

# Authentic leadership, nurse satisfaction at work and hospital accreditation: study in a private hospital network

Liderança autêntica, satisfação do enfermeiro no trabalho e acreditação: estudo em uma rede hospitalar privada Liderazgo auténtico, satisfacción del enfermero en el trabajo y acreditación hospitalaria: estudio en una red de hospitales privado.

**Sonia Aparecida Batista**<sup>I</sup> ORCID: 0000-0002-5974-4368

Paula Vitali Miclos

ORCID: 0000-0002-9868-4660

Fernanda Amendola<sup>1</sup> ORCID: 0000-0003-2288-4225

Andrea Bernardes

ORCID: 0000-0002-9861-2050

Andréa Gomes da Costa Mohallem<sup>1</sup>

ORCID: 0000-0001-5610-339X

'Sociedade Beneficente Israelita Brazileira Albert Einstein. São Paulo, São Paulo, Brazil. "Universidade de São Paulo. Ribeirão Preto, São Paulo, Brazil.

#### How to cite this article:

Batista SA, Miclos PV, Amendola F, Bernardes A, Mohallem AGC. Authentic leadership, nurse job satisfaction and hospital accreditation: a study in a private hospital network. Rev Bras Enferm. 2021;74(2):e20200227. https://doi.org/10.1590/0034-7167-2020-0227

#### Corresponding author: Sonia Aparecida Batista E-mail: sbatistasab@gmail.com



EDITOR IN CHIEF: Antonio José de Almeida Filho ASSOCIATE EDITOR: Priscilla Valladares Broca

**Submission:** 05-28-2020 **Approval:** 10-06-2020

#### **ABSTRACT**

Objectives: to identify the dominant dimensions of the authentic leadership of nurses in a private hospital network and to verify the association with job satisfaction and accreditation. Methods: cross-sectional, analytical study carried out in 11 hospitals with 282 nurses, of which 94 were leaders and 188 were led. Participants answered the Authentic Leardership Questionnaire and the Job Satisfaction Survey. Results: there was a significant difference between the assessment of leaders and followers in all dimensions of the Authentic Leardership Questionnaire. Regarding the association of authentic leadership and job satisfaction, a significant positive moderate correlation was found among the employees. In hospitals accredited by the Joint Commission International, leaders were perceived as more transparent by their subordinates. Conclusions: there was correlation between authentic leadership and job satisfaction and authentic leadership and the accreditation model among the subordinates.

**Descriptors:** Nursing; Leadership; Job Satisfaction; Hospital Accreditation; Quality Management.

#### RESUMO

Objetivos: identificar as dimensões dominantes da liderança autêntica dos enfermeiros em uma rede hospitalar privada e correlacionar com a satisfação no trabalho e com o modelo de acreditação. Métodos: estudo transversal, analítico, realizado em 11 hospitais, com 282 enfermeiros, sendo 94 líderes e 188 liderados, que responderam aos questionários Authentic Leardership Questionnaire, Questionário de Liderança Autêntica e o Job Satisfaction Survey, Pesquisa de Satisfação no trabalho. Resultados: houve diferença significante entre a avaliação dos líderes e liderados, em todas as dimensões do Authentic Leardership Questionnaire. Em relação à associação da liderança autêntica com a satisfação do trabalho, para os liderados foi encontrada uma correlação significativamente positiva, sendo considerada moderada. Nos hospitais, com o modelo Joint Commission International, os líderes foram percebidos por seus liderados com maior transparência. Conclusões: foi encontrado correlação entre a liderança autêntica com a satisfação no trabalho e o modelo de acreditação entre os liderados. Descritores: Enfermagem; Liderança; Satisfação no Emprego; Acreditação Hospitalar; Gestão da Qualidade.

#### **RESUMEN**

**Objetivos:** identificar las dimensiones dominantes del liderazgo auténtico de los enfermeros en una red de hospitales privados y su correlación con la satisfacción laboral y con el modelo de acreditación. **Métodos:** es un estudio transversal, analítico, realizado en 11 hospitales entre 282 enfermeros, de los cuales 94 eran líderes y 188 liderados, que respondieron a los cuestionarios *Authentic Leardership Questionnaire* y *Job Satisfaction Survey*. **Resultados:** se observó una diferencia significativa entre la evaluación de los líderes y de los liderados, en todas las dimensiones del *Authentic Leardership Questionnaire*. Respecto a la asociación de liderazgo auténtico con la satisfacción laboral, la correlación era significativamente positiva para los liderados, considerándose moderada. En los hospitales, con el modelo *Joint Commission International*, los liderados percibían a sus líderes con mayor transparencia. **Conclusiones:** se ha encontrado una correlación entre el liderazgo auténtico y la satisfacción laboral y el modelo de acreditación entre los liderados.

**Descriptores:** Enfermería; Liderazgo; Satisfacción Laboral; Acreditación Hospitalaria; Gestión de Calidad.



#### **INTRODUCTION**

In the health area, team management allows achieving one of the objectives of any institution, which is to optimize the available resources while providing the maximum quality of service, within the requirements of the current market. This is the expectation of organizations regarding the role of the leader, in view of ensuring a sustainable system<sup>(1)</sup>.

