ORIGINAL RESEARCH

Authentic leadership, performance, and job satisfaction: the mediating role of empowerment

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Abstract

Aim. To report a study conducted to test a model linking authentic leadership of managers with nurses' perceptions of structural empowerment, performance, and job satisfaction.

Background. Authentic leadership has been proposed as the root element of effective leadership needed to build healthier work environments because there is special attention to the development of empowering leader–follower relationships. Although the influence of leadership style and empowerment on job satisfaction is well documented, there are few studies examining the influence of authentic leadership on nurses' empowerment and work outcomes.

Design. A non-experimental, predictive survey.

Method. In 2008, a random sample of 600 Registered Nurses working in acute care hospitals across Ontario in Canada was surveyed. The final sample consisted of 280 (48% response rate) nurses. Variables were measured using the Authentic Leadership Questionnaire, Conditions of Work Effectiveness Questionnaire, Global Job Satisfaction Survey, and General Performance scale. The theoretical model was tested using structural equation modelling.

Results/outcomes. The final model fit the data acceptably. Authentic leadership significantly and positively influenced staff nurses' structural empowerment, which in turn increased job satisfaction and self-rated performance.

Conclusion. The results suggest that the more managers are seen as authentic, by emphasizing transparency, balanced processing, self-awareness and high ethical standards, the more nurses perceive they have access to workplace empowerment structures, are satisfied with their work, and report higher performance.

Keywords: authentic leadership, Canada, job satisfaction, nurse managers, nurses, performance, structural empowerment

Introduction

Advances in technology, changes in government funding and policy, a declining economy, health and safety concerns associated with stressful work environments, upcoming retirements of current leaders and projected workforce shortages are transforming healthcare organizational landscapes (Huston 2008). Organizations are challenged to get

leaner, make practices more cost-effective yet improve safety outcomes, attract and retain high-performing staff, be more responsive to patient needs, but otherwise become more efficient (IOM 2004, Lowe 2005, Fine *et al.* 2009). Key ingredients in this transformation have been the empowerment of employees, particularly nurses and other healthcare providers and leadership (Ahearne *et al.* 2005, Laschinger *et al.* 2009). Efforts to improve the quality and efficiency of health care need the increased knowledge and participation of empowered healthcare providers. Empowered staff have greater authority and responsibility for their work than they would in more traditionally designed organizations (Conger & Kanungo 1988, Kanter 1989, Laschinger 2008). However, the benefits of empowerment are not always realized in today's stressful work environments (Ford & Fottler 1995, Ahearne *et al.* 2005). The biggest challenge for establishing empowering workplaces may reside in the role of effective leadership. Nurse managers create the conditions for nurses' work by shaping the quality of support, information, and resources available in work areas (Shirey 2006, Laschinger *et al.* 2009). In particular, when nurses perceive their leaders as authentic, open, and truthful and involve them in decision-making nurses respond positively to their work, reporting higher work engagement and greater trust in management (Wong & Cummings 2009, Wong *et al.* 2010). In this study, we used Avolio *et al.*'s (2004) theory of authentic leadership to develop and test a model linking authentic leadership of nurse managers with acute care nurses' perceptions of structural empowerment, self-rated performance, and job satisfaction.

Background

Theoretical framework

Authentic leadership theory suggests that leaders who are more authentic draw on their life experiences, psychological capacities (i.e. hope, optimism, resilience, and self-efficacy), a sound moral perspective, and a supporting organizational climate to produce greater self-awareness and self-regulated positive behaviours. This in turn fosters their own and their followers' authenticity and development, resulting in well-being and genuine, sustained performance (Avolio & Gardner 2005, Gardner *et al.* 2005). In simpler terms, authentic leadership is 'a pattern of transparent and ethical leader behaviour that encourages openness in sharing information needed to make decisions while accepting input from those who follow' (Avolio *et al.* 2009, p. 424). The authentic leader builds trust and healthier work environments through four key components: 'balanced processing', 'relational

transparency', 'internalized moral perspective', and 'self-awareness'. Leaders who are authentic use 'balanced processing' by requesting from followers adequate input and perspectives, both positive and negative, prior to making important decisions. They emphasize a level of openness and truthfulness ('relational transparency') that encourages others to be forthcoming with their ideas, challenges, and opinions. The authentic leader sets and role models a high standard of ethical and moral conduct ('internalized moral perspective') and finally, conveys 'self-awareness' by understanding not only their own strengths and limitations, but how they affect others.

