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Relationships between leadership, structural empowerment, and engagement in nurses

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Abstract

Aim: The aim of this study was to analyse the relationships among structural empowerment, the leadership style of managers, and the engagement of nurses in a health organization of Spain.

Background: Transformational leadership has an impact on patient security and satisfaction as well as the well-being and engagement of healthcare workers. Empowerment is a management practice that is fundamental for professional growth and positively affects the quality of patient care.

Design: A cross-sectional study.

Methods: Randomized sample of 131 nurses recruited from 11 health centres with different levels of care was surveyed to assess managers' leadership style, nurse empowerment, and work engagement.

The data were analysed by descriptive and correlational statistics and hierarchical mediated regression.

Results: The transformational leadership of the nurse manager directly and positively influences the structural empowerment of nurses. The structural empowerment of nurses directly and positively influences engagement.

The transformational leadership of managers positively influences nurse engagement through the mediating effect of structural empowerment.

Conclusion: The structural empowerment of nurses acts as a mediator between the transformational leadership of nurse managers and nurse engagement.

Practical implication: The transformational leadership of nurse managers at the unit level has a double impact on staff nurses: first, increasing empowerment and second, increasing the engagement of the nurse staff.

KEYWORDS
engagement, leadership, management, nurse, structural empowerment

1 | INTRODUCTION

Nurses provide care from a holistic view of the person, approaching not only the biological but also the psychological and social spheres of people in multiple care settings, from acute emergency care to end-of-life palliative care and continued attention to the chronic patient, among other situations. Among health workers, nurses are the professionals who dedicate the most time to direct patient care and are the largest group.

For all these reasons, nurses should take a leading role in building efficient health systems and facing the new challenges that arise from demographic changes due to the ageing population

and the increasing prevalence of chronic illnesses and their complications.

Meeting these challenges will require professionals who, in addition to providing high-quality care, are highly engaged since the scientific literature shows that engagement in nurses increases their perceived effectiveness (Laschinger, Wilk, Cho & Greco, 2009), has a beneficial impact on extra-role performance (Salanova, Lorente, Chambel, & Martínez, 2011) and on the outcomes of care (van Bogaert, Wouters, Willem, Mondelaers, & Clarke, 2013), as well as a moderating effect on burnout (García-Sierra, Fernández-Castro, & Martínez-Zaragoza, 2016). For all these reasons, it seems that engagement is an element that should be promoted in nursing teams in the pursuit of the optimal health outcomes and as a resource to address high job demands and work stress that Healthcare Institutions should know how to strengthen it.

Why is this research or review needed?

- Nurses should take a leading role in building efficient health systems and facing the new challenges that arise from demographic changes.
- Nurses with high engagement, increase their perceived effectiveness, have less burnout and a beneficial impact on the outcomes of care.
- A better understanding of the relationships established between the nurses and the nurse managers will help to increase the engagement of the staff.

What are the key findings?

- The transformational leadership style maintains a higher level of engagement in nurses, but the transactional style and the passive-avoidant style are not predictive of engagement.
- The structural empowerment has a full mediation effect between transformational leadership and engagement of nurses.

How should the findings be used to influence policy/practice/research/education?

- Therefore, these results should encourage health companies to incorporate structural empowerment as one of their pillars and to give nurse managers a privileged role in this objective.
- The policies of health centres should promote the leadership role of nurse managers, moving the central role of the current managerial tasks to increase the time dedicated to showing transformational leadership in their teams.
- Specialized training in health management should emphasize the importance of the positive aspects of work, such as engagement and empowerment.
- Future research should investigate which areas of leadership are most influential in the well-being of nurses, for guiding proposals of specific interventions.

1.1 | Background

1.1.1 | Work engagement

Work engagement is defined as: "*a positive, fulfilling work-related state of mind and is characterized by vigour, dedication, and absorption*". Vigour refers to the willingness to invest effort in one's work, dedication is related to involvement, and absorption is related to concentration and being engrossed in one's work (Schaufeli, Salanova, González-Romà, & Bakker, 2002, p.74).

