

Alkarabsheh, Omar Hamdan Mohammad; Jaaffar, Amar Hisham; Fong, Pok Wei;  
Almaaitah, Dirar Abdelaziz Attallah; Alkharabsheh, Zeinah Hamdan Mohammad

## Article

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\*Corresponding author: Amar Hisham Jaaffar, College of Business Management and Accounting (COBA) and Institute of Energy Policy and Research (IEPRE), Universiti Tenaga Nasional (UNITEN), Malaysia  
E-mail: [Ahisham@uniten.edu.my](mailto:Ahisham@uniten.edu.my)

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Alireza Nazarian, Business School, University of Westminster, London, United Kingdom

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## MANAGEMENT | RESEARCH ARTICLE

# The relationship between leadership style and turnover intention of nurses in the public hospitals of Jordan

Omar Hamdan Mohammad Alkarabsheh<sup>1</sup>, Amar Hisham Jaaffar<sup>2\*</sup>, Pok Wei Fong<sup>3</sup>, Dirar Abdelaziz Attallah Almaaitah<sup>4</sup> and Zeinah Hamdan Mohammad Alkharabsheh<sup>5</sup>

**Abstract:** This study aimed to empirically determine the significant relationships between transformational leadership, authentic leadership and turnover intention among registered nurses (RNs) working in Jordanian public hospitals. This study deployed a quantitative cross-sectional survey using a questionnaire approach. From the 398 questionnaires distributed to the nine public hospitals in three regions in Jordan, there were 354 responses representing a response rate of 88.5%. The findings show that transformational leadership has a negative relationship with turnover intention. In addition, there was a negative relationship between authentic leadership and turnover intention among RNs in public hospitals in Jordan. The study results emphasised the roles of both leadership types in mitigating the turnover intention of RNs in Jordanian public hospitals. The stakeholders involved in the decision-making process should take note of these findings to develop effective strategies to retain nurses and other healthcare staff.

### ABOUT THE AUTHOR

Omar Hamdan Mohammad Alkharabsheh (PhD) is an Assistant Professor at the International Business Department, Universiti Tunku Abdul Rahman, Malaysia. His main research interests include human resources management and leadership. Amar Hisham Jaaffar (PhD) is a Senior Lecturer at the College of Business Management and Accounting, Universiti Tenaga Nasional, Malaysia. His research interests include leadership and corporate governance, organisational behaviour, and energy and environmental sustainability. Pok Wei Fong (PhD) is an Assistant Professor at the International Business Department, Universiti Tunku Abdul Rahman Malaysia. She serves as a reviewer for several academic journals and is a member of an editorial board in business and management. Dirar Abdelaziz Attallah Almaaitah (PhD) is an Assistant Professor at the Northern Border University, Saudi Arabia. His main research interest lies in human resource management related studies. Zeinah Hamdan Muhammad Alkharabsheh is a practising nurse who graduated from the University of Jordan in 2021. She currently works at the University of Jordan Hospital, New Salt Hospital, Al-Hashemi Health Center.

### PUBLIC INTEREST STATEMENT

For all countries experiencing nursing shortages, understanding the factors that influence nurse turnover intentions, notably work life quality and organisational commitment, is crucial. The leadership style that is imparted by the leader in a healthcare organisation, such as transformative and authentic leadership, is particularly important in reducing the number of nurse turnover intentions. This study provides insights on the sort of relevant leadership style that may be used by leaders to align the values, attitudes, behaviours, and experiences that make up a sustainable healthcare organization's environment by concentrating on the Low Middle-Income Country of Jordan.

**Subjects: Leadership; Leadership; Leadership Strategy**

**Keywords: Transformational leadership; authentic leadership; turnover intention; register nurses**

### 1. Introduction

According to Chen et al. (2014), turnover intention (TUIN) refers to the inclination or the plan to quit one's job in the workplace. This concept is synonymous with the turnover plan or tendency. In every profession, TUIN results in high economic and human costs. This is particularly true in the nursing profession because the shortage of nurses in the healthcare sector represents an ongoing costly issue until new generations of nurses can join the workforce or existing nurses are provided with sufficient incentives to continue working for healthcare institutions (Asegid et al., 2014).

