Table 1. Effect of physical activity and exercise on mild cognitiveimpairment and dementia

Author/year	Title	Objective	Correlated Disorders	Results/Conclusion
Vargas et al., 2014 [2]	Prevalence of dementia in Colombian populations	To study the high prevalence of Dementia in Latin America and the Caribbean countries and it's risk factors.	Dementia, Alzheimer Disease	The high prevalence of dementia in Latin America and the Caribbean (8.5%) could be associated with the confluence of genetic or environmental risk factors such as low education and poverty.
Elahi e Miller, 2017 [3]	A clinicopathological approach to the diagnosis of dementia	To highlight key elements that distinguish the most common dementia subtypes and to do an overview of dementia classification and diagnosis, with an emphasis on salient clinical features and neuropathology.	Dementia, Alzheimer Disease	Genetic factors promote specific proteinopathies, and modifier genes can influence variability in phenotypic presentation. Currently, among the clinically available biomarkers, those for prion disease and AD have the highest predictive values.
Lopez e Kuller, 2019 [4]	Epidemiology of aging and associated cognitive disorders: Prevalence and incidence of Alzheimer's disease and other dementias	To study the incidence and prevalence of dementia to detect possible causes of these disorders and also to analyse the high prevalence of dementia in elderly individuals around the world,	Dementia, Alzheimer Disease	The changes in these lifestyle variables over time may result in a decrease in incidence of AD. Better treatment may lead to reduced case fatality and case morbidity without changing incidence and may result in an increase in prevalence because of improved survival.
Dominguez et al., 2021 [13]	Nutrition, Physical Activity, and Other Lifestyle Factors in the Prevention of	Study the effects of dietary patterns, dietary components, and supplements on	Dementia, Alzheimer Disease,	Compelling evidence has accumulated on the critical role that adequate nutrition together with other



Effect of physical activity and exercise on mild cognitive impairment and dementia

	Cognitive Decline and Dementia	cognitive function decline and dementia and also review non- dietary lifestyle factors like physical activity, sleep quality, and socialization, which can contribute in association with dietary factors.	Cardiovascular diseases	lifestyle factors can play in the maintenance of cognitive health and in the prevention of cognitive decline and its progression to dementia.
Brett, Traynor e Stapley, 2016 [15]	Effects of Physical Exercise on Health and Well-Being of Individuals Living With a Dementia in Nursing Homes: A Systematic Review	Report evidence from randomized controlled trials and cluster randomized control trials that evaluated the effects of physical exercise interventions on individuals living with a dementia in nursing homes.	Dementia, Alzheimer Disease	There is emerging evidence that physical exercise significantly benefits individuals living with dementia in nursing homes. Higher quality research, including longer interventions and larger samples to determine optimum parameters of the physical exercise interventions evaluated are also required.
Liang et al., 2020 [16]	Contributions of Modifiable Risk Factors to Dementia Incidence: A Bayesian Network Analysis	To determine and compare the contributions of modifiable risk factors (RFs) with the prevention of dementia in older adults.	Dementia	The findings provide reliable support for the hypothesis that modifiable somatic and lifestyle factors are strong predictors of all- cause dementia.
Lu et al., 2018 [21]	Patterns of Physical Activity and Sedentary Behavior for Older Adults with Alzheimer's Disease, Mild Cognitive Impairment, and Cognitively Normal in Hong Kong	This study aimed to compare patterns of PA and sedentary behavior among individuals with AD, MCI, or normal cognition living in Hong Kong.	Alzheimer Disease, Mild Cognitive Impairment	The pattern of PA and sedentary behavior was different between individuals with AD and the others. Cognitive status may alter the purpose and type of PA intervention for AD individuals.
Sui et al., 2020 [34]	Skeletal Muscle Health and Cognitive Function: A Narrative Review	This study aimed to provide a critical appraisal of the literature on the relationship between skeletal	Dementia, sarcopenia	The literature suggests that sarcopenia and cognitive decline share pathophysiological pathways. Ageing plays a role in both skeletal muscle deterioration and cognitive decline. Furthermore, lifestyle



Araújo VO, Gonçalves MCMA, Alves AFC, Castro IA, Cavalcante MIS, Magalhães ABQB, Araujo GDAS, Sá CSG, Lima LMFV, Maia Filho LIL, Andrade HR, Albuquerque Filho LB, Sallem CC, Matoso LYA, Morais PI, Santos JCC

		muscle health and cognition.		risk factors, such as physical inactivity, poor diet and smoking, are common to both disorders.
Wang et al., 2021 [40]	Exercise Dosage in Reducing the Risk of Dementia Development: Mode, Duration, and Intensity-A Narrative Review	in the	Dementia, Alzheimer Disease	All studies emphasize on changing eating and exercise habits, as well as increasing mental training. It has been shown effective to both prevent and delay the progression of dementia. Aerobic exercise and muscle- strengthening exercises are preferable.
Nuzum et al., 2020 [36]	Potential Benefits of Physical Activity in MCI and Dementia	To characterize the utility of physical activity, especially aerobic exercise, in preventing or lessening the impact of declines in cognition, daily functioning, and psychological health among individuals with MCI and dementia.	Mild cognitive impairment (MCI), Dementia	Specifically, physical activity improves cognition, especially executive functioning and memory in MCI, independent functioning in MCI and dementia, and psychological health in dementia.

