

A Cross-Sectional Study to Assess the Prevalence and Factors Associated with Mild Cognitive Impairment among Older People in Selected Rural Areas of Gurugram

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ABSTRACT

Introduction: Cognitive impairment in older adults represents a significant public health challenge, characterized by a decline in memory, thinking, and reasoning abilities. This impairment can range from mild cognitive impairment (MCI) to more severe conditions such as Alzheimer's disease and other forms of dementia. The prevalence of cognitive impairment increases with age, affecting a substantial proportion of the elderly population. The **aim** of the study is to assess the prevalence and factors associated with mild cognitive impairment among older people.

Methods: A cross-sectional study was conducted using a self-administered questionnaire to assess the prevalence and factors associated with mild cognitive impairment among older people in selected rural areas of Gurugram, Haryana.

Results: Demographic factors such as age, gender, and marital status influence cognitive impairment outcomes. Older participants, particularly those aged 76 and above, showed a lower mean impairment score, which could indicate a unique age-related aspect or potential selection bias. Gender differences were minimal, though unmarried individuals and those with certain health conditions, including high blood pressure and diabetes, exhibited higher cognitive impairment scores. Notably, individuals with mental health conditions such as depression had the highest mean impairment scores, underscoring the impact of mental health on cognitive function.

Conclusion: The prevalence of mild cognitive impairment (MCI) varies across different demographic groups. Among age groups, the highest prevalence is seen in those aged 66-70 years, while the lowest is in participants aged 76 years and above. The study also found that unmarried individuals exhibit the highest prevalence of MCI while single participants have the lowest. Lifestyle factors also play a role in cognitive performance. Vegetarians and those engaging in morning walks had better cognitive outcomes compared to non-vegetarians and those not involved in regular physical activity.

Recommendation:

Mental health support is essential for those with depression, who exhibited a higher prevalence of impairment. Promoting social engagement and physical activity is key for better cognitive outcomes.

Keywords: Mild cognitive impairment, prevalence, old age.

INTRODUCTION

Mild Cognitive Impairment (MCI) is an early stage of cognitive decline, noticeable but not severe enough to disrupt daily life.[1] As the brain ages, some forgetfulness is normal, but MCI involves more pronounced changes in memory, language, or perception that concern both the individual and those around them. [2] Although MCI increases the risk of developing dementia, the progression varies; some individuals may not worsen or may even improve.[3] Various factors like age, lifestyle, and health conditions contribute to MCI. Despite its growing importance, research on MCI, especially in rapidly urbanizing areas like Gurugram, India, is limited.[4] This study aims to fill that gap by exploring the prevalence and associated factors of MCI in Gurugram's older population.[5] Early diagnosis through exams and lifestyle changes can help manage MCI, though no cure exists. Maintaining mental and physical health is crucial in lowering the risk.[6]

Over the past few decades, Gurugram, a fast-growing city in India's National Capital Region, has experienced significant changes in its population composition and level of urbanization. The aging population may have cognitive health issues as a result of these particular obstacles, which include changing socioeconomic dynamics, elevated stress levels, and changes in lifestyle patterns. Furthermore, the dearth of thorough studies on MCI in this particular geographic setting emphasizes how urgent it is to conduct research in this field.

NEED FOR STUDY

As the global population ages, cognitive decline among older adults is a growing concern, with Mild Cognitive Impairment (MCI) standing out as a stage between normal aging and dementia. This period is crucial for early intervention. Studies in India have found MCI prevalence among seniors to be around 14.9% to 16.47%. [10] Our cross-sectional study aims to explore the prevalence and risk factors of MCI among older adults in Gurugram, where research is limited despite rapid urbanization. Understanding MCI in this context is vital for developing targeted interventions and healthcare policies to improve the quality of life for the aging population.[11]

OBJECTIVES OF RESEARCH

- To assess the prevalence of mild cognitive impairment
- To evaluate the risk factors associated with mild cognitive impairment (MCI) among older.
- To find out the associated risk factors with selected demographic variable.

METHODS AND MATERIALS

Research Approach: A quantitative research approach

Research Design: A descriptive study design

Research Settings: District of Gurugram, Haryana, in V.P.O. Budhera.

Population : Elderly Male and Female in Budhera, Gurugram, Haryana.

Sampling Technique : Convenient sampling technique.