Avolio *et al.* (2004) suggest that, by enacting these behaviours, authentic leaders facilitate higher quality relationships leading to active engagement of employees in workplace activities, which results in greater job satisfaction and higher productivity and performance. Authentic leadership theory posits that authentic leaders model and support follower self-determination. 'Self-determination' is one's autonomy or discretion to perform one's work in the way that one chooses, including making decisions about work methods, procedures, pace, and effort (Thomas & Velthouse 1990, Ilies *et al.* 2005). Authentic leaders develop follower motivation and self-determination by creating conditions or structures that facilitate two-way communication and follower autonomy, providing coaching and constructive feedback, acknowledging followers' perspectives and interests, and involving them in decision-making (Tetrick 1989, Gardner *et al.* 2005, Ilies *et al.* 2005). These structures are consistent with empowerment structures that foster work effectiveness and employee engagement described by Kanter (1977) and suggest a link between authentic leadership behaviours and workplace empowerment.

Literature review

Authentic leadership

The authentic leadership concept is relatively new, but there have been several empirical studies linking authentic leadership with work attitudes and outcomes, but very few in health care. Positive relationships between authentic leadership and performance (Walumbwa *et al.* 2008, Clapp-Smith *et al.* 2009), organizational citizenship behaviour (Carsten *et al.* 2008, Walumbwa *et al.* 2008, 2010, Peus *et al.* 2012), psychological empowerment (Carsten *et al.* 2008, Walumbwa *et al.* 2010), trust in management (Clapp-Smith *et al.* 2009, Walumbwa *et al.* 2010), organizational commitment (Peus *et al.* 2012), and work engagement (Carsten

et al. 2008, Walumbwa *et al.* 2010) have been shown using samples from various fields such as industry, finance, retail, and corrections.

In a survey of 280 acute care nurses in Ontario, Wong *et al.* (2010) found that nurses' perception of their managers' authentic leadership positively predicted trust in the manager, work engagement, voice behaviour, and perceptions of unit care quality. Authentic leadership had a direct effect on trust ($\beta = 0.43$, $P < 0.001$) and an indirect effect on work engagement ($\beta = 0.22$, $P < 0.001$). In addition, Giallonardo *et al.* (2010) investigated the effect of preceptors' authentic leadership on new graduate nurses' ($N = 170$) work attitudes (work engagement and job satisfaction). Authentic leadership of preceptors was significantly and positively related to work engagement ($r = 0.21$, $P < 0.01$) and job satisfaction ($r = 0.29$, $P < 0.01$).

Structural empowerment

Kanter (1977, 1993) conceptualizes structural empowerment as the presence of social structures in the workplace that enable employees to accomplish their work in meaningful ways. For Kanter, power is the ability to mobilize human and material resources to accomplish work/organizational goals and argues that power is gained from access to the necessary information, support, opportunity, and resources in the work setting. These sources of empowerment are facilitated by the extent to which employees have developed a network of alliances in the organization (informal power) and through jobs that have a lot of discretion, are visible and important to organizational goals (formal power). Access to information includes having knowledge of organizational changes and policies and having the required technical information and expertise to perform one's position. Opportunity is provided for workers when they have access to learning and development and can advance in the organization. Access to support involves receiving feedback and guidance from subordinates, peers, and superiors. This support facilitates autonomous decision-making and innovation by minimizing the need for multiple layers of approval (Kanter 1979). Last, access to resources refers to the individual's ability to access supplies, resources, and materials that are required to reach organizational goals (Kanter 1977, 1993, DeCicco *et al.* 2006, Laschinger *et al.* 2007). Kanter (1993) argues that when employees have access to these working conditions, they are empowered to accomplish their work. Structural empowerment differs from psychological empowerment, which refers to employees' psychological response to empowering work conditions (Spreitzer 1995).

Nurse empowerment has been linked to many job-related and organizational outcomes, such as, job satisfaction (Manojlovich & Laschinger 2002), autonomy (Laschinger *et al.* 1997), trust (Laschinger *et al.* 2000), respect (Laschinger & Finegan 2005), burnout (Laschinger *et al.* 2003), and intent to stay in the job (Nedd 2006). Longitudinal studies have shown that nurses' perceptions of structural empowerment predicted burnout and job satisfaction over time (Laschinger *et al.* 2004). Recent work has demonstrated that leader empowering behaviours affected nurses' engagement/burnout through a positive effect on empowerment (Greco *et al.* 2006). These results highlight the key role of leadership behaviour in creating positive responses to work: The combination of leader empowering behaviours and workplace empowerment resulted in decreased levels of job tension and increased work effectiveness (Laschinger *et al.* 1999). Thus, structural empowerment has been linked to leadership behaviours that are similar to behaviours exhibited by authentic leaders as proposed in Avolio *et al.*'s (2004) authentic leadership theory.

