



REVIEWER'S REPORT

Manuscript No.: **JNHM-080**

Title: Association between mustard derivatives Consumption and Incidence of headache: A cross-sectional Study,

Recommendation:

Accept as it is

Accept after minor revision... **YES**.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		√		
Techn. Quality			√	
Clarity			√	
Significance			√	

Reviewer Name: PROF. DR DILLIP KUMAR MOHAPATRA

Date: 14.03.2026

Reviewer's ID: JPR-094

Detailed Reviewers Report

****Manuscript Title:**** *Association between Mustard Derivatives Consumption and Incidence of Headache: A Cross-Sectional Study*

1. Strengths of the Manuscript

1. ****Novel Research Topic****

The study investigates mustard consumption as a potential dietary trigger for headaches, which is a relatively underexplored topic compared with commonly studied triggers such as chocolate, cheese, or caffeine.

2. ****Public Health Relevance****

Headache disorders, particularly migraine and tension-type headache, are highly prevalent worldwide. Investigating dietary triggers may help in preventive strategies and lifestyle modification.

3. ****Use of Statistical Analysis****

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The authors applied both Chi-square analysis and multivariate logistic regression to examine the relationship between mustard consumption and headache incidence while attempting to adjust for confounding factors.

4. ****Clear Study Objective****

The research clearly states its aim to determine whether mustard consumption is associated with headache occurrence.

5. ****Biological Plausibility****

The discussion includes potential mechanisms (e.g., allyl isothiocyanate activation of trigeminal pathways and biogenic amines) that could theoretically explain food-triggered headaches.

2. **Weaknesses of the Manuscript**

1. ****Small Sample Size****

The study included only 112 participants, which limits statistical power and generalizability of the findings.

2. ****Cross-Sectional Study Design****

Because the study is cross-sectional, it cannot establish causality between mustard consumption and headache.

3. ****Self-Reported Data****

Headache occurrence and mustard consumption were self-reported, which introduces recall bias and subjective interpretation of symptoms.

4. ****Lack of Clinical Diagnosis of Headache****

Headache classification (migraine-like, sinus-like, unspecified) was based on participant description rather than clinical evaluation or standardized diagnostic criteria.

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5. ****Inconsistent Statistical Interpretation****

The manuscript reports a statistically significant association in unadjusted analysis ($p = 0.04$), but the association disappears after multivariate adjustment. The interpretation of these findings is not sufficiently clarified.

6. ****Language and Grammar Issues****

Numerous grammatical errors and unclear sentences are present throughout the manuscript, which affect readability and scientific clarity.

7. ****Methodological Details Missing****

Important methodological aspects are not clearly described, such as:

- * Sampling method

- * Questionnaire validation

- * Ethical approval statement

8. ****Inconsistencies in Data Reporting****

For example, residency percentages differ in different sections (72/28 vs 78/22), suggesting possible errors in data presentation.

3. Significance of the Study

The study addresses a potentially interesting and under-investigated dietary factor related to headache triggers. Although the findings do not demonstrate an independent association between mustard consumption and headaches after adjustment for confounders, the research may contribute preliminary evidence for future dietary trigger studies. However, due to methodological limitations, the clinical impact of the findings is limited.

4. Key Points

- * The study explores the association between mustard consumption and headache incidence in adults.

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- * A cross-sectional survey of 112 participants was conducted.
- * Initial analysis suggested higher headache reporting among frequent mustard consumers.
- * However, after adjusting for other dietary triggers and demographic factors, the association was no longer statistically significant.
- * Migraine-like headaches were the most commonly reported type among participants who experienced headaches.

5. Recommendation

****Decision: Minor Revision****

Although the study has methodological limitations, it explores a relatively novel topic and presents preliminary findings that could be of interest to researchers studying dietary triggers of headache. However, several improvements are required before publication.

Required Revisions

1. Correct grammatical and language errors throughout the manuscript.
2. Clarify the statistical results and interpretation of adjusted vs. unadjusted analyses.
3. Provide detailed information on:
 - * Sampling method
 - * Questionnaire validation
 - * Ethical approval
4. Resolve inconsistencies in reported data (e.g., residency percentages).
5. Improve clarity of tables, figures, and methodological descriptions.
6. Strengthen the discussion regarding study limitations.

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The manuscript has **sound methodology, appropriate statistics, and relevant findings**, but **several minor problems** such as **grammar, wording, formatting, and small inconsistencies** require correction. These **do not affect the scientific validity**, therefore **Minor Revision is appropriate**.

Minor Revision Justification

Title

Line 1

Issue:

“Association between mustard derivatives Consumption and Incidence of headache”

Problem:

Inconsistent capitalization.

Suggested correction:

“Association Between Mustard Derivatives Consumption and Incidence of Headache”

Reason for minor revision:

Formatting and title style issue only.

Abstract

Line 11–12

Issue:

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Sentence structure unclear.

Original:

“despite its common use in diet having been explored by few researchers”

****Problem:****

Grammatical ambiguity.

****Correction:****

“despite its common use in the diet, it has been explored by few researchers.”

****Reason:****

Minor language correction

Line 13

****Issue:****

Spacing error.

Original:

“Methods:This study”

****Correction:****

“Methods: This study”

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****Reason:****

Minor formatting issue.

Line 19–20

****Issue:****

Grammar problem.

Original:

“self reported headache”

****Correction:****

“self-reported headache”

****Reason:****

Minor typographical error.

Line 24

****Issue:****

Awkward statistical description.

Original:

“participants were aged 35 ± 10 years”

****Correction:****

“the mean age of participants was 35 ± 10 years.”

