

Ageism in the organizational context — the perception of Brazilian workers

Lucia Helena de Freitas Pinho França¹ Andreia da Rocha Siqueira-Brito¹ Felipe Valentini¹ Ione Vasques-Menezes¹ Claudio Vaz Torres²

Abstract

Objective: elaborate a scale for ageism in an organizational context (Escala de Ageismo no Contexto Organizacional or EACO), seeking evidence of its structural validity and investigating possible differences in prejudices against elderly workers. This article also highlighted differences between gender, age and levels of schooling. Method: the project was divided into two studies: the first focused on the construction of the EACO, testing the understanding of the initial instrument among 82 workers. A new version was sent to and analyzed by ten judges, resulting in a 28-item scale with six dimensions. The second study presented evidence of the validity of the EACO, using a more robust national sample. The modified instrument was electronically issued to 2,400 workers of varying ages from different regions of Brazil, with 600 participants responding. Results: Exploratory factorial analysis (EFA) resulted in an EACO with 14 items, with satisfactory eigenvalues, factorial loads and communality, grouped into two dimensions: D1 - negative attitudes, composed of cognitive and health aspects (α =0.83) and D2 positive attitudes, composed of affective aspects (α =0.77). Younger workers had more negative attitudes towards aging than older workers, who in turn had more positive attitudes than younger individuals. Conclusion: The EACO tested ageism in organizations and demonstrated evidence of validity. It is also recommended, however, that the scale is used in its longer version in future research, with national and transnational groups and participants of different educational levels.

Keywords: Ageism. Aging. Prejudice. Evaluation. Organizations.

Research funding: Rio de Janeiro State Research Support Foundation - FAPERJ - APQ1 - E-26/110.830/2013. FAPERJ - TCT-5 (2016-2017)

¹ Universidade Salgado de Oliveira (UNIVERSO), Programa de Pós-Graduação em Psicologia. Niterói, Rio de Janeiro, Brasil.

² Universidade de Brasília (UnB), Instituto de Psicologia (PSTO), Programa de Pos-Graduação de Psicologia Social, do Trabalho e das Organizações. Brasília, DF, Brasil.

INTRODUCTION

Population aging is a reality both in Brazil and around the world^{1,2}. With increased life expectancy, the percentage of older workers in the job market has also increased. In Brazil, it is estimated that, approximately 57% of the working-age population will be over 45 by 20403, which according to Tafner, Botelho and Erbisti⁴ represents a significant demographic leap. The same has occurred in Portugal and other European countries that have seen the aging process affect the economically active population 5. Rapid population aging is a challenge, both for the payment of pensions and the provision of the necessary health and social services for this population. It is therefore predicted that people will work longer due to a shortage of skilled labor and the sustainability of the economy, which demands the continued presence of more experienced workers in the workforce^{5,6}.

Ageism is linked to diversity and inclusion, which have recently become social and political concerns, as described by Torres et al.⁷. Accepting differences leads to the development of attitudes and actions that encourage inclusion and the punishment of discriminatory behavior. In practice, the media and the scientific community have focused on racism and sexism, and of the three isms (racism, sexism and ageism), ageism has been little discussed, especially with regard to the cognitive ability of older workers and their permanence and inclusion in the labor market^{8,9}.

The term ageism or age prejudice was conceived by Butler¹⁰ as a process of systematically stereotyping and discriminating against people through age, affecting decisions on hiring, medical care and social policy. Goldani⁹ differentiates ageism from age discrimination, considering the former to be a system of attitudes ascribed by individuals and society to others on the grounds of age, while the latter excludes people simply by using age as a decisive factor.

Organizational ageism can be defined by a set of negative or positive attitudes towards aging, valuing or devaluing the elderly work force, favoring or disfavoring their inclusion/exclusion and permanence in the labor market¹¹. Discrimination against older workers can range from non-hiring to dismissal,

especially when an organization needs to reduce its workforce.

Koppes et al.¹² observed that age discrimination is one of the forces driving ageism. For these authors, discrimination in the Netherlands was perceived as substantial, with 14% of workers reporting being discriminated against, a proportion that rose to 20% among those aged 55-64.

In Spain, Alcover¹³ stated that it is more difficult for the elderly to deal with the uncertainties and insecurities experienced at work. It is important that organizations reconcile rights and opportunities for workers of all ages and provide a favorable working environment to remain competitive.

European studies by Van Dalen et al.^{14,15} and in Brazil by França et al.¹⁶ presented similar results in relation to the perception of managers: loyalty, reliability and managerial skills stood out among older workers, while the skills to deal with new technologies, health and physical vigor, and the will to learn were notable among younger workers. In the Brazilian study, despite the awareness of managers of the challenge of population aging, few measures were taken to retain or recruit older workers or improve their productivity.