Job satisfaction and performance

Job satisfaction is generally defined as an employee's affective reactions to a job based on a range of elements (Fields 2002). Two meta-analyses of job satisfaction studies in nursing confirmed significant relationships between job satisfaction and supervisory communication (Blegen 1993) and leader relations (Irvine & Evans 1995). More specifically, Cummings *et al.*'s (2010) systematic review of leadership and nurse outcomes reported that relational leadership styles such as, transformational, resonant, and supportive (McNeese-Smith 1999, Loke 2001, Cummings *et al.* 2005, McGillis-Hall & Doran 2007), were associated with increased job satisfaction of nurses. McNeese-Smith (1999) found important relationships between Kouzes and Posner's (1995) leadership practices of managers and job satisfaction of nurses. Similarly, Loke (2001) reported that Singaporean staff nurses' job satisfaction was explained by their managers' leadership practices (Kouzes & Posner 1995). Furthermore, in a study involving over 700 nurses from seven Canadian acute care hospitals, nurse managers' transformational leadership had an important positive influence on nurses' job satisfaction (Doran *et al.* 2004). A positive relationship between authentic leadership and job satisfaction ($r = 0.19$; $P < 0.05$) was reported by Walumbwa *et al.* (2008) in non-healthcare settings and between authentic leadership of nurse preceptors and the job satisfaction ($r = 0.29$, $P < 0.01$) of new graduate nurses in acute care hospitals (Giallonardo *et al.* 2010). Thus far, there is no

published research which reports the effect of authentic leadership on the job satisfaction of experienced direct care nurses.

A few studies have examined the combined effect of nursing leadership styles and empowerment on nurses' job satisfaction. Morrison *et al.* (1997) found that transformational leadership and psychological empowerment positively influenced job satisfaction whereas Laschinger *et al.* (2007, 2011a) showed that leader–member exchange quality positively influenced job satisfaction through structural empowerment in a sample of Ontario nurse managers (Laschinger *et al.* 2007) and in acute care nurses (Laschinger *et al.* 2011a). These studies suggest that the combination of leadership style and structural empowerment may influence nurses' job satisfaction and that empowerment may act as a mediator between leadership style and job satisfaction.

Job performance is defined as the actions and behaviours of individuals that contribute to organizational goals (Rotundo & Sackett 2002). Avolio *et al.* (2004) suggested that authentic leaders influence followers to constantly improve their work and performance outcomes by enhancing engagement in and commitment to work. To date, authentic leadership predicted supervisor-rated performance ($\beta = 0.44$; $P < 0.01$) of business employees in one study (Walumbwa *et al.* 2008), but there are few studies linking nurses' performance to key organizational variables and no studies were found relating authentic leadership to job performance. Some studies have shown that empowering leadership (Laschinger *et al.* 1999) and structural empowerment influenced nurses' self-ratings of their work effectiveness. Work effectiveness was defined as one's perceptions of their overall effectiveness at work (Laschinger *et al.* 1999). In addition, leadership was linked to nurse's productivity, which was defined as the contribution made towards an organizational outcome in relation to the amount of resources used (McNeese-Smith 1997, Germain & Cummings 2010). Both McNeese-Smith (1997) and Loke (2001) found a statistically significant positive relationship between nurse managers' leadership practices (Kouzes & Posner 1995) and nurses' productivity ($r = 0.33$, $P < 0.01$; $r = 0.19$, $P < 0.01$, respectively). Finally, Laschinger and Wong (1999) also showed a statistically significant positive association between structural empowerment and nurses' productivity ($r = 0.30$, $P < 0.01$).

Surprisingly, there has been little convincing evidence of a relationship between job satisfaction and performance (Roe *et al.* 2000). Although Judge *et al.*'s (2001) meta-analysis of the job satisfaction–performance relationship showed an overall correlation of 0.30, Bowling (2007) reported evidence that the relationship was largely spurious. However,

attention to both job satisfaction and performance deserve attention by organizations (Bowling 2007).

Summary of the literature

Leadership style of nurse managers was identified as an important contributing factor to nurses' job satisfaction. Authentic leadership emphasizes the key role of authentic leaders in facilitating follower development by providing opportunities to discover new skills thereby enabling autonomy, competence, and satisfaction with work. Empowering and supportive leader behaviours have been linked to improved work effectiveness and job satisfaction outcomes. Thus far, research has linked authentic leadership to positive work attitudes such as job satisfaction and objective performance in a few studies, but it is logical to expect that authentic leadership may influence job satisfaction and performance through its effect on structural empowerment.

Hypothesized model

On the basis of propositions from authentic leadership theory and review of the literature, we hypothesized that staff nurses' perceptions of authentic leadership in their managers have positive effects on their job satisfaction and self-rated performance indirectly through structural empowerment (Figure 1). That is, the effects of authentic leadership on job satisfaction and performance are mediated by structural empowerment.

