ABSTRACT
Objective: to evaluate the socio-demographic and nutritional profile in the difference between elderly men and women in the Open University for Maturity program. Method: descriptive study, with a quantitative approach, with 67 elderly people selected by intentional non-probabilistic sampling, starting in 2013-2014, using a structured form. Results: there was predominance of women between 60 and 65 years of age; married men and widowed women; primary schooling in both. Among the anthropometric variables, BMI and WC presented values were above normal in men; in biochemical variables, increased glycemia is more present in men, whereas cholesterol and triglycerides are found with altered values in women. Conclusion: knowing the socio-demographic characteristics, concomitant with anthropometric and biochemical information, allows aging to work in order to prevent chronic non-communicable diseases and to add quality of life to the elderly. Descriptors: Elderly; Nutritional Assessment; Open University of the Third Age.

RESUMO
Objetivo: avaliar o perfil sociodemográfico e nutricional na diferença entre homens e mulheres idosos no programa Universidade Aberta para a Maturidade. Método: estudo descritivo, de abordagem quantitativa, com 67 idosos selecionados por amostragem não probabilística intencional, ingressantes em 2013-2014, por meio de um formulário estruturado. Resultados: verificou-se predominância de mulheres entre 60 a 65 anos; homens casados e mulheres viúvas; escolaridade - ensino fundamental em ambos. Dentre as variáveis antropométricas, os valores de IMC e CC apresentam-se acima das normalidades nos homens; nas variáveis bioquímicas, o aumento da glicemia está mais presente nos homens, já o colesterol e o triglicéridos encontram-se com valores alterados nas mulheres. Conclusão: conhecer as características sociodemográficas, concomitantes às informações antropométricas e bioquímicas, permite trabalhar o envelhecimento no sentido de prevenir as doenças crônicas não transmissíveis e acrescentar qualidade de vida ao idoso. Descriptors: Idosos; Avaliação Nutricional; Universidade Aberta da Terceira Idade.

RESUMEN
Objetivo: evaluar el perfil socio-demográfico y nutricional en la diferencia entre ancianos hombres y mujeres en el programa Universidad Abierta a madurez. Método: estudio descriptivo, de abordaje cuantitativo, con 67 adultos mayores seleccionados por muestreo probabilístico intencional, ingresados en 2013-2014, a través de un formulario estructurado. Resultados: se verificó un predominio de mujeres entre 60 a 65 años; hombres casados y mujeres viudas; escolaridad - ensino fundamental en ambos. Entre las variables antropométricas, los valores de IMC y CC presentan por encima de las normalidades en hombres; las variables bioquímicas, el aumento de glucemia está más presente en los hombres, ya el colesterol y los triglicéridos se encontraron con valores alterados en las mujeres. Conclusión: conocer las características socio-demográficas, concomitantes a las informaciones antropométricas e bioquímicas, permite trabajar el envejecimiento para prevenir las enfermedades crónicas no transmisibles y agregar calidad de vida a los ancianos. Descriptores: Personas de Edad Avanzada; Evaluación Nutricional; Universidad Abierta de la Tercera Edad.
INTRODUCTION

Brazil is undergoing a rapid aging process. In 1950 the elderly population was 2.6 million, 5% of the total population. In 2010, went to 19.8 million, 10%, and is expected to reach 67 million by 2050, almost 30% of the total population of the country. The impact of this new “demographic order” is immense and the country will have to face the challenge of seeing the percentage triple in just forty years.1

As the person grows older, the chances of contracting a non-transmitable chronic disease (NTCD) are higher. According to data from the Brazilian Institute of Geography and Statistics - IBGE2, only 22.6% of people aged 60 and over declared that they did not have a disease. This fact has a relevance in the definition of the epidemiological profile of the elderly population, making Health an important focus of attention.