Following this line of thinking, Iweins et al.¹⁷ stated that organizations need to promote health, safety and quality of environment for older people to allow them to continue working, and to encourage the development of intergenerational teams, which are an important way of breaking down prejudices and mutually benefiting younger and older workers¹⁸. Such teams will be able to discuss national and local problems and encourage the proposing of alternatives for collective well-being and the reduction of prejudices^{19,20}.

Negative stereotypes can lead to the exclusion of older workers and must be tackled. One of the ways to reduce these stereotypes is to increase studies and research on the perception of managers and workers regarding aging in organizations, guaranteeing reflection in all sectors of society¹⁴⁻¹⁶, especially in times of crisis, when the cooperation of workers of all ages is welcome. As Camarano et al.²¹ stressed, the labor market needs to prepare to absorb older workers

by creating more job opportunities in an attempt to reduce the prejudice suffered by this group.

Despite this, it is difficult to identify ageism, and the lack of studies and instruments to measure it reduce the chances of producing knowledge and advancing this theme^{16,22,23}. The construction of a scale of organizational ageism can serve as a barometer for potential interventions to reduce ageism, stimulating equal opportunities and labor participation for all age groups.

In this context, the aim of the present study was to create a scale of ageism to be applied to workers of various ages across Brazil, seeking evidence of the validity of its structure. In addition, the perception of Brazilian workers regarding prejudice against older workers was sought, evaluating if there are differences between the gender, age and level of schooling of the participants. The present Project includes two studies: the first is based on the construction of the Scale of Ageism in an Organizational Context (Escala de Ageismo no Contexto Organizacional, or EACO), drawing on previous studies on the subject and the suggestions of ten evaluators. The second study used a robust sample and sought evidence of validity of the EACO.

STUDY 1 METHOD

Construction of the Scale of Ageism in an Organizational Context (EACO)

The sample consisted of 82 workers from 62 public and private companies located in Rio de Janeiro and Minas Gerais, Brazil, who, when invited, agreed to participate in the research. The main inclusion criterion was the age of the participants, who were divided into two groups: the first with workers aged 18 to 35 years and the second with workers aged 50 years or older. The mean age of the younger group (N=47) was 29 years (±3.9) and that of the older group (N=35) was 55.7 years (±4.4).

Based on a review of national and international literature on ageism^{10,11,14,15} and in the practical experience of 30 years of consulting on the theme of aging in organizations of the first author, an initial instrument with 46 items was elaborated. The items of the instrument were arranged on a Likert scale ranging from 1 *Totally disagree* and 5 *Totally agree*.

The study was submitted to the Research Ethics Committee of the Universidade Salgado de Oliveira (UNIVERSO) and approved on 8-11-2012, N° 78-2012. All participants signed a Free and Informed Consent Form, and the participants were assured of the secrecy and anonymity of the data and informed that they would receive no inducement or payments and could withdraw from the survey at any time.

The first version of the 46-item scale was evaluated by 82 participants. The researchers selected items that were understood by most participants, resulting in a 39-item version. This second version was sent for evaluation by ten evaluators, who analyzed the conceptual, semantic and operational validity of the items and the groupings in seven categories, in order to create a scale to be tested later in a larger sample.

In terms of clarity, evaluators should consider the intelligibility of each item and its ability to represent a single idea in a simple, direct and unambiguous way. With regard to relevance, the scoring should reflect the importance of each item in relation to perceptions about aging in organizations.

RESULTS OF STUDY 1

The preliminary instrument with 46 items was tested in a sample of 82 workers from both age groups. Two items which were not answered by more than 30% of the sample and five other items which presented restricted variability, with 90% of the answers concentrated between options 1 and 2 (totally disagree and disagree), were withdrawn. The items fitted into seven categories whose contents were addressed in literature, such as: 1) Organizational guidelines/policies; 2) Health and safety at work; 3) Cognitive aspects; 4) Leadership/Acceptance of orders; 5) Emotional balance; 6) Productivity and 7) Representativeness/employability.

In the second stage of this study, the 39-item scale was analyzed by ten expert evaluators - teachers and researchers who worked in the area of aging and/or worked with psychometric analysis in eight Brazilian universities (UFF, UFSC, UERJ, UFPA, UFV, UNIVERSO, UFRR and UNB). The judges evaluated the conceptual, semantic, and operational validity of the items and clusters presented, compressing the answers into the seven categories

described above. They scored the items by degrees (from 0 to 3) in terms of the clarity and relevance of the items, as well as their pertinence and adequacy in the categories, with a minimum agreement of at least 80% of the experts.

