# Adaptation and validation of the Charismatic Leadership Socialized Scale

Adaptação e validação da Escala de Liderança Carismática Socializada

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### **Keywords**

Leadership; Validation studies; Job satisfaction; Nursing administration research; Nursing staff

#### **Descritores**

Liderança; Estudos de validação; Satisfação no emprego; Pesquisa em administração de enfermagem; Recursos humanos de enfermagem

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### **Abstract**

**Objective:** Adapting the Charismatic Leadership Socialized Scale for the Brazilian culture and evaluating the psychometric properties of the translated and adapted version.

**Methods**: The translated and adapted version of the scale was answered by 211 nursing staff professionals. The SPSS program was used to verify the principal components, the loading factors of each item on the subscales by the Principal Component Analysis and the Varimax rotation test, and the internal consistency of subscales by calculating Cronbach's alpha index. The means of groups on each scale were compared by the one-way analysis of variance (ANOVA), verifying the significance of differences with Tukey's test.

Results: The scale showed consistent psychometric properties converging to a stable factor structure and a suitable reliability that was very close to the original study.

Conclusion: The results support the psychometric properties of the scale, indicating its applicability for research in hospital settings nationwide.

### Resumo

**Objetivo:** Adaptar a escala *Charismatic Leadership Socialized Scale* à cultura brasileira e avaliar as propriedades psicométricas da versão traduzida e adaptada.

**Métodos**: A escala traduzida e adaptada foi respondida por 211 profissionais da equipe de enfermagem. Utilizou-se o programa SPSS, onde foram verificados os componentes principais e as cargas fatoriais de cada item nas subescalas pelo Método dos Componentes Principais e teste de rotação Varimax, e a consistência interna das subescalas pelo cálculo do índice alfa de Cronbach. Também se comparou as médias dos grupos em cada escala pela análise de variância *one-way* (ANOVA), verificando-se a significância das diferenças pelo teste de Tukey.

Resultados: A escala apresentou consistentes propriedades psicométricas convergentes a uma estrutura estável do fator e confiabilidade adequada muito próxima ao estudo original.

Conclusão: Os resultados reforçam as qualidades psicométricas da escala, indicando sua aplicabilidade para pesquisas no contexto hospitalar nacional.

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# Introduction

The investigations on leadership have become a major challenge for researchers in various fields of knowledge. There is a relentless pursuit of working methods that provide solutions for the needs imposed by the globalized world. Leadership is a necessary condition in the different types of human organizations, and the leader's role is crucial for the achievement of goals and objectives. (1)

The style of management and leadership can provide conditions that facilitate the activities and the creation of an environment of commitment among team members. Leadership theories were focused on definitions as autocratic/democratic, directive/participative, focusing on the task or on people and on surface or consideration behaviors. It is important to identify key competencies for performing the leadership role. (2,3)

Behaviors that sustain Charismatic Leadership include articulation of strategic vision; sensitivity to the needs of followers, the environment, the courage to take risks; and availability of self-sacrifice to materialize the organizational vision. (4)

The author of the scale studied the Path-Goal Theory for four decades. The theory discusses leadership in the field of social psychology and organizational behavior and proposes social interaction between leaders and their followers. Thus, leaders should explicit the behaviors that employees are expected to have and, as a goal, the performance and satisfaction of followers by motivating them. (4.5)

The Path-Goal Theory, revised in the late 90s, specifies the behavior of leaders who stimulate performance and satisfaction of followers in the work unit, the results of leadership in the motivation and ability of subordinates, and the effectiveness of leaders in group performance. It includes eight classes of behavior of leaders, individual differences of followers and moderating contingent variables, which turned into 26 propositions. (4,5)

The initial version of the theory presents "the motivational role of the leader", that is consistent with the increase in personal satisfaction of followers and scope of work goals. In practice, the skill of vision developed by the leader and perceived by

subordinates empowers them in the work units, for effectively reaching the goals.<sup>(4)</sup>

The essential notion of subordination is that individuals in position of authority will be effective as long as they optimize the environment, providing the necessary cognitive clarification and ensuring that subordinates can count on them for reaching their goals.<sup>(6)</sup>

House initially addressed two general classes of leader behavior: the directive clarifying and the satisfaction of followers' needs. Subsequently four behavioral competencies were defined: Directive, Supportive, Participative and Achievement-Oriented Leader Behavior. (5,7,8)

The objectives of this study were to translate the scale from English to Portuguese and adapt it to the Brazilian culture through application with professionals in the field of hospital nursing; to evaluate the psychometric properties of the translated and adapted version; and to present the assessments of the subscales Charismatic, Instrumental Leadership and of Satisfaction, Motivation and Team Effectiveness.