Aging, despite being a natural process, subjects the organism to various anatomical, functional, biochemical and psychological changes, with repercussions on the health and nutrition conditions of these individuals.3 The elderly, faced with so many peculiarities, must be evaluated in a Wide and interdisciplinary, associated with more factors, where it is possible to relate the various processes of aging as the physical, functional, psychic, social, environmental, health self-assessment, food consumption, drug, among others.4

Anthropometry is very useful for the nutritional diagnosis of the elderly. It is a simple and predictive method for future diseases, mortality and functional disability, and can be used as initial screening for both diagnosis, and disease monitoring.5

The maintenance of adequate nutritional status is an excellent indicator for a good quality of life and health, since on the one hand is the low weight, which increases the risk of infections and mortality, and, on the other, the overweight, which increases the risk of chronic non-transmitable diseases such as hypertension, diabetes mellitus and hyperlipidemias.6 Therefore, adequate nutrition contributes to the health and well-functioning of the elderly organism, since the impact of nutritional status, on the physical and emotional condition, is especially high in this age group.7 In this context, there is the importance of assessing nutritional status, thus avoiding the view that the nutritional changes of the elderly are part of the “normal” process of aging.8

OBJECTIVE

- To evaluate the socio-demographic and nutritional profile in the difference between elderly men and women in the Open University for Maturity program.

METHOD

A descriptive, quantitative approach9, held at UNABEM, of the 2013 and 2014 classes, in Passos-MG, which is a free social program for the elderly of the Higher Education Foundation of Passos - FESP / UEMG.

Sixty-seven participants, 54 women and 13 men, were selected for intentional non-probabilistic sampling according to the following criteria: to be a participant of the entering groups in 2013 and 2014; to be 60 years of age or older; to be regularly enrolled; to have a home visit with the application of the Brazil Old Age Schedule (BOAS); participate in the individual nutritional consultation and agree to participate in the study by signing an Informed Consent Form (TCLE).

The data was collected, from, December of 2013 to June of 2014, in UNABEM. The determination of the diagnosis of nutritional status was based on the differentiation between men and women.

The anthropometric variables examined were: weight, height, body mass index (BMI), waist circumference (WC) and calf circumference (CC). The measurements were taken based on the techniques proposed by Duarte10.

For the measurement of weight and height, a platform-type digital scale WELMY® was used, with a capacity of 200 kg and a sensitivity of 100 g and an anthropometric ruler up to 2m with a 0.5 cm division.

The Body Mass Index (weight / height²) was classified according to cut-off points for the elderly population, recommended by the Ministry of Health. The cutoff points indicated are: for low weight diagnosis: <22kg / m²; for eutrophy: 22-27 kg / m² and for overweight: 27 kg / m².11

The waist and calf circumferences were measured using a 1.5 m measuring tape, flexible and inelastic, divided in centimeters and subdivided in millimeters. Waist circumference values indicative of abdominal fat accumulation and a prognosis of determination for cardiovascular disease risk are considered. The risk-free classification is <94cm for men and <80cm for women, high when CC is: 94cm in men and> 80cm in women and very high when it is> 102cm and>
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88cm respectively^11. Already values of calf circumference <31cm are indicators of sarcopenia^12.

Among biochemical parameters, blood glucose and triglycerides were screened by academics of the Biomedicine course in a laboratory environment.

The blood glucose value was evaluated by the BAYER Breeze®2, digital glucometer. The references are those indicated by the Brazilian Society of Diabetes - SBD^13, where the normal classification is <100mg / dl, borderline between 100 <126mg / dl and changed to> 126mg / dl.

Cholesterol and triglyceride values were evaluated by the Accutrend® ROCHE measuring device. The two variables are in accordance with the V Brazilian Guideline on Dyslipidemias and Prevention of Atherosclerosis^14. In this, the desirable cholesterol is classified as <200mg / dl, borderline 200 to 239mg / dl and high> 240mg / dl. For triglycerides, the desirable classification is <150mg / dl, borderline 150-200mg / dl, high 200 To 499mg / dl and very high when> 500mg / dl.