According to the criteria defined above, 11 items were withdrawn, and based on the theoretical explanation of the dimensions, the seventh

dimension was withdrawn - Representativeness/ employability. Thus, the EACO was composed of six theoretical categories: 1) Organizational guidelines/ policies; 2) Health and safety at work; 3) Cognitive aspects; 4) Leadership/Acceptance of orders; 5) Emotional balance; 6) Productivity; as described in Chart 1. The scale now composed of 28 items was tested in a larger study, as can be observed in study 2 described below.

Chart 1. Proposed categories for the Scale of Ageism in the Organizational Context (EACO). Niterói, Rio de Janeiro, 2014.

Categories	Definition
D1 – Organizational Norms/Policies Items: 13, 19, 22, 25 and 28	Norms are parameters or guidelines for decision making, which include the definition of levels of delegation, range of values and/or threshold quantities and the extent of actions to achieve the challenges and objectives ³⁰ .
D2 – Health and Safety at Work Items: 2, 3 and 26	The WHO ³¹ defines health as the situation of perfect physical, mental and social well-being. Therefore, in the workplace, the health of workers is related to physical, mental and social well-being, including the prevention and control of accidents and diseases by reducing conditions of risk.
D3 - Cognitive Aspects Items: 1, 4, 7, 16, 17, 21, and 27	Cognitive aspects include learning, memorizing, and concentrating on task completion, information processing, and problem solving ³² .
D4 - Leadership/Acceptance of Orders Items 6, 12 and 14	Leadership is the process of influence between leader and follower, hierarchical relationship, oriented mainly towards meeting mutual goals and expectations ³³ .
D5 - Emotional intelligence Items 8, 9, 10, 15 and 18, 23	Emotional intelligence consists of five basic, interdependent skills: self-awareness, self-motivation, self-control, empathy, and sociability. The first three relate to examinations of reactions of the self and what the individual does with their own feelings, while the others look outward toward the feelings of others and social interactions ³⁴ .
D6 – Productivity in organizations Items 5, 11, 20 and 24	Productivity is the efficiency indicator that guides the organization towards actions that strengthen the company's financial health and increase its competitiveness ³⁵ .

Chart created by authors

STUDY 2 METHOD

Evidence of validity of Scale of Ageism in an Organizational Context (EACO)

In a continuation of the first study, study 2 used a convenience sample with 2,400 workers over 18 years old from all regions of Brazil. The database was created using emails from friends and collaborators and the snowball technique, where each participant was encouraged to invite friends from their online social network to participate.

A total of 600 workers from public (56%) and private (44%) and large (38%) and medium-sized enterprises (62%) participated in this study. These entities were from the energy, transportation, education, banking, information technology and industrial sectors, and the armed forces. The majority of the sample was female (66%), aged between 18

and 75 years (M=42.36, \pm 13.11), and did not hold a management position (62%). The majority had a postgraduate degree (61%) and just over half (53%) were married or lived with a partner. The Southeast region was the most representative (50%), followed

by the Northeast (23%), North (11%), Central-West (9.0%) and South (7%).

The EACO ready to be tested in this second study was composed of 28 items, as can be seen in Chart 2.

Chart 2. Scale of Ageism in Brazilian Organizations (EACO). Niterói, Rio de Janeiro, 2014.

This instrument addresses aging and work. Read each sentence and choose between 1 2 3 4 5 as the most suitable value, 1 = "totally disagree" and 5 = "totally agree". Younger workers = up to 35 years Older workers = 60 years or older

1	Older weekers take more time to perform tasks in the week anxironment				
	Older workers take more time to perform tasks in the work environment				
2	Older workers tend to get sick more easily.				
3	Older workers tend to miss work more				
4	Younger workers tend to have greater ability to concentrate				
5	Younger workers can tolerate a longer working day				
6	Older workers have difficulty taking orders from younger workers				
7	Older workers tend to forget new tasks				
8	Younger workers generally do not have the patience to deal with older workers				
9	Older workers are more resistant to change				
10	Older workers are more persistent than younger workers				
11	Younger workers are more productive than older workers				
12	In general, older workers have more relationship difficulties than younger workers				
13	People must retire at age 70				
14	Older workers should not hold managerial positions.				
15	Older workers are more committed to work than younger workers.				
16	In general, older workers are more knowledgeable about work				
17	Younger workers are more able to learn new technologies				
18	Older workers are better able to cope with work pressures				
19	Training older workers is a wasted investment				
20	Aging affects worker productivity				
21	Older workers are less creative than younger workers				
22	Organizations should hire older workers				
23	Older workers are more able to solve problems than younger ones.				
24	The departure of older workers can increase the productivity of organizations				
25	Retirees should not continue working				
26	Older workers tend to suffer more work-related accidents than younger workers.				
27	Younger workers understand work routines better than older workers				
28	Older workers should have reduced working hours				

