

ΣΟΦΙΑ—SOPHIA

Reflections on education relevance in the field of gerontology in Colombia and the world

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Abstract

This article presents a number of reflections on the relevance of gerontology as a professional career, which are supported on a number of needs and aspects of world and domestic interest, such as: demographic aging and its consequences; epidemiological transition; social profile of elder population; the challenge of dependence; elders role in socialization of the younger population, and regulations on matters related with aging and the elderly. It is concluded, with concern, that in front of a panorama that fully justifies the need of educating professionals in gerontology, there is a low offer of undergraduate training in this field in Colombia, which demonstrates the scarce view of the deep transformations and consequences brought, in the middle and in the long term, by the aging process currently faced by our country and the world.

Keywords: Education, aging, gerontology, old age, university.

Introduction

Since the eighties of the twentieth century, there has been knowledge of the existence of academic programs dedicated to the training of gerontologists in Colombia. Dr. [Elisa Dulcey Ruíz](#) (2001) affirmed that in this decade, the field of gerontology was characterized by an important emphasis on education, research and services oriented to the elderly.

The same author indicated that in 1983, it was opened the first undergraduate gerontology program at the Universidad Católica de Oriente (Rionegro), in the Antioquia province, from which, over time, other programs of the same modality and with the same aims (to improve the life conditions for aging with quality) were derived by way of extension, in the universities of San Buenaventura in Cali and Bogota. They also report that in the middle of this same decade, two other programs were opened: one in Medellín, in the now known as Technological Institute of Antioquia (state-ruled, formerly Central Female Institute), denominated Program of Technology in Gerontology, for training and service purposes; and another in Armenia, at the University of Quindío, as an undergraduate program with a level of vocational training¹. At present, these programs of public and private universities are present only in the Antioquia and Quindío provinces.

For the year 2008, the National Learning Service (SENA, for its initials in Spanish) carried out a study to characterize gerontology in Colombia from the labor competencies and in different dimensions: organizational, economic, technological, occupational and educational. For the purposes of this article, we highlight the one on future trends of the educational environment, in which it was concluded and stressed the need for comprehensive training to manage the consequences and effects produced by individual and collective aging. ([Sena](#), 2008: 140-141).

Gerontology, an emerging discipline

Interest in the study of aging and old age is not a recent issue; on the contrary, it has been a subject that has troubled man throughout the history of mankind; but only until the mid-twentieth century, given the evident increase in the adult population, the advances in medicine and the subsequent prolongation of life expectancy accentuated the efforts to understand academically the problems of old age and aging.

[Lowenstein](#) (2004) distinguishes three phases in the disciplinary development of gerontology, each of which presents certain peculiarities that explain the characteristics of gerontology at the time.

The first phase, (early phase) goes approximately covers the decades between 1940 and 1960. It was developed when the presence of a phenomenon of extreme importance begins to appear: the aging of the population. This happens approximately from the second half of the 20th century.

Gerontology was born to give answers to the demographic implications, health, economic and social problems caused by the phenomenon of aging. From what has been said, it can be affirmed that gerontology in its beginnings presented a functionalist orientation.

This stage was characterized by a macro level of special interest in the demographic aspects of aging, its theoretical development was based on other disciplines (disciplinary perspective), with the purpose of being adapted to social conditions; at this point, it begins to be present a meeting of fields that strive to better understand the problems of old age; and at a micro level, this phase was marked by a description of the cultural aspects of the elders.

Due to the fact that in this first phase gerontology emerged as an attempt to respond to problems of

old age, gerontology became interested in important aspects of aging: loneliness, isolation, poverty, loss, duels, retirement and a medicalized vision of aging.

After World War II, a better definition of gerontology began to be seen, which is increasingly becoming an interdisciplinary discipline aimed at the study of aging.