Some of the individual factors that have been shown to predispose to engagement are self-efficacy (Salanova et al., 2011) and optimism (Garrosa, Moreno-Jiménez, Rodríguez-Muñoz, & Rodríguez-Carvajal, 2011), although organizational factors achieve greater relevance in the study of the antecedents of engagement in nursing. For example, structural empowerment (Cho, Laschinger, & Wong, 2006) or organizational support (Brunetto, Xerri, & Shriberg, 2013) has been shown to have a significant impact on the engagement of nurses. However, the area that raises the most interest in the study of nursing engagement is related to the leadership of nurse managers because of their impact on maintaining the engagement of nurses (Brunetto et al., 2013; García-Sierra, Fernández-Castro, & Martínez-Zaragoza, 2017; Kunie, Kawakami, Shimazu, Yonekura, & Miyamoto, 2017; Salanova et al., 2011).

1.1.2 | Management and leadership

It is useful to clarify that although management and leadership are sometimes used as synonyms, there is a great difference between the functions that are performed in the two roles. Management includes a set of processes, such as planning the shifts, managing patient admissions, measuring professional performance, and solving daily problems. In healthcare organizations, management is an enormous task that is typically invisible and underestimated by health workers. On the other hand: "*leadership is entirely different. It is associated with taking an organization into the future, finding opportunities that are coming at it faster and faster and successfully exploiting those opportunities. Leadership is about vision, about people buying in, about empowerment and, most of all, about producing useful change. Leadership is not about attributes, it's about behaviour*" (Kotter, 2013, p. 1). This definition coincides with the definition of leadership style named transformational in the full range leadership model.

1.1.3 | The full range leadership model

The full range leadership model describes three styles of leadership in a continuum from transformational to transactional to passive-avoidant and proposes that all leaders display more or less

frequently each of the three styles of leadership, setting their own profile (Avolio, 2011).

The transformational leader has a vision of the future, pursues change, develops the potential of every collaborator and accepts challenges. This style includes four factors: idealized influence (that comprises behaviour and attribute), inspirational motivation, intellectual stimulation, and individual consideration.

Idealized influence refers to the behaviour that becomes a model to follow. These leaders are admired, respected, and trusted. One of the characteristics of leaders who gain idealized influence is that they take into account the needs of others above their own personal needs, these leaders also show consistent behaviours.

Inspirational motivation is the process by which leaders behave in ways that motivate and inspire their followers, providing meaning and challenge to their work.

Intellectual stimulation refers to a leader's ability to stimulate his or her followers to be creative in generating new ideas and creative solutions.

Individual consideration is about giving individualized attention to the growth needs of followers, acting as a mentor or counsellor (Avolio, 2011).

Transactional leadership is the traditional manager, the leader that rewards or disciplines the follower, depending on the performance of the follower. Transactional leadership is composed of three factors: contingent reward, active management by exception, and passive management by exception. *Contingent reward* is defined as the exchange of a specific reward for satisfactorily carrying out an assignment and *management by exception* is a corrective transaction that may be active or passive: when *active*, constant vigilance for possible mistakes is performed; when *passive*, the leader waits for mistakes to occur and then takes corrective action (Avolio, 2011).

Passive-avoidant is the nearest to the absence of leadership; the leader delays decisions, does not provide feedback and makes very little effort to satisfy the needs of followers.

The managerial role of nurse managers at the unit level is necessary for correct functioning at the organizational level and has a significant impact at the financial level, but the behaviours of nurse managers also affect the creation of positive work environments and issues related to quality of care and the promotion of patient safety. Different indicators have been used to relate transformational leadership practices of the managers, to patient safety, such as medication errors and the length of stay, which are influenced by the social support of supervisors through the mediating effect of absenteeism (Paquet, Courcy, Lavoie-Tremblay, Gagnon, & Maillet, 2013). The leadership is also related to the staff nurses' intent to remain, where relational leadership approaches result in greater intentions to stay whereas task-focused leadership styles result in lower intentions to stay (Cowden, Cummings, & Profetto-McGrath, 2011). Finally, the staff expertise level, measured as the proportion of nurses rated as novice, advanced beginner, competent, proficient, and expert using Benner's criteria, is also an indicator that is modified by manager leadership since strong leaders have a higher ratio of competent and proficient nurses (Capuano, Bokovoy, Hitchings, & Houser, 2005).

