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SCIENCE IN PERSPECTIVE

MONITORING THE HEALTH CONDITIONS OF ELDERLY PEOPLE IN A SMALL MUNICIPALITY: CONCEPTUAL AND METHODOLOGICAL ASPECTS

MONITORAMENTO DAS CONDIÇÕES DE SAÚDE DE IDOSOS DE UM MUNICÍPIO DE PEQUENO PORTE: ASPECTOS CONCEITUAIS E METODOLÓGICOS

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Abstract
Aim: The purpose of this note is to present the methodological characteristics of the research project Monitoring the Health Conditions of the Elderly in a Small Municipality - MONIDI. **Methods**: The study is characterized by being a study of repeated surveys, with surveys every 10 years with a representative sample of elderly people enrolled in the Family

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Health Strategy in the urban and rural areas of a small municipality located in northeastern Brazil. Surveys will be carried out every 10 years (for 40 years). The study included individuals aged sixty or more registered in the FHS in urban and rural areas, stratified by Family Health Unit. In data collection, a questionnaire containing information on sociodemographic characteristics, health status, behavioral characteristics, anthropometric, metabolic and motor performance assessments was used and will be repeated for data collection in February 2024 and for the following decades. **Conclusion**: The project intends to produce knowledge for a better understanding of the aging process among elderly people living in a region with a low Human Development Index based on the comparison of information on variables from these decades, thus generating inputs for the elaboration of public and health policies aimed at this population.

Keywords: Aging; Longitudinal studies; Elderly health.

Resumo
Introdução: O propósito deste texto é apresentar as características metodológicas do projeto de pesquisa Monitoramento das Condições de Saúde de Idosos de um Município de Pequeno Porte (MONIDI). **Métodos**: Trata-se de um estudo de inquéritos repetidos, com levantamentos a cada década de uma amostra representativa de idosos cadastrados na Estratégia de Saúde da Família da zona urbana e rural de um município de pequeno porte localizado no nordeste brasileiro. Este estudo realizará quatro inquéritos, perfazendo 40 anos de monitoramento (2014 a 2044). Foram incluídos no estudo indivíduos com sessenta anos ou mais cadastrados na ESF da zona urbana e rural, estratificados por Unidade de Saúde da Família. Para obtenção das informações foi utilizado um questionário estruturado, com as seguintes seções: informações sobre características sociodemográficas, estado de saúde, características comportamentais, avaliação antropométrica, metabólica e do desempenho motor. **Conclusão**: O projeto MONIDI pretende produzir conhecimento para melhor compreensão do processo de envelhecimento entre idosos residentes em região com baixo Índice de Desenvolvimento Humano a partir da comparação das informações das variáveis dessas décadas, que possam contribuir para elaboração de políticas públicas e de saúde direcionadas a essa população.

Palavras-chave: Envelhecimento; Estudos longitudinais; Saúde do idoso.

INTRODUCTION

Population aging is a growing phenomenon present in most countries[1]. This transformation in the age profile of the population is responsible for complex changes in several aspects such as: the configuration of social sectors, family composition, household arrangements and intergenerational relationships. In the economic sphere, it has impacts on investments and consumption, on the job market and mainly on retirement and pension systems. Other significant transformations can also be seen in demographic sectors such as housing, transport and other public services [2, 3].

With the increase in the elderly population, it is necessary to intensify research into aspects that can impact the health and quality of life of this population. Among these, functional capacity, which can be understood as a set of physical and mental capabilities necessary for autonomy and independence, is considered one of the most relevant issues [4].

Among the various factors that contribute to the presence of disabilities, the simultaneous involvement of health risk factors related to lifestyle stands out, which can increase the likelihood of developing chronic diseases [5] and, consequently, contribute to an increased risk of mortality. Furthermore, exposure to these conditions contributes to a more pessimistic perception of health status, especially among those older than [6].

Studies have found a higher prevalence of functional disability among elderly people who did not practice physical activity [9, 10]. Although physical activity is an instrument for promoting health, there are numerous factors that can contribute to physical inactivity in the elderly, such as: low level socioeconomic; functional impairment; presence of diseases; fear of injury; lack of company; Inadequate location and climate and lack of infrastructure, as these are some of the barriers to practicing physical activity highlighted by elderly people [11].

In addition to the risk factors mentioned, physical inactivity is one of the most important, being considered a pandemic [12]. Insufficient practice or lack of physical activity increases the likelihood of falling ill due to chronic diseases such as hypertension, diabetes, heart disease, among others, and mortality[13, 14]. In the case of inadequate food consumption, characterized by high intake of processed foods and reduced consumption of fruits and vegetables, it is directly associated with greater exposure to obesity, high blood pressure, type II diabetes[15, 16]. From this perspective, the health sector deserves special attention , as it has major obstacles such as problems arising from the increase in care for people with chronic non-communicable diseases, typical of the elderly population, which last for years and require constant care, continuous medication and periodic exams [2, 8].