One of the competences that must be developed by the nurse is leadership, which is part of the good practices in organizations<sup>(2)</sup> and an important ability for a nurse to take on management positions and improve the assistance provided<sup>(3)</sup>. Leadership is a widely studied topic. The first studies appeared at the beginning of the 20th century<sup>(4)</sup> and, since then, several theories have emerged, showing that the concept of leadership has been through a lot of changes, following the changes that happened in the corporate world<sup>(5)</sup>.

Among the most recent leadership theories, authentic leadership (LA) stands out. This theory is based on elements of positive psychology in leadership relationships and it aims to build more legitimate organizations, with self-aware leaders and transparent and ethical relationships<sup>(6)</sup>. This enables a good understanding among team members, a fundamental condition for a leader<sup>(7)</sup>. International research shows a positive relationship between authentic leadership and job satisfaction<sup>(8-11)</sup>, authentic leadership and organizational outcomes<sup>(12)</sup>, among others. Thus, hospital accreditation programs, like those used in some hospitals in this study, can be a benefit, as they minimize adverse events and promote continuous improvement of processes, aiming to achieve better results<sup>(13)</sup>.

It is understood that leadership is an essential management skill for nurses, and that the leader-subordinate relationship has an impact on the creation of healthy environments and the quality of patient care in hospital organizations<sup>(2)</sup>. In Brazil, the number of studies on AL in the field of nursing is scarce<sup>(14)</sup>. This research proposes to contribute to the transfer of this knowledge to the national reality.

#### **OBJECTIVES**

To identify the dominant dimensions of the authentic leadership of nurses in a private hospital network and verify the association between authentic leadership, job satisfaction and accreditation of the hospitals in which the nurses work.

#### **METHODS**

#### **Ethical aspects**

The study was developed in compliance with Resolution 466/12 of the National Health Council and was approved by the Research Ethics Committee (REC) of the proposing and participating institutions.

#### Study design, period and location

This is an observational quantitative study. The study was carried out in 11 hospitals of a private hospital network in the state of

São Paulo, from September 1 to November 2, 2017. Four of these hospitals are accredited by the Joint Commission International (JCI), three by the National Accreditation Organization (NAO) and four have no accreditation. One hospital was excluded from the sample because it did not have a nursing supervisor, senior nurse, or similar professional.

#### Population or sample; inclusion and exclusion criteria

The sample of this study was composed of 282 professionals, 94 leaders and 188 subordinates. Considering the 282 professionals, 150 (53.2%; 50 leaders and 100 subordinates) worked in hospitals accredited by JCI, 69 (24.5%; 23 leaders and 46 subordinates) in hospitals accredited by NAO and 63 (22.3%; 21 leaders and 42 subordinates) in hospitals without accreditation. There were 97 eligible leaders, but during the collection period, two did not participate due to maternity leave and termination of contract and one for not sending he response.

The participants were organized in groups with two subordinates for each leader, which were called trios. The team members were randomly selected among the nurses who were on duty, through a draw made at the time of data collection.

The inclusion criteria were: nurses who worked under the CLT regulation and who were present at the work unit at the time of collection. The specific criteria for the Leader were being a Nursing Supervisor, Lead Nurse and Senior Nurse and having nurses under his responsibility. For the group of subordinates, the inclusion criterium was having worked with their immediate leader for at least six months. The exclusion criteria were not sending the response and leaders or team members whose team member or leader did not agree to participate in the research.

#### Study protocol

Two North American instruments that were translated, culturally adapted and validated for use in Brazil and a characterization instrument were used in this study. The first, Authentic Leadership Questionnaire (ALQ)<sup>(15-18)</sup>, is a questionnaire that aims to measure the four dimensions of authentic leadership: Self-awareness, Transparency, Balanced Processing and Moral and Ethical Perspective. It consists of 16 statements directed to the leader (Self version) and another 16 directed to the team members (Rater version). Respondents evaluate the frequency with which they or their leader present the described behaviors using a Likert scale. The sum of the scores can vary from zero to 64 points and each item can vary from zero to four. The use of the ALQ requires purchasing the license and getting permission to use it<sup>(18)</sup>; however, the researcher was authorized to use the instrument free of charge for academic research.

The second instrument used in the survey was the Job Satisfaction Survey (JSS), a self-administered instrument developed by Spector<sup>(19)</sup> and translated, culturally adapted and validated for use in the context of Brazilian workers in 2014<sup>(20-21)</sup>. The JSS proposes to measure the individual's satisfaction with their work and consists of 36 statements divided into nine domains: pay, promotion, supervision, benefits, rewards, operational procedures, coworkers, nature of work and communication. The instrument

is the same for leaders and subordinates. Each domain has four items, and each item has a six-point Likert scale ranging from "Strongly disagree" (1 point) to "Strongly agree" (6 points). The scores for each domain vary between 4 and 24 and the total score varies between 36 and 216. Individual satisfaction with their work can vary from low (dissatisfied) to high (satisfied) and the cut-off scores to analyze the domain scores are: scores between 4 and 12 (36 and 108 in the total score) indicate the individual is "dissatisfied", scores between 13 and 15 (109 and 143 in the total score) indicate "neither dissatisfied nor satisfied" and between 16 and 24 (144 and 216 total score) indicate "satisfied"

The questionnaires were administered and answered electronically, on Google Forms. Participants were approached at their workplace, in a previously scheduled time. In two situations, the interviewees were unable to answer the questionnaires at the scheduled time; however, they responded and sent the questionnaires later.