The study

Aim

The purpose of this study was to test a model linking authentic leadership of managers with acute care nurses' perceptions of structural empowerment, performance, and job satisfaction.
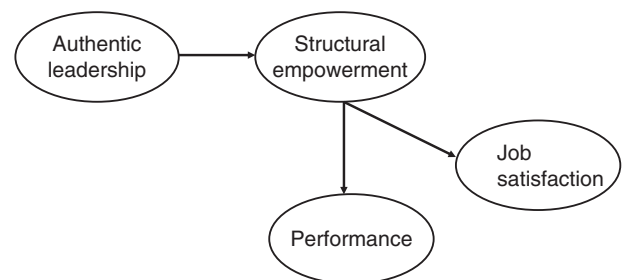

Figure 1 Hypothesized model.

Design and sample

This study used a non-experimental, predictive survey design. A random sample of 600 registered nurses (RNs) working in acute care teaching and community hospitals in Ontario was selected from the College of Nurses registry list. Inclusion criteria incorporated RNs employed full-time and part-time in staff direct care nursing positions. Nurses working in manager, charge, or educator positions were excluded. A final sample of 280 completed and useable surveys was obtained for a 48% response rate. A sample size of at least 200 participants is recommended as sufficient for structural equation modelling (Hu & Bentler 1995, Kline 2005).

Data collection

Data were collected over 4 months in late 2008. Using a modified Dillman (2007) approach, with two mailings, nurses received a survey that included a letter of information about the study, a questionnaire, and a researcher-addressed, stamped envelope to return the completed questionnaire. A $2·00 coffee voucher from a well-known café was included with every survey as a token of appreciation. A follow-up thank you postcard and a reminder letter were sent to all participants 2 weeks after the initial survey mailing. Three weeks after the reminder letters were mailed, a follow-up letter and replacement questionnaire with a return envelope were sent to non-responders. Coding of surveys facilitated the follow-up of nurses who did not return their questionnaires.

Measures

Authentic leadership

The Authentic Leadership Questionnaire (ALQ) (Avolio *et al.* 2007) was used to measure nurses' perception of manager authentic leadership. The ALQ is divided into four subscales, based on the four authentic components: relational transparency, balanced processing, self-awareness, and internalized moral perspective. Confirmatory factor analysis has supported the four dimensions of the ALQ (Walumbwa *et al.* 2008). Each subscale was averaged to produce a total scale score between 0–4 with higher scores representative of higher levels of authenticity. Acceptable internal consistency has been consistently reported, as evident by Cronbach's alphas ranging from 0·70–0·90 (Walumbwa *et al.* 2008). On the survey, nurses were asked to rate their perceptions of their immediate manager, who was defined as the formal leader of the clinical unit where they worked the majority of their time.

Structural empowerment

Structural empowerment was measured using *The Conditions of Work Effectiveness Questionnaire II* (CWEQ-II) (Laschinger *et al.* 2001). This scale consists of 19 items that measure six components of structural empowerment: access to opportunity, information, support, resources, formal power, and informal power. All items are measured on a 5-point Likert scale ranging from 1 ('none')–5 ('a lot'). According to Laschinger *et al.* (2001), items on each of the six subscales are averaged to provide a score for each subscale ranging from 1–5. The scores of the six subscales are then summed to create the total empowerment score, a range from 6–30. Higher scores represent higher perceptions of empowerment. Scores ranging from 6–13 are described as low levels of empowerment, 14–22 as moderate, and 23–30 as high.

Job satisfaction

The 6-item *Global Job Satisfaction Survey* (Quinn & Shepard 1974) was used to measure job satisfaction. This instrument was originally developed by Quinn and Shepard and subsequently modified by Pond and Geyer (1991) and Rice *et al.* (1991). The items measure an employee's general affective reaction to his or her job without reference to any specific facets. Global job satisfaction correlated positively with satisfaction with the facets of the job itself, supervision, promotion, pay, interactions with a boss, customer contact, job freedom, learning opportunities, amount of decision-making, and satisfaction with co-workers (Pond & Geyer 1991, Rice *et al.* 1991). Responses are rated on a 5-point Likert-type scale (5 = more satisfied) and the anchors vary by item.

Performance

Overall, job performance was measured using an 8-item *General Performance* scale developed by Roe *et al.* (2000). The scale is a composite of a task- and role-performance measure and is an indirect measure that captures a person's self-appraisal of the comparison of his/her performance with the performance of others with similar task and roles. The task-performance (five items) component measures the perception of an employee of his/her own performance according to the supervisor and compared with others in the team. Role-performance (three items) measures the function of an employee compared with other team members in terms of the amount of workload assumed and the number of times colleagues ask for advice. Alpha coefficients for the composite measure ranged between 0·72–0·80 and has been positively associated with job involvement and effort (Roe *et al.* 2000, deVries *et al.* 2002).

Ethical considerations

Research Ethics Committee approval for this study was received from the respective ethics review board.

