healthy diet, doing physical activity and meditation, and maintaining their blood pressure, blood sugar level, and cholesterol.⁴ Some patients may experience difficulties remembering recent/same-day events but they can recall some memories from childhood.⁵

The Incidence of Dementia by Age

Percentage (%)



There are seven stages of dementia as per the global deterioration scale (GDS).

Stage 1 - No cognitive decline

People suffering from dementia with no cognitive decline have some changes in the brain but they don't experience any cognitive changes or any signs or symptoms. The physiological changes in the brain are diagnosed with the help of a CT scan.

Stage 2 – Very mild cognitive declines

The patient may experience some changes in their life like forgetting words or misplacing objects. These changes are common in geriatric people.

Stage 3 – Mild cognitive decline

Patients with mild cognitive decline may face difficulties like short-term memory. They can't make any decisions or organize plans as they did in their past life.

Stage 4 – Moderate cognitive decline

In this phase, the patients may avoid those things or events which was favorite in their past life. The proper clinical diagnosis is possible in this stage of dementia.

Stage 5 - Moderate severe cognitive decline

The patient may suffer from major memory disturbances and also forget basic activities like how to do a bath, how to comb hair and choose their own clothes.

Stage 6 – Severe cognitive decline

In this phase the patient experience severe memory loss. The patient forgets their family members, their own name, etc.

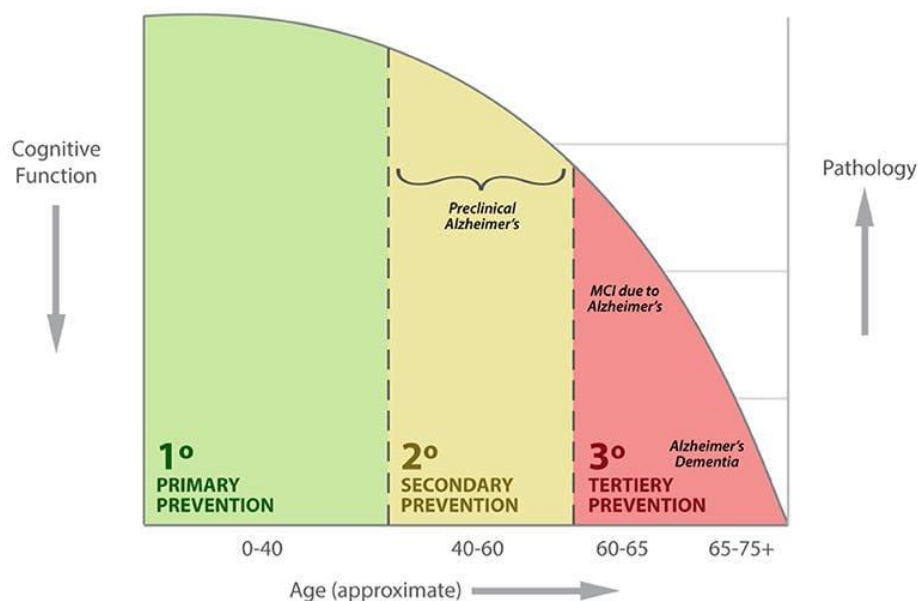
Stage 7 – Very severe cognitive decline

This is the last of dementia. The patient gets dependent on others also to do daily tasks. They face some difficulties in speaking. They get unable to eat, walk, drink, etc. In this stage, the patient may experience incontinence

DISCUSSION

Prevention

To prevent an illness is to lessen its effects. Every public health-related plan must focus on prevention. Incidence and prevalence of dementia have increased during the past few yrs. The absence of efficient treatment options and preventative measures, which are hampered by inconsistent diagnoses and weak screening tool standardization, is dementia's second striking characteristic.⁶ There are three types of prevention- primary prevention, secondary prevention & tertiary prevention. Primary prevention aims to prevent disease before it ever occurs. In neurodegenerative disorders, this prevention is performed to reduce the symptoms and eliminate the impact of the disorder. The primary prevention included lifestyle modification (quitting smoking, reducing alcohol intake, medication, physical exercise, healthy food, proper sleep, etc.) and some medications. Secondary prevention means detecting and treating early disease. In this stage, the symptoms may be present but not severe. In this stage of dementia, the psychiatrist/ psychologist may give some psychotherapies. Tertiary prevention is the method in which the treatments are designed to improve the quality of life and reduce the symptoms after the disorder is developed. Tertiary prevention would maintain an individual in an impaired state.⁷ In this stage the patient needs psychological and pharmacological treatment.⁴ Over the next 25 years, people with high blood pressure in middle age had a 40% higher risk of developing dementia. And this risk increases by 80% in the case of diabetes.⁸ That's almost as much of increased risk as having a genetic vulnerability for Alzheimer's Disease.⁹ A healthy lifestyle will reduce the risk of dementia. Some physical activities, cognitive activities, and socialization help to prevent dementia.