To ensure privacy, the researcher created a different code for each participating leader and inserted them into envelopes, which contained three papers, all with the same code but with different digits. The number with the digit "zero" belonged to the leaders, and the digits "one" and "two" to their subordinates. At the time of data collection, the researcher offered the leaders several sealed envelopes to choose one. Then, two team members for each leader were drawn, considering the work schedule of the day. Then, the leaders gave their subordinates the codes that should be inserted in the electronic form. Everyone was instructed to discard the codes after their participation. The code also contained information on the type of accreditation of the hospital where the participant worked. The survey access links were sent via Whatsapp\*, according to the category of the participant, leader and subordinate. The time to complete the survey ranged from 8 to 14 minutes.

#### Analysis of results and statistics

Categorical variables were described using absolute and relative frequencies and numerical variables were described using means, standard deviation (sd), medians, minimum and maximum values. The score of the dimensions of the ALQ was calculated by the mean of the scores of their questions. The scores of the domains and total score of the Job Satisfaction Survey were calculated according to the instructions in the validation study<sup>(21)</sup>.

The scores of the leaders in the ALQ and JSS instruments were compared using Pearson's correlation coefficients.

Linear models were applied to investigate the effects of the accreditation of the hospitals on the scores of the ALQ and JSS instruments for leaders and subordinates (22). Mixed linear models (23) were applied to investigate the differences between authentic leadership scores of leaders and subordinates and assess the dependence between the evaluations of different subordinates on the same nurse leader. The effects of the accreditation of the hospitals on the differences between the scores of leaders and subordinates were also investigated using mixed linear models.

The results of the models were presented using adjusted mean values and confidence intervals (95% CI). The multiple comparisons p-values were corrected using the Bonferroni method<sup>(24)</sup>.

The analysis was performed using the statistical software IBM SPSS Statistics for Windows version 24.0<sup>(25)</sup> and the level of significance was set at 5%.

#### **RESULTS**

## Profile of nurses: socio-demographic data, training and professional experience

The study was carried out in 11 hospitals of a private hospital network, four of them accredited by the JCI, three by the NAO and four without accreditation. Among the 282 professionals, 150 (53.2%; 50 leaders and 100 professionals) worked in hospitals accredited by JCI, 69 (24.5%; 23 leaders and 46 subordinates) in hospitals accredited by NAO and 63 (22.3%; 21 leaders and 42 subordinates) in hospitals without accreditation.

The study participants were mostly women (84.0% of the leaders and 86.7% of the subordinates) between 31 and 40 years old (67.0% of the leaders and 60.1% of the subordinates). More than half of the leaders (60.6%) had a training time of 13 years or mor. In the group of subordinates, the majority (85.1%) had a maximum training of 12 years.

As for extension courses, 86.9% of the participants had specialization in technical areas such as intensive care, public health, and others (93.6% of the leaders and 83.5% of the subordinates), 37.2% had a specialization in areas related to quality, auditing or an MBA in management, among others (69.1% of leaders and 21.3% of subordinates), only 1.8% had a master's degrees (3.2% of leaders and 1.1% of subordinates) and 0.7% had a doctorate degree (1.1% of leaders and 0.5% of subordinates). Overall, 98.9% of the leaders and 88.8% of the subordinates had at least one graduate degree in any of these areas. As for the professional experience of the participants, 76.6% of the leaders had worked for more than ten years, while 81.9% of the employees had worked for a maximum of ten years.

### Authentic leadership and job satisfaction in the perspective of the leaders and perception of the subordinates

As shown in Table 1, the mean scores of leaders in the four dimensions of the Authentic Leadership Questionnaire were approximately 3.0. For the subordinates, mean values were slightly lower in the four dimensions.

There was evidence that the differences between the scores of authentic leadership of leaders and subordinates are greater than zero (p<0.001 for all dimensions). The estimated means of these differences are 0.329 (0.178; 0.480) for the Transparency dimension, 0.355 (0.165; 0.545) for Moral and Ethical Perspective; 0.414 (0.251; 0.577) for Balanced Processing and 0.361 (0.206; 0.515) for Self-awareness. The results indicate that, in all dimensions of the ALQ, the authentic leadership scores of leaders are higher than the scores perceived among their subordinates.

Regarding the job satisfaction questionnaire (Table 1), the domains with the highest mean satisfaction scores were the same for leaders and subordinates. And, for both, the domain with the lowest score was Operating Conditions. In general, leaders and subordinates were "neither dissatisfied nor satisfied".

**Table 1** - Scores of the dimensions of the Authentic Leadership Questionnaire and Job Satisfaction Survey for leaders (n=94) and subordinates (n=188), São Paulo, Brazil, 2017