Data analysis

Descriptive statistics, reliability estimates, and Pearson correlations (Table 3) were computed for all study variables using the Statistical Program for Social Sciences (SPSS) Version 19.0 for Windows (IBM 2010). The hypothesized structural model outlined in Figure 1 was tested using structural equation modelling with Analysis of Moment (AMOS) version 19.0 software (Arbuckle 2010). Path analysis was used to simultaneously demonstrate both direct and indirect effects of independent variables on dependent variables. We used maximum likelihood (ML) estimation, which assumes multivariate normal data and a sample size of 200 cases. Several fit indices were used to evaluate fit of the model: the chi-square (χ^2) and significance (p), the chi-square/degrees of freedom ratio (χ^2/d.f.), and incremental fit indices such as the comparative fit index (CFI), the incremental fit index (IFI), and the root mean square error of approximation (RMSEA). The generally agreed-on critical value for the CFI and IFI is 0·90 or higher (Kline 2005). Low values (between 0–0·06) for RMSEA indicate a good fitting model (Hu & Bentler 1995). The chi-square is interpreted as the test of the difference between the hypothesized model and the just-identified version of the model. Low non-significant values are desired (Kline 2005). Significance levels of indirect effects in the model were estimated using bootstrapping, which is a computationally intensive method that involves repeatedly sampling from the data set and estimating the indirect effect in each resampled data set (Preacher & Hayes 2008). The Sobel test, which is a *z*-test of an unstandardized indirect effect was computed to estimate whether a mediating variable significantly carries the influence of an independent variable on a dependent variable (Kline 2005).

Validity and reliability

A confirmatory factor analysis revealed that the CWEQ-II scale has evidence of construct validity (Laschinger *et al.* 2001). Cronbach's alpha reliabilities in previous studies have ranged from 0·79–0·82 (Laschinger & Finegan 2005). Cronbach's alpha reliability for the *Global Job Satisfaction Survey* (Quinn & Shepard 1974) was reported as 0·89 (Pond & Geyer 1991).

Results

Descriptive results

Demographics of the sample are presented in Table 1. The average age of nurses in the sample was 43·4 years with 18·9 years experience in nursing and an average of 8·6 years tenure in their respective work unit. Nurses worked primarily full time (65·6%) in medical/surgical or critical care units (37·3% and 22·1%, respectively). Most were diploma prepared (69·5%) and the majority of respondents (54%) worked in teaching hospitals. Demographic characteristics of the final sample were similar to the overall population of Ontario nurses (CNO 2008).

The means, standard deviations, correlations, and internal consistency reliabilities (Cronbach's alphas) for all scales used are reported in Table 2. All alphas were in acceptable ranges. The scores on each of the four measures were normally distributed. Staff nurses perceived their managers to be moderately authentic (Mean = 2·35 SD 0·99),

Table 1 Observed frequencies, means, and standard deviations for nurses' demographic characteristics (N = 280).

Demographic characteristics	*n*	%
Gender		
Female	261	93·5
Male	18	6·5
Employment status		
Full-time	183	65·6
Part-time	85	30·5
Casual	11	3·9
Type of hospital		
Teaching(academic)	149	54·0
Community	127	46·0
Education		
College Diploma	194	69·5
Baccalaureate Degree	80	28·7
Master's Degree	5	1·8
Specialty area		
Medical-surgical	103	37·3
Critical care	61	22·1
Ambulatory care	39	14·1
Maternal-child	36	13·0
Emergency	30	10·9
Psychiatry	6	2·2

	n	Mean	SD
Age	268	43·41	9·72
Years experience in nursing	275	18·85	10·96
Years employment at current organization	258	13·42	9·82
Years employment on current unit	257	8·60	7·43

Table 2 Means, standard deviations, Cronbach alphas (in brackets on diagonal), and correlations of study variables.

