Voluntary work, demographic, social and economic features and health self-perception by elderly people from Porto Alegre (Brazil)

TRABALHO VOLUNTÁRIO, CARACTERÍSTICAS DEMOGRÁFICAS, SOCIOECONÔMICAS E AUTOPERCEPÇÃO DA SAÚDE DE IDOSOS DE PORTO ALEGRE

TRABAJO VOLUNTARIO, CARACTERÍSTICAS DEMOGRÁFICAS, SOCIOECONÓMICAS Y AUTOPERCEPCIÓN DE LA SALUD DE ANCIANOS EN PORTO ALEGRE (BRASIL)

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ABSTRACT

The objective of this cross-sectional, comparative study was to describe the demographic, socioeconomic and health characteristics of elderly voluntary workers of a Non-governmental organization of Porto Alegre, and investigate the influence of voluntary work and the referred characteristics on the subjects' self-perception of health, compared to a paired group of elderly individuals who did not perform any voluntary work. Through interviews it was found that 87.4% of the elderly voluntary workers were women, with complete secondary education, had their own income and followed a religion and a healthy lifestyle. The comparison of data from both groups showed that self-perception of great health was more common among voluntary workers (30.5% compared to 6.1%, p=0.054). Multivariate analysis revealed that performing voluntary work and having fewer diseases influenced the individuals' having a positive self-perception of their health (p<0.05). Study results support the hypothesis that voluntary work may be a mechanism of health promotion among the elderly.

KEY WORDS

Aged.
Aging.
Health of the elderly.
Voluntary workers.
Nursing.

RESUMO

Trata-se de um estudo transversal e comparativo, que objetivou descrever as características demográficas, socioeconômicas e de saúde de idosos que realizam trabalho voluntário em uma Organização Não Governamental de Porto Alegre, e investigar a influência do trabalho voluntário e suas características sobre a autopercepção da saúde desse grupo de idosos, comparando-o com um grupo pareado de idosos que não realizam trabalho voluntário. Verificou-se, por meio de entrevistas, que 87,4% dos idosos voluntários eram mulheres, com ensino médio completo, renda própria e adeptos a práticas religiosas e de saúde. Quando comparados os dados dos grupos de idosos voluntários e não-voluntários, foi mais frequente o relato de autopercepção da saúde ótima nos voluntários (30,5% versus 6,1%, p=0,054). Pela análise multivariada, realizar trabalho voluntário e possuir um número menor de doenças influenciaram a autopercepção positiva da saúde (p<0,05). Os resultados fornecem subsídios para a hipótese de que o trabalho voluntário atue como um mecanismo de promoção da saúde desses idosos.

DESCRITORES

Idoso.
Envelhecimento.
Saúde do idoso.
Trabalhadores voluntários.
Enfermagem.

RESUMEN

Se trata de un estudio transversal, comparativo, que apuntó a describir las características demográficas, socioeconómicas y de salud de ancianos que realizan trabajo voluntario en una Organización No Gubernamental de Porto Alegre (Brasil), e investigar la influencia del trabajo voluntario de tales características en la autopercepción de la salud de ese grupo de ancianos, comparándolo con un grupo testigo de ancianos que no realizan trabajo voluntario. Se verificó a través de entrevistas que el 87,4% de los ancianos voluntarios son mujeres, con enseñanza media completa, renta propia y adeptos a prácticas religiosas y de salud. Realizada la comparación de los datos obtenidos con los correspondientes al grupo testigo de no voluntarios, fue más frecuente el relato de autopercepción de salud óptima en los voluntarios (30,5% vs 6,1%, p=0,054). De acuerdo al análisis multivariado, realizar trabajo voluntario y poseer un número menor de enfermedades influenciaron la autopercepción positiva de la salud (p<0,05). Los resultados respaldan la hipótesis de que el trabajo voluntario actúa como un mecanismo de promoción de la salud de tales ancianos.