To obtain the blood sample required for the analysis of the parameters evaluated, a puncture with disposable lancets was performed on the palmar face of the distal phalanx of the third finger of the right hand.

Table 1. Sociodemographic characteristics of the incoming seniors of UNABEM. Passos-MG, 2013-2014.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>13 (19.40%)</td>
<td>54 (80.60%)</td>
<td>67 (100%)</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60-65</td>
<td>3 (23.08%)</td>
<td>30 (55.55%)</td>
<td>33 (49.25)</td>
</tr>
<tr>
<td>66-70</td>
<td>3 (23.08%)</td>
<td>13 (24.08%)</td>
<td>16 (23.88)</td>
</tr>
<tr>
<td>71 or more</td>
<td>7 (53.84%)</td>
<td>11 (20.37%)</td>
<td>18 (26.87)</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>10 (76.92%)</td>
<td>19 (35.18%)</td>
<td>29 (43.29)</td>
</tr>
<tr>
<td>Single</td>
<td>0 (0.00%)</td>
<td>6 (11.11%)</td>
<td>6 (8.95)</td>
</tr>
<tr>
<td>Widow</td>
<td>3 (23.07%)</td>
<td>20 (37.03%)</td>
<td>23 (34.33)</td>
</tr>
<tr>
<td>Divorced</td>
<td>0 (0.00%)</td>
<td>9 (16.66%)</td>
<td>9 (13.43)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incomplete Basic Education</td>
<td>0 (0.00%)</td>
<td>4 (7.40%)</td>
<td>4 (6.00)</td>
</tr>
<tr>
<td>Basic Education</td>
<td>6 (46.15%)</td>
<td>31 (57.40%)</td>
<td>37 (55.22)</td>
</tr>
<tr>
<td>Highschool</td>
<td>5 (38.46%)</td>
<td>13 (24.07%)</td>
<td>18 (26.86)</td>
</tr>
<tr>
<td>Complete Higher Education</td>
<td>2 (15.38%)</td>
<td>6 (11.11%)</td>
<td>8 (11.94)</td>
</tr>
</tbody>
</table>

Table 2 shows the anthropometric variables, where a greater number of men with excess weight was found, in comparison to the BMI by gender, (N = 9), when compared to the women, with 46.30% (N = 25). And in relation to ideal weight, men presented only 30.77% (N = 4) while in women, they presented it with 40.74% (N = 22). It is emphasized that the thinness (<22Kg / M²) appeared only in the female gender, with 12.96% (N = 7).

The data were stored in a database created using Microsoft Excel 2007 software and analyzed and expressed as absolute and percentage values.

This research composes the project In Search of the Quality of Life for the Elderly: An Experience at the Open University of Maturity - UNABEM, where ethical principles and scientific rigor were observed with the approval of the Research Ethics Committee of FESP under CAAE no. 28731014.9.0000.5112.

RESULTS

Table 1, shows the socio-demographic characteristics, of the females, with 19.40% (n = 13) males and 80.60% (n = 54), females. As for the age group, prevailed from 60 to 65 years for women, 55.55% (n = 30). And, in the male gender, the age group that prevailed was 71 years old or older, 53.84% (n = 7).

In relation to marital status, 76.92% (N = 10) of the men and 35.18% (N = 19) of the women were married. As for schooling, the elderly researched had complete basic schooling in 46.15% (N = 6) of the men and 57.40% (N = 31) of the women.

It was found that 23.08% (N = 3) of men (<94 cm) and 25.90% (N = 14) in women had no risk for cardiovascular diseases and metabolic disorders (DCDM) (<80 cm). In the high index, 38.46% (N = 5) of males (> 94 cm) and 38.90% (N = 21) of females (> 80cm) and the very high index for DCDM in males (> 102 cm), 38.46% (N = 5), and in women (> 88cm) 35.20% (N = 19). In the circumference of the calf, a low index for sarcopenia (<31 cm) was obtained, being 5.55% (N = 3) only in women.
Among the biochemical variables characterized in table 3, glycemia classified as desirable (<100mg / dl) is present in 38.45% (N = 5) of males and 42.60% (N = 23) of females; (100 mg / dl) in 38.45% (N = 5) of the men and 46.29% (N = 25) of the women, and high values (> 126 mg / dl) in 23.10% (N = 3) and 11.11% (N = 6), respectively.

