

RESEARCH

Obesity risk control in older adults at the primary care level

Control del riesgo de obesidad en personas adultas mayores en primer nivel de atención médica

Controle do risco de obesidade em idosos no nível da atenção primária

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Abstract

Introduction: Overweight and obesity are considered a global epidemic that increases the risk of cardiovascular disease, diabetes, and arterial hypertension. In Mexico, 74.2 % of adults are overweight or obese, and 81.6 % suffer from abdominal obesity. **Objective:** To describe the control of obesity risk in older adults in the first level of medical care in Aguascalientes, Mexico. **Methodology:** Descriptive, cross-sectional study, sample of 382 older adults aged 60 years and older, both genders, who attended their medical consultation at two first level health care clinics of

the Government Workers' Social Security and Services Institute (*Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado*). Those who were referred to the emergency services for health reasons were excluded. The sociodemographic data sheet and the Obesity Risk Control questionnaire, resulting from the taxonomy of nursing results, were used. Approval was obtained from the Research Ethics Committee of the health institution. Data were analyzed through measures of central tendency and frequency distribution. **Results:** 45.3 % were overweight and 29.1 % were obese. Obesity risk control with low average was resources to control weight. 47.1% reported that they sometimes keep track of their obesity risk. **Conclusions:** Obesity risk control is essential in the first level of care, since it allows maintaining the expanded nursing role in this sector, as well as health promotion and disease prevention.

Key words: Obesity; body weight; health promotion; older adult (DeCS).

Resumen

Introducción: El sobrepeso y obesidad son consideradas una epidemia global que aumentan el riesgo de enfermedades cardiovasculares, diabetes e hipertensión arterial. En México el 74.2 % de adultos tienen sobrepeso u obesidad y el 81.6 % padece obesidad abdominal. **Objetivo:** Describir el control del riesgo de obesidad en personas adultas mayores en el primer nivel de atención médica en Aguascalientes, México. **Metodología:** Estudio descriptivo, transversal, muestra de 382 personas adultas mayores de 60 años y más de ambos sexos derechohabientes de dos clínicas de primer nivel de atención médica del Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado, que acudieron a consulta médica. Se excluyó a quienes por cuestiones de salud fueron derivadas al servicio de urgencias. Se empleó cédula de datos sociodemográficos y cuestionario de Control del Riesgo de Obesidad, emanado de la taxonomía de resultados de enfermería. Se contó con la aprobación del Comité de Ética en Investigación de la institución de salud. Los datos se analizaron a través de medidas de tendencia central y distribución de frecuencias. **Resultados:** El 45.3 % presentaron sobrepeso y el 29.1 % obesidad. El control del riesgo de obesidad con promedio bajo fue recursos para controlar el peso. El 47.1 % refirió que a veces llevan control del riesgo de obesidad. **Conclusiones:** El control del riesgo de obesidad es indispensable en el Primer Nivel de Atención, ya que permite mantener el rol ampliado de la Enfermería en este sector, así como, la promoción de la salud y prevención de enfermedades.

Palabras clave: Obesidad; peso corporal; promoción de la salud; adulto mayor (DeCS).

Abstrato

Introdução: O sobrepeso e a obesidade são considerados uma epidemia global que aumenta o risco de doenças cardiovasculares, diabetes e hipertensão. No México, 74.2 % dos adultos têm sobrepeso ou obesidade e 81.6 % sofrem de obesidade abdominal. **Objetivo:** Descrever o controle do risco de obesidade em idosos no nível de atenção primária em Aguascalientes, México. **Metodologia:** Estudo descritivo, transversal, com amostra de 382 adultos com 60 anos ou mais, ambos os gêneros, cadastrados em dois ambulatorios de atenção primária do Instituto de Previdência e Serviços ao Servidor Público Estadual, que compareceram a uma consulta médica. Foram excluídas as pessoas que foram encaminhadas para os serviços de urgência por razões de saúde. Foram utilizados a ficha de dados sociodemográficos e o questionário de Controle de Risco de Obesidade, derivados da



taxonomia de resultados de enfermagem. Foi obtida aprovação do Comitê de Ética em Pesquisa da instituição de saúde. Os dados foram analisados por meio de medidas de tendência central e distribuição de frequência. **Resultados:** 45,3 % estavam com sobrepeso e 29,1 % obesos. Controlar o risco de obesidade com média baixa foi recursos para controlar o peso. 47,1% referiram que, por vezes, controlam o seu risco de obesidade **Conclusões:** O controle do risco de obesidade é essencial no primeiro nível de cuidados, uma vez que permite manter o papel alargado da enfermagem neste sector, bem como a promoção da saúde e a prevenção da doença.