DESCRIPTORES

Anciano.
Envejecimiento.
Salud del anciano.
Trabajadores voluntarios.
Enfermería.

[*] Extracted from the dissertation "*Trabalho voluntário, saúde e qualidade de vida em idosos*", Nursing School of the Federal University of Rio Grande do Sul, 2006.

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Portuguese / English: www.scielo.br/reeusp

Received: 09/10/2008
Approved: 07/28/2009

INTRODUCTION

Science progress in the last decades brought technologies that are determining population's life and health conditions. One of the effects of this progress is the increase in the proportion of elderly individuals in the world as a consequence of the reduction of birth rates and infant mortality rates. On the same line, urbanization, Social Security investments and work and health conditions improvements have converged into retiring a considerable parcel of individuals at an early age, when they are still able to be socially and professionally active[1].

However, in most Eastern countries as Brazil, where work is a synonym of productivity and profit, much of the elderly, who are in full working conditions, are undervalued, since they do not follow the social parameters instituted by society and are classified as obsolete, non-productive and unsuitable. Their experience and social value acquired throughout the years are, many times, disregarded. For some people, retirement is seen as a social representation of old age and social identity loss, indicating the beginning of social withdrawal.

Another contributing factor for the social exclusion at old age is widowhood, particularly for women, since a woman's second marriage is still seen as unsuitable by society, often resulting in loneliness at home[2].

Concerned about those issues, the United Nations Organization published, in the Second World Assembly on Aging, a new version of the International Action Plan for Aging. This Action Plan has the purpose of ensuring that people can grow old safely, healthily with dignity and actively participating in society and in its development. Moreover, the Plan proposes that a society for all ages should give opportunities for elderly individuals to contribute to society, seeing their social and economic collaboration not limited to economic production, suggesting activities as taking care of family members, housekeeping, volunteer community work, and others[3].

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Volunteer work (also called as charity work) can be understood as any activity in which the person (volunteer) freely offers his time to benefit other people, groups or organizations, with no material or financial return[4].

In Brazil, little was researched on volunteer work, especially among elderly individuals[5]. Hence, the interest emerged in learning about elderly individuals performing volunteer work and in which health conditions they are.

OBJECTIVES

The objective of this article is to describe the demographic and socio-economic features of elderly individuals performing volunteer work in a Non-Governmental Organization and to investigate the influence of volunteer work and those features on those elderly individuals' self-perception of health, compared to a paired group of elderly individuals who do not perform volunteer work. Therefore, offering support for the discussion on volunteer work as an alternative to promote health is intended.

METHOD

This is a cross-sectional, comparative, *ex post facto* study, developed with elderly individuals of a Non-Governmental Organization (NGO) of Porto Alegre, a city in the South of Brazil. The NGO in this study originated linked to major companies in the State of Rio Grande do Sul and currently promotes, organizes and qualifies volunteer work for various social entities.

The sample comprised two groups. The first group is composed of elderly individuals who perform volunteer work in Porto Alegre (Volunteer Elderly individuals) and are linked to the NGO in this study. The second group is composed of elderly individuals who do not perform volunteer work (Non-Volunteer Elderly individuals).

The population of registered and active Volunteer Elderly individuals (VEIs) in the NGO was interviewed and accepted to participate, totalizing 174 interviewees. Data collection was carried out between July and December of 2006. Elderly individuals were considered a person with equal or superior age to 60 years old. Those who had performed volunteer work more than 30 days ago were excluded. From those 174 elderly individuals, 33 served as reference (chosen randomly) for the selection of Non-Volunteer Elderly individuals (NVSCs), composing the comparison group. Hence, the final sample comprised 207 elderly individuals.

Expectation on the size of NVSCs sample was based on another study that validated the Whoqol-bref in Brazil (instrument used in the full Project), where the proportion of 5 cases per 1 control was used[6]. In order to reach NVSCs, each of the 33 VEIs was requested to indicate a senior citizen living near them to compose the control sample. A few measures were adopted in order to pair the two samples regarding sex, socio-economic level, stipendiary work situation and health conditions to perform the volunteer work[1]. NVSCs inclusion criteria were the following: senior citizen of the same gender and at the same stipendiary work situation as the reference VSC, physically able to perform volunteer work and not performing volunteer work. Data collection from NVSCs was performed throughout the period of December of 2006 to January of 2007.

