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Leadership Style and Organizational Commitment among Nursing Staff in Saudi Arabia

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ABSTRACT

Aims: To examine how nurse managers’ leadership styles, and nurses’ organizational commitment in Saudi Arabia relate.

Background: Effective leadership is influential in staff retention; however, recruiting and maintaining nurses is an increasing problem in Saudi Arabia.

Methods: Using a survey design, the Multifactor Leadership Questionnaire and the Organizational Commitment Questionnaire were distributed to a sample of 219 nurses and nurse manager from two hospitals in Saudi Arabia.

Results: Transformational leadership was the most dominant leadership style. After controlling for the influence of manager/staff status, nationality and hospitals, transformational leadership was the strongest contributor to organizational commitment. Perceptions of both, transformational and transactional leadership styles, increased with age for nurse managers and nursing staff.

Conclusion: Introducing the Full Range of Leadership model to the Saudi nursing workforce could help to prepare Saudi nurses for positions as nurse managers and leaders.

Implications for nursing management: The study provides insight into the type of leadership that is best suited to the dynamic and changing healthcare system in Saudi Arabia. It is possible that transformational leaders could influence and induce positive changes in nursing.

Keywords: leadership, management, nursing, Saudi Arabia, organizational commitment
Aims

To examine, for the first time, how nurse managers’ leadership style and nurses’ organizational commitment are related in Saudi Arabia (SA).

Background

Employment of nurses in SA numbers 36 per 10,000 population (Almalki et al., 2011), which is lower than in Bahrain (58/10,000), the USA (98/10,000) and the UK (101/10.000) (WHO, 2010). Nursing in SA relies greatly on expatriates from 52 countries (Suliman, 2009). At the end of 2011, the number of nurses across all health sectors in SA was 134,632, with Saudi nationals making up only 34% of this number (MOH, 2012); in the main referral hospital (King Faisal Specialist Hospital) the figure was merely 1.2% (Fielden, 2012).

Despite ‘Saudization’, whereby the government tries to attract and retain more Saudis into nursing there are obstacles such as poor working conditions, limited opportunities for balancing work and family responsibilities, and a poor image of nursing (Al-Mahmoud et al., 2012). Saudi women do not choose nursing as a profession for cultural reasons (Gazzaz, 2009, Al Hosis et al., 2013).

The social conditions for expatriate nurses tend to be poor, and religious and cultural differences, social values and language create barriers between them and local patients (Al-Mahmoud et al., 2012, Fielden, 2012). Expatriate nurses to move when they have acquired enough knowledge and experience, to developed countries where they experience better working conditions (Aldossary et al., 2008).

Job dissatisfaction is the main driver of nursing turnover in Saudi Arabia, and effective leadership is crucial in generating job satisfaction and retention issues (Zaghloul et al., 2008). Identifying the prevailing nursing leaders’ styles, and any correlation with organizational
commitment and nursing retention, will help to develop our understanding of effective
leadership (Eneh et al., 2012; Lavoie-Tremblay et al. 2016). There is a growing body of
Saudi literature on retention of nursing staff as measured by job satisfaction (Al-Ahmadi,
2009, Abualrub and AlGhamdi, 2012), intention to leave (Zaghloul et al., 2008) and gender
(Alghamdi et al. 2017). However, we know little about the impact of leadership styles on
retention.

Conceptual Framework

The conceptual framework was the Full Range of Leadership (FRL) Model (Bass, 1985),
which is a model of transformational leadership (Fischer, 2016) largely based on Burns’
(1978) conceptualization. It is the most widely adopted leadership model used (Kirkbride,
2006), and a framework used to develop their knowledge and skills related to leading staff
(McGuire and Kennerly, 2006). Transformational leadership includes: charisma or idealized
influence; inspirational motivation; intellectual stimulation, and individualized
consideration—which tend to be positively associated with ‘emotional intelligence
(Echevarria et al., 2017). Idealized influence characterizes leaders who are ideal role models
for followers (Bass and Riggio, 2006). The model also includes laissez-faire or no leadership
which is the avoidance or absence of leadership where leaders do not actively participate in
any process of leadership: this is regarded as the least effective style (Bass and Riggio, 2006).