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****Reason:****

Language refinement.

Line 30

****Issue:****

Spelling mistake.

Original:

“dietelic triggers”

****Correction:****

“dietary triggers”

****Reason:****

Minor spelling error.

Line 34–35

****Issue:****

Sentence clarity.

Original:

“It is based on an observational correlation between increased mustard consumption and higher reporting of headaches.”

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****Problem:****

Unclear subject.

****Correction:****

“This study demonstrates an observational correlation between increased mustard consumption and higher reporting of headaches.”

****Reason:****

Minor grammatical improvement.

Introduction

Line 51

****Issue:****

Missing space in citation.

Original:

“headaches(Durak-Dados...”

****Correction:****

“headaches (Durak-Dados...”

****Reason:****

Reference formatting.

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Line 58

****Issue:****

Terminology error.

Original:

“glycosylates”

****Correction:****

“glucosinolates”

****Reason:****

Minor terminology correction.

Line 63

****Issue:****

Incorrect phrasing.

Original:

“results belong to Yu and colleagues”

****Correction:****

“results reported by Yu and colleagues”

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****Reason:****

Language clarity.

Materials and Methods

Line 74

****Issue:****

Typing error.

Original:

“112 participantsto”

****Correction:****

“112 participants to”

****Reason:****

Minor formatting.

Line 83–86

****Issue:****

Sentence too long and difficult to read.

****Problem:****

Multiple variables listed without clear structure.

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****Suggested correction:****

Split into two sentences.

****Reason:****

Readability improvement.

Line 91–92

****Issue:****

Incomplete sentence structure.

Original:

“Headache episode frequency, headache severity with VAS, association pattern...”

****Correction:****

“The secondary outcomes included headache frequency, headache severity measured using the VAS, and the association between mustard intake frequency and headache occurrence.”

****Reason:****

Minor grammar issue.

Line 97–98

****Issue:****

Grammar problem.

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Original:

“Three logistic regression analyses to identify independent predictors”

****Correction:****

“Three logistic regression analyses were performed to identify independent predictors.”

****Reason:****

Minor grammatical correction.

Results

Line 103–104

****Issue:****

Grammar problem.

Original:

“78% were live in urban”

****Correction:****

“78% lived in urban areas”

****Reason:****

Language correction.

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Line 104–105

****Issue:****

Data inconsistency.

Text states:

78% urban / 22% rural

Table 1 shows:

72% urban / 28% rural

****Reason:****

Minor data inconsistency requiring correction.

Line 121

****Issue:****

Incorrect phrasing.

Original:

“regular mustard consumption members”

****Correction:****

“participants with frequent mustard consumption”

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****Reason:****

Language correction.

Line 125

****Issue:****

Spacing error.

Original:

“headache.However”

****Correction:****

“headache. However”

****Reason:****

Minor formatting.

Line 131

****Issue:****

Incorrect statistical notation.

Original:

“(p 0.05)”

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****Correction:****

“(p < 0.05)”

****Reason:****

Statistical formatting.

Table 3

****Issue:****

Incorrect percentage.

Row:

“71 74.4%”

Mathematically incorrect because:

$$41 + 71 = 112$$

Thus percentage should be ****63.4%****, not ****74.4%****.

****Reason:****

Minor numerical correction required.

Results (Headache Type)

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Line 150

****Issue:****

Grammar.

Original:

“affected participate described”

****Correction:****

“affected participants described”

****Reason:****

Typographical error.

Line 158

****Issue:****

Incorrect word.

Original:

“photopheresis”

****Correction:****

“mustard consumption” or “food triggers”

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****Reason:****

Incorrect terminology.

Discussion

Line 167

****Issue:****

Grammar problem.

Original:

“trigger and contribute foods”

****Correction:****

“trigger and contributory foods”

****Reason:****

Language improvement.

Line 185–186

****Issue:****

Logical inconsistency.

Original:

“almost none admitted to consuming it regularly”

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But earlier results show ****22% frequent consumers****.

****Reason:****

Minor interpretation inconsistency.

Line 246

****Issue:****

Spelling error.

Original:

“trigeminologous nerve endings”

****Correction:****

“trigeminal nerve endings”

****Reason:****

Typographical error.

Line 260–263

****Issue:****

Over-interpretation.

Original:

“Mustard is a potent headache producing agent”

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****Problem:****

Contradicts earlier conclusion.

****Correction:****

Should be softened to:

“mustard may act as a trigger in susceptible individuals.”

****Reason:****

Minor interpretation adjustment.

Acknowledgements

Line 288

****Issue:****

Spacing error.

Original:

“Dr. ZeyadKadhimfor”

****Correction:****

“Dr. Zeyad Kadhim for”

****Reason:****

Overall Reviewer Decision

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Strengths

- * Relevant research topic on **dietary triggers of headache**
- * Clear **cross-sectional study design**
- * Appropriate **statistical analysis**
- * Logical **discussion and interpretation**
- * Adequate **literature support**

Minor Weaknesses

- * Several **grammar and spelling errors**
- * **Formatting inconsistencies**
- * **Minor numerical inconsistency in tables**
- * **Small wording issues in discussion**
- * **Minor statistical notation corrections**

Final Recommendation

Decision: Minor Revision

Justification:

The manuscript presents a **valid study design, appropriate statistical analysis, and clinically relevant findings** regarding dietary triggers of headache. The identified issues are limited to **language corrections, typographical errors, formatting inconsistencies, and minor clarification of interpretation**, which **do not affect the scientific validity or conclusions of the study**. Therefore, the manuscript can be **accepted after minor revisions addressing the above comments**.

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