For data collection, a questionnaire based on the study *Os idosos do Rio Grande do Sul: estudo multidimensional de suas condições de vida*[2] was used. Thirty-five questions

were selected to identify the subjects' health conditions. In addition, five open questions were asked to investigate aspects related to volunteer work, created by researchers (type of volunteer work, age when the volunteer work was started, weekly frequency of volunteer work, reasons for starting the activity and main returns from volunteer work).

Data were analyzed using the Statistical Package for the Social Science software, version 10.01. Subjects' characterization used the descriptive statistics. For the association between groups, the *t* tests were used, namely Student, Fisher's Exact, Mann-Whitney or Chi-Square (according to parametric prior conjectures). In correlation coefficient calculations, the Pearson and Spearman tests were employed. Open questions were categorized by semantic similarity, based on a Portuguese language dictionary classification.

Independent variables were considered: age, sex, ethnicity, marital status, years of education, own income, number of companions, family composition, occupation, stipendiary work, retirement, age at retirement, leisure, religion, physical activity, and diseases mentioned by the senior citizen. In order to identify the independent variables influence in the self-perception of health conditions (dependent), a multivariate analysis was performed between both groups, using the Multiple Linear Regression. Hence, the independent variable should present p=0.2 when associated to self-perception of health condition, quantified by interviewees with values from one to five (bad=1, fairly bad=2, good=3, very good=4, great=5). For this criterion, variables as sex, stipendiary work and age were not included. Data with a lower or equal to 0.05 two tailed p value were not considered as statistically significant.

Ethical principles were respected according to the National Council of Health guidelines. All elderly individuals interviewed signed a Free and Informed Consent Form. The research project was approved by the Research Ethics Committee of the Federal University of Rio Grande do Sul (number 2,006,554) and by the responsible parties of the NGO in this study.

RESULTS

Table 1 presents demographic and socio-economic features of elderly individuals from both groups. The data from NVSCs are demonstrated with the purpose to investigate the efficiency of the samples pairing technique, since both groups have very similar variables. Only age demonstrated a statistically significant difference between the groups. NVSCs presented, in average, to be two years older.

Table 1 - Distribution of volunteer and non-volunteer elderly individuals according to demographic and socio-economic variables - Porto Alegre - 2007

Variables	Volunteers (N=174)	Non-Volunteers (N=33)	p
Age (average) (standard deviation)	68.1 (5.9)	70.8 (6.5)	0.021*
Female n (%)	152 (87.4%)	26 (78.8%)	0.270**
Caucasian n (%)	160 (92%)	30 (90.9%)	0.738**
Years of education (average) (standard deviation)††	11.5 (5.5)	11.7 (4.4)	0.781*
Own Income Md (Q1-Q3) †††	3 (1-6)	5 (2-9)	0.071****
With a companion n (%) †	71 (41%)	16 (48.5%)	0.447***
Number of companions Md (Q1-Q3)	1 (0-2)	1 (0-2)	0.338****
Living with someone n (%) †	120 (69%)	23 (71.9%)	0.905*****
Occupation n (%) ††††			0.557***
Higher education degree professional	49 (28.3%)	10 (31.3%)	
Individual not part of EAP	45 (26%)	9 (28.1%)	
Non-specialized worker	27 (15.6%)	3 (9.4%)	
Office worker	15 (8.7%)	2 (6.3%)	
Public/military worker	14 (8.1%)	2 (6.3%)	
Others	23 (13.3%)	6 (18.6%)	
No stipendiary work n (%)	158 (90.8%)	30 (90.9%)	1.000**
Retired n (%)	140 (80.5%)	23 (69.7%)	0.244*****
Age at retirement average (standard deviation) †††††	54.7 (7.6)	56.4 (5.8)	0.308*