Sample And Sample Size : 100 elderly

Tools development and selection: A verified self-developed questionnaire

Duration of Data Collection: July 2024

Data Analysis: Descriptive and Inferential statistics (Chi-Square)

INCLUSION CRITERIA

- Who resides in the rural chosen area
- Who is interested in taking part in the study

EXCLUSION CRITERIA

- Elderly people who are not willing to take part in research

PILOT STUDY TOOL EVALUATION

On June 8, 2024, a test of the study's dependability was conducted using 10 samples.

VALIDITY

A standard of excellence that measures how well-founded and accurate inferences are formed in a study. In the degree to which an instrument measures what it is designed to measure during a measurement, seven experts validated the tool.

RELIABILITY

The degree to which an instrument produces the same results after repeated measurements is to be considered 9 research study's S reliability. On the residents of Budhera Village, a questionnaire tested the tool's dependability. The split-half approach was used to determine the tool's reliability. Reliability was measured at 0.88. As a result, the instrument was deemed to be trustworthy.

Creating the final draught:

After establishing its validity, the structure knowledge questionnaire's final draft was created.

CONSENT OF PARTICIPANT

Data collection was throughout on an individual basis. Before collecting any data, the individual was given a detailed explanation of the study's objectives and asked to sign a consent form. They were not under any duress to take part in the study. Following an in-depth explanation of the study, all samples were willingly accepted. This was carried out to ensure the investigator's moral, ethical, and legal safety.

DATA ANALYSIS AND INTERPRETATION

The analyzed data was organized according to the objectives and presented under the following sections:

The data collected was organized and presented under following section:

Variables	Item	Mean%	Mean	SD	N
Age (in years)	60-65 years	69.51	3.5	1.46	61
	66-70 years	70.59	3.5	1.70	17
	71-75 years	60.00	3.0	1.26	6
	76 years and above	43.33	2.2	1.60	6
Gender	Man	67.00	3.4	1.58	60
	Lady	68.00	3.4	1.40	30
Marital Status	Married	67.47	3.4	1.46	75
	Unmarried	71.11	3.6	1.81	9
	Single	60.00	3.0	2.00	6
Any type of disease	High blood pressure	70.73	3.5	1.42	41
	Diabetes	68.70	3.4	1.20	23
	Obesity	56.92	2.8	1.86	13
	Other	64.62	3.2	1.96	13
Any type of disorder	Depression	87.50	4.4	1.06	8
	Concern	78.46	3.9	1.32	13
	Obsessive Compulsive Disorder	60.00	3.0	2.00	5
	Stress	62.46	3.1	1.49	57
	Other	68.57	3.4	1.81	7
Dietary Pattern	Vegetarian	71.88	3.6	1.43	69
	Non-vegetarian	52.38	2.6	1.60	21
Family History of Cognitive Impairment	First generation	86.67	4.3	1.12	9
	Second generation	60.00	3.0	1.37	18
	Third generation	66.67	3.3	1.51	6
	No history	66.67	3.3	1.58	57
Previous Information on Mild Cognitive Impairment	No	65.94	3.3	1.54	64
	Yes	70.77	3.5	1.48	26

Table 1: Demographic Variable

The study sample was predominantly composed of individuals aged between 60-65 years (67.8%), with smaller proportions in older age brackets. Men were overrepresented, constituting 66.7% of the participants, while women made up 33.3%. Most participants were married (83.3%), and a smaller percentage were either unmarried (10.0%) or single (6.7%). Regarding health conditions, high blood pressure was the most common ailment, affecting nearly half (45.6%) of the participants, followed by diabetes (25.6%), and a smaller but notable incidence of obesity and other diseases (14.4% each). Stress was the most prevalent disorder reported (63.3%), with fewer cases of concern (14.4%), depression (8.9%), OCD (5.6%), and other disorders (7.8%). In terms of dietary habits, 76.7% of the participants were vegetarians, and 23.3% followed a non-vegetarian diet. A majority of participants (63.3%) reported no family history of cognitive impairment, while 36.7% had some level of family history across generations. Most participants (71.1%) were unaware of mild cognitive impairment before the study, while 28.9% had some prior knowledge. Overall, the study highlights a predominantly older, male, married, and vegetarian population with a significant prevalence of stress and chronic health conditions.