It is consensual to think that the aging of the Brazilian population immediately requires cyclical health tracking and monitoring mechanisms in order to subsidize actions aimed at this population, not only in large urban centers but also in interior municipalities, which correspond to 16.5% of the population. total population of the country [17]. However, small municipalities often face additional difficulties in facing challenges related to population aging. The limited availability of resources, poor infrastructure and scarce healthcare professionals can create significant obstacles to monitoring the health conditions of older people [18].

Findings in the literature indicate that, in addition to investments in structuring the network of health services offered to the elderly population, it is necessary to redirect the planning of health actions towards changes in social support and support networks for the elderly population, with the aim of reduce potential harm related to lack of access to services caused by low socioeconomic status [22, 23, 24].

It is known that policies aimed at modifying behavioral risk factors for the occurrence of multimorbidity in this population may result not only in a better quality of life during longevity, but also in the reduction of costs generated by the public health system, since with The reduction is expected to be achieved through consultations with health professionals, outpatient care and hospitalizations[19, 21].

In this sense, this article aims to present the methodological characteristics of the research project Monitoring the Health Conditions of Elderly People in a Small Municipality – MONIDI.

METHODOLOGICAL ASPECTS

This is a longitudinal study of the type of repeated surveys, whose objective is to evaluate the impact of induced changes on the dynamic population. In this type of study, cross-sectional studies are conducted at different times, in the same population, without necessarily repeating the observations on the same individuals selected in the first stage of the study.

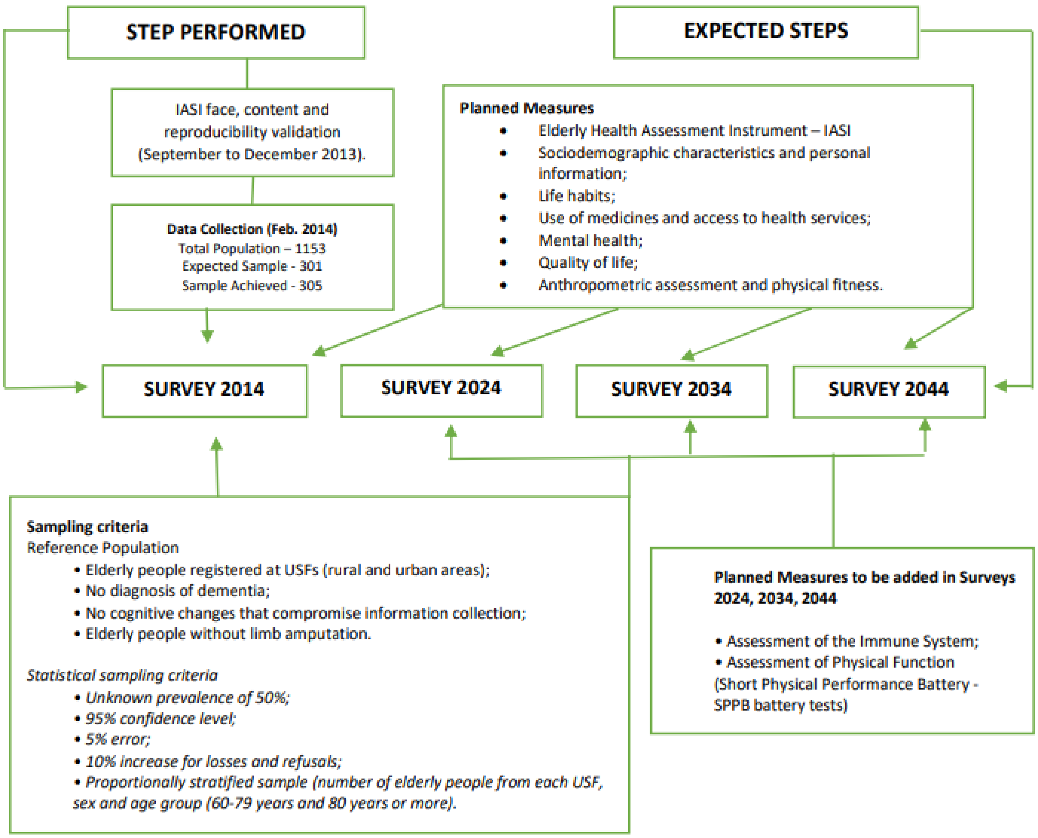
After the study in 2014, surveys will be carried out until the month of February of each decade (2024, 2034 and 2044) in a representative sample of individuals aged sixty or over, registered in the Family Health Units (USF) in the area. urban and rural areas of the municipality of Ibicuí-BA.

The study was approved by the Ethics and Research Committee of the State University of Southwest Bahia, with opinion (CAAE: 22969013.0.0000.0055).