Effective nursing leadership has been positively linked to nurses, patients and organization
outcomes (Squires et al., 2010, Cummings et al., 2010). A recent Netherlands study
(Schreuder et al., 2011), involving 699 nurses showed that effective leadership style was
inversely associated with the number of days of sickness absence and short episodes of
sickness absence. Therefore, training nurse leaders in effective leadership styles could
decrease understaffing. The present study was designed to examine the relationship between
nurse managers’ leadership styles, and nurses’ organizational commitment in Saudi Arabia.

Methods

Procedure

Two hundred and sixty nurses from two medical cities in Riyadh, SA, were approached to
complete the study.

Participants

Based on the power analysis described below two random samples were taken from each
medical city and the resulting sample is described in the Results section.

Setting

The two biggest MOH medical cities in Riyadh were selected. The first site, one of the
biggest independent medical cities in the Middle East, consists of four hospitals: a general
hospital; a specialist women’s hospital; a paediatric hospital, and a rehabilitation hospital. It
is part of a project by the Saudi MOH that aims to decentralize public hospitals to give them
more operational and financial independence to provide high quality. The medical city is
governed and funded independently and the total population of nursing staff is 2100.

The second hospital is a medical complex composed of six different hospitals (General,
Paediatric, Dental, Diabetic, Rehabilitation and women’s health) and is the main referral
MOH facility in Riyadh Region. It receives its budget and regulations from the central MOH
and the total population of nursing staff is 2758.
Measures

Two measures were used: the Arabic version of the Multifactor Leadership Questionnaire (MLQ) and the Organizational Commitment Questionnaire (OCQ; translated into Arabic). The MLQ (Bass, 1985) purports to measure the extent to which transactional and transformational leadership is present and consists of 36 items which is composed of three main dimensions: transformational leadership (this includes idealized attributes; idealized behaviours; inspirational motivation; intellectual stimulation, and individualized consideration; transactional leadership (contingent reward and management-by-exception [active], and passive/avoidant (management-by-exception [passive] and laissez-faire); the Arabic version had been reported to have acceptable reliability (Abualrub and AlGhamdi, 2012) with Cronbach’s alpha > 0.60 for all three dimensions. The OQC (Mowdray et al., 1979) purports to measure the degree of commitment a member of staff experiences towards the organization as demonstrated by the employee’s readiness to give back to the organization. The OCQ, which consists of 15 items: value commitment (9 items) and commitment to stay (the remaining 6 negatively worded items), was translated into Arabic for the present study and had Cronbach’s alpha of 0.77 and the confirmatory factor analysis is reported in Alyami (2013).

Analysis

Statistical analyses were carried out using SPSS version 20.0 and included t-tests, Pearson’s correlation and hierarchical regression. Cases with missing data were listwise deleted. Outliers were detected using a box and whisker plot with the application of Hoaglin and Iglewicz’s (1987) rules regarding the interquartile range. Only one outlier was identified by this method but a histogram plot of the data indicated that it could be included in the analysis without prejudice. The primary outcome was the correlation between leadership style and
organisational commitment as measured by the MLQ and the OCQ respectively and
according to Cohen’s (1992) criteria for power analysis, at a power of 0.80, p < 0.05 and to
detect a medium effect, a sample size of 85 is required.

Ethics

Ethical approval for the study was obtained from the University of Sheffield Research Ethics
Committee. Participation was voluntary and completion and return of the information sheet
and questionnaires was taken as consent to participate. Anonymity was assured.

Results

The perception of leadership style

Two hundred and twenty-three nurses agreed to participate and 219 completed the
questionnaire; response rate = 84% which, according to the power analysis, was adequate. Of
the participants, 55 (25%) were nurse managers and 164 (75%) were staff nurses. Most were
female (n = 194; 89%), non-Saudi (n = 183; 84%), married (n = 153; 70%), educated to
Bachelor degree level or above (n = 126; 58%), had over 7 years of experience (133; 61%)
and aged over 30 (143; 65%). Nurse managers were older with the majority being over 40 (n
= 29; 53.7%, compared with n = 42; 26% staff nurses).

Nurse managers and nursing staff concurred in their perception of different leadership
behaviours: transformational leadership gained the highest mean score, followed by
transactional leadership and passive-avoidant leadership respectively (Table 1).

