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Evaluation of socioeconomic profile, professional training and health status of people with visual impairment

Avaliação do perfil socioeconômico, formação profissional e estado de saúde de pessoas com deficiência visual

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ABSTRACT

Objective: *To verify the socioeconomic aspects, the professional formation, the educational level and the state of health of people with visual deficiency.* ***Methods:*** *This is a cross-sectional and descriptive study with the participation of 33 people with visual impairment attended at a Specialized Institution for this deficiency in the city of Uberaba-MG, 16 with low vision and 17 with blindness. Socioeconomic aspects were evaluated through the Brazilian Economic Classification Criteria (CCEB), professional training and health status were verified by completing a structured form.* ***Results:*** *The age group was 47.3 years (± 17.2 years), with a prevalence of female (57.5%) and white (51.5%). In relation to professional training, 50% of the individuals with low vision and 52.9% with blindness are retired people; and schooling was 8 years of study for both groups. In the health condition 31.2% of the participants of low vision presented retinitis pigmentosa, and 23.5% of participants with blindness had glaucoma. In both groups, most individuals did not have any associated comorbidities. According to CCEB for the low vision group, the mean of the total score was 18.4 points and for the blind group was 18.1; culminating in the C1 classification of the socioeconomic level.* ***Conclusion:*** *The profile of the people in the study showed reasonable situations of schooling, presence of white and single individuals with economically active age, with retirement benefits and low economic class.*

Keywords: *Low vision;Blindness; Disabled people; Social class; Health profile*

RESUMO

Objetivo: Verificar os aspectos socioeconômicos, a formação profissional, o nível de escolaridade e o estado de saúde de pessoas com deficiência visual. **Métodos:** Estudo transversal e descritivo com participação de 33 pessoas com deficiência visual, atendidas em uma Instituição Especializada para essa deficiência na cidade de Uberaba-MG, sendo 16 com baixa visão e 17 cegos. Avaliou-se os aspectos socioeconômicos por meio do instrumento Critério de Classificação Econômica Brasil (CCEB), a formação profissional e o estado de saúde foi verificado com o preenchimento de um formulário estruturado. **Resultados:** A faixa etária foi de 47,3 anos (± 17,2 anos), com prevalência do sexo feminino (57,5%) e da raça branca (51,5%). Em relação à formação profissional, 50% dos indivíduos com baixa visão e 52,9% com cegueira são aposentados; e a escolaridade foi de 8 anos de estudo para ambos os grupos. No estado de saúde 31,2% dos participantes com baixa visão apresentaram retinose pigmentar, e 23,5% dos participantes com cegueira apresentaram glaucoma. Em ambos grupos a maioria dos indivíduos não possuía nenhum tipo de comorbidade associado. De acordo com CCEB para o grupo baixa visão, a média da pontuação total foi de 18,4 pontos e para o grupo de cegos foi de 18,1; culminando na classificação C1 do nível socioeconômico. **Conclusão:** O perfil das pessoas do estudo demonstrou situações razoáveis de escolaridade, presença de indivíduos brancos e solteiros com idade economicamente ativa, com benefício de aposentadoria e classe econômica baixa.

Descritores: Baixa visão; Cegueira; Pessoas com deficiência; Classe social; Perfil de saúde

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Introduction

Visual impairment is defined as the health condition in which the individual is partially or totally deprived of the ability to see. This situation of decreased visual response is characterized by individuals with blindness to individuals with low vision or subnormal vision. [1]

Blindness is a severe or total alteration in which there is an absence in the individual's visual potential, although it may present some perception of luminosity irremediably affecting the ability to perceive colors, sizes, distance, shape, position and movement. [2]. It can occur since intrauterine life or at birth (congenital blindness), or later (acquired blindness) through organic or accidental causes, or be hereditary. [2,3]

Low vision (also called amblyopia, subnormal vision or residual vision) is a change in functional capacity due to factors such as significant decrease in visual acuity, significant reduction of visual field and sensitivity to contrasts, and limitation of other abilities.(2-4)

According to Ordinance No. 3,128 of December 24, 2008, the Ministry of Health considers low vision or subnormal vision when the value of corrected visual acuity in the best eye is less than 0.3 and greater than or equal to 0.05, or its visual field is less than 20º in the best eye with the best optical correction (categories 1 and 2 of degrees of visual impairment of ICD 10). Blindness is considered when these values are below 0.05 or the visual field less than 10º (categories 3, 4 and 5 of ICD 10). [5,6]

About 1% of the world's population shows some degree of visual impairment, and more than 90% of these are in developing countries.[7] According to data from the 2010 Census of the Brazilian Institute of Geography and Statistics (IBGE), in Brazil there are more than 6.5 million people with visual impairment, 582,000 blind and 6 million with low vision. [8]

Even with specific legislation on access to the labor market (Law No. 8,112 of 1990; Law No. 8,213 of 1991), the number of people with disabilities entering this market is still below that provided by such laws. [9] The lack of information on the impairment and knowledge on the potential of these individuals, as well as the belief that impaired people will not match the expected results of the company, hampers the absorption of this workforce. [10]