The desirable cholesterol (<200 mg / dl) is present in 92.30% (N = 12) of men and 59.26% (N = 32) of women; (1) of the men and 22.22% (N = 12) of the women, already high values (> 240 mg / dl) in women only, reaching the percentage of 18.52% (N = 10).

Table 3. Distribution of incoming senior according to the biochemical variables and gender / UNABEM / FESP / UEMG. Passos (MG), 2013-2014.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male</th>
<th></th>
<th>Female</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycemia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Desirable</td>
<td>5</td>
<td>5</td>
<td>23</td>
<td>28</td>
<td>41.80</td>
</tr>
<tr>
<td>Limit</td>
<td>3</td>
<td>3</td>
<td>11.11</td>
<td>30</td>
<td>44.77</td>
</tr>
<tr>
<td>High</td>
<td>12</td>
<td>12</td>
<td>92.30</td>
<td>44</td>
<td>65.67</td>
</tr>
<tr>
<td>Cholesterol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desirable</td>
<td>8</td>
<td>8</td>
<td>61.54</td>
<td>31</td>
<td>46.26</td>
</tr>
<tr>
<td>Limit</td>
<td>4</td>
<td>4</td>
<td>30.76</td>
<td>20</td>
<td>29.85</td>
</tr>
<tr>
<td>High</td>
<td>1</td>
<td>1</td>
<td>7.70</td>
<td>15</td>
<td>22.40</td>
</tr>
<tr>
<td>Triglycerides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desirable</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>1</td>
<td>1.49</td>
</tr>
<tr>
<td>Limit</td>
<td>5</td>
<td>5</td>
<td>30.76</td>
<td>20</td>
<td>29.85</td>
</tr>
<tr>
<td>Very High</td>
<td>1</td>
<td>1</td>
<td>7.70</td>
<td>15</td>
<td>22.40</td>
</tr>
</tbody>
</table>

DISCUSSION

According to IBGE, there are 20,555,262 million elderly people in Brazil, where 55.8% are women and 44.2% are men. As in the previous data, in the study population, there was a predominance of women, with 80.60% (n = 54), evidencing the feminization of aging. It is noteworthy that 37.03% (N = 20) are widows. This fact can be explained based on factors such as: being more participatory in socio-cultural activities and a greater concern with health status, being more sensitive to the needs, demand for health promotion and longer longevity. Given this, it is common to predominate the female sex in several studies.15-8

The middle age comprises the life span between 40 and 65 years.19 The prevalent age in the study was 60 and 65 years, 49.25% (N = 33), but, in men, a longer life expectancy is evidenced, where 53.84% (N = 7) of the elderly are 71 years old or older, and of these, 76.92% (N = 10) are married. Contrasting a data found in the IBGE, where the male life expectancy is 69 years.

It was observed that, 88.06% of the total of elderly (N = 59), did not have a higher education qualification, and 55.22% (n = 37) had complete elementary school education.
which leads us to believe that the elderly sought the university in an attempt to qualify.

