



Rising Dementia Cases in Bhutan Needs Non-Pharmacological Interventions

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Authors' contributions

This work was carried out in collaboration between both authors. Authors QSI and BA conceptualized the topic. Author QSI wrote the first draft and author BA revised the manuscript for improving intellectual content including updating of references and prepared the final version. The authors read and approved the final version for submission to journal. Both authors read and approved the final manuscript.

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Letter to Editor

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World Health Organization (WHO) defines "Dementia as a syndrome in which there is deterioration in cognitive function beyond what might be expected from the usual consequences of biological aging [1]. Globally, around 55 million people are living with dementia, and most (60%) live in low- and middle-income countries—however, the WHO expects more dementia cases worldwide because of the increasing aging population. However, many dementia cases are underreported as many countries lack national dementia strategies and action plans; also, governments have limited resources to identify dementia cases. WHO projects that the person

living with dementia will be 78 million in 2030 and 139 million in 2050 worldwide [1], and almost 71 million (> 60%) will be in the Asia region [2]. Dementia has severe physical, psychological, social, and economic impacts. Worldwide, deaths due to dementia ranked seventh globally among all ages [1].

Bhutan, part of the South Asia region, is not exceptional. Bhutan reported 21 persons living with dementia in 2016 and added 15 new cases in 2018 [3]. The detected dementia cases (from 2016-18) were primarily young adults and males (15-49 years). However, dementia usually affects

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females and the older population. Furthermore, it is estimated that about 2588 dementia cases existed in Bhutan in 2019, and it would be 11668 by 2050 [4]. Thus, Bhutan needs a national assessment to determine dementia at the community level to identify the exact number of persons living with dementia. It would be a significant public health issue among the other noncommunicable diseases in the coming years in Bhutan.

By 2030, the yearly cost of providing people with dementia with health, social services, and informal care will have risen from US\$ 1.3 trillion to US\$ 2.8 trillion [5]. Many countries have developed national dementia strategies or action plans aligning with WHO’s global action plan to address the issue adequately and minimize the economic burden on health systems [6]. Bhutan lacks national dementia strategies, so it needs a comprehensive action plan to reduce the dementia burden on the health system. Otherwise, Bhutan will face a new health challenge with dementia shortly.

Currently, pharmacological treatment is not available or limited in many countries to cure dementia [1]. Moreover, pharmacological or medicinal treatment for dementia is expensive, not promising, and has little efficacy and limited benefits for long-term management [7]. Besides pharmacological treatment of dementia, there is also effective non-pharmacological intervention or treatment (Table 1). This non-pharmacological intervention or treatment is primarily not based on medicines. For example, art therapy, music therapy, stimulating cognitive and sensory activities, etc., and their benefits are widely documented [8-10]. Also, non-pharmacological interventions are cost-effective, with fewer or no side effects, and non-pharmacological interventions could be implemented by family members, paraprofessionals, and community workers [8]. They need minimal training. The evidence-based non-pharmacological interventions could effectively manage the significant behavioral and psychological symptoms of dementia, whereas pharmacological treatment has fewer advantages [8-10]. Thus, the Western world is inclining

toward non-pharmacological treatments or interventions, an emerging new area, to enhance the quality of life of the person with dementia. Four non-pharmacological therapies are standard and holistic and are used to improve the cognitive, psychological, and behavioral issues of persons living with dementia (Table 1) [8]. Cognitive stimulation therapy is the most effective non-pharmacological intervention [8].

Many countries have not yet incorporated non-pharmacological intervention or treatment in dementia care. Bhutan can think of non-pharmacological interventions besides expensive pharmacological treatment in dementia action plans or strategies. Bhutan can train community workers and volunteers to implement non-pharmacological interventions in urban, rural, and intuitional settings. The corresponding author is directly involved in managing mentally impaired persons or persons living with dementia at dementia care homes and in the community. He goes through experiences in non-pharmacological approaches to promote the quality of life of the person living with dementia. The author develops non-pharmacological activities, such as music sessions, adult coloring, active games or physical activities, storytelling, intellectual activities, etc., based on four standard therapies (Table 1) and physical, emotional, social, vocational, intellectual, and spiritual domains of an individual. Both authors indicate the interventions should be culturally appropriate and gender-based. These activities engage the brains of persons with dementia in changing behavior, improving social and emotional well-being, and understanding their surrounding environment. The authors practically experience that non-pharmacological interventions have long-term and sustainable effects in some situations than medicines and delay mental declination. The non-pharmacological intervention/activity keeps the person living with dementia busy instead of sitting in the room alone and helps them maintain a quality of life. Policymakers, health officials, and the Government of Bhutan can take advantage of adopting non-pharmacologic interventions in dementia care.

Table 1. Non-Pharmacological holistic and standard therapies with interventions

Name of interventions	Description	Examples	Benefits
Reminiscence Therapy	Recall of past events	Photograph, recall of memories, familiar item from the past	Mood improvement, Cognitive benefits

Name of interventions	Description	Examples	Benefits
Validation therapy	Validate the person's (living with dementia) feelings and emotions in their moment of confusion	Empathy and listening (Communication technique)	Stress reduction, promoting contentment, decreasing behavioral disturbance
Reality Orientation	Reminding the person living with dementia of facts about themselves and their environment.	Memory aids, signpost, notices	Decreasing confusion and behavioral symptoms
Cognitive stimulation therapy (widely recommended)	Cognitive based tasks	Word games, puzzles	Cognitive improvement and wellness

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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