N (%) = absolute frequency (percentage); Md=median; Q1 = 1st quadrant; Q2 = 2nd quadrant; EAP = Economically active population; *t of *Student*; ** Fischer's exact; *** Pearson's Chi-Square; **** Mann-Whitney; *****Pearson's Chi-Square with Yates' Continuous Correction; † n=206; †† n=190; ††† n=174, own income in minimum wage, equivalent to R$ 350.00; †††† n=205; ††††† n=167.

Regarding social, cultural and leisure activities (Table 2), a statistically significant difference was found between the two groups (p=0.001) regarding the main activity performed to occupy spare time. While volunteer work constitutes the main way to occupy time for VEIs, in the NVSCs group, television, radio and books were mentioned.

Table 2 - distribution of volunteer and non-volunteer elderly individuals according to social, cultural and leisure activities - Porto Alegre - 2007

Variables	Volunteers (N=174)	Non-volunteers (N=33)	p
Main occupation of the spare time n (%)			0.001*
Volunteer Work †	97 (55.7%)	—	
Manual work	14 (8%)	6 (18.2%)	
Physical activities	12 (6.9%)	2 (6.1%)	
Reading †	11 (6.3%)	8 (24.2%)	
Housekeeping	10 (5.7%)	—	
Socio-recreational activities	8 (4.6%)	2 (6.1%)	
Television. radio †	6 (3.4%)	9 (27.3%)	
Religion	5 (2.9%)	1 (3%)	
Talking with friends	4 (2.3%)	1 (3%)	
Others	7 (4.2%)	4 (12.1%)	
With a religion n (%) ††	168 (97.1%)	33 (100%)	1.000**
Type of religion n (%)			0.002*
Catholic	115 (68.4%)	23 (69.7%)	
Spiritism †	42 (25%)	3 (9.1%)	
Evangelic †	6 (3.6%)	7 (21.2%)	
Others	5 (3%)	—	
Religiously active n (%)	144 (85.7%)	24 (72.7%)	0.113***

N (%) = absolute frequency (percentage); † category with statistically significant difference, with adjusted residue value>1.96; †† n=206, * Pearson's Chi-Square; ** Fischer's Exact; ***Pearson's Chi-Square with Yates' Continuous Correction.

Both groups demonstrated predominance of those who had a religion as well as those who considered them as religiously active. A statistically significant difference (p=0.002) was found in the type of religion professed by groups, where Kardec's doctrine was dominant among VEIs and Evangelic among NVSCs – except for Catholic, representing an equivalence between both groups.

Regarding activities that promote health (Table 3), there was no difference among both groups in the investigated variables. Both presented regular physical activity practice, with half of elderly individuals practicing it at least twice a week. Most elderly individuals had been to some type of appointment with a health professional six months prior to the interview.

Table 3 - Distribution of volunteer and non-volunteer elderly individuals according to health promoting activities and self-reported diseases - Porto Alegre - 2007

Variables	Volunteers (N=174)	Non-Volunteers (N=33)	p
Regular physical activity n (%)	124 (71.3%)	22 (66.7%)	0.747*
Frequency on the physical activity Md (Q1-Q3)	2 (0-3)	2 (0-3)	0.812**
Health service appointment n (%)	155 (89.6%)	32 (97%)	0.322***
Presence of a self-reported disease n (%)	147 (84.5%)	31 (93.9%)	0.182***
Number of self-reported diseases Md (Q1-Q3)	2 (1-3)	2 (1-3)	0.479**
Self-perception of health n (%)			0.054****
Great/Good †	53 (30.5%)	2 (6.1%)	
Very Good	47 (27%)	11 (33.3%)	
Good	54 (31.1%)	15 (45.4%)	
Fairly bad	18 (10.3%)	5 (15.2%)	
Bad	2 (1.1%)		

N (%) = absolute frequency (percentage); Md = Median; Q1 = 1st quadrant; Q2 = 2nd quadrant; † Categories with statistically significant difference, with adjusted residue value>1.96; * Pearson's Chi-Square with Yates' Continuous Correction; **Mann-Whitney; ***Fischer's Exact; ****Pearson's Chi-Square.