The perception of organizational commitment

Scores for organizational commitment between nurse managers (mean = 5.49; SD = 0.96)
and staff nurses (mean = 4.97; SD = 0.99; t (217) = 3.44, p = 0.01) differed significantly,
suggesting the level of organizational commitment was higher for nurse managers (Table 2).

There was a significant difference in organizational commitment scores between Saudi staff (mean = 4.53; SD = 1.33) and non-Saudi staff (mean = 5.21; SD = 0.89; t (41.39) = -2.93, p = 0.01), which indicates that the level of organizational commitment was higher for non-Saudi staff (Table 3).

**Leadership style and organizational commitment**

The correlation between different leadership styles and organizational commitment using Pearson Product-Moment correlation. Transformational leadership (TRL) and organizational commitments were positively related represented by value commitment and commitment to stay (r = 0.374, p < 0.01 & 0.345, p < 0.01, respectively). Transformational leadership subscales were positively correlated to organizational commitment. However, the strongest correlations were found between inspirational motivation related to value commitments (r = 0.387, p < 0.01) and between individual consideration subscale related to commitment to stay (r = 0.333, p < 0.01) (Table 4). Transactional leadership is more strongly related to commitment than transformational leadership. This is particularly evident in the relationship between the contingent reward and both value commitment and commitment to stay (r = 0.409, p < 0.01 & 0.355, p < 0.01, respectively). Passive avoidant leadership (PAL) and commitment were negatively correlated (r = -0.240, p < 0.01 and -0.240, p < 0.01, respectively). Both management by-exception-passive and laissez-faire leadership styles were found to have negative correlations with both value commitment and commitment to stay. Although there were significant correlations between different leadership styles and organizational commitment, there was also variations between groups and cities which could confound this.
Hierarchical regression was carried out as follows (Dancey and Reidy, 2011) variables were entered in a fixed order of entry to control for the effects of covariates or to test the effects of certain predictors (Seber and Lee, 2003), this procedure was followed to investigate the effects of leadership styles on organizational commitment, controlling for medical city, manager/staff status and Saudi/non-Saudi nationality. Controlled variables were entered first into a model predicting organizational commitment followed by three consecutive models where the variables of transformational, transactional and passive avoidance leadership styles were added respectively to each model.

Hierarchical regression analysis showed the controlled variables (medical city, manager/staff status, and nationality) explained 16% of the variance in organizational commitment among hospital nurses in Saudi Arabia ($R^2 = 0.16, F = 13.2, p < 0.01$). Transformational leadership style, when added to the regression equation, explained 25% of the variance in organizational commitment ($R^2 = 0.25, F = 26, p < 0.01$). When transactional leadership style was added it explained 26% of the variance in organizational commitment ($R^2 = 0.26, F = 3.3, p = 0.07$). Adding passive avoidance leadership style explained 28% of the variance in organizational commitment ($R^2 = 0.28, F = 6.6, p = 0.11$). The addition of the transactional and passive avoidance leadership styles variables did not significantly improve prediction. Adding only 1% and 2% additional explanation to the $R^2$. The transformational leadership style produced a statistically significant increase in $R^2 (\Delta R^2 = 0.09, F = 25.9, p < 0.01$), suggesting that the transformational leadership style explains an additional 9% of the variance in organizational commitment, even when the effect for medical city, manager/staff status and Saudi/non-Saudi nationality variables were controlled, indicating that transformational leadership style has a unique effect in predicting the staff nurses’ level of organizational commitment in Saudi Arabian hospitals. The final model showed that 28% of the variation in organizational
commitment was explained by the demographic variables (medical city, manager/staff status, and nationality), transformational, transactional and passive avoidance leadership styles (Table 5).

**Leadership Style**

No significant difference was found between marital status in respect to leadership style and their subscales; there was a predominance of married participants. Regarding transformational leadership, the youngest participants (younger than 31 years old) scored lowest while older participants (older than 40 years old) scored highest on transformational leadership – there were statistically significant differences in means between age groups. However, the highest score recorded among all transformational leadership subscales was inspirational motivation which was also the highest among all age categories. All age groups revealed the same pattern in terms of the transactional leadership stylePassive-avoidant leadership showed a significant decline in means scores over age (the younger the age, the higher score and vice versa). There was no significant difference between educational level and leadership styles (p>0.05). Participants with less experience (fewer than 7 years) and participants with longer experience (more than 18 years) scored higher in perceiving passive-avoidant leadership style compared with participants whose experience fell between 7 and 18 years, revealing significant differences in means between experience groups (p = 0.04 & 0.01, respectively) (Table 6).