# **Methods**

The investigation was conducted in a public government hospital with 278 beds arranged in inpatient units, with emergency and urgent care - adults and children - and several medical specialties. Included participants were all the staff of the nursing team of the institution who fit the following criteria: being a member of the nursing team and subordinate to the nurse manager of a sector and/or shift; signing the writing consent and having 40 minutes during working hours to answer the questionnaire. The study included 211 subjects who met the inclusion criteria. In order to achieve the proposed objectives, the measuring instrument originally titled Charismatic Leadership Socialized Scale was used. (4)

The 143 items of the scale were constructed to measure the Charismatic and Instrumental Leadership and the dimension of Commitment and Satisfaction, Motivation and Team Effectiveness. The instrument has two parts: the first, with 124 items of the various dimensions of the Charismatic and Instrumental Leadership, refers to the behavior of

the manager; and the second, with 19 items, regards the size of Commitment and Satisfaction, Motivation and Team Effectiveness.

The construct of Charismatic Leadership consists of nine factors: Self-confidence and Determination, Inspiring Communication, Confidence in Followers, Intellectual Stimulation, Expectancy of Performance, Integrity, Justice, Role Modeling and Vision. The construct of Instrumental Leadership, on its turn, has seven factors: Power Sharing, Consideration, Role Clarification, Guidance, Performance Guidance, Team Guidance and Contingent Recognition. The third construct consists of three factors related to the behavior of employees namely, Commitment and Satisfaction, Motivation and Team Effectiveness. Each of them is a subscale. The items of the subscales are assessed with multiple choice questions in seven points: 1 = strongly disagree, 2 = moderately disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = moderately agree, 7 = strongly agree.

Since the instrument had never been implemented in Brazil, after the author's permission, it had to be translated, adapted and applied to the target audience and the psychometric characteristics also had to be established.

The instrument was translated into Portuguese by two Brazilian translators; versions were compared to the original and after analysis and discussion with teachers of the health area, small changes were made, preserving the content. The instrument was subjected to another Brazilian translator for the Portuguese version into English (back translation) and compared to the original, thus confirming its suitability.

For face and content validation, the instrument was submitted to five nurse judges with experience in the field and in research. After receiving these collaborations, the scale was modified in form, the instruction sheet was completely redesigned and the language was adapted to the level of understanding of staff for more clarity, objectivity and understanding of the study subjects.

Subsequently, the instrument was shown to ten subjects who had the same criteria of the study population to check if it was clear and easy to understand.

Interviews for data collection were scheduled according to participants' availability, lasting between 30 and 40 minutes, at their work unit and during working hours.

For statistical analysis, the data were organized and entered into an electronic spreadsheet using the Epi-Info program version 3.51. Data were analyzed in two stages: the adaptation of the instrument to the Brazilian culture, and with statistical tests in order to compare groups of participants in their evaluations about the Charismatic and Instrumental Leadership, and Satisfaction, Motivation and Team Effectiveness.

Initially, a Principal Component Analysis of data was performed to show the components of each scale: nine of the Charismatic Leadership, seven of the Instrumental Leadership and three of the dimension of Commitment and Satisfaction, Motivation and Team Effectiveness. Then, the components were submitted to the Varimax rotation test, aiming to maximize the variation among the weights of each major component.

Then, the reliability of subscales was evaluated by calculating the Cronbach's alpha reliability index. A one-way analysis of variance (ANOVA) was performed to compare the groups, seeking to verify the difference between the means of the groups on each scale, with subsequent verification of the significance of differences with the Tukey's HSD (Honestly Significant Difference) test. These tests are indicated for comparison between samples of different sizes. (8)

The development of the study met the national and international standards of ethics in research involving human beings.

# Results

The age range among the 211 participants was between 19-58 years, with the majority concentrated in the age group between 29 and 38 years (40.8%) with a mean age of 35.6 years and predominantly females (81.5%). Data on factor analysis required at this stage of the study are shown in chart 1.