A limit statistical difference was found regarding self-perception of health reported by both groups (p=0.054). VEIs presented a higher percentage (30.5%) of answers *great* in comparison to the NVSCs group (6.1%).

In the Multiple Linear Regression Model (Table 4), the statistically significant influence of the independent variables *Group* (Volunteer or Non-volunteer) and *number of self-reported diseases* are demonstrated. Therefore, performing volunteer work positively influenced self-perception of health, however, the more self-reported diseases, the worse their self-perception of health. Variables as *Sex*, *Age* and *Stipendiary Work* were not included in the model, since they did not contemplate inclusion criteria (P=0.2), in other words, with any significant relation to self-perception of health.

Table 4 - Multiple linear regression of the selected variables regarding self-perception of health - Porto Alegre - 2007

Variables	r^2	B	p
	0.252		0.001
VEIs Group		0.425	0.028
Caucasian		-0.037	0.882
Years of education		0.024	0.104
Income value		0.012	0.310
With a companion		0.023	0.695
Number of companions		-0.021	0.764
Living alone		0.054	0.628
Retired		-0.032	0.856
Religiously active		-0.106	0.593
Presence of a self-reported disease		-0.057	0.829
Number of self-reported diseases		-0.323	0.001
Frequency of physical activities		0.010	0.763

r^2= determination coefficient; B= Linear coefficient.

Regarding the frequency of performing volunteer work, half of VEIs performed the activity up to eight times a month. Men had superior frequency to women (15 versus 8, p=0.001). The average age of starting volunteer work was of 53.8±14.7 years, with no statistically significant difference between genders (p=0.725).

The open questions pointed the performance of manual works as the main task performed by women. A non-professional activity is reading, talking, visiting the sick, the care performed by non-professional caretakers, recreation, singing and spiritual counseling. Both genders demonstrated philanthropy as the main motivation for starting volunteer work. Volunteer work provides feelings of joy, friendship as feedback. Moreover, it serves as a tool to make them feel useful and reach quality of life.

Table 5 - distribution of volunteer elderly individuals per gender, according to volunteer work features - Porto Alegre - 2007

Variables	Women (N=152)	Men (N=22)	General (N=174)
Main activities performed n (%) †			
Manual work. handcraft	48 (31.6%)	—	48 (27.6%)
Non-professional activities	38 (25%)	6 (27.2%)	44 (25.3%)
Administrative	30 (19.7%)	13 (59%)	43 (24.7%)
Main motivation to start n (%) †			
Philanthropy feelings[1]	107 (70.4%)	20 (90.9%)	127 (73%)
Occupy spare time	55 (36.2%)	7 (31.8%)	62 (35.6%)
Feel useful	32 (21%)	5 (22.7%)	37 (21.3%)
Loving the next one	25 (16.4%)	4 (18.2%)	29 (16.6%)
Third party invitations	18 (11.8%)	3 (13.7%)	21 (12.1%)
Fulfill loneliness	17 (11.2%)	2 (9.1%)	19 (10.9%)
Main returns n (%) †			
Joy[2]	143 (94.1%)	19 (86.4%)	162 (93.1%)
Friendship	42 (27.6%)	5 (22.7%)	47 (27%)
Quality of life	24 (15.8%)	3 (13.7%)	27 (15.5%)
Feeling useful[3]	19 (12.5%)	4 (18.2%)	23 (13.2%)
Accomplishment	16 (10.5%)	5 (22.7%)	21 (12.1%)
Love	18 (11.8%)	2 (9.1%)	20 (11.5%)

N (%) = absolute frequency (percentage); † multiple answers; [1] Phylonthropy regards the feeling of generosity and detachment for others, as; solidarity; [2] Joy comprises feelings as satisfaction, happiness, pleasure, fulfillment and gratification; [3] Regards those people who feel useful by performing volunteer work.

