ABSTRACT

The objective of the study was to compare the use of medical and dental services by seniors residing at a seniors-only living facility and in the general community. It was a quantitative study, among 50 residents of the living facility and 173 in the general community. The data were collected between November 2011 and February 2012 through a questionnaire, and subjected to statistical analysis. Performance of clinical exams and satisfaction with health services was greater among seniors living in the general community; however, physical therapy treatment was more common among those living in the facility. The use of medical and dental services showed a statistically significant difference. The seniors in both groups need oral health monitoring and those living in the facility also require coverage by the Family Health Strategy. The presence of professionals with the right profile to adequately serve residents and the network of available services are determining factors for the success of this new housing policy.

RESUMEN

El estudio tuvo como objetivo describir y comparar la utilización de los servicios médicos y odontológicos por adultos mayores residentes en un Condominio y en la comunidad. Estudio cuantitativo, realizado junto a los 50 residentes del condominio y 173 en comunidad. Los datos fueron colectados entre noviembre 2011 y febrero 2012, con la aplicación de un cuestionario, y sometidos al análisis estadístico. La realización de exámenes clínicos y la satisfacción con los servicios de salud bucal y los del condominio también de cobertura por la Estrategia Salud de la Familia. La presencia de profesionales con perfil para atender a los moradores y la red de servicios disponibles son factores determinantes para el éxito de esta nueva política habitacional.

DESCRIPTORS

Aged
Health Services
Geriatric nursing
Aging

DESCRITORES

Idoso
Habitação para idosos
Serviços de saúde
Enfermagem geriártrica
Envelhecimento

DECRIPTORES

Anciano
Viviendas para ancianos
Servicios de Salud
Enfermería geriátrica
Envejecimiento
INTRODUCTION

Aging is a period in human life that results in greater diversity among people, due to the variety and intensity of internal and external interferences that occur during the course of life. Despite all the common physical alterations during this process, aging should not be linked directly to illness\(^1\).

Over the last decade, Brazil’s 60+ population increased 2.5 times faster (36%) than that of young people (14%). This demographic change is the consequence of a marked reduction in fertility and mortality seen over the course of the 20th century\(^2\). Population aging, which is the result of scientific, technological and social achievements, has become a great challenge for public policies and social sectors\(^3\), requiring new perspectives and planning with regard to health expectations and in order to meet biopsychosocial demands aiming for a balanced life process.

In that sense, it becomes important to implement public policies for the elderly in order to assure that the process of economic and social development occurs continuously, based on principles capable of guaranteeing both a minimum economic level that preserves human dignity as well as equity among age groups when sharing resources, rights and social responsibilities\(^4\).

Among the public policies that benefit the elderly, the housing policy of seniors-only living facilities is a new housing modality for low-income seniors which aims to provide quality of life as well as decent housing. Unlike nursing homes and retirement homes, residents of the facility are independent, pay rent for their homes, are free to come and go and decide collectively on the organization of the facility, divided into commissions\(^5\).

Nevertheless, in addition to this housing policy, seniors need policies for healthcare, to generate resources and build infrastructure to allow for active and healthy aging. It is noteworthy that extending life is a goal of every society; however, additional years of life can only be regarded as a real achievement if there is quality of life during that time.

Any policy geared towards the elderly must consider functional capacity, need for autonomy, participation, care and self-satisfaction. It should also expand its fields of action to various social contexts, devise new meanings for life during old age, and promote prevention, care and comprehensive health monitoring.

Any policy geared towards the elderly must consider functional capacity, need for autonomy, participation, care and self-satisfaction. It should also expand its fields of action to various social contexts, devise new meanings for life during old age, and promote prevention, care and comprehensive health monitoring.

The objectives of the present study are to describe and compare the use of medical and dental services by elderly residents of the seniors-only living facility and in the general community. By comparing the results, we expect to identify possible risks and problems amenable to intervention, and include them in the planning by the facility’s leadership. The expectation is that it would contribute to this public policy and to the training of professionals with the right profile to assist these residents in the available service networks, which are important for the success of this public policy.