Table 2: Factors Profile of the subjects

Factors Variables	Option	Percentage(%)	Frequency(f)
Do you experience forgetting things frequently?	No	52.2%	47
	Yes	47.8%	43
Do you have a history of BP?	No	52.2%	47
	Yes	47.8%	43
Do you often Feel angry over small things?	No	28.9%	26
	Yes	71.1%	64
Do you have difficulty performing daily tasks independently such as cooking or managing finances?	No	54.4%	49
	Yes	45.6%	41
Do you have any trouble falling asleep?	No	58.9%	53
	Yes	41.1%	37
Are you involved in social gatherings?	No	28.9%	26
	Yes	71.1%	64
Do you go for morning walks?	No	51.1%	46
	Yes	48.9%	44
Have you noticed any difficulty following a conversation or understanding instructions?	No	62.2%	56
	Yes	37.8%	34
Do you experience any confusion or disorientation in familiar surroundings?	No	56.7%	51
	Yes	43.3%	39
Do you smoke or drink?	No	66.7%	60
	Yes	33.3%	30
Do you face challenges in doing tasks that you used to do easily?	No	60.0%	54
	Yes	40.0%	36

The study reveals that while a slight majority of participants do not experience frequent forgetting (52.2%) or difficulty performing daily tasks (54.4%), a notable proportion struggles with memory issues (47.8%) and maintaining independence in daily activities (45.6%). Similarly, the prevalence of a history of blood pressure issues is nearly balanced, with 47.8% reporting a history. A significant portion of the sample often feels irritable (71.1%) and engages in social gatherings (71.1%), though physical activity habits, such as morning walks, are more evenly split. Sleep issues affect 41.1% of participants, and communication difficulties, such as following conversations, are present in 37.8%. Additionally, 43.3% experience confusion in familiar surroundings, while challenges in performing previously easy tasks affect 40.0%. Smoking and drinking behaviors are less common, with two-thirds of the participants abstaining (66.7%). These findings highlight notable physical, cognitive, and emotional challenges among the elderly sample.

Table 3 Showing Association Of Scores And Demographic Variables

Demographic Data		Levels Of Cognitive Impairment (N=90)		Association With Cognitive Impairment Score				
Variables	Item	Negative Screen For Cognitive Impairment.	Positive Screen For Cognitive Impairment	Chi Test	P Value	df	Table Value	Result
Age (in years)	60-65 years	42	19	6.900	0.075	3	7.815	Not Significant
	66-70 years	11	6					
	71-75 years	3	3					
	76 years and above	1	5					
Gender	Man	36	24	0.861	0.353	1	3.841	Not Significant
	Lady	21	9					
Marital Status	Married	48	27	0.517	0.772	2	5.991	Not Significant
	Unmarried	6	3					
	Single	3	3					
Any type of disease	High blood pressure	27	14	1.505	0.681	3	7.815	Not Significant
	Diabetes	16	7					
	Obesity	7	6					
	Other	7	6					
Any type of disorder	Depression	7	1	4.537	0.338	4	9.488	Not Significant
	Concern	10	3					
	Obsessive Compulsive Disorder	3	2					
	Stress	32	25					
	Other	5	2					
Dietary Pattern	Vegetarian	48	21	4.945	0.026	1	3.841	Significant

	Non-vegetarian	9	12					
Family History of Cognitive Impairment	First generation	8	1	3.460	0.326	3	7.815	Not Significant
	Second generation	10	8					
	Third generation	3	3					
	No history	36	21					
Previous Information on Mild Cognitive Impairment	No	40	24	0.066	0.797	1	3.841	Not Significant
	Yes	17	9					

The study's analysis reveals that most demographic and health variables, such as age ($p = 0.075$), gender ($p = 0.353$), marital status ($p = 0.772$), type of disease ($p = 0.681$), type of disorder ($p = 0.338$), family history of cognitive impairment ($p = 0.326$), and previous information on mild cognitive impairment ($p = 0.797$), do not show significant associations with cognitive impairment ($p > 0.05$). However, dietary patterns ($p = 0.026$) were found to have a significant influence on cognitive impairment levels, indicating that vegetarian or non-vegetarian diets may play a role in cognitive health outcomes among participants.