The second phase of the development of gerontology is approximately between the decades of 1960 to 1980. This phase accepts the idea of aging as a process, and it is constituted as the object of knowledge of gerontology. It adopts the representation that aging is universal but it can be intervened. At this stage, there is an important opening of gerontology training faculties (teachers, students, researchers) in a variety of education and training programs in gerontology. At the macro level, long-term services and care are emerging, which are applied within the services and models of long-stay care; there is a growing demand for these services (clients). At the meso-contextual level, gerontology is developed based on matrices and disciplinary, biological, psychological and social models; that is, it becomes multidisciplinary.

The third phase comprises the period of time between the 1990s to the present, moving from structuralism models to patterns of social inequity and interpretive and constructive methodologies, intercultural reference frameworks, among others. Science is seen as one, (among many) ways of explaining events. Gerontology begins to be conceived as an interdisciplinary field. It is characterized by an important proliferation of academic programs of training in gerontology in the world. In this phase, the profession reaches an international recognition.

As we have seen so far, gerontology has gone through various stages in its disciplinary development, in which the object of study has been transformed; first the interest was in theoretical development and professional practice focused on the elderly; then, in addition to the elderly, the interest was extended to the aging process; and more recently, it has been developed research on what changes should be attributed to the passage of time.

[Treas and Passuth](#) (1988) proposed a conceptual framework for the future development of gerontology, calling it an integrative model. The authors base their proposal on three central themes that define the mission and purpose of contemporary gerontology: age, which represents an episodic dimension of the life process, recognizing that events often occur (or don't occur) at specific times during the cycle of lifetime; aging, which represents the dynamic passage of time; and older adults, which describes the old people that society

defines as elders. Treas and Passuth suggest that these themes, which are conceptually linked to the work of the gerontology's disciplines of origin (aging biology, aging psychology and sociology of aging), are useful in organizing our understanding of gerontology as a single discipline.

Training needs in the field of gerontology in the country and in the world

Today there is a demographic, epidemiological, social, economic and normative panorama in Colombia and in the world which makes it possible to demonstrate a set of needs and aspects that justify the training of gerontologists who can understand these profound transformations and their consequences, who be capable of acting professionally and integrally in diverse local, national and international contexts.

Demographic aging

For more than a decade, the World Health Organization (WHO) has indicated that by the year 2025, there will be more than 1 billion people aged over 60 in the world, and this figure is expected to increase to almost 2 billion by 2050, with a significant effect: "In less developed countries where the number of older people will increase from 400 million in 2000 to 1.7 billion in 2050" ([WHO](#), 2004: 1).

In this sense, it can be said that the world is experiencing an unprecedented global aging process, which is why organizations such as Unesco, UN, WHO and PAHO point out in unison the importance of ensuring active aging for all ages, or as it was raised by WHO on World Health Day, good health throughout life can add life to the years. This phenomenon, which is perceived as an alteration of the demographic structures of the countries of the world, is associated with the reduction of fertility rates and the significant increase in life expectancy, which has called into question not only the: "Ideas on how to finance care for the elderly", but also: "Attitudes towards aging" ([WHO](#), 2012).

According to the recent Global Aging Index (2015), which measures the social and economic well-being of older people, in the world by 2015 there were 102 countries classified as young societies (less than 10% of total population is 60 and older); 52 countries are societies in transition (between 10 and 19% of total population is 60 and over); 45 countries are aging societies (between 20 and 29% of total population is 60 and over) and 1 country (Japan) is a hyper-aged society (more than 30% of total population is 60 years old and over). By the year 2030, there will be a significant reduction of the countries that are young societies, as they will be 67, and there will be a significant increase

in hyper-aged societies in 26 countries. In the year 2050, only 37 countries will be young societies; 45, societies in transition; 56, aging societies; and 62, hyper-aged societies. ([HelpAge International](#), 2015).