Scores of the dimensions of the ALQ	Mean (SD)	Minimum-Max	Median
Leaders			
Transparency	3.0 (0.5)	1.0-4.0	3.0
Moral and Ethical Perspective	3.0 (0.7)	1.0-4.0	3.0
Balanced Processing	3.1 (0.5)	2.0-4.0	3.0
Self-awareness	3.1 (0.5)	2.0-4.0	3.0
Subordinates			
Transparency	2.7 (0.8)	0.2-4.0	2.8
Moral and Ethical Perspective	2.6 (0.8)	0.3-4.0	2.8
Balanced Processing	2.6 (1.0)	0.3-4.0	3.0
Self-awareness	2.6 (1.0)	0.0-4.0	2.8
Scores of the dimensions and total score of the JSS			
Leaders			
Pay	14.1 (4.8)	4-24	14
Promotion	14.7 (4.4)	4-23	15
Supervision	19.9 (4.6)	5-24	22
Benefits	12.5 (4.7)	4-24	12
Rewards	14.9 (4.2)	4-24	15
Operating Procedures	10.7 (2.5)	5-18	11
Coworkers	17.4 (3.1)	11-24	18
Nature of Work	21.0 (2.9)	11-24	22
Communication	16.0 (4.4)	6-24	16
Total Score	141.2 (23.5)	87-192	139
Subordinates			
Pay	13.7 (5.0)	4-24	14
Promotion	13.6 (5.1)	4-24	14
Supervision	19.8 (4.3)	6-24	21
Benefits	12.9 (4.9)	4-24	13
Rewards	14.2 (5.2)	4-24	14
Operating Procedures Coworkers	11.4 (3.1)	4-20 7-24	11
Coworkers Nature of Work	17.8 (3.6)	7-24 12-24	18 22
Communication	21.1 (3.0) 16.3 (4.7)	12-2 <del>4</del> 5-24	22 17
Total Score	140.8 (27.5)		140

Note: ALQ – Authentic Leadership Questionnaire; JSS – Job Satisfaction Survey.

### Correlation between AL and Job Satisfaction for leaders and subordinates

In the group of leaders, the correlation coefficients did not indicate a significant correlation between the total score of job satisfaction and the scores of the dimensions of authentic leadership (r=-0.001 p=0.995 for Transparency; r=- 0.180 p=0.083 for Moral and Ethical Perspective; r=0.170 p=0.101 for Balanced Processing and r=0.127 p=0.222 for Self-awareness). All

coefficients showed no evidence of difference when compared to zero. The same evaluation was carried out for the subordinates and the coefficients obtained indicated a significant positive correlation, despite having medium values (r=0.560 p<0.001 for Transparency; r=0.450 p<0.001 for Moral and Ethical Perspective; r=0.545 p<0.001 for Balanced Processing and r=0.577 p<0.001 for Self-awareness). This correlation in the group of subordinates was considered moderate.

## Agreement between AL in the perspective of the leaders and perception of subordinates and accreditation of the hospital

Table 2 shows evidence of differences between the groups of nurses working in hospitals accredited by the JCI, the NAO and without accreditation as to the mean differences between the authentic leadership scores assessed by leaders and subordinates in the dimensions Transparency (p = 0.027) and Self Awareness (p = 0.004). Tests of multiple comparisons between hospitals for the dimensions Transparency (p = 0.032) and Self-awareness (p = 0.007) showed that the differences between leaders and subordinates in the scores of authentic leadership are greater in hospitals accredited by the NAO than in hospitals accredited by the JCI.

A separate analysis of leaders and subordinates showed no differences in the means scores of the four dimensions of authentic leadership (ALQ) among leaders who work in hospitals accredited by the JCI, the NAO and without accreditation: Transparency (p=0.194), Moral and Ethical Perspective (p=0.857), Balanced Processing (p=0.857) and Self-Awareness (p=0.059). Among the subordinates (Table 2) who work in hospitals accredited by the JCI, the NAO and without accreditation, there was evidence of differences regarding the means scores of authentic leadership (ALQ) in the dimensions Transparency (p=0.010) and Moral and Ethical Perspective (p=0.044).

The multiple comparison tests corrected by the Bonferroni method showed that the mean of the authentic leadership score in the Transparency dimension is higher in hospitals accredited by the JCI than in hospitals without accreditation (p=0.019). In the Moral and Ethical Perspective dimension, there was no evidence of differences between the hospitals compared in pairs (p=0.196 for the JCI and the NAO; p=0.066 for the JCI and without accreditation; p=0.553 for the NAO and without accreditation).

**Table 2** - Scores of the dimensions of the Authentic Leadership Questionnaire in the evaluations carried out by the group of leaders and their subordinates and only by the subordinates, according to the accreditation of the hospital where they work, São Paulo, Brazil, 2017

Dimensions of the instrument	JCI <sup>§</sup> (n=100)		Accreditation of the hospital NAO <sup>§</sup> (n=46)		None <sup>s</sup> (n=42)		<i>p</i> value	
ALQ	Leaders and subordinates	Subordinates	Leaders and subordinates	Subordinates	Leaders and subordinates	Subordinates	Leaders and subordinates	Subordinates
Transparency	0.148 (-0.053; 0.349)	2.86 (2.70; 3.01)	0.617 (0.320; 0.914)	2.56 (2.32; 2.79)	0.443 (0.132; 0.754)	2.45 (2.21; 2.70)	0.027	0.010
Moral and Ethical Perspective	0.224 (-0.036; 0.484)	2.78 (2.61; 2.94)	0.433 (0.049; 0.816)	2.53 (2.30; 2.77)	0.583 (0.182; 0.985)	2.43 (2.18; 2.68)	0.303	0.044
Balanced Processing	0.231(0.011; 0.450)	2.71 (2.52; 2.90)	0.603 (0.280; 0.926)	2.46 (2.18; 2.75)	0.643 (0.305; 0.981)	2.42 (2.13; 2.72)	0.057	0.179
Self-Awareness	0.129 (-0.072; 0.330)	2.64 (2.45; 2.83)	0.693 (0.396; 0.991)	2.46 (2.18; 2.74)	0.548 (0.237; 0.858)	2.49 (2.19; 2.78)	0.004	0.515

Note: ALQ – Authentic Leadership Questionnaire; JCI – Joint Commission International; NAO – National Accreditation Organization; Data expressed by estimated mean values and 95% confidence intervals.