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Authentic leadership	2·35	0·98	(0·97)															
2. Relational transparency	2·49	1·00	0·92**	(0·88)														
3. Balanced processing	2·31	1·10	0·92**	0·78**	(0·86)													
4. Intern. moral perspective	2·51	1·02	0·91**	0·78**	0·79**	(0·89)												
5. Self-awareness	2·06	1·16	0·93**	0·78**	0·86**	0·79**	(0·93)											
6. Structural empowerment	18·88	3·37	0·46**	0·41**	0·44**	0·44**	0·45**	(0·88)										
7. Opportunity	3·99	0·78	0·12*	0·13*	0·10	0·11	0·11	0·51**	(0·85)									
8. Information	3·04	0·87	0·26**	0·22**	0·21**	0·28**	0·26**	0·69**	0·33**	(0·84)								
9. Support	2·93	0·90	0·44**	0·37**	0·44**	0·41**	0·41**	0·75**	0·23**	0·44**	(0·83)							
10. Resources	2·89	0·86	0·30**	0·27**	0·30**	0·26**	0·29**	0·65**	0·12	0·27**	0·44**	(0·81)						
11. Informal power	3·55	0·67	0·31**	0·27**	0·29**	0·27**	0·29**	0·67**	0·33**	0·33**	0·38**	0·30**	(0·66)					
12. Formal power	3·29	0·86	0·43**	0·36**	0·41**	0·36**	0·45**	0·78**	0·18**	0·46**	0·50**	0·50**	0·52**	(0·76)				
13. Job satisfaction	3·65	1·01	0·35**	0·32**	0·31**	0·31**	0·32**	0·48**	0·15*	0·24**	0·31**	0·48**	0·36**	0·45**	(0·95)			
14. Performance	3·72	0·49	−0·03	−0·04	−0·00	−0·03	−0·04	0·17**	0·13**	0·17**	0·17**	0·07	0·18**	0·11	0·07	(0·81)		
15. Task performance	3·83	0·49	0·01	−0·00	0·04	0·02	0·00	0·18**	0·13*	0·14*	0·14*	0·10	0·18**	0·13*	0·14*	0·89**	(0·76)	
16. Role performance	3·53	0·68	−0·07	−0·08	−0·05	−0·08	−0·08	0·11	0·09	0·16**	0·16*	0·00	0·13*	0·04	−0·03	0·85**	0·52**	(0·72)

*$P < 0.05$, two-tailed; **$P < 0.01$, two-tailed.

with all *ALQ* subscales averaging around the midpoint of the scale. The internalized moral perspective subscale was rated the highest (Mean = 2·51 SD 1·03) and self-awareness was the lowest (Mean = 2·06, SD 1·17) of the four *ALQ* subscales. Overall, staff nurses reported moderately high job satisfaction (Mean = 3·65, SD 1·01) and performance (Mean = 3·72, SD 0·49).

Testing the hypothesized model

The initial χ^2 for the model was 11·58 (d.f. = 3, $P = 0.009$), χ^2/d.f. = 3·86, CFI = 0·94, IFI = 0·95, and RMSEA = 0·10). The statistically significant *P* value indicated sizeable inconsistencies between the model and the covariance data. Modification indices that were greater than 4 in value and theoretically reasonable were required when assessing model modifications. The final model included one additional path than hypothesized. A direct path from authentic leadership to job satisfaction was suggested by the residual covariances and this path seemed reasonable. This change, improved the overall fit to $\chi^2 = 4.22$ (d.f. = 2, $P = 0.12$), χ^2/d.f. = 2·11, IFI = 0·99, CFI = 0·99, and RMSEA = 0·06.

Effect estimates

Only standardized effects of coefficients in the final model are discussed here (Figure 2 and Table 3). All path estimates in the final model were statistically significant ($P < 0.01$) and in the hypothesized direction. Structural empowerment mediated the relationship between authentic leadership and job satisfaction and performance. Authentic leadership had a statistically significant positive direct effect ($\beta = 0.46$, $P < 0.01$) on structural empowerment, which in turn had a statistically significant direct effect on job
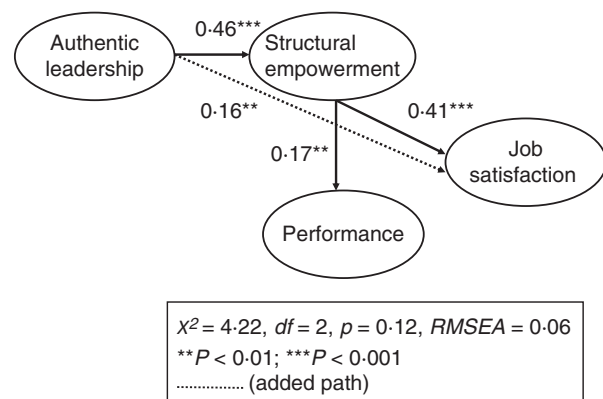

Figure 2 Final model.

Table 3 Effect estimates.

Structural paths	Unstandardized coefficients	Standardized coefficients	SE	Critical ratio	P
Direct effects					
Authentic leadership → Structural empowerment	1·586	0·462	0·182	8·699	<0·01
Authentic leadership → Job satisfaction	0·164	0·159	0·060	2·731	<0·01
Structural empowerment → Job satisfaction	0·122	0·408	0·017	6·990	<0·01
Structural empowerment → Performance	0·025	0·172	0·009	2·910	<0·01
Indirect effects					
Authentic leadership → Job satisfaction	0·194	0·188	0·032	6·063	<0·01
Authentic leadership → Performance	0·040	0·079	0·014	2·857	<0·01

satisfaction ($\beta = 0.41$, $P < 0.01$) and on performance ($\beta = 0.17$, $P < 0.01$). In addition, authentic leadership had a statistically significant positive direct ($\beta = 0.16$, $P < 0.01$) and an indirect effect on job satisfaction through empowerment ($\beta = 0.19$, $P < 0.01$). Authentic leadership also had a small positive and statistically significant indirect effect on performance through empowerment ($\beta = 0.08$, $P < 0.01$). Sobel tests confirmed statistically significant mediation effects of empowerment on both job satisfaction ($z = 2.61$, $P < 0.01$) and performance ($z = 2.65$, $P < 0.01$).