For the case of Latin America, the WHO had pointed out 10 years ago that this region was not alien to this phenomenon, since population in terms of longevity was 547 million in 2005, and it will reach 763 million in 2050. This is due, among other factors, to the fact that in the last 60 years, it has been gained an average of 21.6 years of life, since life expectancy, which was 51.8 years in 1955, has now reached 73.4 years. As it was pointed out by Marcela Suazo, director of the United Nations Population Fund Division for Latin America and the Caribbean at that time: “It is an average eight years higher than the total of developing regions, and only 1.2 years less than the current value for Europe” ([El Tiempo](#), 2008: 1-10 International).

In 2012, PAHO and WHO indicated that by the year 2020, the Americas will have 200 million old people, almost twice as much as in 2006, and with more than half living in Latin America and the Caribbean. By 2025, 69% of those born in North America and 50% of those born in Latin America will live beyond 80 years (PAHO / [WHO](#), 2012):

Demographic change will be faster and more intense in low- and middle-income countries. For example, it took 100 years for the percentage of the French population over 65 to grow from 7% to 14%, (in a similar way), countries like Brazil and China will take less than 25 years to achieve the same growth (WHO), 2012: 1).

The behavior described above occurs as a result of the demographic transition. For a long time, it was the infant population what increased or maintained a relative high weight, whereas the people who reached old age was minimum. This is corroborated by the progressive narrowing of the population pyramid, with simultaneous expansion of the tip due to the decrease in the young population and the increase of the elderly.

Not surprisingly, PAHO/WHO Director Mirta Roses Periago, faced with the challenges of population aging, affirmed a few years ago: “The education sector must develop the necessary human resources to face this reality.” She said: “In the region we have seven times more pediatricians than gerontologists, and we must all adjust to the new demographic reality in all sectors” (Ministry of Health, 2012: 1).

The Latin American and Caribbean Demographic Center (Celade, for its initials in Spanish) indicated in 2009 that the countries of the region are at different

stages in the process of demographic aging. Four phases are observed: (i) incipient aging, (ii) moderate aging, (iii) moderately advanced aging, and (iv) advanced aging. Colombia is in the second group, which is characterized by low fertility rates (between 3 and 2.3 children per woman) and an aging rate ranging from 20% to 32% ([Cepal-Celade-UNPF](#) , 2009: 17, quoted by Vega, 2014).

The percentage of the population aged 60 and over in relation to the total population shows that, in the case of Colombia in 1950, it was 5%; in 1975, 5.6%; in 2000, 6.7%; in 2025, it is estimated that will be 14.6%; and by 2050, it could reach 23.9%. The period 2000-2025 is the one with the greatest increase, since, according to Celade projections, Colombia, along with French Guiana, Costa Rica and Venezuela, is within the group of countries with the highest growth for the population aged 60 years and over, with rates above 4% ([Cepal-Celade-UNPF](#), 2009, quoted by [Vega](#), 2014).

According to the 2010 National Demographic and Health Survey (ENDS, for its initials in Spanish), in the country, people over 60 represented 10% of the population; and people aged 65 years, 7%: “Among the ENDS of 1990 and 2010, the proportion of the population younger than 15 years in Colombia fell from 35 to 31 percent, while the population aged 65 and over increased from 5 to 7 percent “([Profamilia](#), 2011: 17).

Several authors and organizations such as Del [Popolo](#) (2001), [Céspedes](#) (2003), [Fajardo](#) and Rincón (2003), [Jelin](#) (2005), UN (2006) and [Profamilia](#) (2011) have indicated that the main causes of population aging in the region and in Colombia are: increase in life expectancy; decline in fertility rates; migration processes, particularly of the young adult population; internal displacement; and reduction of mortality, mainly due to the control of infectious and parasitic diseases.

The epidemiological transition

The inclusion in the demographic analysis of the morbidity dynamics, through the Epidemiological Transition (TE), a concept created in 1971 by Omran and amplified by Lerner in 1973, derived from the theory of demographic transition, suggests that this be treated as a continuous process in which the health and disease patterns of a society are transformed in response to broader demographic, socioeconomic, technological, political, cultural and biological changes ([Suárez](#), 1993; and [Frenk, Bobadilla, Sepúlveda and López](#), 1996).