**Conclusions**

Results of this study must be viewed with the limitation that there may be an inevitable and unaccountable self-selection bias in the data; nevertheless, the composition of the participants reflects the population from which they were drawn. Moreover, the appropriateness of the measures used in the present study in Saudi Arabia may be questioned. Nurse managers
perceived themselves as transformational leaders and transactional leaders simultaneously. This is congruent with Bass’ (2008) who said that leaders can simultaneously display transformational and transactional characteristics. However, in our study the transformational leadership styles were more evident than transactional leadership, which has also been noted in previous studies (Al-Hussami, 2008, Abualrub and AlGhamdi, 2012).

A transformational leadership style can be important in effecting staff retention; a recent study found that nursing leaders demonstrating transformational leadership behaviours increased staff retention (Casida and Parker, 2011). In the current study, the most frequently displayed transformational subscale behaviour was intellectual stimulation, while the lowest average scores were for idealized influence. The ability of nurse managers to fully implement a transformational leadership style can be affected by factors such as the culture of the working environment. In most Saudi health organizations, for example, the male physicians usually lead the medical team and do not always respect the boundaries between medical and nursing areas of responsibility in nursing procedures. The results from the MLQ mirrored the results for nurse managers in that they showed that nursing staff viewed their managers’ leadership style to be both transformational and transactional. The issue of commitment to the employing organization is relevant to the SA health care system that is dependent on non-Saudis whose long-term commitment may lie elsewhere. Participants in the sample had high levels of organizational commitment, relative to a study conducted in SA concluding that nursing staff in Saudi hospitals were not loyal and leave if they found alternative opportunities (Al-Aameri, 2000). However, the results reported here should be interpreted with caution as the Arabic version of OCQ was newly translated for this study and had not been previously validated.

A significant relationship was found between organizational commitment of staff nurses in relation to a transformational leader, indicating staff become more committed to their hospital
when a manager displays transformational leadership characteristics. This result parallels the work of Laschinger et al. (2009) who found that effective leadership styles influence individual nurses’ responses to the place of work and their organizational commitment. The transformational leadership style has positive and direct association with the level of organizational commitment and retention, with a significant impact on patient outcomes and the viability of health organization (Casida and Parker, 2011).

Transformational leaders in the study who displayed inspirational motivation were more likely to lead committed nurses: the results showed that the most significant correlation was between the transformational leadership subscale (inspirational motivation) and organizational commitment as perceived by nursing staff among all transformational subscales. Given the strong positive association between effective leadership styles and organizational commitment, and the strong link between organizational commitment and staff turnover, this is an important finding in the light of the global shortage in nursing. This study supports the full range leadership model, which holds that transformational leadership style influences commitment. Committed nurses are more involved in their hospitals, put in more effort at work, and strongly desire to stay in their hospitals.

The relationship between leadership style and organizational commitment showed that, although both transformational and transactional leadership styles were positively correlated with organizational commitment, transformational leadership had the greater influence on organizational commitment, suggesting that higher commitment to the Saudi health care organizations can be influenced by transformational leaders more than by those with other leadership styles.

No difference was found between marital status and leadership style, indicating that marital status has no association with an individual’s perception of leadership style. This result
parallels Omer (2006). However, there was a significant difference in means between age groups and transformational and transactional styles where means of perceiving these leadership styles increased with age (the younger the age, the lower the score, and vice versa). All transformational leadership and transformational subscales had the same pattern whereby the youngest participants (younger than 31 years old) had the lowest scores while older participants (older than 40 years old) had the highest scores. Older nurses in SA may have gained enough experience to build effective and professional relationships with their managers and to recognize, clearly, effective leadership behaviours. Alternatively, the nurse managers treat older nursing staff with considerable respect, which is in keeping with the Saudi culture of respecting those who are older than oneself. The level of education of the participants and the five transformational factors, the three transactional factors and the two passive avoidance factors were not significantly related. There was, however, a significant difference between length of experience and the passive avoidance leadership and laissez-faire subscales only. This reinforces the previous result related to age, as age is an indicator of experience, hence younger nurses are most likely to be less experienced and vice versa.