From the method of Varimax orthogonal rotation a clearer separation of the factors of the subscales was observed, making it possible to highlight the scales that were not constituted by one factor.

Chart 2 shows the factor loadings of each item, comprising the subscales of the Scale of Charismatic and Instrumental Leadership and CEMS (Commitment, Effectiveness, Motivation and Satisfaction).

To check the instrument reliability, the Cronbach's alpha index was calculated for all subscales. The results of the Cronbach's alpha reliability test of this study are shown in chart 3, along with those obtained in the original scale development study.

It is observed that the Cronbach's alpha index values of the original scale and the values of the current study are similar.

Chart 1. Results obtained by the principal component analysis

Subscales	N.º of Items	N.º of components with eigenvalue >	Percentage of variance explained
Self-Confidence and Determination (CD)	07	1	56.5
Inspiring Communication (IC)	09	1	55.7
Confidence in Followers (CF)	09	3	61.2
Intellectual Stimulation (IE)	06	1	43.2
Expectancy of Performance (EP)	10	3	51.8
Integrity (IN)	12	2	46.5
Justice (JU)	08	2	55.0
Role Modeling (RM)	07	1	45.0
Vision (VI)	07	2	59.4
Power Sharing(PS)	07	1	51.8
Consideration (CO)	08	1	55.3
Role Clarification (RC)	05	1	52.3
Guidance (GU)	04	1	54.6
Team Guidance (TG)	07	1	51.7
Performance Guidance (PG)	08	1	54.9
Contingent Recognition (CR)	13	4	62.0
Commitment and Satisfaction (CS)	10	3	57.3
Team Effectiveness (TE)	04	1	43.2
Motivation (MO)	05	1	73.2

Chart 2. Factor loading of each item of the subscales

Component or subscale Items	
1.1. Self-Confidence and Determination (CD)	
41 – Have strong convictions regarding the correctness of own actions	0.67
45 – Show a high degree of self-confidence	0.70
49 – Strive to achieve difficult goals	0.70
52 – Encourage employees to see changes as situations full of opportunities	0.77
53 – Show determination when achieving goals	0.76
89 – See obstacles as challenges rather than threats	0.81
106 – Are persistent in the pursuit of goals	0.80
1.2. Inspiring Communication (IC)	
10 – Encourage group members to take pride in the achievements of the hospital	0.71
33 – Encourage a positive attitude towards work to be done	0.72

Component or subscale Items	Factor loading
66 – Say things that make me proud to be a member of this hospital	0.76
78 – Say positive things about the group	0.79
90 – Cheerfully describe new projects or tasks	0.82
98 - Encourage people to see environments that change as situations full of opportunities	0.78
108 – Give us reasons to be optimistic about the future	0.84
111 – Show pride in the achievements of the group	0.79
123 – Encourage employees to put the interests of the hospital ahead of own interests	0.33
1.3. Confidence in Followers (CF)	·
01 – Trust in my ability to work unsupervised	0.60
08 – Encourage employees to fully use their potential	0.83
40 - Show confidence in my ability to contribute to the objectives of this hospital	0.68
42 – Demonstrate full trust in me	0.74
57 – Delegate substantial responsibility to my person	0.73
79 – Help me to establish my own performance goals	0.68
21 – Make me set high goals for myself	0.79
27 – Encourage me to solve problems by myself	0.81
1.4. Expectancy of Performance (EP)	
38 – Expect less of me than other bosses I have worked with	0.86
39 – Encourage employees to set high personal goals for themselves	0.72
71 – Encourage me to set my goals by myself	0.62
81 – Do not expect much from me in terms of performance	0.69
101 – Stress the importance of achieving work objectives	0.78
105 – Encourage me to continually improve my performance	0.82
115 – Expect a lot from employees	0.42
118 – Communicate high performance expectations to staff members	0.74
120 – Stress the importance of high quality work	0.63
124 – Insist on achieving the best performance	0.63
1.5. Intellectual Stimulation (IE)	
18 – Make me think about old problems in new ways	0.75
23 – Have ideas that make me rethink things I have never questioned before	0.71
58 – Encourage me to work independently of supervision	0.40
82 - Challenged me to reexamine some of my basic assumptions about my work	0.59
104 - Challenge employees to be innovative in their work activities	0.73
121 – Encourage employees to think for themselves	0.66
1.6. Integrity (IN)	
04 – Do as they say	0.55
12 – Follow a defined moral code	0.46
17 – Comply with their obligations	0.49

