Abstract

This paper purpose is to analyze the insertion of the population aging theme in the education of professionals working in the Family Health Strategy (ESF) and in the Family Health Support Nucleus (NASF). This is a study with a qualitative approach and documentary type, carried out in the state of Rio Grande do Norte, located in the Northeastern region of Brazil. To reach the objective, the pedagogical projects of the courses for the professions that work in the Family Health Strategy and in the Family Health Support Nucleus were searched. The documents analysis was based on the content analysis method, using the thematic analysis technique in three pre-established registration units: (i) skills and abilities; (ii) professional profile; and (iii) curricular structure. From the analysis of the pedagogical projects, two analytical categories emerged: discussion about aging and training for health care of the elderly. The research result was that the discussion about the thematic of the aging in the process of formation of human resources in health is still insipient. There is a clear necessity to prepare people to provide adequate attention to the elderly population, as well as to formulate and manage public policies for the mentioned population that benefits from Unified Health System (SUS).

Keywords
Aging; Health of the Elderly; Human Resources in Health; Professional Education in Health; Primary Health Care
Introduction

The increase in life expectancy and the proportion of older people (≥ 60 years) has become a global phenomenon, with the exception of some countries in the African continent [1, 2]. In the early 2000s, the world’s elderly population contained about six hundred million individuals, representing 10% of the general population. It is estimated that by 2050 there will be about two billion elderly people worldwide [3].

In Brazil, population aging has been happening in a very accelerated and significantly greater way than the one that happened in other countries during the twentieth century. It took over a hundred years for France, for example, to see its aging population increase from 7% to 14% in relation to the general French population [4]. In the Brazilian population, this demographic transformation will occur in the next two decades and will reveal new demands and needs that need to be recognized and addressed through public policies [5, 6].

Aging is not a problem but a privilege of humanity. However, the Brazilian population is aging with greater functional limitations and marked health problems [7]. The accelerated process of population aging includes increased morbidity, functional disabilities, decreased independence and autonomy, as well as the increase in the number of hospitalizations of elderly people (≥ 80 years old) in intensive care units under the Unified Health System (SUS) [8].

The quality of care offered to the elderly population falls short of the needs it requires, this situation demonstrates the importance of guaranteeing investments to face the population phenomenon that we are living and expected to intensify in the next years [9,10]. Health care networks that are coordinated by the primary care teams must be organized to bring changes in the health system, as well as in the health care practices of the elderly [11].

It is preferable that primary health care, more precisely, the Family Health Strategy (ESF) and the Family Health Support Nucleus (NASF) teams coordinate health care for the elderly population in the SUS, with the principle of integrality as the guiding axis [12]. To this end, it is important to emphasize the importance of professional education for the health care of the elderly [13].

This education should be based on teaching about active aging, so that health professionals are transforming agents and stimulate autonomy, independence, as well as citizen participation in the elderly [14]. This paper aims to analyze the insertion of the theme of population aging in the education of professionals working in the ESF and NASF to identify if health education is in line with what is intended to serve this growing portion of the population.

Methods

Study design

This paper is the result of research with a qualitative approach, of a documentary type, held in the state of Rio Grande do Norte, located in the Northeastern region of Brazil. The Northeast is the second region of the country with the largest number of elderly people, concentrating approximately 29% of the entire Brazilian elderly population [10]. According to the 2010 census of the Brazilian Institute of Geography and Statistics (IBGE), 10.8% of the resident population in Rio Grande do Norte is ≥ 60 years old [15].

A research and an analysis of the pedagogical projects of the courses for the professions that work in the ESF and in the NASF was carried out (Table 1).

Sanitarist can be any professional with postgraduate in the area of public health, also known in Brazil as collective health, as well as the professional graduated directly in that area. In this research, the health professionals chose to search and analyze only the pedagogical projects of the graduations.
Data collection
The research data were collected from the reading of the pedagogical projects of the courses for the professions working in the ESF and in the NASF. In order to have access to these documents, which are in the public domain, a search strategy was created in which the mapping of public and private educational institutions in Rio Grande do Norte, which offered courses for these professions, was first carried out.

Then, the pedagogical projects were searched by the educational institutions, through access to institutional electronic pages, e-mail or in person, for further analysis. The entire process of data collection took place between June and August 2016.