Discussion

This study aimed to understand the relationship between authentic leadership and key follower outcomes, proposed in Avolio *et al.*'s (2004) theory, including job satisfaction and performance in a sample of direct care nurses. Although not proposed as a mediator in previous authentic leadership models, we focused on structural empowerment to explain the association between authentic leadership and these outcomes. Our results demonstrated that authentic leadership was significantly related to job satisfaction and performance through its effect on empowerment. This study is one of the first to demonstrate the effect of authentic leadership on structural empowerment and the mediating role of empowerment between nurse manager authentic leadership and nurses' job satisfaction and self-rated performance. Another study by Laschinger *et al.* (2012) is in press and showed the relationship between authentic leadership, empowerment, and burnout in two groups: new graduates and experienced nurses. Authentic leadership significantly increased job satisfaction both directly and indirectly through empowerment. Performance was also positively increased indirectly by authentic leadership. However, these effects must be interpreted cautiously as Chin (1998) suggests that statistically significant coefficients less than 0·20 may not be meaningful. Results are also noteworthy as there are few studies linking nurses' performance to leader-

ship and other organizational variables (Germain & Cummings 2010). Overall, the pattern of results reported here suggests that the more nurse managers are seen as authentic, the more nurses perceive they have access to empowerment structures in the workplace, are satisfied with their jobs, and perform better in their jobs.

The authentic leadership scores in this study were lower than those obtained by Giallonardo *et al.* (2010) where the mean authentic leadership for nurse preceptors was 3·05 (SD = 0·62) and subscale means ranged from 3·26 (internalized moral perspective) to 2·79 (self-awareness). However, the job satisfaction rating (Mean = 3·65) was higher than in other studies by Doran *et al.* (2004) where the mean was 3·20 and Laschinger *et al.* (2004, 2011a), Laschinger (2008) where the means were 3·20, 3·26, and 3·33, respectively. The performance rating was also slightly higher than in a cross-functional and cross-organizational sample of Dutch employees (*n* = 958) using the same self-rated performance measure (Mean = 3·49 SD 0·58) (deVries *et al.* 2002).

The size of the effect between authentic leadership and empowerment ($\beta = 0.46$, $P < 0.01$) highlighted the importance of authentic leadership in creating empowering work conditions for nurses. Moreover, authentic leadership was significantly related to all components of empowerment, but most highly to support ($r = 0.44$) which was similar to previous findings linking leadership behaviour to empowerment (Greco *et al.* 2006, Laschinger *et al.* 2009). What is also interesting is that authentic leadership was also highly related to formal power ($r = 0.43$) suggesting that the more authentic the leader is perceived to be, the more formal power nurses experience in their own roles. Although the self-awareness component of authentic leadership was rated the lowest of the four, it was most highly associated ($r = 0.45$) with empowerment suggesting that leaders who are aware of their strengths and weaknesses and also understand how they impact others are more likely to ensure nurses are

What is already known about this topic

- Previous authors have identified leadership style of nurse managers as an important contributing factor to nurses' job satisfaction.
- Empowerment is an effective strategy for creating positive nursing work environments, especially in challenging times for healthcare organizations.
- Authentic leadership emphasizes the key role of authentic leaders in facilitating follower development by enabling learning, autonomy, competence, and satisfaction with work.

What this paper adds

- Findings provided further support for the application of authentic leadership theory in nursing.
- Authentic leadership was significantly and positively related to job satisfaction and performance through its positive effect on structural empowerment.
- Authentic leadership also significantly and directly increased nurses' job satisfaction.

Implications for practice and/or policy

- It is important for managers to emphasize transparency, balanced processing, self-awareness, and high ethical standards to increase nurses' job satisfaction and performance.
- Authentic nurse managers who facilitate nurses' access to information, opportunities to learn and grow, adequate support, and resources are more likely to create positive and empowering work environments.
- Organizational development interventions aimed at enhancing the authentic leadership of nurse managers may be valuable to enhance nurse work outcomes.

empowered to carry out their work in meaningful ways. Balanced processing was also highly correlated ($r = 0.44$) with empowerment, which may indicate that when managers go out of their way to solicit the opinions of nurses, both positive and negative, and use that information in their decision-making, nurses are more likely to experience their work environment as empowering.