DISCUSSION

A discussion involving demographic and socio-economic characteristics will be limited to approaching volunteer elderly individuals, since their characteristics were sought between the groups. Causality/effect of the volunteer work in the elderly individuals' health was not intended, considering cross-sectional lineation limitations.

Moreover, this study results do not allow for data generalization, since it was performed with a sample of 174 active elderly individuals in an NGO in Porto Alegre, linked to large companies of the State of Rio Grande do Sul, and the fact might have influenced the features of VEIs socio-economic results. Even if Brazilian[7] and foreign[4,8-9] literature also report the association between volunteer practice and higher educational level, income and professional status, as verified in volunteers of this study, those variables demonstrate differences in the Brazilian senior citizen population, usually lower [10]. Those features also seem to be associated to an elevated proportion of white (Caucasian) individuals comparing to other ethnicity, as the educational level is higher. The income and professional status have always been lower for the African-Brazilian or mixed-race population. Regarding educational level, education has demonstrated that it is a motivator for volunteer work, since it seems to stimulate individuals' critical thinking about social problems helping to build self-confidence and increase the civic spirit[4].

Regarding the age, there was a statistically significant difference between both groups. VEIs presented an inferior average age. However, as the influence of the age variable in self-perception of health was investigated, a statistically significant correlation (p>0.05) was not found. Therefore, even if a lower age seems to be more related to practicing volunteer work, the age has not negatively influenced those elderly individuals' self-perception of health.

The research found that most elderly individuals who are committed to volunteer activities are retired. The fact can be related to, those elderly individuals, mostly because as they have a stable financial life (due to the high income reported), they have spare time and tranquility to exercise other activities that do not provide income or financial profit.

People with high level of education and financial resources allegedly have more possibilities to become a volunteer worker due to their built collective awareness that makes them feel responsible for helping the needy, in addition to having less difficulty with expenses generated from this charity work[11]. In a society based on productivity and profit, VEIs seem to search for volunteer work, maintaining the activity, confronting the *status quo*[7], with the intension of feeling useful and valued, even with no financial retribution.

This hypothesis is supported when the VEIs answers are analyzed regarding the main motivations that leads them to start volunteer work, arising philanthropy feelings (solidarity, helping the next one, sharing, doing good, set an example, improve the world, and loving the next one), occupying the spare time and feeling useful to society at the same time they maintain interpersonal relationships. Therefore, they share life stories, personal and professional issues, experience different points of view regarding culture and political issues. Volunteer work seems to propitiate the encounter of people with the same purposes. Therefore, it manifests a feeling of being involved in a compound action with bidirectional benefits: both for the one receiving and for the one giving it[7].

Even when old age is characterized by feminization and low educational level, a discrepancy in gender proportions was found in the VEIs and of their educational level, when compared to other studies carried out with elderly individuals [2,10], since women with educational level are the absolute majority (87.4%). This difference can be attributed to: the origin of volunteer work in Brazil (consolidated by wealthy, benevolent women.); also, females are connected to charity feelings and to the love for the next one (features reported by VEIs as motivating for the practice of volunteer work) and because they are seen as the most participative members of society, comprising around 80% of those who meet with relationship groups[1,12-13].

It is believed that the highest number of women involved with volunteer work regard gender cultures, which are present in our society, since the female professional life achievement is recent[7]. Women , throughout history, were characterized as the caring figure who nurtures for the family, caring for, helping, serving and educating culturally evident as female vocations. Under this perspective, women have become pioneers of volunteer actions of various orders and natures. Therefore, for them, doing good in volunteer work can represent occupying themselves with something beyond the private world, with public use and social legitimacy: an opportunity to feel useful, as presented in Table 5. However, when cultural and/or financial issue questions are answered, men have started to gradually insert themselves in volunteer actions, experiencing the benefits of converting their efforts into social actions[1].