The initial reduction in mortality is selectively concentrated in the causes of death of infectious type and tends to affect the younger age groups, in which infections are more frequent and serious. In addition, progressive survival beyond childhood increases the degree of exposure to risk factors associated with chronic diseases and injuries; which, that way, increase their relative contribution to mortality.

The subsequent fall in fertility affects the structure by age and has repercussions on the morbidity profile, as the increasing proportion of elderly people increases the importance of chronic and degenerative diseases. Thus, a new direction of change is produced, as the main burden of deaths and diseases shifts from the younger age groups to the more advanced ages.

Then, another change emerges in this process, given by the decrease in mortality and its replacement by morbidity (onset of chronic disabling diseases) as a predominant force that significantly affects the health system. The concept of epidemiological transition goes beyond that of demographic transition, this not only tries to explain the changes in mortality, but also in morbidity. Thus, in the transition process, the meaning of the disease undergoes a radical transformation: it ceases to be primarily an acute process that often ends in death, to become a chronic state in which many people, in their majority of advanced age, suffer for long periods of their life. In this way, it is possible a seemingly paradoxical combination of declining mortality coupled with increasing morbidity ([Brayne and Calloway, 1990](#)).

The aforementioned changes in the structure of mortality by age and by causes are manifestations of the so-called “epidemiological transition,” which is due in large part to the demographic transition and its social determinants. It is the series of complex and interrelated changes in the patterns of health and disease that occur in human populations over longer or shorter periods. They usually happen in a sequence that goes from a pattern dominated by infectious diseases and early childhood, associated with poverty, overcrowding, malnutrition and lack of medical care, to a pattern where chronic diseases predominate.

In the case of Colombia, as in most middle-income countries, the transition process has not followed a linear course. On the contrary, there is no chronological sequence between the reduction of the so-called “diseases of poverty” and the increase of the so-called “diseases of civilization”. Both coexist and give rise to a “prolonged and polarized transition” ([Frenk, Bobadilla, Sepúlveda and Lopez 1996](#)).

In relation to the overload of the health system for preventable diseases, as a consequence of the epidemiological transition, the WHO identified since 1979 the main causes of mortality in the world for the cohort aged 65 years and over: Heart disease, cerebrovascular disease, cancers, influenza and pneumonia, emphysema and asthma, and bronchitis (San Martín and Pastor, 1991). By 1983, the WHO reported cardiovascular diseases as the leading cause of morbidity (25%); second, diseases of the respiratory system (18%); third, infectious and parasitic diseases (14%); and fourth, cancers (9%).

The Pan American Health Organization (PAHO), citing Jenkins (2005), stated that non-genetic factors have been demonstrated to contribute to the first 10 diagnoses of mortality, and they are risk factors worldwide, although their impact varies according to local environments and cultures. These causes of death are: tobacco consumption; insufficient or excessive nutrition (eating habits); insufficient aerobic exercise; excessive consumption of alcohol; lack of immunization against microbial agents; exposure to toxins and poisons; firearms; risky sexual behaviors; motor vehicle injuries; and use of illegal drugs.

In Colombia, according to DANE (2008), the first ten causes of death follow this order: acute myocardial infarction; aggression with firing of other firearms and unspecified; other chronic obstructive pulmonary diseases; pneumonia for non-specified organism; unspecified diabetes mellitus; malignant tumor of the stomach; other cerebrovascular diseases; malignant tumor of the bronchi and lung; hypertensive heart disease; and intra-encephalic hemorrhage.

It is easy to conclude that older people become the most frequent users of the health system as a result of the increase in prevalent and age-dependent diseases ([Gómez and Curcio, 2002](#)), although these are susceptible to prevention or minimization of their sequelae in a high percentage; or in less favorable cases, at least it is possible to postpone their most severe manifestations.

At present, from the perspective of [Lalonde \(1990\)](#), the field of health is divided into four components that need to be taken into account in any attempt to improve it. These are: human biology, environment, lifestyle and organization of health care; and they are directly related to the determinants of health proposed by Blumm (1960).