Palavras-chave: Obesidade; peso corporal; promoção de saúde; idoso (DeCS).

Introduction

Obesity in Older Adults (OAs) is a public health problem with significant impact on morbidity and mortality. This condition is associated with chronic diseases such as type 2 diabetes, heart disease, stroke and some types of cancer ⁽¹⁻⁴⁾. Currently, OAs represent between 12.0 % and 14.0 % of the Mexican population; however, by the year 2050, 23 out of every 100 Mexicans will be OAs and, therefore, health spending for comorbidities associated with obesity will increase ⁽⁵⁾. In Latin America, 38.0 % of the 60 year-old OAs are overweight and 13.0 % are obese ⁽⁶⁾. In Mexico, 74.2% of the adult population is overweight or obese and 81.6 % suffers from abdominal obesity.

In OAs aged 60 to 69 years, 39.7 % are overweight, 41.3 % are obese and 90.5 % have abdominal adiposity. In people between 70 and 79 years of age, 44.1 % are overweight, 28.6 % obese and 88.5 % have abdominal adiposity. Finally, among people aged 80 years and older, 37.0 % were overweight, 15.4 % obese and 75.0 % had abdominal adiposity ⁽⁷⁾. Specifically, in Aguascalientes, 9,758 new cases of obesity were reported in 2022, being 12.0 % of the OA population ⁽⁸⁾. In view of this, the Government Workers' Social Security and Services Institute (ISSSTE by its acronym in English) includes the Overweight and Obesity Prevention and Regression Program (PPRESyO by its acronym in English) to prevent obesity and diseases through a multidisciplinary approach ⁽⁹⁾; however, it is necessary to identify, from the outpatient clinic, the actions that the OAs carry out to control the risk of obesity as part of the preventive actions in this age group.



In recent years, research on obesity in OAs has advanced considerably providing new insights into the causes, including modifiable and genetic factors, chronic inflammation and intestinal dysfunction ^(7,10-11). Obesity can have an impact on cognitive impairment, frailty and quality of life of OAs ⁽⁸⁻⁹⁾. Hence, the importance of having strategies to prevent and control the risk of obesity, including healthy diet, physical activity, behavioral interventions and pharmacological therapy in case of comorbidities ⁽¹³⁻¹⁵⁾. For this study, Obesity Risk Management (ORM) is defined as personal actions to prevent, remove or reduce the threat of obesity ⁽¹²⁾. The ORM questionnaire is an essential tool resulting from the results of the Nursing taxonomy that allows the assessment of various factors that contribute to weight management in OAs.

Nevertheless, only one study is available that employed the ORM scale, identifying that more than half of the adolescents sometimes demonstrated ORM ⁽¹³⁾; in this respect, given the importance of nursing taxonomy in the provision of the nursing care, it was decided to investigate ORM in order to scientifically identify the indicators that favor ORM in OAs, as this is a population with vulnerabilities. Based on the above, the question How is the ORM in the OAs at the first level of medical care in Aguascalientes, Mexico? The objective of the study was to describe the ORM in OAs at the first level of medical care in Aguascalientes, Mexico.

Methodology

Descriptive, cross-sectional study. The study population consisted of 54,318 OAs registered in the ISSSTE in Aguascalientes, Mexico ⁽¹⁶⁾. The study included the OAs of 60 years of age and over who were beneficiaries of two first level health care clinics, both genders, and who attended a medical consultation. Those who were referred to the emergency services for health reasons were excluded. Participants who chose to withdraw their informed consent were not considered.

The sample was calculated with the Open Epi program, version 3, considering the 95 % confidence interval, resulting in 382 participants, where non-probabilistic convenience sampling was used.



A survey was used containing sociodemographic data such as sex, marital status, schooling, with whom the patient lives, weight, height and body mass index (BMI). Weight (kg) and height (cm) data were obtained from the clinical record, and BMI was then calculated. The variable of interest was assessed using the Control of Obesity Risk (ORM) questionnaire proposed in the Nursing Outcomes Classification (NOC), comprised by six dimensions with 26 items that are healthy nutritional pattern (items 4 to 11,13), caloric control (items 15 to 21), knowledge for obesity control (items 1,2,3,22), resources to control weight (items 23 to 26), hydration (item 14) and daily breakfast (item 12), 5-point Likert-type measurement, where 1= never to 5= always, the higher the score, the higher the ORM; it has validity in the Mexican context with Cronbach's α .927, Bartlett's test $\chi^2= 2326.4$, sig .000, KMO= .89. The overall scoring of the ORM questionnaire was performed based on the recommendation established in the NOC, considering the mode obtained in each of the indicators, mode 1 point= the OAs never performed actions for ORM, mode 2 points= rarely demonstrated ORM, mode 3 points= sometimes demonstrated ORM, mode 4 points= frequently demonstrated ORM and mode 5 points= always demonstrated ORM. Additionally, the sum of the indicators obtained and their transformation to indexes from 0 to 100 were considered, giving rise to the following classification: 0 to 20 points= never demonstrated ORM, 21 to 40= rarely demonstrated ORM, 41 to 60= sometimes demonstrated ORM, 61 to 80= frequently demonstrated ORM and 81 to 100= always demonstrated ORM ⁽¹³⁾. The Cronbach's α obtained in the present study was .897.