This study focused on the nursing sector in Jordan, a small Middle Eastern country with a population of 10,756,393 and a population growth rate of 1.94% per annum (Jordan Population, 2020). The 2017 per capita income in the country is \$3,211 yearly, thus putting Jordan in the category of a lower middle-income country (LMIC). This suggests that poverty is one of the main obstacles to social development in the country. In the healthcare sector, nurses constitute the majority of the staff population, with 2532 6 registered nurses (RNs) in Jordan Ministry of Health, 2019). However, this number is rather low compared to more than 2 million and 1 million RNs in the U.S. and Japan respectively. The total number of midwives and nurses in Jordan was only 29,027 (Alhamwan et al., 2015; Ministry of Health, 2019). One of the main reasons for the low number of nursing staff is the high turnover rate that leads to a serious shortage in nurses. This is a serious issue facing both the nursing profession and the Ministry of Health of Jordan and it needs to be addressed (Nawafleh, 2014).

Since Jordan is an LMIC, it is not economically feasible to increase the remuneration of the nurses to attract and retain them in public hospitals. As an alternative measure, this study proposed that leadership can be used to shape organisational culture and that both of these lead to lower TUIN.

Healthcare organisations refer to the social systems within which human resources represent the most significant factor in the delivery of healthcare services. These organisations require effective leadership and workforce to meet desired objectives. In other words, success will remain elusive for these organisations if there are no efforts and commitment by all the members to rectify this situation (Abualrub & Alghamdi, 2012).

Moreover, prior empirical evidence highlights the importance of leadership in achieving organisational commitment (Mulugeta & Pandian, 2020). Leadership reflects the way leaders affect change and convince their followers to generate change (Ellis & Hartley, 2009). In nursing, the nurse managers must create an environment in healthcare institutions that reinforce the commitment of the nursing staff in addition to boosting their morale. Nurse managers are also responsible for retaining those staff nurses who are recruited. Hence, leadership styles have an effect on deciding whether the nurses remain, transfer to other healthcare organisations or seek employment in different organisations (Abualrub & Alghamdi, 2012).

The two primary leadership styles included in this study were transformational leadership (TRLD) and authentic leadership. A leader with a TRLD leadership style motivates their subordinates to work to their maximum potential in the long term apart from setting their perceptions by establishing the direction (Huber, 2014). On the other hand, authentic leadership (AULD) involves behaviours that display and encourage positive mental attitudes among the workforce. Such leaders also facilitate a positive working climate that promotes self-awareness, internalises moral viewpoint and allows information disclosure and management transparency (Walumbwa

et al., 2008). Although there are a lot of studies focusing on the role of leadership styles and nurse's turnover intentions, but there are a lack of study focusing on the low-to-middle-income country like Jordan (AbuAlRub & Nasrallah, 2017).

## 2. Literature review

In the context of nursing sector, previous studies have found that leadership styles such as transformational and participative leadership styles have significantly decreased nurses' turnover intention (Magbity, Ofei, & Wilson, 2020). In contrast, it has been found that the laissez-faire leadership has significantly increased nurses' turnover intention (Baysak & Yener, 2015). For the transactional leadership and nurses' turnover intention, there was no significant relationship has been found (Magbity et. al., 2020). In terms of authentic leadership, there are a limited number of studies focusing on this leadership style in the context of nursing sector (Doherty & Hunter Revell, 2020). It is undeniable that leadership style and turnover intention in the nursing sector varies between country because the household income and cultural factors may affect nurses' turnover intention (Magbity et. al., 2020). In nursing sector, stressful working culture, heavy workload, bad nurse-physician leadership, and low-level job satisfaction can be regarded amongst the main factors that increase nurses' turnover intention (Majeed & Jamshed, 2021). Therefore, the study to find a sound nurse leadership style is very important to improve the performance of healthcare system as well to ensure the competent workforces are sufficient (Yusuf & Irwan, 2021).