This study shows that participants felt more committed to the organization where there is transformational leadership, as evidenced by the high correlation between transformational leadership subscales and organizational commitment and by the unique contribution of transformational leadership in explaining the variance in organizational commitment. We thus contribute to the literature on transformational leadership style and its importance in generating and enhancing staff retention. A recent systematic literature review highlighted the positive relationship between transformational leadership and staff retention (Cowden et al., 2011), and transformational leadership style has been documented as the most commonly reported style among nurses’ leaders in the Magnet Recognition Program® (Clavelle et al., 2012).
A recent Saudi study (Abualrub and Alghamdi, 2012) that emphasized the significant role of effective nursing leaders in enhancing staff satisfaction and staff retention suggested some innovative strategies to enhance this role such as generating an open communication channel to encourage staff to participate in decision-making processes, and offering a competitive benefits package. Furthermore, it recommended that junior nurse managers be supported by senior and top management in order that they can support and empower their own staff and be able to offer more significant strategies to enhance nursing retention.

Our study revealed no significant correlation between level of education and leadership style, which contrasts with some previous investigations. The reason for this discrepancy might lie in the level of educational attainment of nursing staff in Saudi Arabia: less than two-thirds of the managers in our sample were educated to degree level and just 14% had a Master’s degree; the appointment of a member of staff to a position of leadership is not necessarily reliant on the candidate’s educational achievement. It is also worth noting that nursing staff in SA come from more than 50 different nations with diverse education systems (Suliman, 2009) whereas previous work that identified such a correlation was a study of populations whose members shared a similar educational background (Saccomano and Pinto-Zipp, 2011).

Our findings need to be considered in the specific context of current nurse training in SA. The poor image of nursing in SA, a major barrier to entering the profession, needs to be addressed (AbuAlrub and AlGhamdi, 2012). Furthermore, Bachelor-level nursing programmes in Saudi Universities are five years’ long, whereas the UK, Australia and other countries that are regarded as main locations for recruiting nurses offer bachelor degrees in nursing in three years.

Many newly graduated Saudi nurses seek to escape bedside duties to move to administrative or non-nursing positions, such as medical secretary, which exacerbates the nursing shortage.
The reasons for this drift from the nursing profession need to be better understood and appropriate interventions put in place, such as supportive orientation, continuing education and staff development programmes, as well as regulations and legislation. Although a recent Saudi study of 217 Saudi and non-Saudi nurses found that their monthly income constituted only a small aspect of job satisfaction with respect to other factors (Al-Dossary et al., 2012), nevertheless people often perceive their salary level as a proxy for the esteem in which their work is held. Therefore, it is important that nursing pay is fair and equitable, and that the pay structure is transparent and applicable to all nurses regardless of their country of origin.

**Implications for Nursing Management**

This study contributes to the work on leadership and organizational commitment in non-Western healthcare. Nursing leadership can control or influence many of the variables that are associated with staff retention, and nurse leaders can play a key role in transforming the nursing workforce by improving satisfaction and commitment and promoting a healthy work environment. Nursing leaders in SA should work together to improve the image of nursing to increase the numbers of women in the nursing profession. Recent work (Alotaibi et al., 2016) from SA indicates the aspects of staff development that nursing managers could facilitate and these include some resource intensive aspects such as educational opportunities and workload reduction but also cultural aspects – which should be amenable good leadership – such as perceived favouritism and the supportive role of religion in Saudi culture. In addition, the SA Ministry of Health hospitals could refer to those few hospitals in the Kingdom which have Magnet ® hospital status where nurse job satisfaction is reported as being high and nurse turnover rates are low (Alghamdi & Urden, 2015).
Beyond SA the study has implications for management of nursing across the Middle East (Aboshaiqah, 2016) where several of the oil-rich Arabic speaking countries have large expatriate nursing workforces with high turnover. These countries: e.g. Bahrian, Qatar and Kuwait are undergoing processes to increase the numbers of their own nationals working as nurses. Likewise, the study informs similar work in Jordan – where more females need to be attracted to and retained in the nursing workforce – investigating nurse manager leadership styles (Mbarak et al., 2015) where the need to increase transformational leadership styles has been identified.