The human biology component includes all the facts related to physical and mental health, manifested in the organism as a consequence of the fundamental biology of the human being and the organic constitution of the

individual. It includes the genetic inheritance of the person, the maturation and aging processes and the different internal devices of the organism. Given the complexity of the human body, its biology can affect health in multiple, varied and serious ways, and it can fail in various ways. This element contributes to mortality and to a whole range of health problems, the causes of which lie in human biology and generate very high costs, of billions of pesos, in treatments.

The environment includes all those factors related to health that are external to the human body and over which the person has little or no control.

Lifestyle as a component of the health field represents the set of decisions that the persons take, and over which they exert some degree of control. Bad decisions and harmful personal habits carry risks that originate in the persons themselves. When these dangers result in illness or death, it can be said that the people's lifestyles contributed to them.

The fourth category of the concept, the organization of health care, consists of the quantity, quality, order, nature and relationships between people and resources in the provision of care services, also defined as health care system. It is here that society's efforts to improve it are generally oriented; and this is the component that generates most of the direct costs in this area; however, when the main causes of illness and death are identified, it can be concluded that its origin lies in the other three components of the concept. That is, large amounts of money are being spent on treating diseases that could have been prevented from the outset.

It is for this reason that in order to contribute from gerontology to the field of health and active aging, training should be oriented towards the understanding and promotion of intervention models that are closer to the first three elements of the concept of the field of health, with the purpose of preventing disease, promoting health and reducing disability.

The problem of non-promoting health from early stages is reflected in the long term, and specifically in mature generations, which generates dependence and becomes a social risk rather than a health risk, since the actual physical conditions of many people sometimes reflect strong social components. In Colombia, the elderly have accumulated a series of disadvantages in which their physical and social vulnerability increases drastically, because the scarce educational and economic resources reduce the capacity of adapting to and facing their own limitations, which translates into demands for protection and help.

The World Health Organization defined active aging as "the process of optimizing health, participation and safety opportunities in order to improve the quality of life as people age" (WHO, 2002: 1). The active aging approach is based on the recognition of the human rights of older persons to equal opportunities and the United Nations Principles for the Elderly.

For WHO, the origins of chronic disease risk begin in early childhood; later, the risk is determined and modified by factors such as economic status and lifelong experiences, and the risk increases as people age; hence, the importance of coping with risks from an early age and throughout the life cycle, since non-communicable diseases become the main causes of morbidity, disability and mortality in all regions of the world.

The active aging approach to development policies and programs offers the opportunity to address many of the challenges of both aging people and populations. For this reason, the political framework for aging requires action on three basic pillars: health, participation and security.

As for health, it is necessary: first, prevent and reduce the burden of excess chronic diseases, disabilities and premature mortality; second, reduce risk factors for major diseases and increase components that protect health throughout the life cycle; third, develop a continuum of accessible social and health services of quality and respect for the age; and fourth, provide training and education to caregivers.

In terms of participation, it is about: first, provide lifelong learning and education opportunities; second, recognize and allow the participation of people in economic development activities, in the workforce, in voluntary spaces according to their needs and preferences; and third, encourage people to fully participate in family life as they age.

In terms of security, it is envisaged: first, ensure the protection and dignity of the elderly, addressing their rights and the needs of social, financial and physical security; second, reduce inequalities in security rights and the needs of older women.

Social profile of the old population in Colombia

Cowgill (1974, cited by Mishara 1986), related the social status of the elderly to social changes, and in this sense he identified four trends that have contributed to the decline of the condition of the elderly in the development of modern society. These are: improvement in health technology, development of modern technology, urbanization and instruction.

Although the views of this model were exposed by Cowgill based on developed countries, developing nations, in this case Colombia, have also undergone a process of transformation and have achieved a global economic growth that has allowed them to expand their coverage in sectors such as health, education and industry; but at the same time, it has brought about a competition between generations, which translates into fewer opportunities for the old population, as the new roles give superiority in the productive and knowledge spheres to the younger generations.