James MacGregor Burns was a pioneer in this field who introduced the term TRLD in his book in 1978. Specifically, he proposed a leadership theory which comprised transformational, transaction and laissez-fair styles. Later, Bass (1985) defined the same terms as the style adopted by leaders who aim to enhance their followers' performance and encourage them to achieve their full potential through a blend of charisma, inspiration, intellectual stimulation and individualised consideration. In addition, in a more recent study, Huber (2014) referred to the transformational leader as a leader who motivates their followers' full potential in their performance by changing their perceptions and establishing their sense of direction. Moreover, Bass and Avolio (1990) posited that this type of leadership can lead to the exchange of relevant and innovative ideas between leaders and their subordinates and, in turn, results in transforming the followers to take on board the same vision. McKee (2013) explained that TRLD enables the development of the potential of followers to achieve greater outcomes. Above all, transformational leaders improve the expected outcomes (behavioural and control beliefs) of their colleagues, especially those linked to the expected service behaviours. By comparison, ethical leaders boost beliefs and the relevant behaviours that stem from social norms to motivate engagement in behaviours to ensure the optimum performance of a service (Alzoubi & Jaaffar, 2020; Schaubroeck et al., 2016).

Transformational leadership theory is useful as a basis for a practical guide, research and education and it is consistent with different societal situations, as exemplified by its adoption in the military, army population and in the healthcare fields.

Initially, there were only four components in TRLD Theory: idealised influence, inspirational leadership, intellectual stimulation and individualised consideration (Bass, 1985). A fifth component was added by Avolio et al. (1991). As a result, the five transformational components are as follows: idealised influence (charisma attributes), idealised influence behaviours (charisma behaviours), inspirational motivation, individualised consideration and intellectual stimulation.

As for AULD, the concept has been widely discussed throughout history, especially in the field of philosophy. It relates to ancient Greek philosophy as evidenced by the Greek saying "Know Thyself" (Gardner et al., 2011). Their pioneering work was followed by the work of Avolio et al. (2009) who

referred to AULD as clear ethical leadership behaviour that promotes information sharing required for decision-making in which the input of followers is considered in the process.

In the last decade, AULD has become the newly emerging element in the field of leadership. Authentic leaders are required to keep abreast of the latest developments and embrace any new and dynamic work environments in order to assist employees in finding the meaning of their work so that they can feel connected to it (Müceldili et al., 2013). However, some argue that the behavioural style of leaders does not provide evidence that enables the observer to distinguish an inauthentic leader from an authentic one. Authentic leaders follow their values to develop credibility. Their followers respect and trust their leaders because the leaders are creditable. In addition, authentic leaders motivate followers to express their viewpoints and develop equal relationships which enable collaboration (Avolio et al., 2004).

In the same line of study, Akuffo and Kivipõld (2021) highlighted the key role of authentic leadership in enhancing the effectiveness of the organization in light of job satisfaction and perceived organizational performance and in mitigating negativity in the form of turnover intention and organizational politics among the top management from Ghanaian private and public banks.

In the context of hospital nurses, they have to constantly tackle high workloads and face time pressures, and high physical demands in their work like job stress, role conflict and role ambiguity in their interactions with healthcare professionals. Such demands may lead to increased nurses' turnover from hospitals and as such, to mitigate the negative work environment in hospitals, it is crucial for nursing managers to adopt transformational leadership, authentic leadership and provide the nurses with the support they need. This may ensure provision of support to unit members, rectification of adverse conditions in the hospitals and steering clear of healthcare staff conflict, ensuring that they have trust and close communication among them, and ultimately, lowering the nurses' turnover intention in public hospitals (Kim & Kim, 2021). Current research results are consistent with those of past studies.

To assess authentic leadership, Neider and Schriesheim (2011) developed a four-factor AULD Questionnaire (ALQ). The four factors in the ALQ construct include self-awareness, relational transparency, balanced processing and internalised moral perspective. It became preliminary psychometric evidence that was applied in future studies.

Additionally, the underpinning theories of the study, namely TRLD and AULD are easy to use, useful and are applicable to different cultures, being references to address present and past issues in literature to examine the effect of leadership styles in the nursing field among various cultures (e.g., in the West, in the Arab countries and others). Such theories are effective in providing directions to examining the relationship between leadership style and various employees' outcomes like performance, job satisfaction, turnover intention and commitment.