Data analysis
Data analysis was performed using the content analysis method, using the thematic analysis procedure. According to Minayo [16], the theme is the significant element that is sought from the reading of a given text, denoting the reference values and behavior models present in the discourse.

The theme of aging, defined as the object of study, was analyzed in three pre-established units of records: (i) skills and abilities; (ii) professional profile; and (iii) curricular structure (Figure 1).

Table 1. Characterization of the ESF and the NASF teams. Brazil. 2012.

<table>
<thead>
<tr>
<th>Professionals</th>
<th>ESF</th>
</tr>
</thead>
<tbody>
<tr>
<td>High schooled professionals</td>
<td>Community health agent, oral health technician, nursing technician</td>
</tr>
<tr>
<td>Graduated professionals</td>
<td>Dentist, nurse, medic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professionals</th>
<th>NASF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduated professionals</td>
<td>Social worker, physical education professional, pharmacist, physiotherapist, speech therapist, nutritionist, psychologist, occupational therapist, art educator and sanitarist</td>
</tr>
</tbody>
</table>

Source: Ministry of Health of Brazil, 2012.

It was decided to analyze the aforementioned subject in these three registration units, since the skills and abilities, according to what is stated in the Law of Guidelines and Bases of National Education [17], constitute the capacity to mobilize, articulate, put into practice values and knowledge required for the efficient performance of required work activities. Faced with such skills and abilities, it is hoped that future professionals will have a profile to act in a generalist, humanistic, critical and reflexive manner, in accordance with the principles and guidelines of collective health and SUS.

Such competences and skills and professional profile can be provided through the existence of specific themes in the curricular structure of each formation. Thus, the registration units defined here and that must be included in the pedagogical projects, have a significant influence on the know-how of each health professional. It should be emphasi-
zed that the data analysis process occurred between September and November 2016.

**Ethical aspects**
Because it is a documentary research and the documents analyzed are in the public domain, it should be pointed out that it was not necessary to submit the present study for consideration and opinion of the Research Ethics Committee, according to the guidelines of Resolution 466/2012 of the National Health Council of Brazil.

**Results**
We consider it necessary to first describe some information about the courses and educational institutions participating in this study. Sixteen educational institutions were identified, with 62% concentrated in the metropolitan region of Natal, the state capital. In addition, most of them (82%) are of a private nature, offering 64% of the 68 courses in Rio Grande do Norte to the 16 professions that work in the ESF and in the NASF.

On the courses, 54 (79%) made their pedagogical projects available for analysis. 14 courses (21%) did not have their pedagogical projects analyzed for two main reasons: either the pedagogical project was not published on the website of the educational institution, or the educational institution refused to make the pedagogical project available through established contact by email or in person. It is noteworthy that, therefore, there was no analysis of the pedagogical project of the course in Art and Education (Art Educator), since the only educational institution offering the aforementioned degree in Rio Grande do Norte did not provide the aforementioned institutional document.

Based on the analysis of the skills and abilities, professional profile and curricular structure described in the pedagogical projects, two analytical categories emerged: discussion about aging and training for health care of the elderly.

**Category 1. Discussion of aging**
Most courses (97%) do not offer curricular components that contextualize the social, economic, cultural, political and health aspects present in the aging population. Since the pedagogical projects of the mentioned courses are not expected to develop skills and abilities nor a professional profile to act in the integral health care of the elderly, it is believed that this absence is the justification for not having specific contents that enable such development.

It was also noticed the lack of courses that offer curricular components addressing aging in an interdisciplinary way, exemplified by the following excerpts:

---

**The purpose of the curricular component is to identify the main theoretical contributions of Developmental Psychology in its physical, cognitive and psychosocial dimensions to the understanding of the health / disease process in the context of adulthood and aging.**

*Adult Education and Aging in the Context of Health, from the Psychology course of the Federal University of Rio Grande do Norte, Natal Campus.*

**Opportunity for the acquisition of theoretical and practical knowledge about the process of physical evaluation and physical exercise prescription aimed at elderly individuals aiming the quality of life and health.**

*Exercise Prescription for the Elderly, of the Physical Education course of the Federal University of Rio Grande do Norte.*

---

In some occasions, such as in the Technical Course in Community Health Agent of the Technical School of the Unified Health System of Rio Grande do Norte; Technical course in Nursing at the Natal Health School; Social Service course of the Higher Education Institute of Rio Grande do Norte; And the Nursing courses of the Federal University of Rio Grande do Norte, the State University of Rio Grande do Norte and the Potiguar University, the aging and the health of the elderly are approached together
with the other life cycles (child health, adolescent health and adult health).

