

INPLASY PROTOCOL

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Dietary Patterns and health outcomes among older adults: A protocol for scoping review

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Conflicts of interest:
None declared.

Review question / Objective: Review Questions - What are the various data-derived dietary patterns reported among older adults across the globe? What is the relationship between dietary patterns and health outcomes in older adults? Objective - To comprehensively assess various data-derived dietary patterns among older adults across the globe and their relationship to health outcomes.

Condition being studied: The global population aged over 65 years has doubled in the last 30 years and is expected to double again by 2050. Independence and quality of life are valued by older adults but these attributes are threatened by poor health in the later years. Nutrition is a major determinant for successful aging, with dietary patterns and food consumption predominantly affecting health outcomes in older adults. However, no comprehensive review is available in this area, so we aim to collate the evidence on dietary pattern and its association with health outcomes among older adults.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 August 2021 and was last updated on 16 August 2021 (registration number INPLASY202180067).

INTRODUCTION

Review question / Objective: Review Questions - What are the various data-derived dietary patterns reported among older adults across the globe? What is the relationship between dietary patterns and health outcomes in older adults? Objective

- To comprehensively assess various data-derived dietary patterns among older adults across the globe and their relationship to health outcomes.

Rationale: Nutrition has tremendous effects on the health status and quality of life of older adults. The dietary pattern affects the

aging process and influences health outcomes significantly because older adults are vulnerable. Older adults are affected by distinct issues such as increased co-morbidities, declining functional ability, poor nutritional status, and mental health which lead to compromised quality of life. There is a dearth of any comprehensive review on data-driven dietary patterns which reflect the actual dietary intake older adults. Thus we aim to collate the evidence on various posteriori dietary patterns in older adults to evaluate the relationship between dietary patterns and health outcomes. This will help extend the understanding of actual diet-disease relationships in older adults rather than evaluating the association of health outcomes with pre-specified diet quality indices. We will carry out this scoping review following the PRISMA guideline.

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METHODS

Search strategy: Two reviewers will independently search the following electronic databases to identify eligible studies published from 2011 to 2021. Articles will be retrieved from the MEDLINE database (National Library of Medicine and National Institutes of Health) by using the PubMed, Pub Med central interface, SCOPUS, Ebscohost, Ovid, and Science Direct. The following MeSH terms and operators are used: “older adults” OR “elderly” AND “dietary patterns”. The following filters will be used in PubMed for

English language, humans, and age above 65 years. The search will be modified in the other databases accordingly.

Participant or population: Studies recruiting participants 65 years and above (older adults or elderly). This also agrees with the age filter in the PUBMED database.

Intervention: Dietary patterns in older adults (exposure variable).

Comparator: Comparing between dietary patterns.

Study designs to be included: Observational study.

Eligibility criteria: All studies that had subjects aged 65 years and above, will be included. Healthy older adults and those with disease conditions will be included. Original articles in English language will be included. Full text journal articles will be included. Conference abstracts will be excluded. Duplicate studies will be removed. Two reviewers will independently review and decide on the eligibility of the articles based on the inclusion exclusion criteria. Any conflict will be resolved by a third reviewer.

Information sources: The electronic database of PubMed, SCOPUS, Ovid, Ebscohost, and Science Direct.

Main outcome(s): Health outcomes like functional status, cognitive decline, depression, nutrition status, chronic diseases, quality of life of older adults.

Additional outcome(s): Longevity, mortality.

Data management: We plan to import all the retrieved articles in Excel and perform initial screening of the title and abstract to select relevant articles. The full text of the article will then be downloaded for further evaluation to ensure that the article meets the inclusion criteria. Any duplication and discrepancy will be resolved by discussion.

Quality assessment / Risk of bias analysis: The quality of methodology will be assessed independently by two researchers. We will use Newcastle-Ottawa Scale (NOS) for scoring and assessment.

Author 5 - Ambarish Dutta - Concept, reviewing the manuscript, supervision.

Strategy of data synthesis: A predesigned data extraction template will be used for eliciting necessary information. Two independent researchers will extract the following information-publication information, study characteristics, dietary intake assessment, pattern analysis method, adjustment variables, health outcomes, dietary patterns.

Subgroup analysis: Identification of trends that vary by gender and geographical location will be attempted.

Sensitivity analysis: NA.

Language: English.

Country(ies) involved: India, Malaysia.

Keywords: older adults, elderly, dietary patterns, health outcomes, Longevity, ageing.

Dissemination plans: The Scoping review will be part of the doctoral thesis and will be published at a future date.

Contributions of each author:

Author 1 - Parimala Mohanty - Concept and design, data retrieval and curation, interpretation of data, and drafting the article.

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