Physical activity

Dementia is a degenerative brain disorder that influences memory, language learning, etc. Poor function and muscle strength coincide in patients with dementia. Some appropriate physical activities for dementia patients not only improve physical health but also improve cognitive functions, reduce stress, and social and functional abilities. This activity was performed within a small group and a large group. Each group involves two or more persons with equal treatment goals. Because of group activities, the patient can improve their social interactions.^(10,11) The physical activity involves aerobic exercises, hydrotherapy, muscle-strengthening exercises, walking, etc. These physical activities improve cognitive functions which is beneficial for the patient with MCI.¹²

Cognitive Activities

According to some medical research if we keep our minds active then our thinking skills are less likely to decline. So, some activities like games, and puzzle solving may help to slow memory loss and other psychological problems. Brain exercises involve new learning skills like playing board games, reading, writing, memory games, crosswords, puzzles, etc. All those exercises reduce the amount of cell damage in the brain, help in growing new cells, and give rise to the nerve cells sending messages to each other.¹³

Socialization

In the case of dementia memory loss is the common symptom. If the patient gets socially attached then there is a low chance of memory loss. Because of the social interaction, the person can spend some quality time with people and they get satisfaction, support, and collaboration in relationships which helps to reduce the risk of dementia.¹⁴ Social interaction with different people helps to make new friends/ connections which create new memories. These new connections help to reduce brain cell deterioration which is beneficial for slowing the progression of dementia.¹⁵

Intervention

Intervention means the action taken to improve the medical disorder. Interventions are divided into two types- pharmacological & non-pharmacological. The pharmacological interventions include medications. The non-pharmacological interventions include some therapies like cognitive-behavioral therapy, Cognitive Stimulation Therapy, Reminiscence Therapy, Validation Therapy, Reality Orientation, Occupational Therapy, etc.¹⁶

Cognitive-behavioral Therapy

CBT is mainly used to treat depression and anxiety. Depression & anxiety are the most common symptoms. Due to depression & anxiety, dementia gets worsens with time.¹⁷ This therapy is beneficial for dementia with MCI.¹⁸

Cognitive Stimulation Therapy

CST is usually preferred for a patient suffering from mild to moderate stage of dementia. The physician and caregivers give advice on some mental exercises. These mental exercises help in slowing down the decline in memory and thinking. This exercise involves some discussion from the patient's past life, present events, and those topics in which the patient shows interest, some games, puzzle solving and gardening, etc. Usually, this executes by trained staff. This therapy is carried out on a group of patients suffering from dementia. During this therapy, 4-5 peoples with dementia get together to perform their tasks. This therapy is performed by the patient for about 45 minutes, at least twice a week.¹⁹ This therapy also includes some activities like current affairs, using money, childhood games, preparing food, etc. Throughout this therapy, the patients enjoy every moment. The caretakers provide a supportive atmosphere during the session. CST also make an important effect on language ability such as naming, word-finding, and understanding. Patients also observe improvement in confidence and psychological well-being.²⁰

Reminiscence Therapy

Memory loss is the main symptom of dementia. Reminiscence Therapy is used to treat memory loss. With the help of this therapy, the practitioner can inspire the patient to remember some past moments. It includes touch, smell, and sounds that are related to the patient's past life. So, that smell, touch, and sounds help the patient to remind past experiences. This therapy targets certain parts of the brain. It improves mood, cognition, and confidence, and reduces depression.²¹ This therapy involves the conversation about past life experiences, and events specialty with the use of noticeable cues (e.g. group photos, familiar items, favorite music, video clips from a past life, etc).⁵ This therapy chore has a center of attraction to the patient which creates a sense of their own lifestyle that represents a process of combining tasks.²²

Validation Therapy

Validation therapy diverts the patient's mind away from anxiety, anger, or upset and they support positive interaction which helps to recall memories with pleasure and joy.²³ This therapy usually prefer for patients with moderate to late-stage dementia.²⁴ The patients take efforts to find the solution to their unresolved problems, and past conflicts. To help them to resolve their past issues the practitioner should accept their commands and activity with respect and empathy, rather than with embarrassment, anger, or dismissiveness.^(24,25) In the case of dementia patients, it's hard to express their feelings and needs. These needs include love, security, usefulness, peace, etc. So, the patient should feel listened to and feel respected by the practitioner or other caregivers. It helps them to avoid negative feelings like anger, dismissal, disrespect, argument, misunderstood, etc. This therapy reduces stress and increases happiness. By using VT the practitioner can offer an opportunity to express what the patient wants to express. The physician may help the patient to express the things that have often been suppressed for a long time.²⁶ These strategies are using a soft, clear, low-pitched, loving tone of voice, making eye contact, don't argue, appreciating their work, focusing on what they are saying, etc.²⁵ VT motivate the patient to merge with their reality. The practitioner tries to force them to accept reality as the practitioner knows it has negative consequences.²⁴ There are some strategies which use in this therapy. These strategies are using a soft, clear, low-pitched, loving tone of voice, making eye contact, don't argue, appreciating their work, focusing on what they are saying, etc.²⁵