Preserving the income acquired through work represents a central element in the survival of those with disabilities and their families. [10]

The dynamics of the Brazilian economy, with significant variations in the income levels and the possession of household goods, represents an important challenge for the temporal stability of socioeconomic classification criteria, especially for visually impaired individuals. With this in mind, Brazil's Economic Classification Criterion (CCEB), which is an instrument of economic segmentation, has been working intensely in the evaluation and construction of a criterion that is the result of the new reality of the country. [11] The socioeconomic level synthesizes the characteristics of the individuals in relation to their income, occupation and education, allowing to make analyzes of classes of similar individuals in relation to these characteristics. [12]

Given the social disadvantage that this population faces, the low level of education and the low professional qualification are observed, which hinders their inclusion in the labor market and consequently affects their purchasing power when it comes to goods and services.[10]

The objective of the present study was to verify the socioeconomic aspects, the professional training, the educational level and the health condition of people with visual impairment attended in a specialized institution.

Methods

This is a descriptive cross-sectional study performed in an institution specialized in people with Visual impairment. The study was approved by the Research Ethics Committee of Universidade Federal do Triângulo Mineiro-UFTM (Opinion No. 948,994/2015). Participants received information on the study, and to participate in the research they have signed an informed consent.

The study consisted of 33 people with visual impairment attended in an institution specialized in Visual Impairment in Uberaba-MG, being 16 with low vision and 17 blind. The study included people older than 18 years and who had an ophthalmologic diagnosis of congenital or acquired blindness and low vision. Participants who had neurological, mental and/or auditory diseases were not included.

Participants were interviewed, responding to a structured form containing information regarding sociodemographic aspects and clinical aspects such as: full name, date of birth, age, gender, race, marital status, address, telephone number, email address, professional training, education level, health condition (etiology), health service, presence of comorbidities, presence of pain, and if under some kind of treatment.

The Mini Mental State Examination (MMSE) was applied to ensure a minimum level of cognition of the participants. The items evaluated herein are: Temporal and Spatial Orientation; Immediate Memory; Attention and Calculus; Memory of Evocation and Language. (13) There were adaptations in some items according to the need of the visually impaired, so that they could perform certain tasks of the instrument. To be included in the study, participants should present cut-off points, considering the values stipulated by Brucki et al. [14]

In relation to socioeconomic aspects, the Brazilian Economic Classification Criteria (CCEB), version 2014 was used. According to the Brazilian Association of Research Companies[11], this Criterion uses the survey of household characteristics regarding the presence and amount of some comfort items and level of education of the head of household to differentiate the population. Its purpose is to be a unique way of assessing the purchasing power of consumer groups. According to the amount of goods owned, the participants should score the items requested. The corresponding class to which they belong was defined by the sum of the points of each good owned plus the level of education of the head of household. The classes defined by the CCEB are socioeconomic strata called A1, A2, B1, B2, C1, C2, D, E, and are classified as A1 those who score from 42 to 46 points, A2 (35 to 41 points), B1 (29 to 34 points), B2 (23 to 28 points), C1 (18 to 22 points), C2 (14 to 17 points), D (8 to 13 points), E (0 to 7 points).[11]

Data was collected in a three-month period, and a single interviewer was responsible for all of them, performing the complete reading of the instruments and their instructions to the respondent.

Results

In the characterization of the sample, the average age was 47.3 years (± 17.2 years), with a prevalence of females (57.5%), white race (51.5%), and singles (54.5%). In relation to professional

training, 50% of the individuals with low vision and 52.9% with blindness are retired, according to table 1. The level of education for both groups was 8 years or more of study, being 75% for the low vision group and 58.8% for the blind group.

Table 1
Distribution of sociodemographic variables of people with low vision and blindness

Uberaba (MG), Brazil	Low Vision	Blindness
	n (%)	n (%)
Gender		
Female	9 (56.2)	10 (58.8)
Male	7 (43.8)	7 (41.2)
Race		
White	9 (56.3)	8 (47.1)
Black	3 (18.8)	4 (23.5)
Brown	4 (25.0)	5 (29.4)
Yellow	0 (0.0)	0 (0.0)
Marital status		
Single	7 (43.9)	11 (64.7)
Married	5 (31.3)	3 (17.6)
Divorced	1 (6.3)	1 (5.9)
Widower	1 (6.3)	1 (5.9)
Lover	2 (12.0)	1 (5.9)
Profission		
Retired	8 (50.0)	9 (52.9)
Studant	3 (18.8)	1 (5.9)
Other	5 (31.2)	7 (41.2)
Level of Education		
Illiterate	1 (6.3)	2 (11.8)
1 to 3 years	0 (0.0)	0 (0.0)
4 to 8 years	3 (18.7)	5 (29.4)
More than 8 years	12 (75.0)	10 (58.8)

Regarding health condition, 31.2% of low-vision participants had retinitis pigmentosa, and blind participants (23.5%) presented glaucoma. The majority of individuals in both groups had no type of comorbidity associated, as shown in table 2.

Regarding the household characteristics, according to the CCEB (presence and quantity of some household comfort items), the low vision group had an average of 18.4 points and the blind group 18.1 points, culminating in the classification in C1 of the socioeconomic level according to the cut-off points and consequent classification in this criterion.