In the relationship between growth => production => consumption => satisfaction, the change is implied by the development of the productive forces, resulting in an overestimation of the productive capacity of young workers, and undervaluation of the elderly, resulting in greater discrimination by age.

Old age as a social category in Colombia reflects a reality in which the elderly face a situation of poverty, misery and little social and labor participation, giving priority to a welfare concept in the programs and services directed to this group. The fact that a high percentage of the population aged 50 and over does not have a pension or resources for their livelihood aggravates their reality and accentuates their risk and vulnerability.

[Salazar](#) (2004), based on the National Household Survey (ENH, for its initials in Spanish) from 1996 to 1999, infers that the old population in Colombia has a low social profile. As a labor force, it is a marginalized age group; it is inactive in high percentage, and women present percentages higher than men. The economically active population derives its livelihood from working in the informal sector, and its income ranges from one to two minimum wages. It has low levels of schooling, and the majority is excluded from the social security system in pensions.

In this scenario, although the majority of the elderly population is at a disadvantage, those who are indigent or very close to it are not there because of their old status, but because of their preexisting position as marginalized citizens.

Alongside economic impoverishment, there is also a phenomenon of “pauperized and pauperizing vision” of aging and old age, which is manifested in the presence of social representations, stereotypes and prejudices that make evident in the general population the configuration, transmission and replication of a “deficit model”, manifested by: an increasing decline in intellectual performance throughout the life cycle; a loss of work performance; a decline in the capacity for eroticism, intimacy, love and enjoyment

of sexuality; and an impoverishment of personality caused by a detriment of interest in what surrounds them, insufficient social interaction, little participation, “depression”, stubbornness and intransigence.

The challenge of dependency

Functional dependence of older people is a growing problem in developed countries, and soon it will be strongly felt in developing countries. In order to reduce the burden of disease and create the conditions that modify it in the future, immediate actions must be developed, as population aging is taking place in a social context marked by social inequalities.

Based on the above, and based on [Maravall](#) (1997), it can be concluded:

Historically, old age has been for the majority of the population synonymous with economic poverty, inactivity in the labor market, marginality in social and cultural life, and disease in the field of health. Those people were, therefore, at the expense of the care that their relatives wanted and could give them (p.1).

The presentation or exacerbation of situations of physical, sensory or psychological deterioration affects independent life, causes changes in both family and intergenerational relations, reduces the possibilities of autonomous life, and demands measures of external and indispensable attention that are a response to the challenge of dependence. If in developed countries, which have more experience in reflection and responses to these problems, it is considered that the public reaction to this problem is “late and insufficient,” what could it be said of countries like Colombia?

The problem, outlined, studied and described by researchers and health workers, education, planning and related fields have generated a growing awareness, which is shared to a greater or lesser extent by all, in the sense that there is a peremptory need to start early in the life cycle of each cohort of the population, effective actions to facilitate in each person the development of:

Competences for life.

- Awareness of responsibility for one’s own health and adoption of healthy lifestyles, healthy habits and strategies for self-care and prevention from the early stages of the life cycle.
- A project of personal life consistent with that of the family.
- Self-management of one’s own aging, not only in health terms, but also in the labor, economic and social

fields; with a long, medium and short-term retirement plan that makes self-sufficiency possible for a dignified old age.

- A vision of the aging process with a manifestation of life and its dynamics; therefore, as a normal process that is not linked to the disease, and that although it implies changes and even limitations, it is not necessarily deficient and much less impoverishing of the basic potential. On the contrary, it can and should be assumed as an opportunity for personal growth and development.

From the biological point of view, it is necessary to note that the constant prolongation of life expectancy determines that as the total life time increases, older people live longer in poor health; that is, individuals suffering from progressive chronic diseases must face the challenge of remaining active and independent despite their health problems. In other words, we are experiencing a significant increase in the number of years that it is possible to live from birth to death, but without a corresponding increase in health; consequently a much longer portion of the life course is spent with bad health and in a state of dependency.