Chart created by authors

The factorial analyzes were performed using Principal Axis Factors (PAF), and the matrix of the factorial loads was rotated by the orthogonal Equamax method. The internal consistency of the scores was assessed using Cronbach's Alpha. The relationships between the scale scores and the external variables gender, age groups, schooling and public versus private companies were evaluated by means of the t-test. In addition, Pearson correlations were tested between the ageism, gender, age and schooling scores. Finally, multiple linear regressions were performed to verify the influence of age, gender and level of education on positive and negative attitudes towards aging in the organizational context.

RESULTS OF STUDY 2

From the original scale of 28 items, items 14 and 19 were withdrawn as they presented restricted variability, that is, more than 90% of the responses were concentrated among options 1 and 2 (totally disagree and disagree). Because it was an exploratory study, the criterion was the gradual exclusion of items: commonality below 0.20, then 0.25 and finally 0.28. In this way, the removal of most of the items was avoided in the first analysis. A new analysis verified the necessity of the withdrawal of five items (8, 13, 17, 25 and 28) as they presented commonality below 0.20. The following analysis demonstrated that a further five items (6, 9, 12, 21 and 24) needed to be withdrawn as they had commonalities below 0.25. Finally, items 5 and 22 were also withdrawn with commonalities below 0.28. In order to preserve the largest number of items, and as they are on the borderline of the recommended value (0.30), it was decided to keep items 4 and 20.

After the items were excluded, parallel analysis was performed to evaluate the number of factors to be extracted. To achieve this, the variance explained by the empirical dimensions was compared with the variance explained by the dimensions generated from random databases, by means of the 95th percentile. It was difficult to sustain a third factor, as the random data presented a greater explained variance than the empirical factors (empirical factors: 34.6%, 21.0% and 7.5%, in order of factors; Random factors: 16.9%; 15.1% and 13.6%, in order of factors). Therefore,

two factors were extracted. The divergence between the explained variance values presented in Table 1 is justified as these data were analyzed before rotation. Furthermore, in the *Scree Plot* the curve of the eigenvalues stabilizes from the third factor. In addition, the third dimension presents an eigenvalue below 1, which does not justify its extraction.

In exploratory factorial analysis, the first extraction of factors was performed by analyzing its main components in order to verify the initial number of factors in the matrix. Next, the parameter estimation method was used, i.e. Principle Axis Factoring (PAF) with Equamax rotation. The final scale presented 14 items divided into two dimensions: i) D1 - negative attitudes, defined mainly by cognitive and health aspects, which revealed excellent internal consistency (α =0.83), factorial loads between 0.53 and 0.64, M=2.23 (\pm 0.69) and ii) D2 - positive attitudes, a dimension defined mainly by affective aspects, adequate internal consistency (α =0.77) and factorial loads of 0.57 to 0.71; M=3.32 (\pm 0.82). These factors explained a total of 37% of variance.

To analyze the differences or similarities of perceptions regarding older workers by age, the sample was divided into two groups. The younger workers, aged up to 35 years, formed the first group (N=212; M=28; ±6.34) and older workers, aged over 50, formed the second group (N=193; M=57; ±5.76). This division followed the example of studies by Van Dalen et al.¹⁵ and França et al.¹⁶, when the perceptions of groups of young and old people of aging in organizations were analyzed.

The results revealed that there are significant differences between the age groups in terms of positive and negative attitudes towards organizational aging (t=-5.96, p<0.001). As for negative attitudes (t= 3.22, p<0.001), the group of younger workers (M=2.30; \pm 0.57) had a higher mean value and were more negative in relation to aging than the older group (M=2.07, \pm 0.70). On the other hand, the older group (M=3.55; \pm 0.80) had more positive attitudes than the younger ones (M=3.06, \pm 0.86) t=3.22; p<0.01.

Pearson correlation analysis was performed to analyze the correlation between the factors. The results of the analyzes showed that the correlation between the factors was low (0.09), indicating that the scale is orthogonal and its factors do not correlate with each other. Correlations were identified between the EACO dimensions - negative (D1) and positive (D2) attitudes and three independent variables: age, gender and schooling, as can be seen in Table 2.

Table 1. Scale of Ageism in Organizational Context (EACO). Niterói, Rio de Janeiro, 2014.

