

Negative stereotypes towards ageing in college students majoring in the health field

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ABSTRACT

Introduction: Negative stereotypes towards ageing generate discriminatory behavior (ageism) toward older adults.

Objective: Analyze the presence and intensity of the negative stereotypes towards ageing present within the students within the Health Department of the Universidad de Guanajuato (UGTO by its acronym in Spanish). **Methodology:** Quantitative, descriptive, cross-sectional, and comparative study; stratified sampling of n=326 students registered in the August-December period. Application of the Evaluation Questionnaire of Negative Stereotypes towards Ageing (CENVE by its acronym in Spanish), whose point scale ranges between 15 and 60 points, greater punctuation an elevated degree of negative stereotypes against ageing. Descriptive statistics were used for categorical variables by distribution of frequencies and percentages, and for numeric variables, measures of central tendency and dispersion. **Results:** Average age of 20.15±1.67 years; female gender was predominant (79.9%); CENVE score of 36.24±4.96; the most affected dimension was that of Character-Personality. There exists a presence of negative stereotypes within 37% of the cases, no differences existed between the groups. The presence of negative stereotypes was greater in comparison to South American studies; likewise, the CENVE score was greater than those obtained in studies performed in Spain and Costa Rica. The most affected dimension differs in regards to international and national studies where the most affected dimension is health. **Conclusions:** Elevated negative stereotypes prevail within the population studied; the most affected dimension was that of Character-Personality. The implementation of programs starting on basic education is recommended, programs favoring socio-emotional skill-building that serve to decrease ageism.

Key Words: Stereotype; Ageing; Students; Health Sciences. (DeCS).

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INTRODUCTION

In Mexico, older adults represent 10.4% out of the total population, and besides the increase in life expectancy, it does not necessarily mean ageing with quality; due to the fact that this population faces problems such as disabilities and comorbidities of a chronic-degenerative nature. Apart from other shortcomings that are the result of lack of access to healthcare (16.4%), and retirement (66.4%), thus creating a state of multidimensional poverty (43.7%)⁽¹⁾.

This situation generates the appearance of stereotypes towards ageing, namely the existence of a social construction that categorizes people in regards to what they "are not"; and the multiple losses that older adult suffers which cause that he is seen as a non-productive individual, somebody sick that should be medicated and excluded from the system⁽²⁾.

In this current social system, ageing is associated to dependence in several forms and environments (family, social, and institutional), as well as to a functional disability, whether physical or mental. Proof of this is the prevalence of these stereotypes that the National Institute of Geriatrics (INGER by its acronyms in Spanish) reports occurring in México, which despite the new favorable reality regarding ageing, these stereotypes are still present in the society. Therefore, stereotypes in terms that the memory of older adults are impaired (73.1%), that they get angry easily (65.1%), or behave like children (62.3%) and their health is poor (60.2%), are some examples⁽³⁾.

There exist different studies at the international level that lay the foundation for the prevalence of elevated negative stereotypes in regards to ageing, even reaching higher academic levels, as is the case of educational programs that involve Health Sciences⁽⁴⁻⁶⁾.

Within Mexican society, when it comes to the Nursing profession, the analysis of the dimension of the Questionnaire to Evaluate the Negative Stereotypes towards Ageing (CENVE), a sample of 95 students revealed negative stereotypes within the health dimension (65.3%), alluding to the strong physical impairment, of the cognitive processes, and disabilities. Followed by Character- Personality (49.5%), upon referring to them as being like little children as well as rigid and inflexible. Finally, the Social-Motivational dimension (36.8%) mentioned the loss of interest in sex and to things in general, being less active, and having fewer friends⁽⁷⁾.

Likewise, an investigation performed within College Students majoring in Health Sciences (Medicine, Public Health, and Geriatrics), proved throughout CENVE, that the stereotypes towards old age are mainly negative, mostly affecting the dimensions of Health and Character-Personality⁽⁸⁾. Also, recently, a study was performed with respect to the negative stereotypes present within nursing students regarding ageing. In this study, out of a sample of 180 students within the age range of 20-39 years of age (D.E.=3, Min=17, Max=36), of the female gender (77%); the

negative stereotypes, according to the CENVE questionnaire, were present within 52.8% of the sample, where Character-Personality (62.2%) was the dimension most affected, followed by the Motivational-Social dimension (61.7%). The total average score of the CENVE questionnaire was 35 (D.E.=6.26, Md=36, Min=17, Max=39)⁽⁹⁾.

