Understanding Alzheimer's Disease in AI/AN Populations: Prevalence, Risk, and Barriers to Treatment

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Introduction

Alzheimer's disease (AD) is a neurodegenerative disease and the most common form of dementia for Americans over the age of 65. This debilitating disease leads to cognitive deterioration, most commonly in the form of memory impairment, and behavioral dysfunction.[4,5] Research has revealed that racial and ethnic minority populations in the U.S. have a greater likelihood of developing dementia, including American Indians and Alaska Natives (AI/AN).[4] The combination of a growing elderly population and numerous risk factors place the AI/AN population at a disproportionate risk for AD compared to non-AI/AN populations.[2,3] This emphasizes the importance of continued AD-related research with AI/AN cohorts and the need for culturally sensitive public health resources and services to address risk factors within the AI/AN population.[2]

Objectives

- Raise awareness about the rising prevalence of AD and related dementias within the AI/AN population.
- Highlight population-specific modifiable risk factors contributing to the development of AD.
- Discuss barriers that hinder early diagnosis and implementation of treatment for AD for AI/AN.
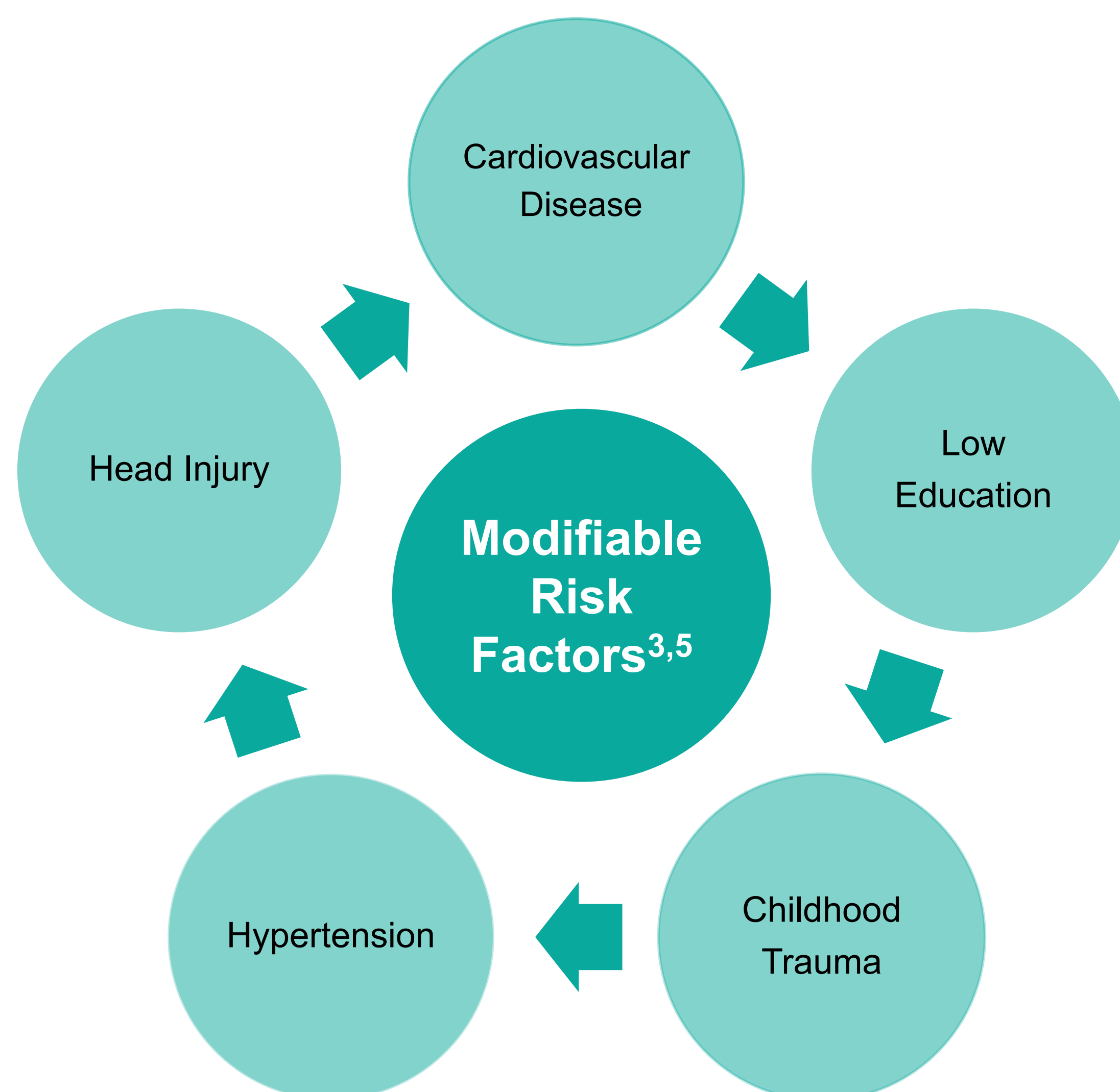
Methods