**Table 3** - Scores of the dimensions of the Job Satisfaction Survey in the assessment of the subordinate nurses, according to the accreditation of the hospital where they work, São Paulo, Brazil, 2017

Dimensions	JCI (n	=100)	Accreditation of the hospital <sup>§</sup> NAO (n=46)		None (n=42)		<i>p</i> value	
of the JSS	Leaders	Subordinates	Leaders	Subordinates	Leaders	Subordinates	Leaders	Subordinates
Pay	14.6 (13.3; 16.0)	14.7 (13.7; 15.6)	13.8 (11.8; 15.7)	12.3 (10.9; 13.8)	13.3 (11.3; 15.4)	12.7 (11.2; 14.1)	0.526	0.009
Promotion	14.1 (12.9; 15.3)	14.2 (13.3; 15.2)	15.5 (13.8; 17.3)	13.2 (11.7; 14.6)	15.3 (13.4; 17.1)	12.6 (11.1; 14.2)	0.334	0.179
Supervision	19.4 (18.1; 20.6)	20.2 (19.4; 21.0)	20.5 (18.7; 22.4)	19.9 (18.6; 21.1)	20.6 (18.6; 22.5)	18.9 (17.6; 20.2)	0.461	0.237
Benefits	13.0 (11.7; 14.3)	13.5 (12.6; 14.5)	12.3 (10.4; 14.1)	12.2 (10.8; 13.5)	11.4 (9.4; 13.3)	12.2 (10.7; 13.6)	0.386	0.159
Rewards	14.6 (13.5; 15.8)	15.1 (14.1; 16.1)	15.1 (13.4; 16.8)	12.9 (11.4; 14.3)	15.1 (13.4; 16.9)	13.5 (12.0; 15.1)	0.835	0.029
Operating Procedures	10.8 (10.1; 11.4)	11.6 (11.0; 12.2)	10.3 (9.3; 11.4)	10.5 (9.6; 11.4)	11.1 (10.1; 12.2)	11.8 (10.9; 12.8)	0.566	0.073
Coworkers	17.7 (16.9; 18.6)	17.9 (17.2; 18.6)	17.2 (15.9; 18.4)	17.5 (16.5; 18.5)	16.9 (15.6; 18.1)	17.9 (16.8; 19.0)	0.505	0.813
Nature of Work	20.6 (19.9; 21.4)	21.0 (20.4; 21.6)	22.2 (21.0; 23.3)	21.2 (20.3; 22.0)	20.4 (19.2; 21.6)	21.4 (20.5; 22.3)	0.057	0.710
Communication	16.3 (15.1; 17.5)	17.2 (16.3; 18.1)	15.7 (13.9; 17.5)	15.1 (13.7; 16.4)	15.5 (13.6; 17.4)	15.5 (14.1; 16.9)	0.726	0.017
Total Score	141.2 (134.7; 147.6)	145.4 (140.1; 150.7)	142.7 (133.1; 152.2)	134.7 (126.9; 142.4)	139.6 (129.6;149.5)	136.6 (128.5; 144.8)	0.909	0.047

Note: JSS – Job Satisfaction Survey; JCI – Joint Commission International; NAO – National Accreditation Organization; Data expressed by estimated mean values and 95% confidence intervals.

## Correlation of accreditation of the hospital where nurses work with ALO and job satisfaction assessed by leaders and subordinates

There was no evidence of differences in the mean scores of all dimensions of job satisfaction (JSS) between the groups of leaders who work in hospitals accredited by the JCI, the NAO and without accreditation. As for the subordinates, there was evidence of differences on the mean scores in the dimensions Pay (p=0.009), Rewards (p=0.029), Communication (p=0.017) and Total Score (p=0.047) (Table 3).

The multiple comparisons tests corrected with the Bonferroni method showed that the means of job satisfaction scores are higher in hospitals accredited by the JCI than in hospitals accredited by the NAO (Pay (p=0.022), Rewards (p=0.040), Communication (p=0.030). The multiple comparisons tests showed no evidence of differences in the total score between hospitals compared in pairs, despite the evidence of significant differences between hospitals (p=0.047).

#### **DISCUSSION**

The results obtained indicate that the majority of the study participants are female (84.0% of the leaders and 86.7% of the subordinates), which corroborates other studies on this same theme<sup>(14,26-29)</sup>. It is worth noting that this profile may be associated with care and empathy skills required for nursing professionals and which, throughout history, have been traits associated with women<sup>(30)</sup>.

The authentic leadership scores of leaders were higher than the scores perceived by their subordinates in all dimensions of the ALQ, an aspect already found in another study<sup>(31)</sup>. For the leaders, none of the dimensions of AL stood out, as the four obtained equal medians. For the subordinates, the median of the dimension 'Balanced Processing' was slightly above the others, but there was no relevant difference between them. Another study<sup>(26)</sup> also found "Balanced Processing" to be slightly above other domains. In another study,

the safety climate had a significant and positive association with authentic leadership and the models applied showed that the subscales "Balanced processing" and "Relationship Transparency" significantly predicted the safety climate<sup>(28)</sup>.