As the empirical framework shows, the representation focusing on the negative aspects towards ageing also affects health personnel (professionals, students, and teachers), connecting this vital process with loneliness, abandonment, financial loss, growing apart from family, losses (work, family, significant other), slow functioning, tiredness, and ideas in regards to the approach of death⁽¹⁰⁾. This situation generates a cycle that intensifies the current stereotypes present towards older adults since older people tend to take on negative images perceived about them and perpetuate their own negative stereotypes, reinforcing these beliefs at the micro level (interpersonal, family, or intergenerational) and macro level (institutional, labor, and social), influencing mistreatment or abuse to this sector of the population⁽¹¹⁾.

Ageing population suffers multiple negative consequences at all individual levels as a result of stereotypes; therefore, it is necessary to change the way that we perceive older people nowadays. One of the main objectives of the WHO is to "get rid of stereotypes associated to ageing", in order to consolidate optimal development of this population, embedding their daily life in current society, with the consequent improvement in their quality of life⁽¹²⁾.

One of the consequences that result from these stereotypes is that known as "ageism", which consists of discriminatory attitudes and conceptions towards older adults⁽¹³⁾, reinforcing the data from the World Health Organization (WHO), where it is argued that there could be more discrimination due to age than due to sex or race, evidenced by prejudices, attitudes, practices, or policies that perpetuate such degrading beliefs, also involving the Health Sector⁽¹⁴⁾.

Therefore, the purpose of this study was to analyze the presence and intensity of the negative stereotypes towards ageing, present within the students of different educational programs on health care at the public university of the State of Guanajuato (UGTO by its acronym in Spanish).

METHODOLOGY

A quantitative, cross-sectional, descriptive, and comparative study was carried out during the period of March 6, 2017 to February 1, 2018, in one of the campuses of the public university of the State of Guanajuato. The population consisted of students enrolled in the August-December 2017 period, from the educational programs in the health care area, considering those registered within the period of January - June 2017 (N= 2,110 students). The sample size was obtained by using the finite population formula of $n=326$ (IC 95%, Error of 0.05), proportional stratified sampling

resulting from Clinical Psychology ($n=69$), Nutrition ($n=62$), Physical Therapy and Rehabilitation ($n=57$) and Nursing and Obstetrics ($n=136$).

The voluntary participation from the students was asked for and their informed consent was handed to them, complying with what is established within the Regulation of the General Health Act in the Area of Health Research, Fifth Title, Single Chapter, Article 100, Section IV15 and with the ethical considerations and principal of the Helsinki's Declaration (beneficial, respect to human dignity and justice) of the World Medical Association for Medical Research Involving Human Subjects, 2013 update¹⁶. The research was endorsed by the Research Committee of Health Sciences and Engineering Division of the Celaya-Salvatierra campus of the Universidad de Guanajuato, with the registry number CIDSC-3102908.

Each participant was handed the questionnaire of socio-demographic data as well as the CENVE (2005) instrument, which consists of a total of 15 items in the 4-point Likert scale (1= Total Disagreement to 4= Total Agreement), whose value fluctuates between 15 and 60. The highest scores indicate a high level of negative stereotypes in regards to ageing, assessing three dimensions:

- Health: It consists of the confirmation of physical and cognitive impairment, as well as their disabilities.
- Motivational-Social: These are the beliefs about socio-affective deprivation.
- Character-Personality: Refers to the tightness of thought and problems related to mood swings.

The Cronbach alpha reported for each dimension within its original construction was 0.67, 0.64, and 0.66, respectively¹⁷. For this study, the tool showed a Cronbach alpha of 0.76.

The analysis was performed using descriptive statistics by distribution of minimum and maximum frequencies and

percentages, as well as measures of central tendency and dispersion (average, median, and standard deviation). The variable of study was analyzed through the Two-Proportion Z-Test for differences between the groups.

RESULTS

In regards to the majors, 42.0% belonged to the Nursing and Obstetrics program, 21.3% belonged to Clinical Psychology, 19.1% to Nutrition, and 17.6% to Physical Therapy and Rehabilitation. The prevailing semester was the Fourth (29.3%), followed by the First (27.5%), Second (26.2%), Sixth (9.0%), and Fifth (7.1%).

The socio-demographic results indicate that the average age range of the participants was 20.15 ± 1.67 years of age. For the sub-groups, the mean age is shown in Table 1, where the students who are taking the nutrition major had a mean age range higher than the rest (20.56 ± 1.91).