The Role of the Elderly in the Socialization of the Younger Generations

According to the new scenarios that are present in the family sphere, which originated by the multiple social, economic and cultural changes that modified the structure and functions of this institution, inducing that the grandparents share with their grandchildren more time, becoming significant agents of socialization for the grandchildren and contributing to the social, cognitive, moral and affective development of the minors, it is important to remember that the socialization techniques used by the socializing agents influence the construction of the identity of the subject in the process of socialization and facilitate, or not, the development of their autonomy and the participatory and democratic consciousness, reverted in the micro and macro social structures that surround persons. The use of a style based on authoritarianism will generate people with low levels of moral development, while the use of a style based on democracy will propitiate adults with higher levels of moral development and more independence.

These aspects have generated a global awareness of the problems associated with aging and old age, which are embodied in a series of significant events in the international and regional context, such as: Haifa Encounter (Israel, 1982), World Agencies on Aging, Vienna 1982 and Madrid 2002), regional conferences (I Latin American and Caribbean Conference, Bogota

1986), as well as congresses, symposia and seminars in different latitudes. Our country has not been unaware of this phenomenon and the national government itself has tried to outline a policy that is expressed in a normative, but unfortunately, many of them do not go beyond the expression of good intentions.

Norms on Aging and Old Age in Colombia

Since the nineteenth century the state, and in particular the different religious communities and charitable boards have assumed responsibility for social assistance to the elderly. However, to contextualize this point on normativity, we take as a reference the promulgation of the new Political Constitution in 1991, in which our country is assumed as a social state of law, which has led in the last two decades to a considerable and important normative development in issues related to the attention and protection to the elderly, and to assume the implications of the aging population.

Consistent with the legislation of protection and care for the elderly, it has been promoted from the international level the need to train professionals in gerontology who contribute to the prevention and care of the problems described.

In this sense, from the normative point of view, provisions have been made in relation to the practice of the gerontologist as a professional in the field of health since 1993. In this regard, it was found that through Resolution 00449 of February 8, 1993, the heads of the sectional health services were delegated the function of registering the title of Professional in Gerontology in the area of their jurisdiction. Once the registration is made, they are related to the Ministry of Health.

In this normative scenario, it was enacted Law 1164 of October 3, 2007 by which provisions are made regarding human talent in health, and which regulates in its chapter IV (Of the exercise of professions and occupations of Human Talent in Health), article 17:

The professions in the area of health are intended to provide comprehensive health care, which requires the application of the skills acquired in higher education programs in health. As of the validity of this law, it is considered as health professions, in addition to the ones already classified, those that fulfill and demonstrate through their curricular and work structure competencies to provide health care in the promotion processes, prevention, treatment, rehabilitation and palliation.

As a result of this standard, it was set up a national technical panel composed by gerontologists from the different faculties and programs of the country, which has been building since February 2008 the

competence standards of gerontology at undergraduate level, a process which was methodologically advised by the National Training System for Work (SNFT) of SENA, and endorsed by the National Sectorial Panel of Health. The competence standards that resulted from this exercise were subject to verification and review, through a public consultation conducted by the methodological advisers.

In 2013, it was enacted Law 1655 of 15 July, which amended Article 70 of Law 1276 of 2009 thus:

Gerontologist. Health professional, graduated from institutions of Higher Education duly accredited for this specific area of the knowledge that intervenes in the process of aging of the human being as individual and as collectivity, from an integral perspective, with the aim of humanizing and dignifying the quality of life of the elderly population (p.1).