In addition to the positive impact of transformational leadership on patient safety, improvement of the staff's well-being has been demonstrated (Nielsen, Yarker, Brenner, Randall, & Borg, 2008). Furthermore, increasing satisfaction, decreasing burnout, and overall stress in staff nurses (Weberg, 2010) and enhancing self-efficacy (Salanova et al., 2011), have a strong impact on attenuating nurse-to-nurse incivility (Kaiser, 2017) and improving commitment (Asiri, Rohrer, Al-Surimi, Da'ar, & Ahmed, 2016) and are positively associated with engagement (Mauno, Ruokolainen, Kinnunen, & De Bloom, 2016; Hayati, Charkhabi, & Naami, 2014; Salanova et al., 2011).

The importance of the leadership style of managers is reflected in the fact that transformational leadership is one of the five components of the Magnet Recognition Program® of the New Model for American Nurses Credentialing Centre, a centre that recognizes healthcare organizations that promote nursing excellence and quality patient outcomes while providing safe and positive work environments. The function of transformational leadership in this model is to transform the organization to meet the future and one of the processes that must be performed to meet this objective is to provide working environments where professionals can fully develop their knowledge and skills. In this regard, another component of the model arises, structural empowerment, explained as the role of leadership in creating solid structures and processes that ensure that all nurses have access to the information, resources and support needed to support exemplary professional practice, new knowledge and outcomes (American Nurses Credentialing Center, 2011©).

1.1.4 | Work empowerment theory

Empowerment is a management practice that plays a key role in the professional growth of nurses (Garman, Mc Alearney, Harrison, Song, & McHugh, 2011). In Laschinger and Finegan (2005) tested a model linking structural empowerment to the six areas of work life that were precursors of work engagement or low burnout levels. The study showed that an empowering workplace resulted in higher levels of control over the work of nurses, more manageable workloads, greater rewards and recognition for their contributions to meeting organizational goals, better working relationships among coworkers and management and greater congruence between personal and organizational values (Laschinger & Finegan, 2005).

Subsequently, other studies have shown that empowerment is a stronger predictor of job satisfaction and organizational commitment (Cicolini, Comparcini, & Simonetti, 2014) and have shown a positive effect on perceived support for professional practice, a negative effect on nurses' perceptions of inadequate unit staffing (Laschinger & Fida, 2015). In addition, a positive effect on interprofessional collaboration (Regan, Laschinger, & Wong, 2016) and an association with the development of engagement have been found (Cho et al., 2006; Cziraki & Laschinger, 2015).

Structural empowerment is associated with improving retention, a positive work environment and job satisfaction (Kennedy, Hardiker, & Staniland, 2015) as well as with all the dimensions involved in quality of care (Goedhart, Van Oostveen, & Vermeulen, 2017).

Structural empowerment is based on Kanter's theory, according to which work attitudes and behaviours are determined by social structures in the workplace and not by personal predispositions (Kanter, 2008); it is about having the ability to mobilize resources and to achieve goals through having access to information, support, resources, and opportunities to learn and grow. *Access to information* refers to the knowledge of organizational changes and policies as well as the required technical information and expertise needed for an appointment. *Access to support* refers to receiving feedback and guidance from subordinates, peers, and superiors. Such support leads to autonomous decision-making and innovation. *Access to resources* involves nurses' ability to access the supplies, resources and materials required to reach organizational goals. *Opportunity to learn and grow* refers to access to learning and development. Nurses who have access to these working conditions are empowered to accomplish their work.