In terms of a contribution to the general literature on nursing management, this study provides further support to the notion that leadership styles influence job satisfaction and, thereby, reduce turnover. While there are inconsistencies in reporting the costs of nurse workforce turnover (Li & Jones, 2013) there is no dispute that turnover is expensive. Measures to reduce it, in addition to providing a more committed workforce providing better patient care (Collini et al., 2015), will conserve resources which can be more appropriately allocated.
Acknowledgement

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References


Alghamdi M.G. & Urden L.D. (2016) Transforming the nursing profession in Saudi Arabia

*Journal of Nursing Management* 24, E95–E100

*Journal* 10, 1036-1044.


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Table 1 Nurse managers’ and staff nurses’ perceptions of leadership styles.

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<th>Staff nurses (n=164)</th>
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<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
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<td>3.24</td>
<td>0.49</td>
<td>2.52</td>
<td>0.75</td>
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<tr>
<td>Idealized influence (attribute)</td>
<td>3.06</td>
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<td>Idealized influence (behaviour)</td>
<td>3.20</td>
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<td>0.80</td>
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<td>Inspirational motivation</td>
<td>3.33</td>
<td>0.59</td>
<td>2.65</td>
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<td>Intellectual stimulation</td>
<td>3.47</td>
<td>0.59</td>
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<td>Individualized consideration</td>
<td>3.16</td>
<td>0.60</td>
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<td>Transactional leadership</td>
<td>2.96</td>
<td>0.58</td>
<td>2.50</td>
<td>0.73</td>
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<td>Contingent reward</td>
<td>3.22</td>
<td>0.57</td>
<td>2.54</td>
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<td>Active management-by-exception</td>
<td>2.70</td>
<td>0.92</td>
<td>2.46</td>
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<td>Passive – avoidant leadership</td>
<td>0.84</td>
<td>0.67</td>
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<tr>
<td>Passive management-by-exception</td>
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<td>0.85</td>
<td>1.41</td>
<td>0.92</td>
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<tr>
<td>Laissez-faire</td>
<td>0.71</td>
<td>0.75</td>
<td>1.31</td>
<td>0.97</td>
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Score range: 0 (not at all) to 4 (frequently if not always).
Table 2 The Organizational Commitment Questionnaire subscales by occupational rank.

<table>
<thead>
<tr>
<th>Group</th>
<th>Nurse managers (n=55)</th>
<th>Staff nurses (n=164)</th>
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<th>P</th>
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<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
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<td>Organizational Commitment Questionnaire</td>
<td>5.49</td>
<td>.96</td>
<td>4.97</td>
<td>.99</td>
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<tr>
<td>Value commitment subscale</td>
<td>5.76</td>
<td>1.12</td>
<td>5.48</td>
<td>1.16</td>
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<tr>
<td>Commitment to stay subscale</td>
<td>5.10</td>
<td>1.22</td>
<td>5.48</td>
<td>1.16</td>
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Table 3 The Organizational Commitment Questionnaire subscales by nationality.

<table>
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<tr>
<th>Nationality</th>
<th>Saudi (n=36)</th>
<th>non-Saudi (n=183)</th>
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<td></td>
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<td>SD</td>
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<td>SD</td>
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<td>Organizational Commitment</td>
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<td>Value commitment subscale</td>
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<td>.95</td>
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<tr>
<td>Commitment to stay subscale</td>
<td>4.26</td>
<td>1.23</td>
<td>4.46</td>
<td>1.28</td>
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Table 4 Correlations between MLQ subscales and OCQ subscales using Pearson Product-Moment.