Other reasons that justify the offer of gerontology programs

In addition to the aforementioned reasons, other situations that justify the need to train professionals in gerontology in our country are listed. Among others, the following stand out: the creation of the National Research Node on Aging; the inclusion of research lines on aging and old age in the *Agenda Nacional de CTI (Colciencias 2010)*; the formulation of the National Policy on Aging and Old Age 2007-2019; the consensus reached in the three gerontology teachers training courses in Latin America organized by the Colombian Association of Gerontology and Geriatrics and carried out in the cities of Manizales (2009 and 2013) and Armenia (2011). The first course allowed to make epistemological distinctions between theory, model and paradigm; it was approached the development of the main social models of aging with a life course approach, this allowed the participants to be trained in the conceptual bases and in the description of the social and psychological models of aging with emphasis on the psychosocial consequences of this process at individual and population level, for its diffusion through teaching activity. In the second course, interdisciplinary, multidisciplinary and transdisciplinary subjects were widely worked. In the third course, it was shared about some conceptual bases that allow analyzing the perspective of life, from different disciplines, exchanging theoretical and investigative points of view to make gerontology teaching activity a process open to updating and permanent analysis.

Finally, in the conclusions of the international congresses of universities with gerontology programs in Argentina (2010), Mexico (2012) and Peru (2014), a

call is made to articulate and strengthen the training of gerontologists.

In Argentina, specifically at Universidad Maimónides in Buenos Aires, it was set the agenda to begin to reflect together on undergraduate training; one of the conclusions was the urgent need to train professionals who can respond to the needs of the elderly with less social and economic cost, with an interdisciplinary conception that facilitates a comprehensive approach to the aging problem, which is not only limited to the medical, psychological, or social aspects. There, it was possible to show that Colombia was not the only country that formed gerontologists, as countries like Panama, Brazil, Venezuela, Mexico and Peru had also faced the challenge of facing demographic aging.

In Mexico, the main reflection focus was on good practices, with the primary objective of analyzing and discussing the state of the gerontology praxis, from the actors in the professional formation in Latin America, to generate lines of action.

In Peru, it was given recognition to the efforts of the different universities to offer quality training. The Pan American Network of Programs and/or university programs in gerontology was created with the aim, in the first instance, of formalizing agreements of an academic nature, for student and teacher exchange. It was emphasized the role of research as a fundamental part in the construction of a theoretical, methodological and epistemological framework of gerontology.

Continuing with congresses, the next one will be held at the *Universidad Católica de Oriente* in Rionegro (Antioquia) in October 2016, thus reaching the fourth version, under the motto "Aging, Human and Social Development, a Challenge for the Gerontologist". Towards Positioning Gerontologists in the International Field.

Conclusions

In view of this panorama that fully justifies the need to train professionals in gerontology, it is worrying that there are only two professional programs in Colombia, one offered by the University of Quindío and another by the *Universidad Católica de Oriente* in Rionegro (Antioquia), in distance mode and with virtual support. There is also a technology program in gerontology offered by the Technological Institute of Antioquia. At graduate level, it is highlighted the trajectory of the Master's Degree in Gerontology, Aging and Old Age at the University of Caldas, and a recent specialization in Social Gerontology at La Salle University in Bogotá. This low supply of training in the field of gerontology in our country shows the poor visibility of the profound

transformations and consequences that in the medium and long term brings the process of aging that currently lives the world.

Although there exists a variety of graduate programs in gerontology in the world, in recent years there has been an increase in the number of undergraduate programs in some Latin American countries, in the United States, Canada and Portugal; it has been found that the duration of these training programs are below the duration of the programs offered in Colombia.

It is stressed the role, as Lowenstein and Carment (2009 cited by Vega 2014) emphasize, that educational institutions must begin to take, in order to facilitate social adaptation to the challenge of social and health needs related to global aging. Likewise, the development of educational knowledge and programs in gerontology is one of the essential means to sensitize the public and professionals working with older people, to face the impact of aging societies.

Footer

1. This program began its academic work in the second semester of 1987; so far, it has had five curricular designs. The first one goes from its beginnings until 1990; the second was implemented from 1990 to 1997; the third, from 1997 to 2004; the fourth, from 2004 to 2007, year in which the Ministry of National Education denied the qualified record. The latest design corresponds to the new program, which obtained its qualified record for 7 years in December 2012.

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