

Potentially modifiable risk factors for dementia in older Mexican adults: comparative analysis 2006–2017



Jiménez-García, María Guadalupe (1,2); Acosta-Castillo, Gilberto Isaac (1,2); Longoria-Ibarrola Mariana (1,2); Sosa-Ortiz, Ana Luisa (1,2)

- 1. National Institute of Neurology and Neurosurgery "Manuel Velasco Suárez“, Mexico City.
- 2. National Autonomous University of Mexico, Mexico City.

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INTRODUCTION

In 2012, the World Health Organization declared dementia a public health priority. This condition increases with population aging. Potentially modifiable risk factors (PMRFs) for developing dementia have been identified as important for creating preventive strategies. This study describes and compares the prevalence of nine PMRFs in Mexican older adults evaluated in 2006 and 2017 by sex and age.

METHODS

Observational, cross-sectional study of two independent measurements from the 10/66 group databases (2006 and 2017). Data was obtained on nine FRMs for dementia: low educational attainment, hearing loss, hypertension, obesity, smoking, depression, physical inactivity, social isolation, and diabetes. Prevalence rates were calculated for both periods and compared by sex and age group.

RESULTS

A decrease in low educational attainment and smoking was observed in 2017-19 compared to 2006-07. In contrast, the rest increased (hearing loss, hypertension, obesity, depression, physical inactivity, and diabetes), all with statistically significant differences, except for social isolation. By sex, women had the highest prevalence in 7 of the 9 FRMs in 2006-07 (low educational attainment, hypertension, obesity, depression, physical inactivity, social isolation, and diabetes) and in 2017-19 this remained the case except for social isolation, which became more prevalent in men. In 2006-07, men had the highest prevalence of hearing loss and smoking, and in 2017-19, social isolation was added. By age, in 2006-07, those over 85 had the highest prevalence in five of the FRMs, although only three had statistically significant differences (low educational attainment, hearing loss, and physical inactivity). Eleven years later, this group continues to have the majority of FRMs, five out of nine.

Prevalence of risk factors in the 2006-07 and 2017-19 phases				
Risk Factor	2006-07 n=2003	2017-19 n=2,457	2017-19 vs 2006-07	P value
Low education level	<u>70.3</u>	49.3	-21.0	<0.001
Hearing loss	36.5	<u>48.9</u>	12.4	<0.001
Hypertension	60.0	<u>67.7</u>	7.7	<0.001
Obesity	52.0	<u>55.4</u>	3.4	0.023
Smoking	<u>9.0</u>	7.1	-1.9	0.024
Depression	28.7	<u>39.3</u>	10.7	<0.001
Physical inactivity	35.1	<u>38.3</u>	3.2	0.028
Social isolation	2.0	<u>2.7</u>	0.8	0.089
Diabetes	17.8	<u>26.7</u>	9.0	<0.001

Prevalence of risk factors by age group in 2006-07						
	Age groups 2006 n=2,003					
Risk Factor	65-69	70-74	75-79	80-84	85+	P value
Low education level	59.7	69.4	75.6	78.6	<u>80.1</u>	<0.001
Hearing loss	26.5	32.2	40.6	46.2	<u>55.7</u>	<0.001
Hypertension	57.2	59.0	62.9	60.7	<u>64.2</u>	0.297
Obesity	<u>55.0</u>	52.0	50.5	49.5	50.6	0.529
Smoking	10.3	<u>11.2</u>	5.6	7.6	8.0	0.024
Depression	27.0	29.4	29.3	27.6	<u>30.7</u>	0.831
Physical inactivity	21.4	30.3	40.2	47.1	<u>61.5</u>	<0.001
Social isolation	2.0	1.2	<u>3.3</u>	1.1	2.3	0.144
Diabetes	<u>19.3</u>	17.7	19.0	15.6	13.6	0.375

CONCLUSIONS

The FRMs analyzed show, in both assessments, the highest prevalence in women and in those over 85 years of age. This pattern is epidemiologically relevant as it coincides with the fact that sex and advanced age are non-modifiable risk factors for dementia. This underscores the need to consider these demographic aspects for prevention and early detection strategies, as these groups concentrate both modifiable and non-modifiable factors.

Prevalence of risk factors in men and women by study phase						
	2006-07 n=2003			2017-19 n=2,457		
Risk Factor	Women	Men	P value	Women	Men	P value
Low education level	<u>70.4</u>	70.1	0.866	<u>53.3</u>	42.9	<0.001
Hearing loss	31.9	<u>44.2</u>	<0.001	46.5	<u>52.6</u>	0.003
Hypertension	<u>64.8</u>	51.7	<0.001	<u>69.1</u>	65.4	0.062
Obesity	<u>68.8</u>	23.1	<0.001	<u>71.4</u>	30.3	<0.001
Smoking	3.8	<u>18.0</u>	<0.001	3.9	<u>12.3</u>	<0.001
Depression	<u>34.2</u>	19.2	<0.001	<u>43.5</u>	32.8	<0.001
Physical inactivity	<u>35.3</u>	34.6	0.748	<u>39.6</u>	36.2	0.093
Social isolation	<u>2.2</u>	1.5	0.267	2.4	<u>3.3</u>	0.207
Diabetes	<u>19.4</u>	15.0	0.012	<u>27.1</u>	26.2	0.623

Prevalence of risk factors by age group in 2017-19						
	Age groups 2017 n=2,457					
Risk Factor	65-69	70-74	75-79	80-84	85+	P value
Low education level	23.9	41.4	52.5	60.3	<u>71.7</u>	<0.001
Hearing los	36.0	40.2	47.2	56.7	<u>67.5</u>	<0.001
Hypertension	58.3	69.6	71.4	<u>73.6</u>	65.6	<0.001
Obesity	58.1	<u>58.8</u>	57.4	54.6	47.1	0.002
Smoking	<u>11.5</u>	7.9	6.9	6.0	2.9	<0.001
Depression	33.4	34.7	40.5	41.2	<u>47.9</u>	<0.001
Physical inactivity	23.6	30.5	34.8	46.9	<u>59.8</u>	<0.001
Social isolation	2.0	2.2	1.8	2.1	<u>6.0</u>	<0.001
Diabetes	29.6	<u>31.5</u>	30.0	23.9	16.7	<0.001

CONTACT

María Guadalupe Jiménez García, MD
Geriatrician | Cognitive Aging and Dementia Fellow
geriatria.jimenez@gmail.com