Dietary protein intake and its association with mental disorders in older adults: A scoping review

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ABSTRACT

Introduction: Mental disorders such as depression, anxiety, and neurocognitive disorders are increasingly prevalent among older adults, significantly affecting their quality of life and overall well-being. Recent evidence suggests that dietary factors, particularly protein intake, may play a role in mental health outcomes. However, the association between dietary protein intake and mental disorders in older adults remains underexplored. Therefore, this scoping review aims to examine the relationship between dietary protein intake and mental disorders among older adults, as well as to identify the specific protein sources associated. **Materials and Methods:** This scoping review was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for Scoping Reviews (PRISMA-ScR). A comprehensive search was performed in three databases (PubMed, Scopus, and ProQuest Health) using predefined keywords and Boolean operators. The inclusion criteria for this review were human studies, all dietary protein intake, regardless of sources, individuals aged 60 years and older, and studies published in English. Studies were excluded if they were animal-based, involved children, adolescents, or paediatric populations, or adults aged 18-59. All study designs were considered, with no limitations on the year of publication. Additionally, a thematic analysis was performed to identify and synthesize key themes across the included studies. **Results:** A total of 2,144 records were identified through database searching. After removing 48 duplicate records using Mendeley, the title and abstract screening were carried out, resulting in the exclusion of 2,008 articles. The remaining studies were then assessed for eligibility by reviewing the full-text articles based on the established inclusion and exclusion criteria. Fourteen articles (n=14) were included in the final analysis. Nine studies reported significant negative association between dietary protein intake and mental disorders among older adults. Thematic analysis identified thirteen themes of protein sources: (1) fish; (2) seafood; (3) meat; (4) eggs; (5) dairy products; (6) plant-based; (7) vegetables; (8) beans; (9) soybeans; (10) nuts; (11) legumes; (12) protein supplements; and (13) unspecified. The thematic analysis highlights the significant role of protein sources with a lower risk of mental disorders, namely anxiety, Alzheimer's disease, cognitive impairment, cognitive decline and depression. Among these sources, seafood, soybeans and legumes stood out as the most consistently protective, especially in relation to cognitive decline. While other sources were also highlighted in some studies, the results were more inconsistent. Overall, the findings suggest that diets incorporating a variety of high-quality protein sources, may help protect against mental health disorders in the older adults' population. **Conclusion:** This review provides evidence on the potential relationship between higher dietary protein intake with lower incidence of mental disorders in older adults, while highlighting the importance of adequate and varied protein consumption. These findings can inform future research and dietary protein interventions aimed at improving mental health outcomes among the aging population.

Keywords: Dietary protein, mental disorders, older adults, neurocognitive disorders, protein sources