With all the above, it seems important that the work of nurse managers at the unit level cannot be based exclusively on managerial tasks; to achieve the optimal goals in health organizations, they must also develop relational leadership styles such as transformational leadership to create healthy work environments and to promote empowerment in the workplace (Cummings, Macgregor, & Davey, 2010). At present, nurses who have hierarchically ascended and occupy managerial positions at the unit level use a large proportion of their time managing limited human and material resources, looking for substitutes for shifts with vacancies, or even covering caring tasks because some absences have not been possible to replace. This situation could explain the lack of dedication of nurse managers in leading nursing teams (Tewes & Fischer, 2017).

Greco, Laschinger, and Wong (2006) developed a model that integrated organizational empowerment with engagement and leader empowering behaviours, later, in Cziraki and Laschinger (2015) makes an important theoretical contribution to the nursing literature confirming a partial mediation effect of structural empowerment on the relationship between leader empowering behaviours and engagement. However, none of these studies explored the behaviour of other characteristic of leadership in these relationships and, to the best of our knowledge, there is no research that studies the relationships among empowerment, engagement, and the three leadership styles: transformational, transactional, and passive-avoidant.

2 | THE STUDY

2.1 | Aim

The aim of this research was to analyse the relationships between structural empowerment, the leadership style of managers, and the engagement of nurses in a health organization of Barcelona (Spain).

2.2 | Design

The research was a cross-sectional design with electronic questionnaires.

2.3 | Hypotheses

1. The transformational leadership of managers at the unit level is directly and positively related to the engagement of nurses.
2. The structural empowerment of nurses is directly and positively related to their engagement.
3. The structural empowerment of nurses mediates the relationship between transformational leaders and engagement.

2.4 | Participants

The study was performed in a healthcare organization of Barcelona between May and June 2017. The organization includes a 350-bed acute hospital, a penitentiary hospital, a geriatric hospital, seven primary health centres and two mental health centres.

The nursing staff was made up of 1044 people at the time of starting the research, the first step was removing the nurses who worked part-time less than 60%, then the number was 865 workers. In a second step, a list of random numbers was made to choose a random sampling of 150 nurses and nursing assistants, 20 numbers more were added to be able to replace people who, at the time of the investigation, were in a work disability, holidays, or work leave. According to Friedman (1982), for a medium effect size of 0.25 and an alpha error of 0.05, with a sample size of 120, a statistical power of 80% is obtained.

2.5 | Data collection

The 150 professionals who were randomly selected, were visited individually and were given verbal and written information about the research before requesting their participation. The nurses who agreed to participate provided their email address and a link was sent by email to anonymously access the questionnaires.

The links were sent twice, the first time on the same day that the nurses agreed to participate and the second time, as a reminder, 10 days later. The participants had 4 weeks to complete the questionnaires.

2.5.1 | Measures

Engagement

Work engagement was measured by the core dimensions of the Spanish version of the Utrecht Work Engagement Scale (UWES). The core dimensions are vigour and dedication and this scale is composed of 11 items that use a seven-point scale ranging from "never" (0) – "always" (6) (Schaufeli et al., 2002). An example item is: "I am enthusiastic about my job". Cronbach's α in this study was 0.86 for vigour and 0.908 for dedication.

Leadership style

The nurses' perceptions of managers' leadership styles were measured by the Multifactor Leadership Questionnaire (MLQ 5X short),

which measures the different styles of leaders' performance (Avolio & Bass, 2004). The scale was adapted into Spanish by Molero-Alonso, Recio-Saboya, and Cuadrado-Guirado (2010). The current version of the MLQ consists of 45 items rated on a five-point Likert scale ranging from "not at all" (0) – "frequently" (4). A license to reproduce 131 copies was purchased. Cronbach's α in this study was 0.94.