As for job satisfaction, in general, leaders and subordinates were classified as "neither dissatisfied nor satisfied". The behaviors of authentic leaders in an institution play an important role in creating effective work environments and promoting the satisfaction of nursing professionals. The job satisfaction of nurses is an important factor both for retaining these professionals and for promoting high quality care<sup>(32)</sup>.

The advantages of leaders that demonstrate transparency, balance, balanced processing, self-awareness and high ethical standards are related to increased job satisfaction and enhanced performance of the subordinates. This relationship was observed in the results of a study which showed that authentic leadership had a direct and positive effect on the work environment and a negative effect on dimensions such as emotional exhaustion of the burnout syndrome<sup>(33)</sup>.

Authentic leadership is important for highlighting the role of the leader as a facilitator of team development. It can generate a positive work environment with adequate workloads, reduce emotional exhaustion and increase job satisfaction. Assessing job satisfaction is important for an organization, as greater job satisfaction is associated with a lower nurse turnover. This influences not only the sustainability of the workforce, but also the financial sector of the institutions<sup>(29)</sup>.

A study carried out with 78 nurses who worked in long-term care institutions found a positive association between authentic leadership and job satisfaction and indicated that nurses who evaluated their managers with a high authentic leadership reported low emotional exhaustion and high job satisfaction<sup>(29)</sup>.

Authentic leadership is a relevant factor for the promotion of proactive behavior within an institution. Leaders who have positive leadership traits in their management style can assess the contribution of their subordinates more reliably, follow the rules and regulations consciously, and treat employees in a

transparent manner. As a result, they will have team members who can improve their self-efficacy, ask the leader for help at the right time, increase their resilience and improve their confidence and ability to solve problems in a constructive manner<sup>(34)</sup>.

The assessment of the relationship between the total scores of the ALQ and the JSS showed different results in the two groups. For the leaders, there was no evidence of an association between AL and job satisfaction, but for the subordinates, the coefficients obtained indicated a significant positive correlation, considered moderate. This result in the group of subordinates is similar to international scientific evidence<sup>(35-39)</sup>.

Hospitals are institutions that must encourage and provide an environment that favors the implementation of an authentic leadership style through programs for their workers. This can help managers can recognize that their authenticity can have a positive effect on their employees and that it is essential to adopt an ethical and honest attitude at work<sup>(27)</sup>.

On the other hand, the subordinates perceive the leader's transparency according to their actions, for example, the way they deal with the adverse events in the institution and if they open discussions with the group to develop action plans together. They observe the coherence in the leader's words regarding the non-punitive culture, demonstrating that everything is part of a process of continuous improvement. The practice of disclosure, which is a way of acting with transparency, is also required in accredited institutions (40).

A study carried out in the state of Paraná to analyze the perceptions of managers and workers about changes in hospital management related to its accreditation found a more participative leadership after the accreditation of the hospital, highlighting the functions of employees and a division of activities that were previously centered in the direction of the hospital<sup>(2)</sup>.

Despite being a comprehensive topic with a direct impact on the quality of care and on organizational costs, efforts must still be made so that effective and efficient management and leadership models are incorporated into the daily work in health institutions<sup>(14)</sup>.

There are two aspects of the authentic leadership process that are considered essential: the performance of authentic leaders who develop actions in a coherent way and influence the people around them with ethical and responsible behavior; and the importance of this authentic leader in the provision of an environment that favors knowledge management through a positive organizational climate built with the trust and participation of the subordinates<sup>(41)</sup>.

#### Limitations of the study

The limitation of this study is that it was carried out only in a private hospital, requiring further studies to assess whether there is a difference in results between leaders and subordinates in the public network.

#### Contributions to the area of Nursing

This work intends to stimulate a reflection on the authentic leadership style and its advantages within organizations, given that the data demonstrate the ability to provide a healthy work environment through transparent management and build value-based, ethical, moral and reliable relationships.

#### CONCLUSIONS

There was a significant difference between the assessment of leaders and subordinates in all dimensions of the ALQ. The evaluations of leaders were better than those of the subordinates.

As for the JSS, the job satisfaction results were the same for leaders and subordinates. Everyone was satisfied with the domains in that order: nature of work, supervision, coworkers and communication. Leaders and subordinates were dissatisfied with the "operational procedures" domain and neither satisfied nor dissatisfied with the overall score.

For leaders, there is no association between authentic leadership and job satisfaction, whereas for the subordinates there was a positive correlation between the scores of the instruments, that is, the better the assessments of their leaders, the better their job satisfaction.

A greater difference between the scores of leader and subordinates in the dimensions of transparency and self-awareness was found in hospitals accredited by the NAO in relation to the JCI. In other words, in these dimensions, the perception of the team members who work in NAO hospitals in relation to their leader are different when compared to those working in hospitals accredited by the JCI.

Among the leaders, there is no difference in the scores of Authentic Leadership in relation to the accreditation of the hospitals where they work. Among the subordinates, there was a difference in the transparency dimension.