Previous research has supported a positive relationship between authentic leadership and increased job satisfaction (Walumbwa *et al.* 2008, Giallonardo *et al.* 2010) and empowerment and job satisfaction (Laschinger *et al.* 2007, 2011a), but this is the first study documenting a direct positive relationship between authentic leadership and job satisfaction and an indirect relationship through structural empowerment in experienced acute care nurses. This study adds to the nursing knowledge base showing the positive influence of relational leadership styles on nurses' job satisfaction (Cummings *et al.* 2010). A few studies have shown that leadership style, particularly empowering leadership behaviours (Laschinger *et al.* 1999) and transformational leadership (McNeese-Smith 1999, Loke 2001) contributed to nurses' perceptions of work effectiveness and productivity. Similarly, this study showed the positive linkage between authentic leadership, empowerment, and self-rated performance. The size of the effect of authentic leadership on performance through empowerment was considerably smaller ($\beta = 0.17$) than in Walumbwa *et al.*'s (2008) study ($\beta = 0.44$). In the latter study, performance was rated by supervisors rather than self-ratings, which could account for the difference in effect size. However, previous research has shown that self-rated performance correlated with objective performance (Chun *et al.* 2009). In the Laschinger *et al.* (1999) study, the effect of empowering leadership on self-rated work effectiveness through empowerment was somewhat similar in size ($\beta = 0.26$) to the effect of authentic leadership on performance in this study.

Practical implications

This study has practical implications for nurse managers and organizations. Results suggested that it is advantageous for managers to emphasize transparency, balanced processing, self-awareness, and high ethical standards to increase nurses' job satisfaction and performance. Our findings also indicated that authentic leaders influence nurses' perceptions of access to empowering work structures: information, opportunity, resources, and support. Specifically behaviours that demonstrate self-awareness and balanced processing were important in facilitating empowerment. Managers who have insight into their core values, are unafraid to portray them openly and demonstrate how their ethical standards underpin the decisions they make communicate integrity and transparency. Soliciting views from others that may challenge or disagree with the leader's personal positions, exploring others' opinions before making decisions, and objectively considering the full range of data or viewpoints in decision-making are fundamental ways to convey authenticity and facilitate empowerment. Involving staff in decisions and connecting those decisions to unit goals invites increased ownership of work results.

Managers who demonstrate a sense of genuine caring about their staff and what is important to them in terms of ethical and moral standards in their working relationships contribute to more empowering workplace conditions (Walumbwa *et al.* 2010). In addition, when a manager takes the time to have a two-way conversation about a nurse's strengths and how these can make a difference at work, this is likely to create a greater sense of identification with the manager and feelings of empowerment and improved work outcomes. Moreover, when nurses have more input to how their work is done and when they have the information and the resources needed to perform their roles, this should motivate them to assume more responsibility and to take greater ownership of work unit outcomes, especially where they see the manager as being trustworthy, ethical, balanced, and fair in their decision-making [see Laschinger *et al.* (2010) for detailed empowerment strategies]. Last, organizational development interventions aimed at enhancing the authentic leadership of nurse managers may be valuable to the extent that they improve followers' positive work behaviours.

Study limitations

The cross-sectional design used here limits interpretations of causality to the evidence of co-variation in the study variables and the foundational theoretical associations (Taris 2000). Longitudinal designs examining authentic leadership in managers and how they develop relationships with their staff over time should be considered for future research. As the study used only self-report measures, common method variance cannot be ruled out; however, Doty and Glick (1998) documented that common method variance is rarely strong enough to invalidate findings. In addition, the use of well-validated, multi-item scales in this study helps lessen the risk of common method variance. Inclusion of multi-source data such as objective ratings of nurses' job performance by their supervisor could build on this study and combat this risk. Exploration of other mediators of the relationship between authentic leadership and work outcomes such as positive psychological capital and psychological empowerment should also be considered in future research. Testing the authentic leadership model in nurses in other healthcare settings and work roles is important to expanding generalizability of authentic leadership theory in health care.

Conclusion

Overall, findings supported Avolio *et al.*'s (2004) authentic leadership theory propositions in terms of important effects of authentic leadership on job satisfaction and performance. What was new to this theory was the important mediating effect of structural empowerment between authentic leadership and job satisfaction and performance. These results suggest that managers who emphasize transparency, balanced processing, self-awareness, and high ethical standards also effectively increase nurses' perceptions of workplace empowerment, which in turn enhances their performance and job satisfaction. Work environments that provide open access to information, resources, support, and opportunities for learning and development both empower and enable nurses to accomplish their work.

Conflict of interest

No conflict of interest has been declared by the authors.

Author contributions

All authors meet at least one of the following criteria (recommended by the ICMJE: http://www.icmje.org/ethical_1author.html) and have agreed on the final version:

- 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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