This literature search used Google Scholar, PubMed, and PsycINFO to gather and examine secondary and review literature investigating the risk, prevalence, and growing public health concern of AD among the AI/AN population.

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Summary of findings

Early intervention is an effective method to reduce cognitive decline in AD patients.[1] However, this can be challenging because the development of AD can begin decades before the onset of symptoms, making it unlikely that patients will seek medical help when clinical symptoms of dementia have not emerged. A proactive approach to reducing AD is to identify vulnerable populations based on the most prominent modifiable risk factors of AD and implement public health measures to reduce these risks before symptoms of cognitive decline dementia appear.

Modifiable risks are factors that can be changed to reduce the risk of developing a disease, unlike age, genetics, and sex, which are unchangeable. Approximately one-third of global AD cases are linked to modifiable risk factors.[3,5] AI/AN have a high prevalence of modifiable risk factors for AD and some of the greatest health disparities in the U.S., creating a high burden of AD for this population.[4] Moving forward, more efforts should be directed toward health education and prevention programs targeting risk factors for AD in AI/AN communities.

Cardiovascular Disease

Low Education

Childhood Trauma

Hypertension

Head Injury

Modifiable Risk Factors[3,5]

Barriers to Diagnosis and Treatment

Cultural Interpretation

- Cultural interpretations of symptoms can prevent AI/AN from seeking diagnosis and treatment for AD. Cognitive decline may be seen as natural aging or a disruption in an individual's spiritual, social, or emotional well-being. Without recognizing cognitive decline as a pathological concern, AI/AN may see no reason to seek medical help.[1,4] Tackling this issue requires increasing community education on AD and the early signs of dementia, as well as concerted efforts of healthcare professionals to understand different cultural perceptions of AD.[1]

Lack of Appropriate Assessment Tools

- As it currently stands, the U.S. healthcare system lacks culturally sensitive assessment tools for AD. The linguistic and cultural diversity between Tribal Nations makes accurately determining cognitive performance challenging. Given this, efforts should be made towards collaborative, community research to modify assessment tools, which otherwise may lack the capability to accurately determine cognitive health for diagnosis and treatment measures among AI/AN.[1]

Distrust in Research and Healthcare

- Due to historical and personal maltreatment in research and healthcare contexts, AI/AN are hesitant to participate in biomedical research and seek out medical care. To build trust and engagement, researchers and healthcare workers must obtain culturally appropriate training and the skills to interact and care for AI/AN communities.[4]

Conclusions

AD poses a significant challenge to AI/AN communities, prompting the need for further research into genetic, environmental, and cultural influences on the development and progression of the disease between and within Tribes. With the increasing prevalence of AD in AI/AN populations, AI/AN healthcare systems alone are not equipped to handle the rising number of AD cases. Addressing AD in AI/AN communities requires collaborative research and culturally sensitive prevention efforts to reduce risk factors, improve health outcomes, and raise the quality of life for AI/AN elders, their families, and their communities.

References

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