METHOD

The present study is sectional, of a quantitative nature, performed in the city of Maringá, which has a 12.2% elderly population and is located in northwestern Paraná state\(^6\). There are still few services to support the elderly population in the city. In 2006, a policy of promoting healthy habits began with the construction of senior fitness centers – today there are 47 of these facilities in several neighborhoods around the city. There are also 10 Long-Stay Shelters, three Day Centers, 31 Community Centers and one seniors-only living facility open since August 2010, with 50 residents.

The population of the study was divided into two groups: G1, consisting of all seniors living in the seniors-only living facility (50); and G2, consisting of a sample of three times more seniors than G1, adding a further 20% for possible losses (180). To form G2, a survey was carried out among the elderly about the neighborhood in which they lived prior to moving into the facility, also identifying the respective Basic Health Unit (BHU). It was detected that the seniors came from neighborhoods served by all 23 BHUs located in the urban area of the city. Thus, considering the place of residence of each senior prior to moving into the facility, the study proportionally determined the number of seniors residing in the coverage area of each BHU located in the urban area of Maringá.

To determine which seniors in the community would take part in the study, a random proportional draw was made, using a list of the elderly registered in each BHU, provided by administrators.

The inclusion criteria were the following: being older than 60 years of age, accepting participation in the study, and scoring at least 13 points in the cognitive evaluation made through the Mental State Mini-Exam (MEEM), a shortened version validated by the researchers from project SABE\(^6\). Of the 180 randomly selected seniors in the community, 173 were included in the study; five chose not to participate and two did not attain the minimum score in the MEEM. Thus, a total of 223 seniors took part in the study (G1 and G2).

Data were collected at home between November 2011 and February 2012, using individual semi-structured interviews. Average interview length was 45 minutes.
The multidimensional instrument **BOAS (BRAZIL OLD AGE SCHEDULE)** was used for data collection, translated and validated in Brazil\(^7\), which covers several areas of elderly life, consisting of nine sections to collect information on the main traits, needs and problems of the elderly population. For the present study, section I was chosen (consisting of 10 questions on socio-demographic characteristics of seniors) and section III (with 15 questions regarding knowledge, rights, use and degree of satisfaction with medical services)\(^7\), given the fact that the Maringá seniors-only living facility is located in an area not serviced by the Family Health Strategy Program.

The results obtained were recorded on an Excel spreadsheet and typed by one the authors in double entry, checking for consistency among the fields. Whenever inconsistencies were found, the raw data were consulted.

The studied variables were: gender, age, education, religion, income, marital status, health problems, medical appointments, clinical exams, physical therapy treatment, need for urgent care assistance, hospital visits for medication, hospital admissions, dental appointments, type of medical service used, type of dental service used, and satisfaction with medical services.

The data were analyzed in STATISTICA software, using a contingency table (Chi-square or Fisher test), to identify any association between variables. Whenever there was a statistical association, residual analysis was used to reveal the patterns characteristic of each category of classification, according to the excess or lack of occurrences, allowing conclusions on the significance of the associations. In residual analysis, the significance for the excess of occurrences corresponds to the residual with positive value above 1.96. The difference between the groups was considered significant at \(p < 0.05\). A confidence interval of 95% and significance level of 5% were used for all analyses.

The study was developed in accordance with the recommendations of Resolution 196/96 by Brazil’s Ministry of Health, and the project was approved by the Standing Committee for Ethics in Research with Human Beings of Maringá State University (decision no. 709/2011). All participants signed two copies of the Informed Consent Form.

**RESULTS**

The individuals in study were mostly female (67.72%), lived with a partner (53.3%), had minimum individual income of 1x the minimum wage (80.07%) and practiced a religion (97.3%). There was a predominance of the age bracket between 60 and 69 years considering all seniors in the survey; however, a discrete but not significant difference can be seen when groups are analyzed separately.

The most common chronic problems were **diabetes mellitus** and high blood pressure for both groups. Among the 223 seniors in the study, only 48 (21.52%) reported no health problems – seven in G1 and 41 in G2. No statistically significant association was found between living arrangement and type of pathology, as shown in Table 1.

When analyzing Table 2, it is seen that clinical exams were more frequent in G2, while physical therapy treatment was more common in G1, which were statistically significant differences.