In regards to the gender of the participants of the total sample, most were female (79.9%), with most of the presence of this gender belonged to the Physical Therapy and Rehabilitation (86%) and Nursing (85.2%) (Table 2) programs.

CENVE's total score in the study sample was 36.24 ± 4.96 ; 12.14 ± 1.90 for the Health dimension; 10.99 ± 2.05 for Motivational-Health; and 12.83 ± 2.11 for the Character-Personality dimension.

In 37% of the cases, the presence of high level of belief in negative stereotypes towards ageing was found, where Character-Personality was the most affected (55.2%), which covers aspects such as regression to childhood by the older adult, and the decline of the status of the older adult; this followed by the Health dimension (48.5%) covering affirmation in regards to the physical and cognitive

Table 1. Age of the participants by educational program

Age (years)	Rank		\bar{X}	SD
	Mín	Máx		
Total	17	28	20.15	1.67
Nursing and Obstetrics	17	27	20.33	1.78
Clinical Psychology	18	25	19.97	1.35
Nutrition	18	28	20.56	1.91
Physical Therapy and Rehabilitation	18	23	19.47	1.25

Source: Sociodemographic Data Questionnaire, 2017

n= 324

deterioration as well as the appearance of disabilities; finally, the Motivational- Social dimension (21%), which refers to socio-affective deprivation suffered by the older adult (Table 3).

Finally, a Two-Proportion Z-Test was taken in order to find the significant statistical differences in the presence of negative stereotypes amongst the various educational programs. The results did not show any significant statistical differences between the groups; however, comparison made between the Nursing and Obstetrics major with the Physical Therapy and Rehabilitation major was borderline ($Z=1.96$, $P=0.05$) (Table 4), inferring that the elevated presence of negative stereotypes towards ageing affects more the students from the Nursing and Obstetrics program than those who are taking the Physical Therapy and Rehabilitation program.

DISCUSSION

The results of the mean age range are similar to the studies performed at international context^(4,5), where the mean age ranges between 20 and 21 years of age; and in Mexico, based

on what was found by Carrillo-Cervantes et al.⁽⁹⁾, where the greatest similarities existed. However, the mean age was lower than what was shown in the studies performed in Central and South America^(6,18,19), where the average age range was less than 30 years of age; and in Mexico^(7,8), where the age was around 22 years of age.

The differences found can be due to demographic and cultural factors of the regions, since in Mexico, the average age range for the students enrolled in higher education is between 18 and 20 years of age, according to the Organization for the Economic Cooperation and Development (OECD), consisting with the results obtained⁽²⁰⁾.

However, despite of the Educational Reform of 2012, there is still a high level of desertion in higher education throughout the country, since the current context demands that the young adult spends more time working than studying, and, consequently, only 24% of the 20 year old people in Mexico are enrolled in higher education institutes, representing an educational opportunity area in the country.

Regarding gender, there exists a similarity with research performed mainly in Central and South America^(5,18,21), as well as what is reported by Durán-Badillo et al.⁽⁷⁾, and Carrillo-Cervantes et al.⁽⁹⁾, in the country, where the female gender was more predominant in 75% of the cases.

Table 2. Distribution by gender

Gender	<i>f</i>	%
Total		
Male	65	20.1
Female	259	79.9
Nursing and Obstetrics		
Male	20	14.7
Female	116	85.3
Clinical Psychology		
Male	20	29
Female	49	71
Nutrition		
Male	17	27.4
Female	45	72.6
Physical Therapy and Rehabilitation		
Male	8	14
Female	49	86

Source: Sociodemographic Data Questionnaire, 2017
f= Frequency, %= Percentage

n= 324

Table 3. Distribution of Negative Stereotypes towards Aging

Variable/ Dimension	CENVE		Health Dimension		Motivational-Social Dimension		Character-Personality Dimension	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Total								
<i>High Stereotypes</i>	120	37	157	48.5	68	21	179	55.2
<i>Low Stereotypes</i>	204	63	167	51.5	256	79	145	44.8
Nursing and Obstetrics								
<i>High Stereotypes</i>	56	41.2	66	48.5	39	28.7	78	57.4
<i>Low Stereotypes</i>	80	58.8	70	51.5	97	71.3	58	42.6
Clinical Psychology								
<i>High Stereotypes</i>	27	39.1	31	44.9	15	21.7	32	46.4
<i>Low Stereotypes</i>	42	60.9	38	55.1	54	78.3	37	53.6
Nutrition								
<i>High Stereotypes</i>	22	35.5	31	50	10	16.1	38	61.3
<i>Low Stereotypes</i>	40	64.5	31	50	52	83.9	24	38.7
Physical Therapy and Rehabilitation								
<i>High Stereotypes</i>	15	26.3	29	50.9	4	7	31	54.4
<i>Low Stereotypes</i>	42	73.7	28	49.1	53	93	26	45.6