Structural empowerment

To measure the perception of structural empowerment, the Conditions of Work Effectiveness Questionnaire-II (CWEQ-II) (Laschinger, Finegan, & Shamian, 2001), adapted by Mendoza, Borrego, Orgambídez-Ramos, Gonçalves, and Santos (2014), was used. The CWEQ-II is composed of 12 items corresponding to four scales, access to opportunities, information, support, and resources in the workplace. The items are rated on a scale ranging from "not at all" (1) to "a lot" (5), with higher scores indicating greater perceived workplace empowerment. An example item is "The chance to gain new skills and knowledge on the job". Cronbach's α in this study was 0.91.

2.5.2 | Data analysis

All data were analysed using Statistical Package for Social Sciences (SPSS) version 20.0 software for Windows (SPSS Inc., Chicago, IL, USA). Descriptive statistics were calculated for all study variables. Pearson correlations were used to assess the relationships between the study variables. The internal consistency of each instrument was calculated using Cronbach's alpha and finally, hierarchical multiple regression, and mediation analysis were used to test the study hypotheses (Baron & Kenny, 1986).

The data were checked for multicollinearity using the variance inflation factor (VIF) and tolerance (Belsley, Kuh, & Welsch, 1980). The VIF values in the regressions were smaller than 10 and the tolerance values were greater than 0.10. These data indicate that in the regression models performed, the explanatory variables did not present multicollinearity.

2.6 | Ethical considerations

Ethical committee approval of the study was granted by the hospital. The participants were informed about the purpose of the study and signed an informed consent form with the mark in the first item of the questionnaire that was mandatory. Their participation was voluntary, and the confidentiality of the data was guaranteed.

2.7 | Validity, reliability

All the questionnaires used were Spanish versions previously adapted and published. The reliability measures with the internal consistency was acceptable in the three questionnaires (see Cronbach α in Table 3).

3 | RESULTS

3.1 | Participants' sociodemographic and job characteristic descriptive statistics

A total of 150 nurses were asked to participate, of whom 133 (89%) were women and 16 men. Finally, 131 nurses participated, yielding a response rate of 87.3%. The mean age was 42 years (*SD* 10 years) and the mean number of years as a professional was 17 years (*SD* 9 years). Sex was not requested to ensure the anonymity of the male participants since the service and shift were requested and given the low percentage of male nurses, they could be easily identified. The occupational characteristics of the participants are shown in Table 1.

3.2 | Preliminary and descriptive statistics

A broader description of the scales of the instruments is shown in Table 2.

The Pearson correlations between the studied variables are shown in Table 3. It is important to note that the three leadership styles had significant correlations with engagement, but the highest correlation was between transformational leadership and

TABLE 1 Description of the sample

N = 131	Frequency	Percentage
Professional category		
Nurse, midwife	84	64
Nursing assistant	47	36
Usual shift schedule		
Morning	56	43
Afternoon	28	21
Night	13	10
Split	16	12
Rotating	18	14
Workplace		
Adult acute hospitalization	34	26
Primary care	24	18
Outpatient hospital	13	10
Emergency	12	9
Geriatrics	9	7
Paediatrics	9	7
Surgical theatre	7	5
Critical Care	6	5
Mental Health	3	2
Haemodialysis	3	2
Palliative care	3	2
Labour room	5	4
Penitentiary hospitalization	3	2

engagement (r_{xy} = 0.332). Structural empowerment correlated significantly with the three leadership styles, although the correlation with the transformational style was remarkably higher (r = 0.613). The data showed also a positive correlation between empowerment and engagement (r_{xy} = 0.479). The reliability (Cronbach's α) of all of the variables is in the diagonal of Table 3.

3.3 | Testing the hypotheses

H1: To test the first hypothesis, whether the transformational leadership of managers is directly and positively related to the engagement of nurses, a hierarchical regression with engagement as the outcome variable was performed. In the first step, the socioccupational variables (age, number of years in the profession, professional category, shift, and service) were introduced and in the second step, the three leadership styles were introduced.

The regression model showed a significant relationship between transformational leadership and engagement (R^2 = 0.153, B = 0.664, p = 0.004); neither the control variables nor transactional or passive leadership was significant (Table 4).