**Table 1** - Distribution of seniors according to living arrangement and main reported health problems – Maringá, PR, Brazil, 2011

<table>
<thead>
<tr>
<th>Types of health problems</th>
<th>G1</th>
<th>G2</th>
<th>Total</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>8</td>
<td>16.0</td>
<td>39</td>
<td>22.5</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>35</td>
<td>70.0</td>
<td>100</td>
<td>57.0</td>
</tr>
<tr>
<td>Arthritis/Osteoarthritis</td>
<td>2</td>
<td>4.0</td>
<td>17</td>
<td>9.8</td>
</tr>
<tr>
<td>Heart disease</td>
<td>6</td>
<td>12.0</td>
<td>27</td>
<td>15.0</td>
</tr>
<tr>
<td>Depression</td>
<td>4</td>
<td>8.0</td>
<td>7</td>
<td>4.0</td>
</tr>
<tr>
<td>Dyslipidemia</td>
<td>4</td>
<td>8.0</td>
<td>34</td>
<td>19.6</td>
</tr>
<tr>
<td>Cancer</td>
<td>1</td>
<td>2.0</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>Kidney disease</td>
<td>2</td>
<td>4.0</td>
<td>13</td>
<td>7.5</td>
</tr>
</tbody>
</table>

*More than one answer allowed

**Table 2** - Distribution of seniors according to use of health services in the previous three months and living arrangement - Maringá, PR, Brazil, 2011

<table>
<thead>
<tr>
<th>Variables</th>
<th>G1 (n=50)</th>
<th>G2 (n=173)</th>
<th>Total (n=223)</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Saw a physician</td>
<td>33</td>
<td>66</td>
<td>124</td>
<td>71.68</td>
</tr>
<tr>
<td>No</td>
<td>17</td>
<td>34</td>
<td>49</td>
<td>38.32</td>
</tr>
<tr>
<td>Had clinical exams</td>
<td>19</td>
<td>38.0</td>
<td>100</td>
<td>57.8</td>
</tr>
<tr>
<td>Yes</td>
<td>31</td>
<td>61.0</td>
<td>73</td>
<td>42.2</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Continue...
Use of health services by residents at a seniors-only living facility
Teston EF, Rossi RM, Marcon SS

Table 3 - Distribution of the elderly according to living arrangement and use of medical and dental services - Maringá, PR, Brazil, 2011

<table>
<thead>
<tr>
<th>Variables</th>
<th>G1 (n=50)</th>
<th>G2 (n=173)</th>
<th>Total (n=223)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>Medical service used</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public institution</td>
<td>43</td>
<td>86</td>
<td>125</td>
<td>72.25</td>
</tr>
<tr>
<td>Health plan</td>
<td>3</td>
<td>6</td>
<td>38</td>
<td>21.97</td>
</tr>
<tr>
<td>Private physician</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>2.89</td>
</tr>
<tr>
<td>Did not use</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>2.89</td>
</tr>
<tr>
<td><strong>Dental service used</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public institution</td>
<td>5</td>
<td>10</td>
<td>46</td>
<td>26.59</td>
</tr>
<tr>
<td>Health plan</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>4.62</td>
</tr>
<tr>
<td>Private dentist</td>
<td>13</td>
<td>26</td>
<td>60</td>
<td>34.68</td>
</tr>
<tr>
<td>Did not use</td>
<td>30</td>
<td>60</td>
<td>59</td>
<td>34.1</td>
</tr>
<tr>
<td><strong>Satisfaction with medical services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td>28</td>
<td>127</td>
<td>73.4</td>
</tr>
<tr>
<td>No</td>
<td>36</td>
<td>72</td>
<td>46</td>
<td>26.5</td>
</tr>
</tbody>
</table>

*OR: 2.2; I.C.: 1.13 - 2.22 **OR: 10.3; I.C.: 1.36 – 4.94.

DISCUSSION

The greatest challenge in elderly health care consists of contributing so that individuals are capable of rediscovering possibilities and enjoy quality of life. To that end, health professionals must be prepared and vigilant to elderly health issues, adequately monitoring this population and guaranteeing equity and integrality in health actions[8].

Several studies indicate the occurrence of a worldwide aging process, of which women are the largest share[9-10], which was no different in this study. The predominance of women, however, corroborates the so-called feminization of old age, which is increasing in Brazil[10].

Data on age bracket revealed that a considerable share of the seniors (42.1%) are between 60 and 69 years of age, but at a lower rate than in Brazil overall (54.69%)[2], which denotes that the rate of seniors in Maringá is higher.