Finally, among the leaders, there was no difference in job satisfaction according to the accreditation of the hospitals where they worked. As for the subordinates, there were differences were in the dimensions Pay, Rewards and Communication, with higher scores among subordinates who work in JCI hospitals compared to those who work in hospitals accredited by the NAO.

#### **ACKNOWLEDGEMENT**

We thank the Research Support Center (RSC) from the Albert Einstein Hospital for the statistical planning and data analysis.

#### **REFERENCES**

- 1. Balsanelli AP, Cunha ICKO. The work environment and leadership in nursing: an integrative review. Rev Esc Enferm USP. 2014;48(5):938-43. https://doi.org/10.1590/S0080-6234201400005000022
- 2. Maziero VG, Bernardes A, Righetti EAV, Spiri WC, Gabriel CS. Positive aspects of authentic leadership in nursing work: integrative review. Rev Bras Enferm. 2020;73(6):e20190118. https://doi.org/10.1590/0034-7167-2019-0118
- 3. Amestoy SC, Backes VMS, de Lima Trindade L, Canever BP. The scientific production regarding leadership in the context of nursing. Rev Esc Enferm USP. 2012;46(1):227-33. https://doi.org/10.1590/S0080-62342012000100030

- 4. Oliveira Fonseca AM, Porto JB, Borges-Andrade JE. Liderança: um retrato da produção científica brasileira. RAC. 2015;19(3):290-310. https://doi.org/10.1590/1982-7849rac20151404
- 5. Amestoy SC, Lima Trindade L, Waterkemper R, Heidman ITS, Boehs AE, Backes VMS. Liderança dialógica nas instituições hospitalares. Rev Bras Enferm. 2010;63(5):844-7. https://doi.org/10.1590/S0034-71672010000500025
- 6. Esper AJF, Almeida Cunha CJC. Liderança autêntica: uma revisão integrativa. Navus. 2015;5(2):60–72. https://doi.org/10.22279/navus.2015. v5n2.p60-72.254
- 7. Oliveira Melo FG, Silva G. Qualidades de liderança para a inovação em organizações do setor público. Brasil. Rev Bras Gestão Inov. 2019;6(3):121-43. https://doi.org/10.18226/23190639.v6n3.06
- 8. Walumbwa FO, Avolio BJ, Gardner WL, Wernsing TS, Peterson SJ. Authentic leadership: development and validation of a theory-based measure. J Manage. 2008;34(1):89-126. https://doi.org/10.1177/0149206307308913
- 9. Spence Laschinger HK, Fida R. Linking nurses' perceptions of patient care quality to job satisfaction: the role of authentic leadership and empowering professional practice environments. J Nurs Adm. 2015;45(5):276-83. https://doi.org/10.1097/NNA.000000000000198
- 10. Read EA, Laschinger HK. The influence of authentic leadership and empowerment on nurses' relational social capital, mental health and job satisfaction over the first year of practice. J Adv Nurs. 2015;71(7):1611-23. https://doi.org/10.1111/jan.12625
- 11. Boamah SA, Read EA, Spence Laschinger HK. Factors influencing new graduate nurse burnout development, job satisfaction and patient care quality: a time-lagged study. J Adv Nurs. 2017;73(5):1182-95. https://doi.org/10.1111/jan.13215
- 12. Alilyyani B, Wong CA, Cummings G. Antecedents, mediators, and outcomes of authentic leadership in healthcare: a systematic review. Int J Nurs Stud. 2018;83:34-64. https://doi.org/10.1016/j.ijnurstu.2018.04.001
- 13. Ferezin TPM, Ramos D, Caldana G, Gabriel CS, Bernardes A. Analysis of adverse event reporting at accredited hospitals. Cogitare Enferm. 2017;22(2):e49644. https://doi.org/10.5380/ce.v22i2.49644
- 14. Mondini CCSD, Cunha ICKO, Trettene AS, Fontes CMB, Bachega MI, Cintra FMR. Authentic leadership among nursing professionals: knowledge and profile. Rev Bras Enferm. 2020;73(4):e20180888. https://doi.org/10.1590/0034-7167-2018-0888
- 15. Avolio BJ, Gardner WL, Walumbura FO. Mind Garden. Authentic leadership questionnaire [Internet]. 2007 [cited 2019 Dec 10]. Available from: https://www.mindgarden.com/69-authentic-leadership-questionnaire
- Vasconcelos RMA. Adaptação cultural do authentic leadership questionnaire (ALQ) para o contexto da enfermagem brasileira [Tese] [Internet].
   Universidade de São Paulo, Escola de Enfermagem de Ribeirão Preto; 2018[cited 2019 Dec 10]. 186 f. https://doi.org/10.11606/T.22.2018.
   tde-03072018-154029
- 17. Maziero VG. Análise da Validade do Questionário de Liderança Autêntica [Tese]. [São Paulo]: Universidade de São Paulo, Escola de Enfermagem de Ribeirão Preto; 2019 [cited 2019 Dec 10]. 148 f. https://doi.org/10.11606/T.22.2019.tde-20052019-194608
- 18. Garden M. Authentic leadership questionnaire research permission [Internet]. c2007 [cited 2016 Dec 10]. Available from: https://www.mindgarden.com/authentic-leadership-questionnaire/595-alq-research-permission.html
- 19. Spector PE. Instructions for scoring the job satisfaction survey, JSS [Internet]. University of South Florida; 1999 [cited 2016 Dec 10]. Available from: http://shell.cas.usf.edu/~pspector/scales/jsspag.html
- Souza AC, Milani D, Alexandre NMC. Adaptação cultural de um instrumento para avaliar a satisfação no trabalho. Rev Bras Saúde Ocup. 2015;40(132):219-27. https://doi.org/10.1590/0303-7657000113715
- 21. Souza AC. Adaptação cultural e avaliação das propriedades psicométricas do Job Satisfaction Survey para o contexto brasileiro[Tese]. Universidade Estadual de Campinas, Faculdade de Enfermagem; 2014. 154 f.
- 22. Kutner MH, Nachtsheim CJ, Neter J, Willian L. Applied linear statistical models. 5th ed. New York: McGraw-Hill; 2004. 1396 p.
- 23. Holm S. A simple sequential rejective multiple test procedure. Scand J Stat. 1979;6(2):65-70. http://www.jstor.org/stable/4615733
- 24. Faraway JJ. Extending the linear model with R: generalized linear, mixed effects and nonparametric regression models. Boca Raton: Chapman & Hall/CRC; 2006. 395 p. (Texts in Statistical Science).
- 25. Corp IB. IBM SPSS Statistics for Windows. Version 24.0. Armonk: IBM Corp; 2016.
- 26. Carvalho AGF, Cunha ICKO, Balsanelli AP, Bernardes A. Authentic leadership and the personal and professional profile of nurses. Acta Paul Enferm. 2016;29(6):618-25. https://doi.org/10.1590/1982-0194201600087
- Baek H, Han K, Ryu E. Authentic leadership, job satisfaction and organizational commitment: the moderating effect of nurse tenure. J Nurs Manag. 2019;27(8):1655-63. https://doi.org/10.1111/jonm.12853
- 28. Dirik HF, Intepeler SS. The influence of authentic leadership on safety climate in nursing. J Nurs Manag. 2017;25(5):392-401. https://doi.org/10.1111/jonm.12480
- 29. Wong C, Walsh EJ, Basacco KN, Mendes MCD, Pye DRH. Authentic leadership and job satisfaction among long-term care nurses. Leadership in Health Services. 2020;33(3):247-63. https://doi.org/10.1108/LHS-09-2019-0056
- 30. Bublitz S, Azevedo GL, Kirchhof RS, Neves ET, Lopes LFD. Sociodemographic and academic profile of nursing students from four Brazilian institutions. Rev Gaúcha Enferm. 2015;36(1):77-83. https://doi.org/10.1590/1983-1447.2015.01.48836
- 31. Saxe-Braithwaite M, Gautreau S. Authentic leadership in healthcare organizations: a study of 14 chief executive officers and 70 direct reports. Healthcare Management Forum. 2019;1-5. https://doi.org/10.1177/0840470419890634