H2: To test the second hypothesis, whether the structural empowerment of nurses is directly and positively related to engagement, a second hierarchical regression where the outcome variable was engagement was conducted. In the first step, the socioccupational variables were introduced and in the second step, structural empowerment was introduced. The model obtained for empowerment, controlled by socioccupational factors, showed an R^2 = 0.251, B = 0.447 and $p < 0.01$, confirming the hypothesis.

H3: The last of the hypotheses was that the structural empowerment of nurses is a mediator between the transformational leadership of managers and the engagement of nurses. According to Baron and Kenny (1986), a variable functions as a mediator when it meets three conditions:

1. variations in the levels of the explanatory variable (transformational leadership) significantly account for variations in the presumed mediator (empowerment),
2. variations in the mediator (empowerment), significantly account for variations in the outcome variable (engagement) and

TABLE 2 Instruments description

	Mean	SD
Leadership styles*		
Idealized Influence (B)	2.46	0.95
Idealized Influence (A)	2.55	0.89
Inspirational Motivation	2.52	0.98
Intellectual Stimulation	2.27	0.99
Individualized C.	2.23	0.89
Contingent Reward	2.34	0.96
M-by-Exception (A)	2.33	0.80
M-by-Exception (P)	1.77	0.83
Laissez-faire	1.41	0.99
Structural empowerment**		
Access to opportunity	3.56	1.00
Access to information	3.00	1.13
Access to support	2.75	1.08
Access to resources	2.65	0.81
Engagement***		
Vigour	4.51	0.90
Dedication	4.47	1.08

*Likert scale: 0–4.
**Likert scale: 1–5.
***Likert scale: 0–6.

TABLE 3 Means, standard deviations, and correlations of all variables described in the study

Measures	N° of items	M/item	SD/ITEM	1	2	3	4	5	6	7	8
1. Effectiveness total	4	2.63	0.97	(0.787)							
2. Satisfaction total	2	2.50	1.2	0.82**	(0.885)						
3. Extra Effort total	3	2.00	1.1	0.79**	0.78**	(0.891)					
4. Transformational	20	2.40	0.85	0.86**	0.84**	0.84**	(0.955)				
5. Transactional	12	3.22	0.69	0.61**	0.52**	0.60**	0.73**	(0.546)			
6. Passive- avoidant	4	1.41	0.99	−0.67**	−0.70**	−0.60**	−0.63**	−0.25**	(0.787)		
7. Structural empowerment	12	3.01	0.80	0.60**	0.51**	0.61**	0.61**	0.47**	−0.36**	(0.91)	
8. Engagement	11	4,49	0.86	0.40**	0.30**	0.40**	0.33**	0.25**	−0.23**	0.48**	(0.93)

Note:. *M*/item, mean divided by the number of items; *SD*/item, standard deviation divided by the number of items.
Reliability coefficients (Cronbach's α) appear in parentheses along main diagonal.
**$p < 0.01$.

TABLE 4 Hierarchical regression analysis of leadership styles

	Outcome variable engagement		Outcome variable empowerment		Collinearity statistics	
	B	*p*	*B*	*p*	Tolerance	VIF
Professional category	−2.75	0.15	0.64	0.66	0.86	1.15
Usual Shift schedule	−0.01	0.98	0.60	0.25	0.84	1.19
Workplace	−0.18	0.55	−0.26	0.25	0.76	1.31
Years as a nurse	−0.34	0.05	−0.12	0.38	0.34	2.95
Age	0.27	0.09	0.05	0.65	0.34	2.93
Transformational style	0.66	<0.001	1.47	<0.001	0.94	1.06
Transactional style (excluded)	0.08	0.60	0.07	0.52	0.40	2.51
Passive-avoidant Style (excluded)	−0.11	0.34	−0.02	0.80	0.58	1.71
R^2	.15		0.45			

3. when the explanatory variable and the mediator are controlled, a previously significant relation between the explanatory and outcome variables is no longer significant (to better understand the analysis, Figure 1 shows the final model).