Participants were invited by family health teams and Community Health Agents (ACS) to attend the Family Health Units in which the elderly person was registered and monitored by the ESF on data collection days. Those who were not located or did not attend the USF, after three attempts, were automatically replaced through a random draw and/or evaluated in their home environment. Participants were informed about the research, its importance and objects. After giving their consent, the participant was interviewed individually using the research form and the assessment was carried out using the structured questionnaire.

Participants diagnosed with dementia or any other type of cognitive and physical alteration that compromise the veracity of the information provided were excluded from the present study.

FIGURE 1: Flowchart of MONIDI project surveys in Ibicuí-BA, 2014 and the stages planned for 2024, 2034 and 2044



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The team of evaluators was made up of students from undergraduate and postgraduate courses at the State University of Southwest Bahia and the Federal University of Sergipe, who underwent training from September to December 2013. According to the stage carried out in the study from 2014 (Figure 1), validation of the face, content, clarity and reproducibility (test-retest after 7 days) of the Elderly Health Assessment Instrument – IASI [7] was carried out in 2013, being constructed from other questionnaires validated for the elderly population.

The IASI contains information on sociodemographic characteristics, health status, behavioral characteristics, anthropometric, metabolic and motor performance assessments. Data collection was carried out in February 2014, referring to a total population of 1,153 elderly people, presenting a sample size of 305 elderly people, respectively. The 2014 survey had sampling criteria with a reference population that included elderly people registered in USFs, without a diagnosis of dementia and without cognitive changes that would compromise the evaluation process. In the sample calculation, the total population was considered (after the established exclusion criteria), an unknown prevalence of 50%, confidence of 95%. An additional 10% was added due to possible sample losses. The sample was stratified proportionally to the number of elderly people in each USF, sex and age group (60-79 years and 80 years or more).

The sampling criteria, as well as the measures foreseen from the IASI, will also be carried out in the stages planned for the decades of 2024, 2034 and 2044. In the next collections, deaths, refusals and losses will be replaced and the replacement will be done by draw. Surveys for the coming decades will include the Assessment of the Immune System, based on blood and saliva collection, and the Assessment of Physical Function using tests from the Short Physical Performance Battery (SPPB).

The database was built with all variables from the questionnaire (IASI) and coded for the study outcome. The data were tabulated using the EpiData software, version 3.1. A double data entry process was carried out in order to evaluate the quality of the data. Thus, two people type the same collection instrument in separate banks, which are subsequently compared to check for typing errors (conflicting data), followed by correction by consulting the questionnaire.

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In the statistical analysis of the data, the SPSS statistical package for Windows version 15.0 and the R 2.10.1 program were used. Data analysis and interpretation was adopted, with a 95% confidence interval and a significance level of 5% ($p<0.05$). To choose the appropriate statistical analysis, the following characteristics will be observed: nature of the data, normality and distribution of the data, measurement scales and linearity. The descriptive analysis of the data influenced the characterization of the sample, with frequency distribution, measure of central tendency (mean) and dispersion (range of variation, standard deviation). Logistic regression analysis was performed where simultaneous adjustment of variables and covariates was carried out, thus allowing the prediction of the behavior of the outcome variable in the simultaneous presence of the covariates under study.

For the studies of the next surveys, the same methodological processes will be followed in accordance with updates every decade, however, following the same research criteria as the Monidi Study.

PRELIMINARY RESULTS

The information from the first research was disseminated in the form of articles [20, 25, 26, 39-43], abstracts [27-33] and undergraduate [34,35] and master's degree [44] completion works.

The study involved [25],310 individuals with an average age of 71.62 ± 8.15 years, predominantly female (56.5%), literate (56.1%) and with an average monthly income of R$ 708.26 ± 303.69. Prevalences of overweight/obesity and cognitive impairment of 38.4% and 18.7%, respectively, were identified. The 2014 tracking showed that more than half of the elderly were inactive in their free time at 69.0% and the average time spent in sedentary behavior was 413.14 minutes.

The population survey of the Monidi project in 2014 resulted in publications that were fundamental for the implementation of public policies in the municipality studied. In total, 14 (fourteen) articles have been published to date, 02 (two) articles accepted and awaiting publication, 35 (thirty-five) abstracts at scientific events, of which 02 (two) were awarded at national and international congresses and a book, in addition to 06 (six) undergraduate TCC and 02 (two) master's theses. In addition, reports were produced for professionals and municipal management to serve as input for the implementation of health care policies for the elderly population.

FINAL CONSIDERATIONS

This text sought to present the methodological path and findings of the first stage of the MONIDI study. It is expected that tracking and monitoring the health conditions of the elderly through repeated surveys can expand short and long-term knowledge about this population and its possible changes over the decades (2014, 2024, 2034 and 2044), favoring understanding the aging process in situations of exposure to poverty, illiteracy and scarce health services, supporting public health actions and policies aimed at the real needs of this population.

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