To identify populations of elderly individuals at nutritional risk, anthropometric variables of easy execution, have been used; making it possible to determine the nutritional profile, in a less invasive manner and with a low operational cost.3

The Body Mass Index (BMI) is one of the most used indicators in epidemiological studies, associated or not to other anthropometric variables, to evaluate individuals at nutritional risk.20 It was observed that thinness (BMI <22 kg / m²) appeared only in women, with 12.96% (N = 7), and that there was a larger contingent of overweight men (BMI > 27 kg / m²), 69.23% (N = 9), when compared to the women, 46.30% (N = 25), with important clinical repercussions, as a fact of accelerating the functional decline of the elderly and, aggravating their limitations, thus generating loss of independence and autonomy.21

Waist circumference (WC) is considered one of the best indicators of visceral fat, and consequently, for the risk of developing NCD.12 The results are high in both genders, being 76.92% (N = 10) in men (WC > 94Cm) And in women (WC> 80Cm) 75.10% (N = 40).

Reduced physical activity and food intake may decrease muscle strength in the elderly, inducing gait changes, balance and general weakness. Calf circumference (CC) is a good clinical indicator of sarcopenia (CC <31Cm) 22-20, where it was present in only 5.55% (N = 3) of the women.

The World Health Organization (WHO) defines as chronic diseases cardiovascular diseases (cerebrovascular, ischemic), neoplasias, chronic respiratory diseases, diabetes mellitus, among others. It is estimated that between 75 and 80% of the population aged 60 and over have at least one chronic condition, which would result in a contingency of 27 million in 2025 and 50 million in 2050. A similar extrapolation exercise, considering functional disability, would result in 6.7 million people in 2025 elderly women with an inevitable need for medical care and attention, and 12 million in 2050.24

Biochemical parameters are useful for determining nutritional risk and may detect nutritional problems not observed during anthropometric evaluation.22 Among the biochemical variables, the glycemic index is above the limits (> 100mg / dl) in both men, with 61.55% (N = 8), and in women with, 57.40% (N = 31), and may be associated with weight gain and inadequate food intake.20 The same happens in Brazil, according to the System of Health Indicators and Follow-up of Policies of the Elderly - SISAP-Elder, where the proportion of deaths of elderly considered to be preventable, by diabetes mellitus, has increased in recent years, from 5.12%, in 2007, to 5.74%, in 2011, of men 8.64% and in 8.95% of women respectively.25

One of the factors in the onset of CVD is dyslipepemia, that is, changes in cholesterolemic and triglyceridemic rates.26 Covering, in general, chronic diseases, the proportion of deaths considered preventable is decreasing from 51.23 in 2007, to 50.48% in 2011 in men and from 55.23% to 54.77% in women, respectively.25 It is observed that cholesterol presented a positive result, being within the normal range (<200 mg / dl) in relation to the other biochemical variables, in both genders, 92.30% (N = 12) of men and 59.26% (N = 32) of women, decreasing the chances of developing CVD. On the other hand, triglycerides with desirable values (<150 mg / dl) were present only in men, with 61.54% (N = 8), whereas for women the prevalence was above normal values (> 150mg / dl ), being 57.40% (N = 31).

CONCLUSION

Based on the data presented, there is a larger audience of women aged 60-65 years. Already, in men, the age group that predominated was 71 years or more. As for marital status, it is observed that the majority of women are already widowed and men are still married, and both genders have mostly elementary education.

Body Mass Index (BMI) and inadequate waist circumference are positively associated with high frequency of morbidities. In this sense, a more worrying situation is observed in the men, where a great part presents inadequate excess weight, waist circumference and glycemic index, when compared to the women.

The dyslipidemias are one of the major risk factors for the development of atherosclerosis. Among the biochemical parameters of cholesterol and triglycerides, the female gender is the one that presents the most altered.

Thus, to know the socio-demographic characteristics, concomitant with the anthropometric and biochemical information, it becomes essential for it to be possible to map the characteristics and needs of the study population, with the purpose of adding quality of life to the years lived and
preventing chronic non-communicable diseases, since the nutritional status of the elderly is a reflection of past eating habits, being influenced by factors that could be worked in the aging process, contributing to the other gerontological services.

It is suggested that similar studies be carried out periodically, in several cities, to know the nutritional status of the individuals, so that they can intervene in the prevention of diseases and, consequently, in the improvement of the quality of life of the population.

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