Condition one was checked with a regression where, in the first step, the socioоccupational variables were introduced and in the second step, the three leadership styles were introduced. The model that was significant excluded the transactional and passive styles as predictors of empowerment, leaving only transformational leadership (R^2 = 0.454, B = 1.469, $p < 0.01$) controlled by socioоccupational factors (Table 4).

Condition two was checked with the confirmation of hypothesis two.

Condition three was checked with a regression where transformational leadership and empowerment were introduced as explanatory variables and engagement as an outcome variable, controlled by socioоccupational variables. The resulting model gave a nonsignificant B value near zero (0.011) to transformational leadership. This result contributes strong evidence for empowerment as a dominant mediator. Table 5 shows the coefficients obtained in the latter regression.

TABLE 5 Hierarchical regression analysis of the transformational leadership and structural empowerment

	Outcome variable: work engagement		Collinearity statistics	
	B	*p*	Tolerance	VIF
Professional category	−3.03	0.09	0.87	1.15
Usual Shift	−0.28	0.67	0.83	1.22
Workplace	−0.06	0.83	0.75	1.33
Years as a nurse	−0.29	0.08	0.34	2.97
Age	0.24	0.10	0.34	2.94
Structural empowerment	0.44	<0.001	0.55	1.83
Transformational style	0.01	0.97	0.56	1.79
R^2	0.25			

4 | DISCUSSION

The aim of this research was to describe the relationships among structural empowerment, the leadership style of nurse managers and the engagement of frontline nurses. The first hypothesis stated that the transformational leadership of managers at the unit level is

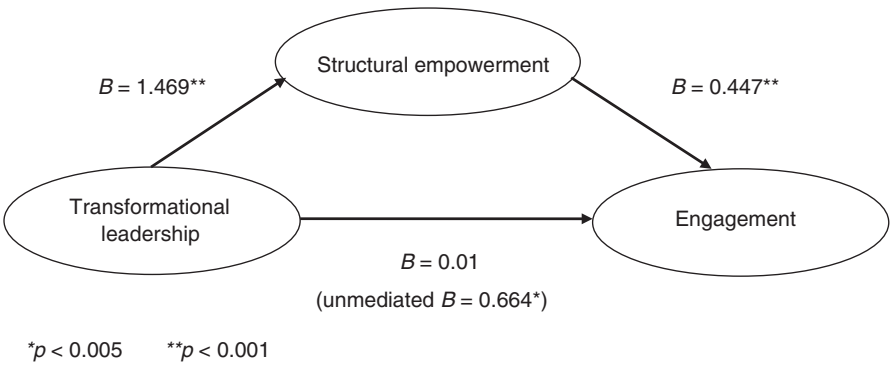

FIGURE 1 Final model

directly and positively related to the engagement of nurses. The first correlation analysis showed that although transformational was the style that correlated most strongly with engagement, the other two styles also showed significant correlations, thus entering the three styles was decided, to evaluate the performance of the three leadership styles.

The results obtained in the regression supported the hypothesis, that is, that managers who exhibit a greater profile of transformational leadership maintain a higher level of engagement in nurses. Furthermore, the analysis made it possible to add the affirmation that the transactional style and the passive-avoidant style were not predictive of engagement. The confirmation of the hypothesis was the expected result according to previous studies performed in hospital nurses in other countries (Hayati et al., 2014; Cziraki & Laschinger, 2015; Manning, 2016; Mauno et al., 2016). However, none of the previous studies tested the control variables and the three leadership styles in the same model, a fact that makes it possible to reject that the transactional and passive-avoidant styles act in the same manner as the transformational style in relation to engagement.

Furthermore, the results are in the same line as other investigations where the variables were different organizational results such as job satisfaction (Nielsen et al., 2008; in staff working in the care of older people in Denmark; Abualrub & Alghamdi, 2012; in Saudi Arabian hospital nurses; Morsiani, Bagnasco, & Sasso, 2017; in acute hospitals in northern Italy) and work effectiveness in South Korean hospitals (Eo, Kim, & Lee, 2014).