Low education can also contribute to the illness process, creating difficulties in accessing health services, iatrogeny, lack of self-care and poor treatment compliance [9]. In the present study it was observed that almost half of the elderly (49.7%) have at most four years of schooling...
and 30.9% are illiterate. A research study among elderly patients enrolled in the Family Health Strategy (FHS) program reports that seniors with one or more years of education show greater awareness of health issues compared to those with no schooling. This underscores the need for continuous incentive to senior literacy programs, offering them a learning opportunity that will bring improvements in aspects related to self-care and responsibility towards their own health.

During the aging process there is a more intense search for religious beliefs, devotional practices and activities linked to religious groups. The data in this study corroborate those found in a study among seniors enrolled at Family Health Units in the city of Foz do Iguacu, in which a predominance was found of seniors who practiced a religion, in particular Catholicism.

For its part, low income, in this case for seniors, limits access to service and consumption goods – adequate diet and housing. In Brazil, 43.2% of seniors live with per capita income up to the minimum wage, which does not differ from the data found in the present study.

With regard to marital status, the fact that more than half of the seniors in this study (53.3%) live with a partner was also identified in other studies, such as in the study carried out with elderly residents in three districts of the city of Uberaba, MG.

The elderly population is a frequent user of health services, and in Brazil during 2008, the rate of health service use (83.0%) was even higher than that found in the National Household Survey (79.5%). In the present study, 70.40% of seniors had had medical appointments in the previous three months, and although the difference was small, it is noteworthy that seniors in G2 sought health services more often.

In developed countries, the use of these services by people over 65 is three to four times greater than their share of the population, which reflects the increased prevalence of non-transmissible chronic diseases and physical disability among the elderly. In Brazil, population surveys demonstrate that most seniors (80.0%) have at least one chronic illness. In the present study, 79.0% of seniors reported having chronic illnesses, a higher percentage than that found in the National Household Survey, which was 62.9%. The most frequent chronic illnesses were high blood pressure and diabetes mellitus.

The use of health services is the result of a process of interaction among factors related to the individual, the health system and the context in which it occurs. The seniors belonging to G2 were 2.2 times more likely to undergo clinical exams when compared to seniors in G1, which may be related to personal and subjective characteristics of the seniors belonging to G2 and also greater interest in medical appointments.

With regard to the health system and the context in which it occurs, it should be considered that the location of the facility at an upscale area of the city, with no FHS health coverage, is also an influencing factor for this result. It should be noted that lack monitoring of the elderly by a health team ultimately does not meet the priority health agenda in the country, included by the Ministry of Health, which is the national health policy for the elderly which aims, within universal health coverage, to guarantee integral health attention. Another factor that may be linked to this result is the mention by seniors in G1 with regard to the lack of a BHU near the Facility.

With that, it is necessary to adjust the nearest BHU to the seniors-only living facility, so that the FHS can actively function in this new type of housing, considering the countless particularities of aging. Moreover, partnerships can be formed between the city’s university and colleges, combining the need for student internships and the needs of these seniors. In addition, it should consider the culture and idiosyncrasies of the individuals in study, which influence the search for medical services and clinical exams.

Among the countless peculiarities that the aging process brings is significant loss of strength and muscle mass, which are closely related to decreased physical activity, which later leads to loss of functional capacity. However, the maintenance of functional capacity among the elderly is directly linked to healthy aging, as it constitutes one of the most effective actions against physical, mental and social complications. Therefore, the importance of motivating seniors to perform guided physical exercise and physical therapy should be highlighted.

Living in the facility is a protective factor with regard to maintaining functional capacity, as the elderly belonging to G1 are 10.3 times more likely to perform physical therapy exercise, due to the fact that the leadership of this new housing type created a partnership with one of the colleges in the city, so that physical therapy interns, along with the professor, could offer assistance to the elderly in the Facility once a week.