Component or subscale Items	Factor loading
28 – Do not follow the rule "do as they say"	0.74
46 – Are objective and adjust ethical standards to the present situation	0.51
69 – Ensure their actions are always ethical	0.55
80 – Do not sacrifice nor compromise their moral standards	0.54
85 – Are concerned with the consequences of their actions on others	0.62
91 – Serve the interests of their employees and not their own interests	0.69
95 – Check if employees are appreciated for their work	0.54
100 – Do not take advantage of the achievements of others	0.68
116 – Are reliable	0.53
1.7. Justice (JU)	
03 – Do not show favoritism to any individual or group of individuals	0.45
20 – Use a common standard for evaluating all employees	0.61
29 – Make me responsible for work that I have no control of	0.56
50 – Show partiality in relation to some employees	0.86
55 – Administer rewards fairly	0.77
56 - Treat well those who address them	0.77
65 – Always treat some employees better than others	0.58
107 – Are fair	0.79
1.8. Role Modeling (RM)	
11 – Give good examples	0.72
14 – Do as they say	0.69
16 – Do not expect from others more effort than they do	0.61
19 – Lead "doing" rather than "ordering"	0.67
37 – Give good examples for me to follow	0.77
96 – Have exemplary behavior	0.76
28 – Do not follow the rule "do as they say"	0.34
1.9. Vision (VI)	
02 – Clearly communicate their vision of the future	0.66
22 – Communicate an exciting vision about the future of the hospital	0.80
35 – Make an effort to stimulate employees with dreams about the future	0.83
59 – Do not know where is the hospital going	0.83
75 – Are optimistic about the future of this hospital	0.62
83 – Have a clear understanding of where we are going	0.54
94 – Clearly know where they want our unit to be in five years time	0.60
1.10. Power Sharing (PS)	3.00
51 – Expect unquestioning obedience from employees	0.24
60 – Listen to the advice from those who turn to them	0.68
102 – Listen to advice from employees	0.84

Component or subscale Items	Factor loading
109 – Involve employees in solving problems together	0.76
112 – Reconsider decisions based on staff recommendations	0.75
119 - Before taking decisions, seriously consider what employees have to say	0.85
122 – Allow employees to have influence on critical decisions	0.70
1.11. Consideration (CO)	
07 – Act without considering my feelings	0.46
15 – Are concerned with my personal well-being	0.79
24 – Consider my personal feelings before acting	0.80
47 – Check if employees' interests receive necessary consideration	0.81
62 – Behave taking into consideration my personal needs	0.80
74 – Show a high degree of respect for me	0.77
86 – Are friendly and accessible	0.68
99 – Do things that make it nice to be a member of the group	0.74
1.12. Role Clarification (RC)	
31 - Provide guidance with respect to my work	0.78
30 – Clarify who is responsible for what	0.70
63 – Explain rules and procedures that group members must follow	0.65
76 – Explain what is expected of every member of the group	0.76
110 – Explain for each one the objective of the authority of group members	0.69
1.13. Guidance (GU)	
43 – Establish goals for my performance	0.78
54 — Give instructions on how I should perform my duties	0.82
87 – Say how I should do my job	0.56
97 – Give great support so I can set my goals	0.75
1.14. Team Guidance (TG)	
34 – Encourage cooperation among employees	0.72
67 – Make an effort to break down communication barriers among working groups	0.74
70 – Resolve conflicts among group members in the interests of staff	0.70
111 – Show pride in the achievements of the group	0.78
114 – Encourage teamwork among members of the group	0.83
117 – Work hard to ensure that group members work well together	0.77
123 – Encourage employees to put the interests of the hospital ahead of their own interests	0.34
1.15. Performance Guidance (PG)	
36 – Provide me with information to develop my professional skills whenever possible	0.75
48 – Encourage group members to use their professional potentials	0.72
68 – Are truly concerned with the development and growth of employees	0.79
77 – Treat employees in ways that results in development	0.79
88 – Make it possible that I participate of professional development opportunities	0.66