The results also supported the second hypothesis; thus, it can be affirmed that the structural empowerment of nurses is directly and positively related to engagement. The result obtained (B = 0.447) was very similar to that obtained in a sample of nurses from acute hospitals in Canada, with B = 0.307 (Cziraki & Laschinger, 2015) and adds to those previously obtained with other organizational outcomes such as job satisfaction and organizational commitment in different contexts (Cicolini et al., 2014; Lautizi, Laschinger, & Ravazzolo, 2009).

The last hypothesis, regarding the mediating effect of empowerment between transformational leadership and engagement, was checked when empowerment was added to the model that confirmed the direct relationship between transformational style and engagement, a fact that caused that the leadership effect to disappear, confirming the full mediation of empowerment. Similar mediation results were found between leaders' empowering behaviours and engagement in medical and surgical nurses (Greco et al., 2006), in addition to results of partial mediation between leaders' empowering behaviours and engagement in acute hospital nurses (Cziraki & Laschinger, 2015).

The results add evidence to the existing literature about the beneficial effects that structural empowerment has on nurses and organizations by showing their impact on work engagement and serving as a mechanism of action of transformational leadership. It is known that transformational leaders provide meaning to the work and stimulate creative solutions, now, the mediating mechanism explains that also promote the access to the information, to the resources and to the development, facts that increase the positive, fulfilling work-related state of mind, or engagement.

To the best of our knowledge, this is the first study that simultaneously analyses the three leadership styles, the structural empowerment and work engagement in nurses. In addition, and unlike other researches that have studied these constructs separately, the sample in the present study consisted of professionals from different healthcare settings developing different skills (Table 1).

4.1 | Limitations

The main limitation of this study is that all participants belong to the same company. This is an organization composed of different centres and in different cities; however, the strategic plan and the general manager are the same for all of them. This fact could limit the representativeness of the results of this research to hospitals that have similar characteristics, in terms of mission, vision, and values. As compensation to this fact, having a heterogeneous sample of nurses confers high external validity on the results and allows the results to be generalized to nurses working in any care setting. Finally, it should be mentioned that the unit has not been considered as an explanatory variable of the results. This limitation of the present study should be considered in future research.

5 | CONCLUSIONS AND PRACTICAL IMPLICATIONS

Separately checking the different hypotheses makes it possible to distinguish the different paths through which the relational tasks of managers have an impact on frontline nurses. First, the direct effect of transformational leadership on engagement means that if managers improved the areas of transformational leadership, then it would positively affect the well-being of nurses in the form of more engagement. Second, the transformational style promotes structural empowerment. Although access to opportunities, information support, and resources can be determined by the general guidelines of the institutions transferring the main responsibility to higher hierarchical levels, the differences in the empowerment perception in nurses exist according to the management style mostly displayed by managers at the unit level. Therefore, these results should encourage health companies to incorporate structural empowerment as one of their pillars, similar to magnetic hospitals in USA and to give nurse managers a privileged role in this objective.

Finally, transformational leadership has an impact on engagement through the modification of the perception of the empowerment of followers; therefore, it reflects the important role played by the relational task of nurse managers and qualities such as idealized influence, inspirational motivation, intellectual stimulation, and individual consideration. It is necessary to recognize this relevance and to promote these competences since the benefit is twofold: on the one hand, increasing empowerment, as explained above and, on the

other hand, increasing engagement. Working to achieve these goals will benefit healthcare workers and patients.

The senior management teams of health centres should rethink the role of nurse managers and promote policies to move the central role of the current managerial tasks to increase the time dedicated to showing transformational leadership in their teams.

Specialized training in health management should emphasize the importance of the positive aspects of work, such as engagement and empowerment as well as promote the research in the areas of leadership that are most influential in the well-being of nurses, for guiding proposals of specific interventions.

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CONFLICT OF INTEREST

No conflict of interest has been declared by the authors.

AUTHOR CONTRIBUTIONS

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE (http://www.icmje.org/recommendations/)]

- substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- drafting the article or revising it critically for important intellectual content.

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