Source: CENVE, 2017

n=324

Table 4. Comparison of proportions of high negative stereotypes by educational program

Comparison	Z	P value
Nursing and Obstetrics against Clinical Psychology	0.29	0.77
Nursing and Obstetrics against Nutrition	0.76	0.45
Nursing and Obstetrics against Physical Therapy and Rehabilitation	1.96	0.05
Clinical Psychology against Nutrition	0.43	0.67
Clinical Psychology against Physical Therapy and Rehabilitation	1.52	0.13
Nutrition against Physical Therapy and Rehabilitation	1.08	0.28

Source: Own elaboration, 2017

n=324

But, there was a difference found between population such as Spain⁽⁴⁾ and Argentina⁽⁶⁾, where the studies showed that the presence of the female gender is greater than 85%. Also, the percentage obtained within the present study was greater in comparison with what was obtained by Leon) et al.⁽¹⁹⁾, in Chile and in the National Context, by Dominguez et al.⁽⁸⁾, where the presence of the female gender was less than 70%.

In Mexico, there still exists a predilection of this population to choose educational programs that have been socially considered as "Feminine", such as is the case to those belonging to the area of health (Nursing, Nutrition and Psychology), where at least 75% of the population who studies in this department are women⁽²²⁾. With the same thing happening at the global level, where according to OECD data, in the year of 2013, women represent 78% of the new enrollment in higher education programs related to health and wellness⁽²³⁾.

Later, it was discovered that the presence of negative stereotypes towards ageing was less than what was reported in the Spain⁽⁴⁾ and Costa Rica⁽²⁴⁾ studies. In the first case, this presence represented 62% of the sample; while in Costa Rica, the CENVE questionnaire obtained an average point score of 51.52.

By contrast, the score obtained from the CENVE used in this study was greater than those reported by Blanco-Molina and Pinazo-Hernandis⁽⁵⁾, and Portela⁽⁶⁾, where the CENVE score ranges around⁽³²⁾. Likewise, the presence of negative stereotypes towards ageing was greater in contrast to studies performed in Chile and Argentina^(6,18,19).

Within the CENVE dimensions, similarities with the results from Sequeira and Silva⁽¹⁸⁾ were found; while in different studies, the dimension affected the most by the negative stereotypes was that pertaining to Health^(4,6,21).

In the national context, the most affected dimension differs according to a couple of studies held in the North⁽⁷⁾ and West⁽⁸⁾ of the country, with the dimensions within these studies being: Motivational-Social and Health, respectively.

Finally, there exists a similarity with a research recently performed within the North part of Mexico⁽⁹⁾, whose effect resides in the Character-Personality dimension; however, in the present study, the CENVE score was greater, while the presence of elevated negative stereotypes towards ageing was lower (37% against 52.8%).

CONCLUSIONS

Currently, high negative stereotypes prevail within the population being studied in which the most affected dimension was that of Character-Personality, where "those above 60 experience mental glitches", "older adults act like children", and "elderly people become rigid and inflexible", are some of the dominant stereotypes. Therefore, it is suggested the inclusion of educational programs focused on modifying the negative stereotypes towards ageing since

basic education.

It is important because the 2011 Study Plan of the Ministry of Public Education (SEP by its acronym in Spanish), within the goals foreseen in it are the topics of social relevance such as respecting diversity, considering programs that imply age diversity, social beliefs referring to older adults, and the ageing process, since, despite the demographic change undergoing in the country, the relevance given to these programs is little. This is how building of Socio-Emotional skills (or Socio-Emotional Education) within the population will be enhanced.

Basically, if these types of programs are implemented efficiently from an early age, the social perspective that worries older population may slowly die down, and in a future, if a person decides to become involved as a health professional, such person can contribute to the reduction of negative stereotypes about old age (ageism), and therefore, their professional development and the quality of the service given to this population will be benefited.

CONFLICT OF INTEREST

The authors state that they have no conflicts of interest.

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