In the past few decades, TUIN has been extensively examined by various authors (Cotton & Tuttle, 1986). As a result, there are several definitions proposed for the concept of TUIN or intention to leave. To begin with, Cotton and Tuttle (1986) defined turnover as the movement of an employee to other organisations, whereas TUIN refers to the likelihood of them doing so. On a similar note, Asegid et al. (2014) defined turnover as the ratio of the number of workers replaced in a specific period in relation to the average number of workers. It is generally described as the outward movement of the employees from the enterprise. According to Tett and Meyer (1993), TUIN is the voluntary pursuit of alternative job prospects in other business enterprises. The majority of studies in this field concluded that turnover behaviour is significantly affected by TUIN. For instance, Kim et al. (2010) revealed that actual turnover hinges on the employees' perception of alternative job opportunities available and TUIN is positively related to actual turnover.

Generally speaking, there is voluntary and involuntary turnover, and functional or dysfunctional turnover. Each type of turn over affects the organisation on different levels. As for voluntary turn over, the employee initiates the turnover whereas involuntary turnover refers to the lack of termination choice (Amankwaa & Anku-Tsede, 2015). In terms of the process, voluntary turnover means the employees choose to stay or leave the organisation. Conversely, involuntary turnover happens when organisations decide whether the employees stay or leave (Wells & Peachey, 2011).

This study aimed to test the direct effects of TRLD on TUIN and the direct effects of AULD on TUIN. Figure 1 illustrates the constructs and the hypothesised relationships.

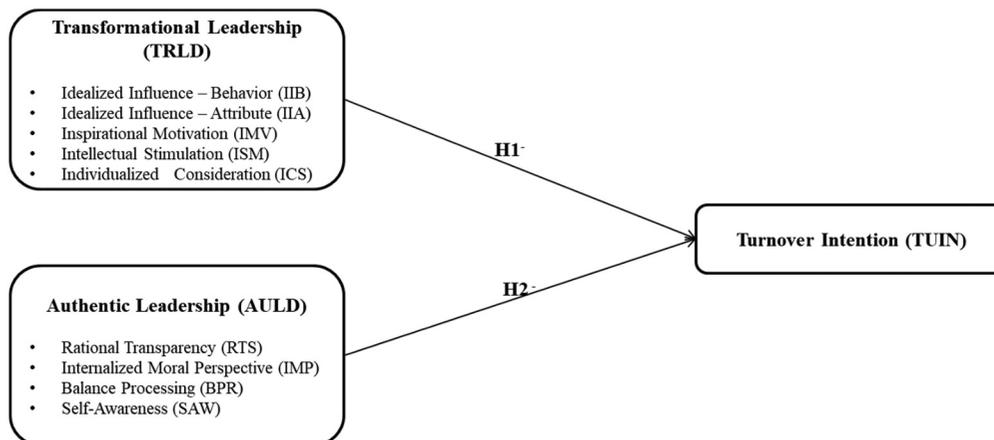
Several studies evidenced that leadership is among the factors predicting an employees' intention to continue holding or leave their positions in an organisation (Ali, 2014). According to most of the studies, TRLD is able to mitigate the TUIN of workers (Long et al. (2012); Bufe and Murphy (2004) conducted a study to examine this relationship to provide an insight into the TUIN of workers. Green et al. (2013) performed regression analysis and found a negative relationship between TRLD and TUIN. Wells and Peachey (2011) explored the relationship between leadership styles, satisfaction with the leaders and TUIN among 200 softball and volleyball coaches from the U.S. National Collegiate Athletic Association. The results revealed a negative relationship between TRLD and TUIN and between transactional leadership behaviour and voluntary TUIN in the organisation. In addition, Kharabsheh et al. (2017) found a negative relationship between TRLD and TUIN in the healthcare sector. Based on these findings, this study proposed the following hypothesis.

H1: TRLD is negatively related to the TUIN of nurses working in Jordanian public hospitals.

Several studies provided evidence of the role of leadership in the workers' intention to remain in or quit their jobs (Ali, 2014). In a study by Bufe and Murphy (2004), the authors emphasised the need to conduct further studies to examine how leadership affects the workers' TUIN. Similar studies by Azanza et al. (2015) and Alkharabsheh and Alias (2018) also reported a significant negative relationship between AULD and TUIN, as well as between work-group identification (WID), work engagement and TUIN. Another study by Laschinger et al. (2012); Gatling et al. (2016) outlined a significant relationship between AULD and TUIN. Hence, the second hypothesis in this study was as follows

H2: AULD is negatively related to the TUIN of nurses working in Jordanian public hospitals.