Table 4 Showing Association of Scores and Factors Variables

FACTORS DATA		LEVELS OF COGNITIVE IMPAIRMENT (N=90)		ASSOCIATION WITH COGNITIVE IMPAIRMENT SCORE				
Variables	Item	NEGATIVE SCREEN FOR COGNITIVE IMPAIRMENT.	POSITIVE SCREEN FOR COGNITIVE IMPAIRMENT	Chi Test	P Value	df	Table Value	Result
Do you experience forgetting things frequently?	No	31	16	0.292	0.589	1	3.841	Not Significant
	Yes	26	17					
Do you have a history of BP?	No	30	17	0.010	0.919	1	3.841	Not Significant
	Yes	27	16					
Do you often Feel angry over small things?	No	15	11	0.501	0.479	1	3.841	Not Significant
	Yes	42	22					
Do you have difficulty	No	35	14	3.035	0.081	1	3.841	Not

performing daily tasks independently such as cooking or managing finances?	Yes	22	19					Significant
Do you have any trouble falling asleep?	No	33	20	0.063	0.801	1	3.841	Not Significant
	Yes	24	13					
Are you involved in social gatherings?	No	13	13	2.799	0.094	1	3.841	Not Significant
	Yes	44	20					
Do you go for morning walks?	No	23	23	7.203	0.007	1	3.841	Significant
	Yes	34	10					
Have you noticed any difficulty following a conversation or understanding instructions?	No	34	22	0.438	0.508	1	3.841	Not Significant
	Yes	23	11					
Do you experience any confusion or disorientation in familiar surroundings?	No	31	20	0.329	0.566	1	3.841	Not Significant
	Yes	26	13					
Do you smoke or drink?	No	39	21	0.215	0.643	1	3.841	Not Significant
	Yes	18	12					
Do you face challenges in doing tasks that you used to do easily?	No	33	21	0.287	0.592	1	3.841	Not Significant
	Yes	24	12					

The analysis reveals that most factors, such as frequent forgetfulness ($p = 0.589$), history of blood pressure ($p = 0.919$), feeling angry over small things ($p = 0.479$), trouble falling asleep ($p = 0.801$), difficulty following conversations ($p = 0.508$), confusion in familiar surroundings ($p = 0.566$), smoking or drinking ($p = 0.643$), and challenges in performing tasks ($p = 0.592$), show no significant association with cognitive impairment ($p > 0.05$). However, difficulty performing daily tasks ($p = 0.081$) and involvement in social gatherings ($p = 0.094$) are close to significance but remain above the threshold. The only significant association was found with morning walks ($p = 0.007$), indicating that individuals who engage in this activity are less likely to experience cognitive impairment. Overall, morning walks stand out as the key factor associated with cognitive health in this sample.

Table 5 Showing Association Of Scores And Tools Variables

Variables	Item	NEGATIVE SCREEN FOR COGNITIVE IMPAIRMENT.	POSITIVE SCREEN FOR COGNITIVE IMPAIRMENT	Chi Test	P Value	df	Table Value	Result
Draw a clock	Completely able to repeat	57	27	8.374	0.004	1	5.991	Significant
	Not able to	0	6					
Three words recall	Completely able to repeat	45	5	35.762	0.000	2	5.991	Significant
	Slightly able to repeat	10	18					
	Not able to	2	10					

The analysis shows significant associations between cognitive impairment and two cognitive tasks: clock drawing and three-word recall. Individuals who were completely able to draw a clock had a lower incidence of cognitive impairment ($p < 0.001$), with 57 screening negative and only 27 screening positive, while those unable to draw a clock all screened positive. Similarly, the ability to recall three words was strongly linked to cognitive impairment ($p = 0.000$), with individuals fully recalling the words having predominantly negative screens, while those with partial or no recall had a higher incidence of positive screens. These results suggest that both tasks are reliable indicators of cognitive impairment.

Table 6 Showing Descriptive Stats Of Demographic Variables

Variables	Item	Mean%	Mean	SD	N
Age (in years)	60-65 years	69.51	3.5	1.46	61
	66-70 years	70.59	3.5	1.70	17
	71-75 years	60.00	3.0	1.26	6
	76 years and above	43.33	2.2	1.60	6
Gender	Man	67.00	3.4	1.58	60
	Lady	68.00	3.4	1.40	30
Marital Status	Married	67.47	3.4	1.46	75
	Unmarried	71.11	3.6	1.81	9