**Basic care practices:** health education, health surveillance and epidemiology and health; immunization; family planning, prenatal care; prevention of cancer, prevention and control of STD/AIDS and immunopreventable diseases; prevention and control of risks and aggravations to mental health, worker health and the health of the elderly.

Mention of the Basic Attention and Family Health curriculum component of the Nursing Course of the Federal University of Rio Grande do Norte.

In other situations, such as in the Course of Medicine of the State University of Rio Grande do Norte; Physiotherapy course of the Natal’s Faculty of Education and Culture; In the courses of Physiotherapy, Nutrition, Medicine, Psychology and Occupational Therapy of the Potiguar University, the contextualization of the aging and the health of the elderly person is reduced to the biological and physiological aspects.

**Studies and professional practices aimed at the elderly, with actions to promote and prevent diseases, cognitive stimulation and occupational therapeutical treatment of diseases resulting from the physiological changes of the elderly...**

Mention of the Basic Attention and Family Health curriculum component of the Nursing Course of the Federal University of Rio Grande do Norte.

Despite this predominance in secondarily or simplifying the discussion of the theme of aging, we highlight the existence of curricular components that go against this mainstream. For example, the curricular component “Gerontology”, which has the main objective of providing students and future health professionals a multidimensional understanding of aging, is a pedagogical project of the graduation in Physiotherapy of the Federal University of Rio Grande do Norte. However, this curricular component is not yet offered as a mandatory requirement in the training of physiotherapists at this college course and occurs in an uniprofessional way.

Another example refers to the Course of Medicine at the Multicampi School of Medical Sciences of Rio Grande do Norte, linked to the Federal University of Rio Grande do Norte and located in the interior of the state, at a city named Caicó. In the referred course, the curricular structure is organized by knowledge cores, formed by different curricular components. Among these knowledge cores there is a specific one for the attention to the health of the elderly, denominated “Geriatrics”.

Such core addresses the physiological, epidemiological and social aspects of the aging process and the process of demographic transition experienced in Brazil. There is also an issue of health promotion of the elderly population in the same core.

**Category 2. Health care training for the elderly**

The professional training in health is in line with the training model described in the National Curricular Guidelines, aiming at a generalist, humanistic, critical and reflective training to future health professionals [18, 19] as follows:

The professional should have the skills, abilities and attitudes that meet the demands and health needs of contemporary society. They are, therefore, general competences: to develop health care actions, to make decisions, to communicate, to lead, to administer, to manage and to seek their permanent education ...

Pedagogical project of the Medicine course of the Federal University of Rio Grande do Norte - Natal Campus.

However, professional training for the elderly’s health care is based exclusively on the care and management of chronic-degenerative diseases, as well as on the identification and prevention of damage to health. Such training occurs uniprofessional: only between students of the same course and in isolation.
The course forms a professional with a generalist, humanistic, critical and reflexive profile, to act at the various levels of health care based on technical and scientific rigor [...] in articulation with the new technologies for diagnosis and clinical-surgical treatment

Pedagogical project of the Dentistry course of the Potiguar University.

In all the analyzed documents, the development of specific skills and abilities to deal with the health needs of the aging population is not foreseen. In particular, with regard to the professional activity that propitiates the development of autonomy, protagonism and independence of the elderly person.

Discussion

In the field of health work, the issue of vocational training is a current and permanent discussion. Between 1990 and 2010, the majority (71%) of scientific productions about work and health education would discuss the qualification of human resources for action in SUS [20]. There is a marked expansion in the brazilian educational system in the provision of courses for professional training in the health sector to scientific production, especially in private sector educational institutions [21]. Despite this strong growth, encouraged primarily by federal policies, this has not been enough to overcome deficiencies in the education system.

The regional concentration of educational institutions, especially in metropolitan areas, as well as the disorderly proliferation of courses, has led to the formation of professionals with inadequate profile to support the health needs of the population. In this sense, a great challenge emerges for the National Human Resources in Health Policy: to strengthen the articulation between educational institutions, health services and the community to provide training that is in line with the social transformations and demands of SUS [22], with emphasis on the health demands of the elderly.