**Figure 1. Proposed theoretical model.**



### 3. Method

The cross-sectional study employed a two-stage stratified sampling method. The hospitals in Jordan are categorised based on the three regions of North, Middle and South (Ministry of Health, 2019). Two psychiatric hospitals and drug rehabilitation hospitals were excluded due to the differences among the target patients, work environment and hospital size compared to standard hospitals. As a result, three hospitals were selected from each of the regions based on the number of beds in each hospital.

The number of RNs in the Jordanian public hospitals was used to determine the study population and sample size. At the time of the study, there were 6056 nurses employed in 31 Jordanian public hospitals (Ministry of Health, 2019). Based on Krejcie and Morgan's, (\*\*\*\*) recommendation, the sample size should be 354. By taking into consideration an estimated response rate of 10%, 394 questionnaires should be distributed; of these, 354 responses were completed and included in the final analysis. There were 1921 nurses working in the nine hospitals. Thus, the formula used to calculate the number of nurses required from each hospital was  $(n/1921*398)$ , with n being the total number of nurses working in a particular hospital.

Following that, random sampling was conducted at each hospital to obtain the targeted sample size. The list of nurses servicing the nine selected hospitals was obtained in the form of index numbers to protect the confidentiality of the personal data. The index numbers were then entered on an excel spreadsheet to generate a random list of respondents. After that, arrangements were made with the hospitals to meet the targeted respondents and ask them to complete the questionnaires.

For the assessment of TRLD, MLQ-Form 5x by Bass and Avolio (2000) was used. It encompassed transformational, transactional and laissez-faire leadership forms. The concepts gauged by the MLQ covered behaviours and attributes of idealised influence, inspirational motivation, intellectual stimulation and individualised consideration under TRLD. It comprises 45 items measured on a five-point Likert scale. The score of one represents a non-occurrence of the behaviour, while a score of five indicates occurrence. The instrument enables the rating of frequent occurrences of the leadership behaviour among leaders as perceived by followers and the self-rating of behaviour among leaders (Kleinman, 2004). The instrument has been utilised for the measurement of leadership in different contexts and environments for many countries. It has also been used in the research field of organisational leadership due to its repeated validity and reliability in many studies (Jung & Avolio, 1999; Kleinman, 2004; Parry & Proctor-Thomson, 2002).

AULD was measured by using an AULD Questionnaire (ALQ; Walumbwa et al., 2008). This instrument covers four constructs with 16 items, including self-awareness, balance processing, relational transparency and internalised moral perspective. The followers' perception of their leaders' AULD is assessed on a five-point Likert scale (1 = strongly disagree and 5 = strongly agree). This instrument had been validated in studies conducted in the U.S. and China and supports both the convergent and discriminant validity (Rader, 2015; Stander et al., 2015). The Cronbach's alpha value for each of the factors in the higher order ranged from 0.62 to 0.93, resulting in a combined composite acceptable Cronbach level of 0.69. In the Walumbwa et al. (2010) study, the reliability value was 0.83, thus showing the validity and internal reliability of the instrument. The level of AULD behaviours among the leaders was assessed on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

The instrument used to measure TUIN in this study was adopted from Kelloway et al. (1999) because it was suitable for reflecting the employees' turnover intentions. It consists of four questions and takes an estimated two minutes to complete. The four items in the TUIN scale were measured on a five-point Likert scale whereby 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. The data from the scale responses were entered into SPSS version 25.0 and analyzed using AMOS version 23.0.

To examine the structural relationship between the constructs, the covariance-based Structural Equation Modelling (SEM) method was applied using the AMOS for its verifying nature of the study (J.F. Hair et al., 2011). To investigate the relationships between TRLD, AULD and TUIN, the SEM methods applied in this study involved two stages. The first stage focused on testing the reliability of the constructs and the measurement model. The second stage tested the structural relationship among TRLD, AULD and TUIN.