<table>
<thead>
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<th>Total OCQ</th>
<th>Value Commitment</th>
<th>Commitment to stay</th>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>(TRL) Idealized influence – attributes</td>
<td>0.432**</td>
<td>0.374**</td>
<td>0.345**</td>
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<tr>
<td>(TRL) Idealized influence – behaviour</td>
<td>0.332**</td>
<td>0.271**</td>
<td>0.288</td>
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<tr>
<td>(TRL) Inspirational motivation.</td>
<td>0.365**</td>
<td>0.314**</td>
<td>0.294**</td>
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<tr>
<td>(TRL) Individual consideration</td>
<td>0.425**</td>
<td>0.387**</td>
<td>0.314**</td>
</tr>
<tr>
<td>(TRL) Intellectual stimulation</td>
<td>0.402**</td>
<td>0.341**</td>
<td>0.333**</td>
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<td><strong>Transactional Leadership (TAL)</strong></td>
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</tr>
<tr>
<td>(TAL) Contingent reward</td>
<td>0.391**</td>
<td>0.345**</td>
<td>0.304**</td>
</tr>
<tr>
<td>(TAL) Management-by-exception- active</td>
<td>0.416**</td>
<td>0.391**</td>
<td>0.291**</td>
</tr>
<tr>
<td>(TAL) Management-by-exception- active</td>
<td>0.461**</td>
<td>0.409**</td>
<td>0.355**</td>
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<tr>
<td><strong>Passive/Avoidant leadership (PAL)</strong></td>
<td></td>
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<tr>
<td>(PAL) Management-by-exception-passive</td>
<td>-0.286**</td>
<td>-0.240**</td>
<td>-0.240**</td>
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<tr>
<td>(PAL) Laissez-faire</td>
<td>-0.226**</td>
<td>-0.210**</td>
<td>-0.162**</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).
N=219. MLQ=Multifactor Leadership Questionnaire; OCQ=Organizational Commitment Questionnaire.
Table 5 Summary of the hierarchical regression analysis for variables predicting organizational commitment (n = 219)

<table>
<thead>
<tr>
<th>Model</th>
<th>Variable</th>
<th>B</th>
<th>SE(B)</th>
<th>Std β</th>
<th>t</th>
<th>R²</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>Medical city</td>
<td>-6.7</td>
<td>1.9</td>
<td>-.22*</td>
<td>-3.4</td>
<td>.16</td>
<td>.16</td>
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<tr>
<td></td>
<td>Professional status</td>
<td>-.76</td>
<td>2.2</td>
<td>-.22*</td>
<td>-3.5</td>
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</tr>
<tr>
<td></td>
<td>Nationality</td>
<td>-7.6</td>
<td>2.6</td>
<td>.19*</td>
<td>2.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>Transformational leadership</td>
<td>7.0</td>
<td>1.4</td>
<td>.35*</td>
<td>5.1</td>
<td>.25</td>
<td>.09</td>
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<tr>
<td>Model 3</td>
<td>Transactional leadership</td>
<td>5.1</td>
<td>2.1</td>
<td>.25*</td>
<td>2.5</td>
<td>.26</td>
<td>.01</td>
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<tr>
<td>Model 4</td>
<td>Passive avoidance leadership</td>
<td>-3.0</td>
<td>1.2</td>
<td>-.17*</td>
<td>-2.6</td>
<td>.28</td>
<td>.02</td>
</tr>
</tbody>
</table>

B= the unstandardized coefficient, SE (B) = standard error B, Std β = the standardized coefficient(beta), R² = the R Square., ΔR² = R square change., t = t-test

* Significant at 0.05.
Table 6 Comparing the perception of leadership style with the length of experience.

<table>
<thead>
<tr>
<th>Leadership style</th>
<th>Length of experience</th>
<th></th>
<th></th>
<th></th>
<th>F test</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td></td>
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<tr>
<td></td>
<td>Less than 7 years</td>
<td>2.60(0.77)</td>
<td>2.80(0.80)</td>
<td>2.70(0.69)</td>
<td>2.79(0.73)</td>
<td>1.04</td>
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<tr>
<td></td>
<td>(n=86)</td>
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<tr>
<td></td>
<td>7-12 years</td>
<td>2.66(0.82)</td>
<td>2.72(0.88)</td>
<td>2.82(0.67)</td>
<td>2.62(0.75)</td>
<td>0.39</td>
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<td></td>
<td>(n=59)</td>
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<td></td>
<td>13-18 years</td>
<td>2.61(0.79)</td>
<td>2.79(0.84)</td>
<td>2.76(0.78)</td>
<td>2.87(0.72)</td>
<td>0.97</td>
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<tr>
<td></td>
<td>(n=28)</td>
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<tr>
<td></td>
<td>More than 18 years</td>
<td>2.69(0.89)</td>
<td>2.88(0.93)</td>
<td>2.83(0.72)</td>
<td>2.97(0.74)</td>
<td>1.22</td>
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<td>(n=46)</td>
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<td>Individualized Consideration</td>
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<td>Transactional leadership</td>
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<td>Contingent reward</td>
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<td>Active Management-by-Exception</td>
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<td>Passive – avoidant leadership</td>
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