Reality Orientation

Some studies have stated that this therapy improves the cognitive functioning of dementia patients by providing repeated cues that help the patient to engage and connect with their current reality and environment. RO is a method of reducing confusion, disorientation, memory loss, and behavioral problems by giving different environmental cues to the patient so that the patient can grasp the information from their past life. This therapy usually includes the date, time, location, and surroundings which help the patient to remember their past life.^(23,27,28) This therapy helps the patient to think back about who they are, who they are with, where they are and the date and time, etc.²⁹ There are various tools for Reality Orientation like talking about orientation, including the day, time, day, date, and season; using people's names frequently, asking questions about photos, etc.²⁹

Occupational Therapy

Patient with dementia usually experiences forgetfulness, difficulties in problem-solving, unable to do basic work in everyday life. An occupational therapist pinpoints the difficulties which patients face in their day-to-day activities and can't perform their functions independently. The therapist can boost the functions of the brain so that the patients should be able to perform their daily activities, socially participate, etc. This therapy also builds up the usual sense of the patient. They give some tasks to the patient which help to enhance motor function, reasoning skills, and mobility which help to do day-to-day tasks. The therapist also includes some communication skills by which the patient feels able to convey their information.³⁰ This therapy aims to restore the unresolved skills of the patient and modify their domestic environment. The therapist also helps to reduce stress.³¹

Care

Dementia gets worsens with time if the caregiver or family members didn't take the proper care of the patient. As dementia gets worst, the patient needs assistance to perform daily activities. The caretaker should help the patient to do their work like eating, bathing, dressing, etc. Not only caretakers but also some additional medical care may need to manage some medical conditions. The caretaker highlights the significance of doting for all particular situations of a person's welfare which include spiritual, mental, social, and emotional needs with diagnosis, physical and medical needs.³² There are various ways/methods for the care of dementia patients some of them are given below.

Everyday care

Caring for the dementia patient is a complex task and for old age people, it becomes more difficult. During day-to-day care, the patient may feel unable to perform their basic activities and they get dependent on others.³³ Family members must know about the patient's likes, dislikes, strengths, interests, and abilities. Give some work to the patient which improves their cognitive, physical, and mental health. Set a plan for everyday exercises, yoga, and meditation. Plan some games which help to spend more time with family members. Allow them to visit temples. Make sure they are getting proper sleep. Don't forget about their medication.³⁴

Communication

Dementia patient experience many difficulties during communication. With the severity of dementia, many changes occur in the brain which include controlling language and memory. These communication difficulties may include difficulties in understanding language, reminds words, memory loss, hearing impairment, etc.³⁵ Because of all these difficulties the patient may feel confused, frightened, frustrated, insecure, angry, distressed, etc. Good communication makes the environment calm, safe, and quiet. The patient may feel secure and pay attention. The family members should speak slowly and fluently, and maintain eye contact. Give some time to the patient to understand what you are saying, ask them questions. Avoid arguments, give them sympathy, and give some cues during communication. Use simple words during communication which helps them to understand easily.³⁶

Home Safety

A good standard of living for the patient with dementia cooperates with the patient to be happy and self-supporter.³⁷ Patients like to live in their house more than in other care houses. For their safety in their own house, their family members should do some changes in their house for the safety of the patient. Housekeepers should arrange furniture in a good place and keep the environment unobtrusive. Make sure harmful substances like sharp tools, garbage, and chemicals are stored in a safe place. Don't keep the patient in the dark, shine a light in their rooms, washroom, staircases, doorways, etc. Use safety switches and good electric wires. Include all those things for the safety of the patient.³⁸⁻⁴²

Conclusion

Dementia is a psychiatric disorder. Many geriatric peoples are suffering from dementia. In this article, we have discussed risk factors, potential prevention, intervention, and care for dementia patients. Dementia disorders account for the largest number of daily worldwide. Patients with dementia get dependent on others. They experience lots of difficulties to perform their daily activities. To prevent dementia people should maintain their lifestyle from their adulthood. Physical activities, playing games, meditation, positive thinking, and socialization are some examples that help to prevent dementia. This disorder cannot be treated on the basis of medication only. The patient also needs some psychotherapies which help the patient to feel relief. When the patient suffers from dementia then the physician needs to change the treatment protocol according to the severity of the disorder. The caregiver/ family members should help the patient to perform their daily activities.

Result

This article explains the prevention, intervention, and care for dementia. There are many pharmacological and nonpharmacological interventions. Most practices are acceptable and have no harmful effects.

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