Items	M (sd)	CF1	CF2	h ²
2. Older workers tend to get sick more easily.	2.64 (±1.14)	0.64		0.41
1. Older workers take more time to perform tasks on the desktop	2.38 (±1.11)	0.64		0.41
11. Younger workers are more productive than older workers	2.43 (±1.03)	0.63		0.40
7. Older workers tend to forget new tasks	2.17 (±1.05)	0.62		0.39
3. Older workers tend to be out of work	1.73 (±0.96)	0.58		0.34
27. Younger workers understand work routines better than older ones	2.01 (±1.02)	0.58		0.34
26. Older workers tend to suffer more accidents at work than younger workers	2.03 (±1.03)	0.56		0.31
20. Aging affects worker productivity	2.39 (±1.10)	0.53		0.29
4. Younger workers tend to have greater ability to concentrate	2.30 (±1.09)	0.53		0.29
15. Older workers are more committed to work than younger workers.	3.14 (±1.25)		0.71	0.50
23. Older workers have more ability to solve problems than younger ones	3.27 (±1.07)		0.65	0.42
10. Older workers are more persistent than younger workers	3.37 (±1.15)		0.63	0.41
18. Older workers are better able to cope with work pressures	3.36 (±1.11)		0.61	0.37
16. In general, older workers are more knowledgeable about work	3.47 (±1.12)		0.57	0.32
Percentage of Explained Variance (total=37%)			14.60	
Eigenvalues		3.87	2.56	

Table created by the authors

Table 2. Regressions and correlations between the variables gender, age and schooling and positive and negative attitudes towards aging in the organizational context. Niterói, Rio de Janeiro, 2014.

Dependent Variable / Output	Predictor Va	ariables / Input	В		t	Þ
	Gender		0.11		2.72	0.007**
Positive attitudes	Age		0.13	0.13		0.002**
	Schooling		-0.03	-0.03		0.41
	Gender		-0.40	-0.40		0.32
Negative attitudes	Age		-0.29	-0.29		0.000***
	Schooling		-0.17		-4.28	0.000***
Correlations	1	2	3	4	5	
D1-Negative attitudes	1					
D2- Positive attitudes	0.09*	1				
Age	-0.14**	0.26**	1			
Schooling	-0.07	-0.12*	-0.18**	1		
Gender	-0.11**	-0.06	-0.02	0.08*	1	

Regression analyzes for positive and negative attitudes were conducted independently (as each regression analysis seeks to evaluate a single Output variable as a function of a set of predictor variables); N=578; Positive attitudes - $R\Delta = 0.028$; F=6.46; **p<0.01; Negative attitudes - $R\Delta = 0.096$; F=21.52; ***p<0.001; Correlations = (*p<0.1; **p<0.5). Table created by the authors.

In the interpretation of the correlations, the Miles and Shevlin²⁴ criteria were used to classify the magnitude of correlation coefficients according to the following ranges: 0.10 to 0.29 (low); 0.30 to 0.49 (moderate) and >0.50 (high). In this study, the IVs and DVs had low correlations, or in other words between 0.08 and 0.26.

The negative attitudes dimension of aging in the organizational context had a negative, low and significant correlation with age and gender, but not with schooling. Thus, younger male participants have more negative attitudes towards aging in the organizational context. However, the dimension of positive attitudes towards aging demonstrated a low significant positive correlation with age and a negative correlation with schooling, but not with gender. In other words, older and less educated participants have more positive attitudes towards aging in the organizational context.

The first regression, with the positive attitudes dimension as a dependent variable, resulted in a significant model, but which explained only 3% of the positive attitudes (R²=0.03, F=6.46, p<0.01). This model revealed that the age (β =0.13, t=3.2, p<0.01) and gender (β =0.11, t=3.16, p<0.01) variables were statistically significant (Table 2). Thus, women and older workers demonstrated more positive attitudes towards aging in the organizational environment.

The second regression, with the negative dimension as the dependent variable, resulted in a significant model, but explained only 10% of the positive attitudes (R²=0.10, F=21.52, p<0.001). This model showed that age (β = -0.29, t= -7.28, p<0.001) and schooling (β = -0.17, t= -4.28, p<0.001) were the variables which reached statistical significance, as can be observed in Table 2. In other words, younger and less educated workers demonstrated more negative attitudes toward aging in the organizational environment.

DISCUSSION

The aging process is an emerging theme in the world of work. In Brazil, this process requires several measures to be taken by organizations, as the population of older workers will soon represent the majority of the workforce. However, there is a paucity of research and actions on this topic, especially studies on prejudiced attitudes against older workers, including instruments that can identify ageism in organizations, and what can be done to reduce it.