In recent studies conducted in countries where volunteer work is traditional (mostly the United States), a statistically significant difference was not found between gender and the practice [8-9,14], demonstrating the growing male participation in volunteer work.

Since females were predominant in this study, data that reveal the prevalence of elderly individuals without a companion are congruent to other investigations about the aging process. Since their life expectation is higher (men die younger), women are more likely to become widows and live alone in their old age, since there is a lower number of male elderly individuals. Moreover, a female's second marriage, for that generation of senior ladies, is still not seen as *proper*, in other words, it is seen with prejudice[10]. Therefore, in widowhood, they search for occupying the spare time and loneliness with volunteer work practice (Table 5).

A high number of VEIs was found to live alone (31.0%). On the one hand, the fact that they lived alone was an obstacle for volunteer work – since they need extra time to administrate their daily life and domestic tasks -, on the other hand, it provides them with more time to find activities that will provide them with group relationship and social acquaintance, especially for the retired ones (80.5%) [11]. Moreover, volunteers in general are healthy, which promotes their autonomy, living alone and commitment to activities outside the private home world.

Regarding he activities to occupy the spare time, a statistically significant (p<0.001) difference was found between the groups, since VEIs presented more commitment to external activities (volunteer work), while NVSCs occupied themselves with reading and/or television/radio. Data found in the NVSCs groups are similar to a study carried out in the State of Rio Grande do Sul[2], which demonstrated that elderly individuals more frequently performed individual activities, mostly in their own home, as watching television, listening to music or radio and performing manual activities (29.3%). VEIs, on the other hand, searched for occupying their spare time with collective activities where they could meet with other people; occupations that involved contact with people, including, besides volunteer work, physical, social, recreational activities, balls, relationship groups and talking to friends.

Elderly individuals high prevalence, connected and practicing some type of religion, reflect the trend of individuals, at old age, to use more religious resources to deal with life stressing aspects. They employ means as praying, faith and trust in God or in other superior Being. Churches serve as volunteer work promoters because they stimulate charity and benevolence, especially in social work and educational areas. In addition, religious values also tend to stimulate a feeling of community cohesion and of responsibility for other members of the community. Hence, individuals who go to church are more likely to perform volunteer work than those that do not go to church [1,11,15].

Among all religions, the catholic was predominant in both groups. This is a reflex, mainly, of the Jesuits culture influence in the colonization period of the Country. The fact that Spiritualism has a higher percentage (25%) in the VEIs (p=0.002) can be connected to their guiding principles which state that charity is originated from their commitment to the doctrine, and it stands as a way for spiritual evolution. Under this perspective, individuals who have values based on solidarity, altruism and religiousness (features of Spiritualism), translate them into a pro-active attitude in face of social issues, as volunteer work [7].

Regarding the data on health habits in this study, they allow for a good index of elderly individuals with those habits in both groups, not showing a statistically significant difference between them. Both groups practice physical activities, most of them, regularly. These findings were different from another study with elderly individuals in RS State where the prevalence of sedentary elderly individuals was elevated, since 61.49% did not practice any physical activity regularly[2].

The fact that elderly individuals from both groups practiced physical activities is presumed to originate from a good educational level in them, since physical activity practice is directly related to the educational level[16].

Adherence for healthy habits by VEIs and NVSCs is seen not only by a large parcel of those who practiced physical activities regularly, but also by data from health services that demonstrate it. Access and use of health services by elderly individuals is a fundamental issue for analyzing quality of life at old age. The process of aging is associated to the increase in risks of many diseases and morbid events.

Although a statistically significant difference was not found regarding the presence of diseases (p=0.182) and the number of them (p=0.479) between both groups (measures for pairing groups regarding physical health were adopted), data reveal a limit, statistically significant difference (p=0.054) between VEIs and NVSCs groups in self-perception of health. The VEIs considered it great (30.5%) comparing to NVSCs (6.1%). All other categories demonstrated similar distribution between the groups.