The gap between health and education becomes more serious when there is a cut in the relationship between older people’s health and professional education. On the one hand, there is a strong dependence of the elderly population on health services, resulting from the process of demographic transition that occurs not only in Brazil but also in other emerging countries (Russia, India and China, for example), especially in a context of significant social inequality [23, 24]. In the pedagogical projects of the courses in the health area, the teaching of health care of the elderly person and the contextualization of the process of human aging are still not very expressive, nor is there a significant offer of qualification processes to qualify the work force in the health services [25].

Elderly health care demands specific skills for the contextualization of the human aging process and requires the development of multi and interprofessional work [26]. These competences are understood as a set of technical and social knowledge demanded of students and workers who must be in accordance with the principles that guide SUS [27].

However, despite the reforms encouraged by the National Curricular Guidelines, there is still a predominance in health courses in order to have their students trained in closed, less interdisciplinary and increasingly specialized curricula [28]. It is necessary that health education is not limited to specialized knowledge, but rather that it brings together knowledge from other areas and respects the competences of each profession. Thus, when reading the pedagogical projects analyzed in this research, it is possible to affirm that little has been contributed to the transformation of health care practices in Brazil.

Regarding the health of the elderly, this means that care is summarized to the prevention of disease, disregarding the social and subjective aspects common to the process of human aging and dis-
favoring the promotion of a comprehensive care practice. The newly trained professionals enter the labor market with limitations for multiprofessional and interprofessional work, replicating the attention model focused on the medical practice and in the hospitals.

The elderly population is not seen in its entirety by health professionals, with their subjectivities and social interactions completely ignored. In addition, aging is not caused by a single aspect. On the contrary, aging is multidimensional and complex and restricting the elderly person's health to biological aspects is to try to treat it simply and easily [29].

It is also necessary to understand that aging is accompanied by innumerable other aspects, such as the feminization of old age caused by high male mortality, as well as the low level of schooling of this part of the population, which can mean, in general, a low level socioeconomic.

The integrality of care for the elderly requires the disruption of the already mentioned health care model in force in Brazil through the actions of the ESF and the NASF, prioritizing the expansion of the focus on the family and the improvement of the family access [30]. However, with the current curricula found in the pedagogical projects of the courses for the professions studied, little can be achieved.

In order to transform work practices and, therefore, the care practices for the elderly population in the daily routine of primary health care, it is necessary first to qualify the workforce. Such qualification must start from the professional training to the development of permanent education actions for the workers already inserted in the health services. Therefore, it is necessary to implement mandatory curricular components in the education of the health professions that discuss the importance of active aging.

It is necessary to sensitize the teaching staff of educational institutions to transform their pedagogical practices. For example, teachers' awareness of the development of skills embedded in the health of older people in the formation of the future health workforce in the United States is still a critical one [31]. However, in order to state if this situation is similar to the Brazilian reality and to the reality of the place of accomplishment of the present study, it is necessary to carry out other studies that extrapolate the documentary analysis, evaluating the students 'and teachers' perception of the pedagogical methods used during the professional training, with emphasis on aging, as well as investigate the perception of the elderly about the care provided by health professionals working in the SUS.

Conclusion

With the accomplishment of this research, it is noticed that the discussion about the aging theme in the process of formation of human resources in health is still insipient. It is necessary to prepare people who provide adequate attention to the elderly population, as well as to formulate and manage public policies for the mentioned population that benefits from SUS. In addition, it is necessary to prepare people to be multiplier agents and to contribute to the training of caregivers of the elderly.

This research may assist in the development of studies with elderly populations in other Brazilian states and even in other countries that have a population profile and health policies similar to Brazil, to collaborating with health education, provoking changes in the formation of human resources in health. These changes should be based on the integration between teaching and service, as well as on the inclusion of the discussion about active aging in SUS's permanent education. After all, if the marked aging of the population is not treated as a priority, it could be a serious public health problem.

It should be emphasized that the present study may also corroborate the need to create new courses and to expand the scope of practices of other professions, such as the elderly caregiver and the gerontologist, in the health work market. However,
what is important is to ensure that the professions working in primary health care and others that may be incorporated in the future are adequately trained to perform the various functions related to the social aspects inherent in the aging process.

Interest Declaration
The authors report no conflict of interest. The Interest Declaration to perform the various functions related to the social aspects inherent in the aging process.

References

This article is available at: www.intarchmed.com and www.medibrary.com