The research was authorized by an Ethics and Research Committee with register ISSSTE R-CI-2024-0001, and complied with the regulations of the Mexican General Health Law on research by obtaining the informed consent of the participants ⁽¹⁷⁾. The instruments were applied and self-administered. Data capture, processing and assessment were carried out with the statistical package named Statistical Package for the Social Sciences version 25. For the assessment of the



sociodemographic variables and general objective (frequency distribution), descriptive statistics was used. For the dimensions of the questionnaire, the mean and standard deviation were used.

Results

More than half of the OAs were between 60-70 years of age (58.4 %) and 50.8 % were women.

The predominant BMI was overweight with 45.3 %, (Table 1).

Table 1. Characterization of participants, 2024, (n=382)

	Variable	n	%
Sex	Woman	194	50.8
	Man	188	49.2
	Single	31	8.1
Marital status	Married	275	72.0
	Divorced	16	4.2
	Common-law marriage	5	1.3
Schooling	Widow/Widower	55	14.4
	None	17	4.5
	Elementary school	67	17.5
	Secondary school	55	14.4
	High school	124	32.5
	Bachelor's Degree	95	24.9
With whom she lives	Master's Degree	17	4.5
	PhD	7	1.8
	Spouse and child	34	8.9
	Spouse	229	59.9
	Child	55	14.4
	Live by himself/herself	35	9.2
	Grandchild	9	2.4
	Wife and grandchild	10	2.6
	Father or mother	5	1.3
	Son-in-law/daughter-in-law and grandson	2	0.5
BMI	Nephew/Niece	1	0.3
	Son/Daughter and grandchild	2	0.5
	Low weight	2	0.5
	Normal weight	96	25.1
	Overweight	173	45.3
	Obesity Grade I	77	20.2
	Obesity Grade II	20	5.2
	Obesity Grade III	14	3.7

Source: Self-development

Resources to control weight with a mean of 39.2 was the CRO dimension with the low average, while the knowledge dimension for ORM obtained the highest average of 92.4, (Table 2).



Table 2. Dimensions of participants' obesity risk management, 2024 (n=382)

Dimensions of Obesity Risk Management	Average	Standard deviation
Healthy nutritional pattern	63.6	19.6
Calorie control	45.8	18.6
Knowledge for obesity control	92.4	16.9
Weight management resources	39.2	25.1
Hydration	69.4	26.3
Daily breakfast	92.1	17.2

Source: Self-development

Regarding the frequency of ORM, 47.1 % reported that they sometimes tried ORM, (Table 3).

Table 3. Management of participants' obesity risk, 2024, (n=382)

Obesity Risk Management	n	%
Never showed ORM	6	1.6
Rarely demonstrated ORM	39	10.2
Sometimes demonstrated ORM	180	47.1
Frequently demonstrated ORM	120	31.4
Always demonstrated ORM	37	9.7

Source: Self-development

Discussion

Based on the objective of describing the ORM in the OAs at the first level of medical care in Aguascalientes, Mexico, more than half of the participants were between 60 and 70 years of age, similar to that reported by the National Institute for Older Adults, given the aging process in the country, where the group aged 60 years or older is increasing by 4.0 % annually, becoming 12.0 % of the country's total population ⁽¹⁸⁾.

Regarding BMI, overweight predominated, similar to what was reported in the 2018-2019 National Health and Nutrition Survey, where the consumption of unhealthy food increased the BMI of the inhabitants ⁽⁷⁾. In this regard, Mexican adults living in rural areas have a higher consumption of healthy foods such as fruits, vegetables, cereals and vitamins, while in urban areas people eat more fatty foods, processed foods, refined sugars and fewer vegetables, fruits and cereals. Likewise, a higher socioeconomic status was related to a lower caloric and more natural diet ⁽¹⁹⁾. In addition, it



should be taken into account the social distancing caused years ago by the Covid-19 pandemic, which led to the closure of sports/recreational centers and consequently to a reduction in physical activity ⁽²⁰⁾.