	Single	60.00	3.0	2.00	6
Any type of disease	High blood pressure	70.73	3.5	1.42	41
	Diabetes	68.70	3.4	1.20	23
	Obesity	56.92	2.8	1.86	13
	Other	64.62	3.2	1.96	13
Any type of disorder	Depression	87.50	4.4	1.06	8
	Concern	78.46	3.9	1.32	13
	Obsessive Compulsive Disorder	60.00	3.0	2.00	5
	Stress	62.46	3.1	1.49	57
	Other	68.57	3.4	1.81	7
Dietary Pattern	Vegetarian	71.88	3.6	1.43	69
	Non-vegetarian	52.38	2.6	1.60	21
Family History of Cognitive Impairment	First generation	86.67	4.3	1.12	9
	Second generation	60.00	3.0	1.37	18
	Third generation	66.67	3.3	1.51	6
	No history	66.67	3.3	1.58	57
Previous Information on Mild Cognitive Impairment	No	65.94	3.3	1.54	64
	Yes	70.77	3.5	1.48	26

The cognitive impairment scores reveal variations across different demographic and health factors. Participants aged 60-70 had the highest mean scores (3.5), while those aged 76 and above had the lowest (2.2). Gender-wise, men and women had nearly identical mean scores (3.4). Unmarried participants exhibited a slightly higher mean score (3.6) compared to married and single individuals. Among diseases, participants with high blood pressure and diabetes had similar scores (~3.5), while those with obesity had a lower score (2.8). Depression was linked to the highest mean score (4.4), followed by concern (3.9). Vegetarians had higher mean scores (3.6) compared to non-vegetarians (2.6). A first-generation family history of cognitive impairment was associated with the highest score (4.3). Lastly, participants with prior information on mild cognitive impairment had a slightly higher mean score (3.5) than those without (3.3).

Table 7 Showing Descriptive Stats Of Factors Variables

Factors Variables	Item	Mean%	Mean	SD	N
Do you experience forgetting things frequently?	No	71.49	3.6	1.49	47
	Yes	62.79	3.1	1.54	43
Do you have a history of BP?	No	65.53	3.3	1.62	47
	Yes	69.30	3.5	1.40	43
Do you often Feel angry over small things?	No	61.54	3.1	1.62	26
	Yes	69.69	3.5	1.47	64
Do you have difficulty performing daily tasks independently such as cooking or managing finances?	No	68.57	3.4	1.59	49
	Yes	65.85	3.3	1.44	41

Do you have any trouble falling asleep?	No	67.17	3.4	1.56	53
	Yes	67.57	3.4	1.48	37
Are you involved in social gatherings?	No	56.92	2.8	1.80	26
	Yes	71.56	3.6	1.34	64
Do you go for morning walks?	No	57.83	2.9	1.52	46
	Yes	77.27	3.9	1.36	44
Have you noticed any difficulty following a conversation or understanding instructions?	No	66.43	3.3	1.57	56
	Yes	68.82	3.4	1.44	34
Do you experience any confusion or disorientation in familiar surroundings?	No	63.92	3.2	1.59	51
	Yes	71.79	3.6	1.41	39
Do you smoke or drink?	No	67.67	3.4	1.55	60
	Yes	66.67	3.3	1.47	30
Do you face challenges in doing tasks that you used to do easily?	No	66.67	3.3	1.57	54
	Yes	68.33	3.4	1.46	36

The cognitive impairment scores reveal nuanced differences based on various behavioral and health factors. Participants who do not frequently forget things had a slightly higher mean score (3.6) than those who do (3.1). Those with a history of high blood pressure had a slightly higher score (3.5) compared to those without (3.3). Feeling angry over small things was associated with a higher mean score (3.5). Social engagement and morning walks were linked to higher scores (3.6 and 3.9, respectively), suggesting that active individuals may have higher cognitive awareness. However, participants who do not participate in social gatherings or morning walks had lower scores (2.8 and 2.9, respectively). Difficulty performing daily tasks, trouble falling asleep, or following conversations did not show significant differences in mean scores. Participants with confusion or disorientation in familiar surroundings had higher scores (3.6), while smoking, drinking, or challenges in completing tasks did not show notable differences in cognitive impairment levels.

DISCUSSION AND CONCLUSION

The findings from this study highlight several key factors influencing mild cognitive impairment (MCI), including age, gender, marital status, health conditions, mental health, lifestyle, and dietary habits. When comparing these results to existing literature, several patterns emerge that reinforce or provide new insights into the understanding of MCI risk factors.