Component or subscale Items	Factor loading	
92 – Play the role of educators in their relationship with employees	0.73	
103 – Provide feedback so employees can develop their skills	0.79	
113 – Provide training and education to develop employees' skills	0.63	
1.16. Contingent Recognition (CR)	,	
05 – Give positive feedback when I show good performance	0.77	
06 – Show disapproval when performance of employees is below standard	0.56	
09 – Personally greet me when I do an important job	0.77	
13 – Make others within the hospital know that I made an important job	0.69	
25 – Rarely praise me when I do well	0.76	
26 – Criticize employees no matter how good their performance is	0.47	
32 – Praise me both when I go wrong and I do well	0.58	
44 – Equally praise employees with good and bad performance	0.76	
61 – Recognize when I improve the quality of my work	0.73	
64 – Encourage me to think positively about myself if I did well in a specific job	0.70	
72 – Call my attention when my work is not suitable	0.62	
73 – Praise me when I do a job better than the average	0.80	
93 – Frequently do not recognize my good performance	0.48	
1.17. Commitment and Satisfaction (CS)		
125 – I agree with the vision of my boss about this hospital	0.71	
126 – I am very pleased with my boss	0.90	
127 – I hope to stay in this hospital for at least five years	0.85	
128 – I hope the future of this hospital is excellent	0.46	
129 – I want to make personal sacrifices to contribute to the success of the hospital	0.60	
130 – I contribute to this hospital with 100% of my skills	0.63	
131 – My performance overcomes the simple accomplishment of tasks	0.75	
132 – My work effort is above and beyond what is necessary	0.74	
133 – I think the view of future of my boss is confused	0.50	
134 – Make me feel close to them	0.73	
1.18. Team Effectiveness (TE)		
140 – Make people put the interests of the hospital ahead of their own interests	0.63	
141 – People on my professional level work well together	0.73	
142 – The top management of this hospital works very effectively as a team	0.77	
143 – My work becomes difficult because the others do not cooperate and support as they should	0.42	
1.19. Motivation (MO)		
135 – Make me feel excited with my assignments	0.87	
136 – Motivate me to work more and better	0.88	
137 – Motivate me to do more than I originally expected to	0.89	
138 – Inspire me to do more than I would if they were not present	0.74	
139 – Inspire me to reach my highest level of performance	0.87	

Chart 3. Comparison of the Cronbach's alpha index values

Scales and Subscales	No of items	Cronbac	Cronbach's alpha	
		Original Study (a)	Current Study (a)	
Charismatic Leadership Scale				
Self-Confidence and Determination(CD)	07	0.85	0.87	
Inspiring Communication (IC)	09	0.91	0.89	
Scales and Subscales	No of items Cronbach's alpha		h's alpha	
		Original Study (a)	Current Study (a)	
Confidence in Followers (CF)	09	0.85	0.71	
Intellectual Stimulation (IE)	06	0.90	0.73	
Expectancy of Performance (EP)	10	0.86	0.81	
Integrity (IN)	12	0.77	0.83	
Justice (JU)	08	0.72	0.79	
Role Modeling (RM)	07	0.79	0.78	
Vision (VI)	07	0.91	0.78	
Instrumental Leadership Scale				
Power Sharing (PS)	07	-	0.82	
Consideration (CO)	08	0.80	0.88	
Role Clarification (RC)	05	-	0.77	
Guidance (GU)	04	0.73	0.71	
Team Guidance (TG)	07	-	0.83	
Performance Guidance (PG)	08	-	0.88	
Contingent Recognition (CR)	13	0.89	0.80	
CEMS Scale				
Commitment and Satisfaction (CS)	10	0.81	0.70	
Team Effectiveness (TE)	04	0.71	0.53	
Motivation (MO)	05	0.90	0.91	

### **Discussion**

In the last three decades, House and other authors have innovated in an attempt to explain leadership from theoretical approaches that consider more than one assumption and/or premise. Thus, this theoretical proposal was developed from personality traits, the behavior of leaders in the exercise of their function, and situational variables that influence leadership effectiveness. Subsequently, the model went through some adjustments, with the concern to emphasize the organizational and group aspects. (9-11)

The results showed that most of the subscales are constituted by a single factor. The items with negative or low factor loading on the expected factor were submitted to analysis, and the Cronbach's alpha index was pointed out.