- 32. Walumbwa FO, Hartnell CA, Oke A. Servant leadership, procedural justice climate, service climate, employee attitudes, and organizational citizenship behavior: a cross-level investigation. J Appl Psychol. 2010;95(3):517-29. https://doi.org/10.1037/a0018867
- 33. Lee HF, Chiang HY, Kuo HT. Relationship between authentic leadership and nurses' intent to leave: the mediating role of work environment and burnout. J Nurs Manag. 2019;27(1):52-65. https://doi.org/10.1111/jonm.12648
- 34. Hu Y, Wu X, Zong Z, Xiao Y, Maguire P, Qu F, et al. Authentic leadership and proactive behavior: the role of psychological capital and compassion at work. Front Psychol. 2018;9:2470. https://doi.org/10.3389/fpsyg.2018.02470
- 35. Cardoso MLAP, Ramos LH, D'Innocenzo M. Coaching leadership: leaders' and followers' perception assessment questionnaires in nursing. Einstein (São Paulo). 2014;12(1):6674. https://doi.org/10.1590/S1679-45082014AO2888
- 36. Melo Lanzoni GM, Meirelles BHS. Leadership of the Nurse: an integrative literature review. Rev Latino-Am Enfermagem. 2011;19(3):651-8. https://doi.org/10.1590/S0104-11692011000300026
- 37. Kernis MH, Goldman BM. A multicomponent conceptualization of authenticity: theory and research. Adv Exp Soc Psychol. 2006;38:283-357. https://doi.org/10.1016/S0065-2601(06)38006-9
- 38. Gardner WL, Cogliser CC, Davis KM, Dickens MP. Authentic leadership: a review of the literature and research agenda. Leadersh Q. 2011;22(6):1120-45. https://doi.org/10.1016/j.leaqua.2011.09.007
- 39. Avolio BJ, Gardner WL, Walumbwa FO, Luthans F, May DR. Unlocking the mask: a look at the process by which authentic leaders impact follower attitudes and behaviors. Leadersh Q. 2004;15(6):801-23. https://doi.org/10.1016/j.leaqua.2004.09.003
- 40. Amestoy SC, Backes VMS, Lima Trindade L, Ávila VC, Oliveira AFL, Silva CN. Nurses' understanding of the exercising of leadership in the hospital environment. Cogitare Enferm. 2014;19(3):475-82. https://doi.org/10.5380/ce.v19i3.35006
- 41. Besen F, Tecchio E, Fialho FAP. Authentic leadership and knowledge management. Gest Prod. 2017;24(1):2-14. https://doi.org/10.1590/0104-530x898-13