The present study elaborated and validated a pioneering instrument in Brazil to measure ageism in the organizational context and was validated with 600 workers from all regions of the country. Its results offer important practical implications, one of which is the need for organizations to devise actions and strategies that contribute to lessening the uncertainty and perception of insecurity that surrounds age, especially when facing the difficult decision to reduce the workforce¹³. The non-adoption of these actions and strategies may result in an attitude of total alienation arising from existing prejudices regarding older workers. A paradigm shift with respect to stereotypes about older workers, meanwhile, may influence managers in relation to the retirement of their employees^{21,25}.

A recent longitudinal study by Van Dalen and Henkens²⁶ based on data from 2010 and 2013 demonstrated that the evaluation of older workers by managers tended to improve over time, especially regarding factors which were already evaluated positively, such as loyalty, reliability and interpersonal and managerial skills, as well as resistance to stress, creativity and even flexibility and willingness to learn (factors commonly attributed to younger workers). Only physical vigor and skills for new technologies were assessed more negatively. In general, as managers age they tend to be more positive about older workers. The researchers argue that, in addition to the age of managers, regular contact with other managers and older workers tend to improve their assessments.

Managers are the main mobilizers of the labor market, and so it is important to encourage regular contact between such individuals and these workers, as well as perform research into changes in perceptions regarding the aging of workers²⁶. In this sense, the importance of investigating the perceptions of younger workers, who witness others leaving the organization, is increased. Valuing and respecting older people can foster the loyalty and sense of belonging of young people to organizations.

Intergenerational exchanges should be stimulated from childhood in order to reduce negative

attitudes towards aging²⁷. As for the reduction of organizational prejudices, international literature recommends certain actions, as well as stimulating intergenerational production¹⁷: promoting seniority as a significant component in all exercises of diversity; developing a guide on ageism to be used as an educational tool, which goes beyond mere knowledge of the law; conducting training sessions that value intergenerationality, communication and team building. In Brazilian literature, recommendations include greater investment in training, updating the skills of older workers, the approximation of workers using intergenerational teams^{7,17} and encouraging programs aimed at retaining the skilled labor of these workers through the reduction and/or flexibility of working hours, special leave and workload. Some examples of the formation of intergenerational teams^{17,18} and the presentation of a diagnosis of diversity and organizational inclusion²⁸ have also been highlighted, in which the organization can identify, in addition to ageism, other prejudices that impede the valuation of diversity and an organizational culture of inclusion8.

It is noteworthy that ageism is among the "isms" that is least addressed by academia and society as a whole^{11,28}. It is, therefore, a silent prejudice that affects people in various contexts, including in the labor market. This idea is reinforced by a recent study with students from the University of the Third Age (U3A). The results showed that the participants did not consider ageism an inherent problem in the aging process²⁹, unlike the findings of research conducted in other countries^{13,17}. It is therefore increasingly necessary to study this theme in order to promote broader discussions that offer practical solutions and work opportunities for all^{5,7,25}.

Among the limitations of this study are: a) the research did not obtain representation from the states of Acre, Amapá and Piauí and had little representation in the southern region of the country; b) the sample obtained a higher concentration of workers with higher educational levels, medium and large companies, and many respondents from the southeast region. These limitations indicate the need to replicate the short scale of 14 items which emerged from the factor analysis in other organizational contexts.

Studies on ageism in Brazil are incipient, and other investigations using the original EACO proposal with 28 items, which was pre-tested and resulted from the analysis of the evaluators as described in Study 1, are required. Items that have been observed by other authors can also be added. Future studies may also identify predictors for ageism and outline types of organizational intervention that can reduce it.

In addition to the importance of providing a scale to measure the level of ageism among workers in organizations, it is believed that this article will encourage further research which will, in turn, bring about increasingly necessary discussions on this subject. The current Brazilian demographic profile affects organizations and requires urgent modifications in the management of human resources to deal with this new context more effectively.—

CONCLUSION

This study resulted in the creation of an instrument (EACO) that could allow Human Resource teams to combat ageism and formulate guidelines and policies to extend the working lives of older people. The continuation of this study is recommended, with the replication of EACO in Brazilian and transnational studies, seeking the representativeness of older workers in relation to educational level and regional location, and at the same time, verifying the existence of differences and/or similarities in different organizational contexts. Measuring prejudiced attitudes can help build a more inclusive work environment to enable older workers to continue to participate in the job market if they wish.

ACKNOWLEDGEMENTS

The authors would like to thank the research group Aging in the Organizational Context of the PPGP of UNIVERSO for its participation in data collection, our colleagues from UFF, UFSC, UERJ, UFPA, UFV, UNIVERSO, UFRR and UNB for participating as evaluators and/or collaborating in the collection of data in several Brazilian states, and all the participants who answered the survey.