Discussion

In the present study, the sociodemographic aspects showed higher prevalence of females, which is also noted in other studies. [15,16] The prevalence of whites corroborates the findings of other authors [15,17], who also evaluated people with visual impairment. In both groups, the majority of individuals are single.

Even though they are of economically active age, more than 50% of respondents from both groups are retired, as well as in similar studies.[17,18] The difficulty for work placement faced nowadays by a significant number of Brazilians is more severe in relation to the visually impaired, due to the unfounded belief that the impairment affects all the functions of the individual. [19]

The prevalent level of education is 8 years or more, and this may be related to specific associations containing infrastructure to support the visually impaired, providing places for creating teaching material and Braille printing. Thus, the visually impaired can study in public or private schools having the same conditions of those with perfect vision. [20]

Table 2
Distribution of health condition variables of people with low vision and blindness

Health condition	Low vision	Blindness
	n (%)	n (%)
Etiology		
Retinitis pigmentosa	5 (31.2)	2 (11.8)
Atrophy of the optic nerve	1 (6.3)	2 (11.8)
Injury and/or trauma	-	0 (0.0)
Cancer	-	1 (5.9)
Myopia	2 (12.2)	-
Strabismus	1 (6.3)	-
Glaucoma	1 (6.3)	4 (23.5)
Cataract	0 (0.0)	0 (0.0)
Retinal detachment	1 (6.3)	2 (11.8)
Congenital malformation	0 (0.0)	1 (5.9)
Optic neuropathy	0 (0.0)	-
Keratoconus	-	0 (0.0)
Visual disorder by toxop / mening	0 (0.0)	2 (11.8)
Diabetic retinopathy	1(6.3)	1 (5.9)
Retinopathy of prematurity	1(6.3)	0 (0.0)
Did not know	0 (0.0)	2 (11.8)
Other	3 (18.8)	-
Health service		
SUS	13(81.2)	10 (58.8)
Health insurance	3 (18.8)	7 (41.9)
Private	0 (0.0)	0 (0.0)
Comorbidity		
CAD	0 (0.0)	1 (5.9)
Arthritis/Arthrosis	1 (6.3)	0 (0.0)
Diabetes Mellitus	2 (12.5)	0 (0.0)
Hypertension	3 (18.8)	2 (11.8)
Fibromyalgia	-	0 (0.0)
Hypo/Hypercholesterolemia	-	0 (0.0)
Hypo/Hyperthyroidism	-	0 (0.0)
Labyrinthitis	-	0 (0.0)
Schizophrenia	-	0 (0.0)
Osteoporosis	0 (0.0)	-
2 or more	1 (6.3)	2 (11.8)
None	9 (56.2)	12 (70.6)
Sclerosis	-	0 (0.0)
Epilepsy	-	0 (0.0)

CAD: coronary artery disease.

Regarding health condition, the main causes are pigmentary retinitis and glaucoma, which are important causes of blindness and low vision worldwide. [21] The difficult access to specialized medicine and the lack of information to the patients are realities to be considered in Brazil. [22]

Even with advances in diagnosing and treating eye diseases, visual impairment still affects a large number of people. [23] It is believed that this is related to the fact that more and more babies

with syndromes or anomalies are surviving, and according to the Ministry of Health(24) it also relates to the increase in the life expectancy of the Brazilian population, which makes it possible to increase the rate of chronic-degenerative diseases, such as hypertension, diabetes, infarction, cancer, osteoporosis, among others; and as a consequence, there is a greater risk for disability.

Regarding access to health services, there was a predominance of the use of the public health service (SUS), which is also observed in certain studies in the literature. [18, 25] However, in the present study, almost half of blind people have access to a health insurance, whereas the majority of people with low vision are still in public health services, which can worsen their condition due to the long time waiting for care. This shows the high degree of need of this population and the great difficulty of access to health. [17]

Both the low vision group and the blind group had no comorbidities associated. This shows that some of the visually impaired attending specialized institutions can have access to more comprehensive health care, contributing more consciously to disease prevention and health promotion.

With regard to economic incomes, they depended exclusively on social security benefits, which left them vulnerable due to the oscillations and uncertainties of public policies, thus living with the constant fear of having their benefits suspended. [10]

The CCEB identifies more realistically households' consumption potential of homogeneous groups in Brazil. [11] In the present study, the poor professional qualification of the visually impaired population makes it difficult to be included in the labor market, and this affects directly their purchasing power in relation to obtaining goods and services. Both blind and low vision groups obtained a similar score in the CCEB Criterion, being classified as level C1 (which is a lower economic class) and showing that they do not have high purchasing power which prevents them from having greater access to services and goods consumption.

Due to the scarcity of socioeconomic data in the literature on this population, it is necessary to carry out new researches for a better knowledge of the economic classification of this group in general.

Conclusion

The profile of people with low vision and blindness showed reasonable level of education, presence of white and single individuals in economically active age, with retirement benefits and no other health problems associated. In relation to the socioeconomic profiles, they were classified in level C1 according to the Brazilian Economic Classification Criterion.

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