Another aspect with direct influence on the health condition of seniors is oral health, as diseases of the teeth and gums lead to losses in dental elements, affect digestion and can be a focus of bacterial infections. Even though no statistically significant link was found between dentist appointments and living arrangement, there are some factors to be considered given the low rate of interest for dental services by the elderly in both groups, including the perceived lack of need given the absence of teeth. It was observed that a considerable share of seniors in this study underwent great dental mutilation (loss of all teeth), which was a rather common procedure in all regions of Brazil until very recently. For those seniors, not having any teeth means no longer needing dental care, as observed in another study.
Overall, the oral health condition of the elderly is precarious, with a high prevalence of edentulism (total absence of teeth), periodontal disease, cavities, need for prosthetics and poor adjustment to their use. Combined with these problems, there is still a great possibility that seniors carry other debilitating systemic conditions, which ultimately act in synergy with mouth illnesses, reflecting on the degree of autonomy, independence and, consequently, quality of life. Health professionals must enforce integral health care, be vigilant with regard to senior oral health, which directly influences nutrition. Care and intervention are also necessary to break the stigma that the lack of teeth eliminates the need to search for dental services.

Greater use of public medical services was observed for seniors living in the Facility, which may be related to the prevalence of low-income seniors and their condition of social vulnerability, as the search for health services may be related to habits and behaviors of the elderly, such as quality of life, life history and characteristics of the environment in which the individual is inserted.

In Brazil, the organization of health services is mixed, with a public system with a universal, integral and equitable character – the Unified Health System (SUS) – and a private system comprised of the availability of health insurance and by the modality of direct payment assistance.

Health plan coverage among the elderly in Brazil is approximately 5 million people 60 years or older, which represents 29.4% of all seniors. The clientele of health plans is predominantly made up of people with higher monthly income, while the opposite occurs among seniors who only have SUS coverage.

It was detected that the seniors belonging to G2 used health plans more often (21.97%), which may be related, for instance, to lower social vulnerability and the presence of other members of the family who also have a source of income and end up providing financial support.

The variable that showed difference with regard to the search for dental services was the lack of interest by 60.0% of seniors in G1. This result corroborates the study performed in the community of Dendê, located in Ceará state, which showed that the condition of social vulnerability is related to poor oral health. In that sense, attention to health must stimulate actions that bring people closer to their needs, in addition to providing more attention to promoting the search for dental service by the elderly, stimulating the promotion and maintenance of oral health.

The greatest dissatisfaction reported by senior living in the Facility regarding medical services may be related to the distance from the closest BHU to the facility (32.0%) and the fact there is no FHS health coverage (48.0%). This places seniors at risk, because given the uniqueness of the aging process, the elderly need more frequent health monitoring, especially if they are in a condition of social vulnerability.

**CONCLUSION**

The interviewed seniors consider their own health to be good, but there are challenges to be faced with regard to the use of medical and dental services, both by the elderly residing in the Facility and by the community at large. However, a statistically significant difference was found between the groups with regard to satisfaction with the health services used and the performance of clinical exams, which were more frequent among seniors in the community, and of physical therapy exercises, more frequent among seniors from the Facility.

The study detected the need for greater attention and intervention by health professionals regarding the overall health and oral health conditions of the elderly in study. Furthermore, greater access is necessary to health services by the elderly residing in the Facility. It is essential to devise strategies to monitor the health of these seniors, perhaps by implementing a BHU near the Facility, as the FHS health coverage in that area is of fundamental importance, especially because there is a population with so many peculiarities. Alternatively, a pact can be sought with the Social Assistance Secretariat, with the university and colleges in the city, to provide direct health assistance to the elderly.

The seniors-only facility is a policy that needs to be disseminated so that more low-income and homeless seniors have access to it and experience previously denied opportunities. However, the presence of health professionals with the adequate profile to assist the residents and an available network of services are determining factors for the success of the program.

Because it meets a public housing policy, the implementation of the seniors-only living facility must be directly linked to other field, especially health. It is noteworthy that FHS nurses must remain vigilant regarding the health conditions of the seniors, reinforcing self-care measures, particularly for residents of the Facility, as they live in a situation of social vulnerability and have no support if they become dependent of care.

As a limitation of the study, is the fact that study participants show low education, which made self-application of the instrument and comprehension of the different aspects more difficult. To work around these problems, it was decided that the interviewer would apply the instrument herself.

Faced with these limitations, it is possible to conclude that the identification of factors that require interventions, such as health monitoring (physical and oral) can guide planning actions to improve the attention offered to the elderly and consequently contribute to the effectiveness of this new housing policy.
REFERENCES