REFERENCES

- World Health Organization. World Health Statistics 2016: Monitoring health for the SDGs [Internet]. Geneva: WHO; 2016 [acesso em 30 out. 2017]. Disponível em: http://www.who.int/gho/ publications/world_health_statistics/2016/en/
- Instituto Brasileiro de Geografia e Estatística. Síntese dos Indicadores Sociais: Uma análise das condições de vida da população brasileira [Internet]. Rio de Janeiro: IBGE; 2013 [acesso em 31 out. 2017]. Disponível em: https://ww2.ibge.gov.br/home/estatistica/ populacao/condicaodevida/indicadoresminimos/ sinteseindicsociais2013/default.shtm
- 3. Instituto de Pesquisa Econômica Aplicada. PNAD 2009 Primeiras Análises: tendências demográficas [Internet]. [Brasília, DF]: IPEA; 2010 [acesso em 30 out. 2017]. (Comunicados do IPEA, n. 64). Disponível em: http://www.ipea.gov.br/portal/index.php?option=com_content&view=article&id=5496
- 4. Tafner P, Botelho C, Erbisti R. Transição demográfica e o impacto fiscal na previdência brasileira. In: Camarano AA, Organizadora. Novo regime demográfico: uma nova relação entre população e desenvolvimento? Rio de Janeiro: IPEA; 2014. p. 539-70.
- França LHFP, Rosinha A, Mafra S, Seidl J.
 Aging in Brazil and Portugal and Its Impact
 on the Organizational Context. In: Neiva ER, Torres
 CV, Mendonça H, editors. Organizational Psychology
 and Evidence-Based Management. Cham: Springer;
 2017. p. 81-102.
- Brasil. Palácio do Planalto. Reforma da Previdência prevê idade mínima de 65 anos para aposentadoria [Internet]. Brasília, DF; 2016 [acesso em 30 out. 2017]. Disponível em: http://www2.planalto.gov.br/ acompanhe-planalto/noticias/2016/12/reforma-daprevidencia-preve-idade-minima-de-65-anos-paraaposentadoria
- 7. Torres CV, Vasques-Menezes I, Presotti L. Cultural Diversity and Inclusion in Organizations: State of the Art and Challenges. In: Neiva ER, Torres CV, Mendonça H, editors. Organizational Psychology and Evidence-Based Management. Cham: Springer; 2017. p 227-42.
- 8. França LHF, Soares DHP. Preparação para a aposentadoria como parte da educação ao longo da vida. Psicol Ciênc Prof [Internet]. 2009 [acesso em 28 out. 2017];29(4):738-51. Disponível em: www.scielo. br/pdf/pcp/v29n4/v29n4a07.pdf

- 9. Goldani AM. "Ageism" in Brazil: What is it? Who does it? What to do with it? Rev Bras Estud Popul. 2010;27(2):385-405.
- 10. Butler RN. Ageism: a foreword. J Soc Issues. 1980;36(2):8-11.
- 11. Siqueira-Brito AR, França, LHFP, Valentini F. Análise fatorial confirmatória da Escala de Ageismo no Contexto Organizacional. Aval Psicol. 2016;15(3):337-45.
- Koppes LJ, De Vroome EM, Mol MEM, Janssen BJM, Van den Bossche SNJ. Nationale Enquête Arbeidsomstandigheden 2008 [National survey of labor conditions]. Delft: TNO; 2008.
- Alcover CM. ¿Ageism en las organizaciones? El papel mediador del apoyo organizacional percibido en las relaciones entre la edad y la rupture del contrato psicológico. Rev Psicol Organ Trab [Internet]. 2012 [acesso em 30 out. 2017];12(3):299-313. Disponível em: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1984-66572012000300005&lng=pt&tlng=
- 14. Van Dalen H, Henkens K, Schippers J. Dealing with older workers in Europe: a comparative survey of employers' attitudes and actions. J Eur Soc Policy. 2009;19(1):1-29.
- 15. Van Dalen H, Henkens K, Schippers J. Productivity of Older Workers: Perceptions of employers and employees. Popul Dev Rev . 2010;36(2):309-30.
- 16. França LHFP, Nalin CP, Siqueira-Brito AR, Amorim SM, Rangel T, Ekman NC. A Percepção dos gestores brasileiros sobre os programas de preparação para a aposentadoria. Est Interdiscip Envelhec [Internet]. 2014 [acesso em 30 out. 2017];19(3):879-98. Disponível em: http://seer.ufrgs.br/index.php/RevEnvelhecer/article/view/50434/33292
- 17. Iweins C, Desmette D, Yzerbyt V, Stinglhamber F. Ageism at work: the impact of intergenerational contact and organizational multi-age perspective. Eur J Work Organ Psychol. 2013;22(3):331-46.
- 18. França LHF, Silva AMTB, Barreto MS. Programas Intergeracionais: quão relevantes eles podem ser para a realidade brasileira? Rev Bras Geriatr Gerontol. 2010;13(3):519-31.
- Marques S, Batista M, Silva PA. A promoção do envelhecimento ativo em Portugal: preditores de aceitação de um chefe mais velho. Sociologia [Internet]. 2012 [acesso em 28 out. 2017];(N. Temático):53-73. Disponível em: http://ler.letras. up.pt/uploads/ficheiros/10572.pdf#page=54