This situation is disturbing, since some of the complications of obesity in OAs are cancer, cardiovascular diseases, osteoporosis, diabetes, osteoarthritis ⁽²¹⁾ and mental health problems, such as generalized anxiety ^(22,23). Moreover, the vulnerability of the pension system and the health services to which OAs have access puts their quality of life at risk, and although transitions in the social systems of care and support have emerged, it is still essential to improve the processes for the well-being of an aging society ⁽²⁴⁾.

Regarding sex, the half were women, similar to that reported by Mexican researchers with just over half. In this study, almost three parts of the population were married, a figure higher than reported by Mexican researchers with just over half. The predominant level of schooling was high school with 32.5 %, which is a higher result than that reported in the Mexican context, which showed an average of 4.2 years of official studies. 59.9 % of the OAs lived with their wife or husband, although this result could not be compared, since the researchers reported only the frequency of OAs with dependence in basic activities of daily living (21.7 %) and dependence in instrumental activities of daily living (5.1 %), without specifying the relationship of the caregiver ⁽²⁵⁾.

The ORM dimension with low mean was resources for weight management, which involves engaging in regular physical activity, maintaining a healthy sleep routine, obtaining advice from a health professional to set weight loss strategies, and using available community resources to increase physical activity. The dimension with the highest average was knowledge for obesity management, such as avoiding the use of medications to reduce weight, recognizing personal risk factors for obesity, and obtaining authoritative information about obesity ⁽¹²⁾. This result could not be compared with the study that used the ORM questionnaire ⁽¹³⁾, since it was used for the first



time in the OA. However, it is known that dietary education, health promotion and physical activity are key obesity prevention strategies ⁽²⁶⁾.

Regarding the frequency of ORM, 47.1 % of the OAs sometimes demonstrated a lower amount of ORM than what was found by a group of researchers who reported 66.5 % ⁽¹³⁾, which may be due to poor promotion of preventive health programs and low adherence to weight control activities and mutual support groups. In this context, the social support provided to OAs is important, since sometimes the activities of daily living and instrumental activities of daily living such as preparing food, eating, physical activity and moving around are compromised and, therefore, self-care is transferred to other people, such as members of the family, community or institutions. In this regard, in Mexico, 1 out of every 10 OAs is dependent and health care costs can increase significantly when dependent on medications, where 6 out of every 10 OAs have a chronic disease and 3 out of every 10 have two or more comorbidities; likewise, hospitalization, medical consultations and nursing services costs increase ⁽²⁵⁾.

Apart from the foregoing, it should be taken into account that more than half of the OAs were between 60-70 years of age and that life expectancy ranges between 72.4 years for men and 78.1 for women; however, the quality of life may be affected by being overweight or obese ⁽¹⁸⁾. Such quality of life can be influenced by the social determinants of the health during aging, which encompass personal determinants, including psychological, genetic and biological factors; behavioral determinants, which include habits such as tobacco use, physical activity levels, nutritional practices, alcohol consumption and medication adherence; the determinants of the social environment, including social support networks, exposure to violence, instances of abuse, and educational level and literacy skills; health and social services, which encompasses health promotion initiatives, disease prevention strategies, therapeutic services, long-term care and mental health support; the physical environment, which includes aspects such as the quality of the physical



environment, home stability, the risk of falls and the presence of environmental pollutants; and economic factors, such as income levels, social safety nets and employment conditions ⁽²⁷⁾.

The limitation of the study lies in not including an additional instrument to measure any social determinant or family social support in the ORM, since OAs do not always make independent decisions about their care, but rather, some of them fall on the primary caregiver.

Conclusions

The ORM in the OAs showed that about half reported that they sometimes carry ORMs. The dimension with the lowest average was resources for weight control, which includes professional advice and the use of community resources for weight control.

In this sense, the ORM in OAs allows maintaining the expanded role of nursing in primary health care, within it, promoting wellness and health during aging through mutual support groups, community resources and recreational activities in the population. These types of studies allow for the optimization of OAs care by identifying indicators that favor ORM and that can then be addressed in evidence-based interventions that consider the unique needs of health service users; for example, increase resources for weight control through the physical activity portfolio issued in health institutions, considering their health conditions, physical limitations, food preferences, social environment, access to community centers, local organizations and government resources.

It is suggested that future researchers link the taxonomy of nursing outcomes and its use in research in various study designs and statistical assessments, as it scientifically validates the use of standardized language to describe and objectively measure the outcomes and indicators of nursing interventions. This facilitates communication between researchers, health care personnel and teachers, and also allows comparison of results among studies.

Conflict of Interests

The authors stated that there is no conflict of interest.



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