Analyzing the average of the subscales of Charismatic and Instrumental Leadership and the dimension of Commitment and Satisfaction, Motivation and Team Effectiveness Scale, with scores above the midpoint four, there was a tendency of participants to positively assess the measured aspects. Charismatic leaders have specific personal characteristics and personality traits that turn them into representatives of the ideals and projections of the leading group, identifying and recognizing them as leaders and dependent on the group. A relational component is present in the theory of traits - focused on characteristics of the leader – which manifests itself when sanctioned by the group identified with the charisma of the leader. (12,13)

For the Charismatic Leadership Scale, participants scored Self-confidence and Determination,

Role Modeling and Integrity as the most expressive leadership features of their nurse managers, meaning that nurse leaders show these behaviors more frequently. The Instrumental Leadership associates the concepts of Transactional and Transformational Leadership. In this context, leadership is based on legitimacy and authority, which are formally recognized for the exercise of power.

In what refers to transformational assumptions, the processes of motivation are grounded in an appeal to moral values and higher ideals that go beyond individual interests. Thus, power is about the ability to formulate and articulate a particular "vision" that is recognized by all as worthy of trust and support. (12)

In Transformational Leadership, the pointed elements are self-knowledge, identity and other values of collective identity. (13)

In this study, the subscales of the Instrumental Leadership Scale that presented the highest scoring were Team Guidance and Role Clarification, indicating that nurse managers show these behaviors, a fact which is reinforced by literature. (14-16)

As for the scale of Commitment and Satisfaction, Motivation and Team Effectiveness, the subscale with higher scoring was Commitment and Satisfaction, demonstrating that participants are satisfied with the behavior of their nurse leaders and consider themselves committed to the institution.

Some studies investigate commitment and satisfaction of workers in various scenarios and correlate it with other variables, such as the employees' feeling of being effective as a team. These psychological states generate employee commitment to the organization and can be variable in the decision of staying or not in the work unit. (17,18)

So, in order for leadership to find fertile ground to advance in nursing, it should be encouraged by innovative attitudes, projects, personal and group investments and by the union among nurses. (19)

It is worth remembering that organizations represent fertile ground for their members to act as workers of knowledge and in this sense, the nurses are assets focused on the management, leadership and knowledge, committed to the human, structural and intellectual capital of organizations. (20) These

assets have an open and positive mental attitude, able to lead their teams with a simultaneous vision of both amplitude and focus, adopting methodologies for achieving results. The performance in leadership is based on people's behavior and its goal is to seek, retain and motivate talents.<sup>(21)</sup>

An essential part of the leadership role is to act as a facilitator in the transition to a new way of life and work, in which it is up to the leader investing energy to support employees to develop themselves in the working world. (22)

At the same time, leaders must continuously look for improvements in their own skills to exercise the leadership, anticipating the future and scenery to be built, being creative and equipped to conduct processes of change, always promoting patients as protagonists and subjects of their care. (23)

Thus, the nurse will be acting with strategic resources within the organization, providing a faster reach of assertive responses in decision making and in a humanized, qualified and safe clinical practice for customers.<sup>(24)</sup>

It is necessary, however, to point out the limitations of this study, restricted to a single institution in the area of health, despite the positive results on the qualities of the instrument.

In the Principal Component Analysis performed for factor validation, followed by the Varimax rotation of the Charismatic Leadership Socialized Scale, nine components were found for the Charismatic Leadership Scale, seven for the Instrumental Leadership and three for the Commitment and Satisfaction, Motivation and Team Effectiveness, which was compatible with the data found by House.

When each subscale was examined for items with low correlation with the others, the best decisions of either keeping or deleting them were made based on their contribution to the subscale.

Another analysis was the reliability test using the Cronbach's alpha index, which showed good internal consistency of items. The majority had an index above 0.70, a result that indicates good internal consistency of items and also quite similar values to those found by the author of the original article. Through these procedures the translated version of the Charismatic Leadership Socialized

Scale showed itself useful in its adaptation for use in the hospital setting. As for the Leadership aspect of the nurse managers of units A, B and C, the unit A stood out with the highest scores for the subscales Charismatic and Instrumental Leadership. Further studies are needed to provide the organizational behavior area with an instrument that is applicable to various organizations.

# Conclusion

The Charismatic Leadership Socialized Scale was validated in the translated and adapted version for use in hospital settings.

### **Collaborations**

Chavaglia SRR; Coleta MFD; Coleta JAD; Mendes IAC and Trevizan MA declare that contributed to the conception and design, analysis and interpretation of data, drafting the article, revising it critically for important intellectual content and final approval of the version to be published.

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