- 20. Sousa ACSN, Lodovici FMM, Silveira NDR, Arantes RPG. Alguns apontamento s sobre o idadismo: aposição de pessoas idosas diante desse agravo à sua subjetividade. Estud Interdiscip Envelhec [Internet]. 2014 [acesso em 21 out. 2017];19(3):853-77. Disponível em: www.seer. ufrgs.br/RevEnvelhecer/article/download/50435/33290
- 21. Camarano AA, Kanso S, Fernandes D. Menos jovens e mais Idosos no mercado de trabalho? In: Camarano AA, organizadora. Novo regime demográfico: uma nova relação entre população e desenvolvimento? Rio de Janeiro: IPEA; 2014. p. 377-406.
- 22. Rego A, Vitória A, Tupinambá A, Cunha MP, Leal S. Development and validation of an instrument for measuring managers' attitudes toward older workers. Int J Hum Res Man. 2016;28(13):1866-99.
- 23. Vitória A, Rego A, Vilas Boas M. Atitudes perante os trabalhadores mais velhos: a perspectiva dos estudantes universitários. Psicol Teor Pesqui. 2016;32(2):1-11.
- 24. Miles JNV, Shevlin ME. Applying regression and correlation: a guide for students and researchers. London: Sage Publications; 2001.
- 25. Price Waterhouse Coopers, Fundação Getúlio Vargas. Envelhecimento da força de trabalho no Brasil: como as empresas estão se preparando para conviver com equipes, que em 2040, serão compostas principalmente por profissionais com mais de 45 anos? [Internet]. São Paulo: PWC; 2013 [acesso em 30 out. 2017]. Disponível em: https://www.pwc.com.br/pt/publicacoes/servicos/assets/consultoria-negocios/pesq-env-pwc-fgv-13e.pdf
- 26. Van Dalen HP, Henkens K. Do Stereotypes About Older Workers Change? Evidence from a Panel Study Among Employers. CentER Discuss Paper. 2017;(2017-028):1-22.

- 27. Santos TR, Liberalesso NA, Meire C. Atitudes de idosos e de profissionais em relação a trocas intergeracionais. Rev Bras Geriatr Gerontol. 2017;20(3):421-9.
- 28. Torres CV, França LHF, Oliveira A, Presotti L. Diagnóstico de Diversidade Cultural e Inclusão nas Organizações. In: Mendonça H, Organizador. Diagnóstico em organizações: teoria e prática. Campinas: Vetor Editora; 2016. p. 195-228.
- Rozendo AS. Ageísmo: um estudo com grupos de Terceira Idade. Rev Kairós [Internet]. 2016 [acesso em 30 out. 2017].;19(3):79-89. Disponível em: https://revistas.pucsp.br/index.php/kairos/article/ download/31558/22007
- Oliveira DPR. Planejamento estratégico: conceitos, metodologia e práticas. São Paulo: Atlas; 2013.
- Organização Mundial da Saúde. Constituição da Organização Mundial da Saúde (OMS/WHO) [Internet]. New York: WHO; 1946 [acesso em 30 out. 2017]. Disponível em: http://www.who.int/topics/en/
- 32. Piaget J. A equilibração das estruturas cognitivas. Rio de Janeiro: Zahar; 1976.
- 33. Davel E, Machad HV. A dinâmica entre liderança e identificação: sobre a influência consentida nas organizações contemporâneas. Rev Admin Contemp. 2001;5(3):107-26.
- 34. Goleman D. Inteligência Emocional. Santarrita M, tradutora. Rio de Janeiro: Objetiva; 1996.
- Ramos BS, Ferreira CL. O aumento da produtividade através da valorização dos colaboradores: uma estratégia para a conquista de mercado. Rev Eng Tecnol. 2010;2(2):71-80.

Received: June 15, 2017 Reviewed: October 01, 2017 Accepted: November 29, 2017