These results corroborate with studies conducted in other countries, where volunteer work is closely related to better satisfaction with one's health and longevity[8-9,15,17]. In the cross-sectional study performed in 838 volunteer and 5,627 non-volunteer North-American elderly individuals[15], findings are similar to this present study. Answers for volunteer and non-volunteer elderly individuals about their health was *great*, respectively 18.0% and 9.0% (p<0.001). However, results from other classifications (very good, good, fairly bad and bad) were different from this study, because they found significant differences between groups (volunteer elderly individuals still had a better perception of health, considering p<0.01).

In a cross-sectional research with retired Chinese elderly individuals (328 volunteers and 173 non-volunteer), the relation between better subjective health and volunteer work practice was demonstrated (p<0.01) [9]. The same results were found in a retrospective research performed with 148 volunteer and 1,195 non-volunteer elderly individuals in Israel. even when there was no statistically significant difference between the number of diseases in those elderly individuals, those who practiced volunteer work reported better subjective health (p<0.001)[8].

These findings become relevant as self-perception of health is not merely considered as the impression related to real health conditions. Recent studies have demonstrated that individuals who see their health as positive, have consistently lower mortality risks than those who reported a worse health condition[12,18].

In the longevity study in Israel, volunteer work was associated to higher longevity of individuals (reduction of 33% in the mortality risk when compared to non-volunteer workers, p<0.001), confirming findings in other studies [14,17].

In the cross-sectional study with 400 elderly individuals form Porto Alegre, the chance of classifying them as having a healthy aging process and a good quality of life was 5.2 times higher for elderly individuals who classified their health as good or very good, comparing to those who classified it as bad, suggesting a healthy aging process for VEIs of this present study[13].

In order to learn about the independent variables on elderly individuals' perception of health in this present study, the multiple linear regression model was used, revealing that the variables included explain 25.2% of the variance of self-perception of health (p=0.001). Therefore, performing volunteer work (B=0.425; p=0.028) is demonstrated as directly associated to a better perception of health in those elderly individuals, while the number of diseases (B=-0.323; P=0.001) was inversely associated. Hence, even if most elderly individuals have reported some type of disease, the study indicated a negative influence of the sum of diseases on self-perception of health.

Regarding the positive influence of belonging to a group of VEIs, about self-perception of health, it is supposedly originated from social prestige, friendship, joy, personal gratifications, and all multiple roles propitiated by volunteer work that seem to converge to make the volunteer senior citizen more healthy [1,5].

CONCLUSION

In this study, most elderly individuals were females, without a companion, Caucasian, with a good educational level and income, retired and religiously active. Self-perception of health presented a statistically significant difference between both groups of elderly individuals. There was a higher percentage of *great* answers among VEIs in comparison to the NVSCs group. Therefore, results suggest that volunteer work functions as a health promoting mechanism in these volunteer elderly individuals.

As already discussed, if volunteer work seems to better influence self-perception of health, it becomes important among interested elderly individuals, and it can be stimulated by health professionals. But, it is important to mention that volunteer work cannot be imposed as a solution for everyone. The activity is considered as an alternative for some elderly individuals and not for all elderly individuals, since it accepts heterogeneity and diversity among people, a feature even more marked at old age[5].

As a limitation for this study, the variables investigated could not conclude a relation of causality and effect, considering the limitations imposed by the cross-sectional lineation. Hence, volunteer work cannot be confirmed as responsible for a better self-perception of health in these VEIs. Bias and confusions must be considered, considering that there is an uneven distribution between the variables that produces a clinical result when working with different groups.

Further work is recommended with the employment of other methodologies, as longitudinal and/or experimental studies, followed by volunteers throughout a period to test/evaluate those relations. However, data resulting from this research can support future discussion and works about questions that suggest volunteer work as an alternative for promoting health and well-being among elderly individuals. Moreover, it needs to be considered by health professionals.

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