Age and Gender Influence:

In this study, the highest prevalence of MCI is found in individuals aged 66-70 years (70.59%), aligning with previous research showing that MCI risk increases with age. For example, Petersen et al. (2018) note that MCI prevalence rises in older adults, with individuals over 65 at the highest risk due to natural cognitive decline associated with aging . [12] While the gender difference in this study shows women having a slightly higher prevalence of MCI (68.00%) compared to men (67.00%), this minor disparity is consistent with findings by Roberts et al. (2012), who suggest that women may experience a marginally higher rate of cognitive decline as they age, particularly after menopause due to hormonal changes . [13] However, other studies, such as one by Prince et al. (2013), suggest that gender differences in cognitive decline might be negligible when other factors, such as education and social engagement, are considered .[14]

Marital Status Impact:

The study found that unmarried individuals exhibit the highest prevalence of MCI (71.11%), while single participants have the lowest (60.00%). This aligns with findings from Sundström et al. (2014), who argue that marital status can influence cognitive health, with unmarried individuals—especially those living alone—often having less social interaction and mental stimulation, increasing the risk of cognitive decline . [15] Single participants in this study, who showed the lowest prevalence of MCI, may have had stronger social networks or

healthier lifestyles, potentially mitigating the effects of MCI, as supported by a study by Håkansson et al. (2009), which highlights the protective benefits of social engagement in preventing cognitive decline .[16]

Health Conditions Correlation:

Participants with high blood pressure (70.73%) and diabetes (68.70%) showed higher MCI prevalence compared to those with obesity (56.92%) and other diseases (64.62%). These findings are consistent with a body of research indicating that chronic conditions like hypertension and diabetes are strongly associated with cognitive decline. Research by Whitmer et al. (2005) and Qiu et al. (2010) demonstrates that vascular conditions, particularly high blood pressure and diabetes, can impair blood flow to the brain, contributing to cognitive impairment .[17] [18] In contrast, the lower prevalence of MCI among participants with obesity in this study is somewhat surprising, as other studies (e.g., Cournot et al., 2006) suggest that obesity can also negatively impact cognitive function. This discrepancy may be due to differences in the severity or duration of obesity in the sample population, requiring further exploration .[19]

Mental Health Factors:

Mental health was a significant determinant of MCI in this study, with depression showing the highest prevalence (87.50%) among affected individuals. This finding strongly correlates with previous studies, such as those by Geda et al. (2006) and Byers & Yaffe (2011), which have established depression as a major risk factor for cognitive impairment and dementia . [20] [21] The higher prevalence of MCI in individuals experiencing concern (78.46%) and stress (62.46%) further supports the well-documented link between chronic stress, anxiety, and cognitive decline, as outlined by Wilson et al. (2007) . These results highlight the importance of addressing mental health in efforts to prevent or manage MCI.[22]

Lifestyle and Behavioral Associations:

Social engagement, physical activity, and emotional responses also play a significant role in MCI prevalence. The study shows that participation in social gatherings (72.00%) and morning walks (75.00%) is associated with higher MCI prevalence, which may be due to reverse causality—individuals with MCI may be more likely to engage in such activities as part of coping strategies or because they were recommended after early detection. However, studies like Buchman et al. (2012) emphasize that physical activity and social participation can protect against cognitive decline by improving brain plasticity and reducing inflammation . [23] The higher MCI prevalence among those frequently feeling angry (70.73%) may reflect the association between emotional dysregulation and cognitive dysfunction, as suggested by studies on the role of emotional health in brain aging .

Vegetarian Diet Association:

This study found that vegetarians had a higher prevalence of MCI (71.88%) compared to non-vegetarians (52.38%), suggesting that dietary habits may influence cognitive health. While vegetarian diets are often associated with numerous health benefits, the cognitive impact remains debated. Some research, such as that by Ritchie et al. (2014), suggests that a plant-based diet rich in antioxidants may lower cognitive decline risk, while other studies, like that by Morris et al. (2015), argue that a lack of specific nutrients like omega-3 fatty acids (commonly found in fish) in vegetarian diets could potentially increase cognitive decline risk. The higher MCI prevalence among vegetarians in this study may indicate the need for more balanced dietary plans that include nutrients crucial for cognitive health.[24] [25]

CONCLUSION

The results of this study align with existing literature on cognitive impairment, emphasizing the multi-faceted nature of MCI risk factors. Age, mental health, physical activity, and diet remain key areas for further investigation and intervention, particularly in populations at risk for cognitive decline. Addressing mental health and ensuring a balanced diet could be critical in mitigating MCI and promoting healthy aging.

Recommendation:

Mental health support is essential for those with depression, who exhibited a higher prevalence of impairment . Promoting social engagement and physical activity is key for better cognitive outcomes.

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Ethical approval: The study was approved by the institutional ethical committee of the SGT University.

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