#### 4. Results

From a total of 354 retrieved questionnaires, the majority of the respondents were female ( $n = 251$ , 70.9 %). As for age groups, almost half of them (48.0%) were between 30 and 34 years old and a quarter of them (25.4%) were between 25 and 29 years old. The remainder were between 20 to 24 years old (2.0%), 35 to 39 years-old (20.9%), 40 to 44 years old (2.5%) and 45 to 49 years old (1.1%). In terms of education level, as high as 92.9% of them were bachelor degree holders, another 6.2% and 0.8% had a Master degree or Ph.D respectively. As for working experience, slightly less than half of them (45.2%) had been working for 6 to 10 years, followed by 20.3% who had been working for 11 to 15 years. A total of 6.1% of them had been working for more than 20 years. Three-quarters (74.0%) of them were married and 25.4% and 0.6% were single or divorced respectively.

Convergent validity can be described as the extent to which similar or closely related results are achieved from repeated measurements of the same concept. As a means of determining the convergent validity of the constructs, this study examined the values of the factor loading, the average variance extracted (AVE) as well as the composite reliability (CR; Hair et al., 2010). The result of the Confirmatory Factor Analysis is set out in the Table 2. It evaluates the validity as well as the reliability of the measures employed in previous studies. Appendix 2 shows the AMOS graph of this model of measurement. Table 1 shows the sampling process of the study, which comprises the information about the sample selection from nine selected hospitals in Jordan.

As can be observed from the results shown in the Table 2, the standardised loadings of all the items in this model showed that the factor loading for these items ranged from 0.656 to 0.920 which are more than the 0.5 value proposed by Hair et al. (2006). Additionally, when considering the results/output that were obtained from the analysis of the mean variance of the individual indicators corresponding to their latent constructs, the results revealed values that ranged from 0.559 to 0.787 which are beyond the recommended threshold or cut-off values of 0.5 (Hair et al., 2010). Furthermore, this study measured the composite reliability (i.e. how well the indicators reflect the constructs). The values obtained were between 0.834 and 0.937, exceeding 0.6, a value recommended (Hair et al., 2010).

Following that, the Cronbach alpha values ranged from 0.834 to 0.936 which are highly reliable being above the 0.7 cut-off (Nunnally & Bernstein, 1994). Next, the discriminant validity was evaluated by comparing the value of the square root of the variance extracted and correlations between constructs (Cornell and Larcker, 1981). The results revealed that the correlations between constructs in the measurement model were not above the recommended value of 0.85 (Kline, 2010). For each construct, Table 3 showed that the square root of the average variance extracted was higher than the correlation between that construct and other constructs. Additionally, all the values of correlation ranged from  $-0.324$  to  $0.315$  which were all less than 0.85, thus indicating an adequate discriminant validity. Overall, an adequate level of reliability and of convergent validity and discriminant validity was demonstrated by this measurement model.

Furthermore, the measurement model also produced an adequate fit of the data, based on the results (Chi-square = 73.292,  $df = 62$ ,  $p$ -value = 0.154). In this study, the goodness-of-fit index (GFI) value was 0.969, higher than the acceptable threshold of 0.8 as recommended by Kline (2010). Similarly, the adjusted goodness-of-fit index (AGFI) was also above the threshold of 0.8 (0.954).

**Table 1. The nine selected hospitals and the targeted sample size for each hospital**

	North	Middle	South
Largest	Princess Basma (60)	Al-Basheer (177)	Al-Karak (44)
Medium	Princess Rahma (27)	Dr. Jameel Al-Totanji(29)	Ma'an (36)
Smallest	Al- Rueshid (5)	Princess Salma (7)	Queen Rania Al- Abdullah (12)
<b>Total</b>	<b>92</b>	<b>214</b>	<b>92</b>

Note: The number in the brackets indicates the targeted sample size for each hospital.

The comparative fit index (CFI), Tucker-Lewis index (TLI) and Incremental Fit Index (IFI) values were 0.997, 0.996, and 0.997 respectively, which were all above the cut-off point of 0.9. As for RMSEA, the value was 0.023, below the cut-off point of 0.1. In addition, the Chi-square/df value was 1.182, lower than the cut-off point of 5 (Kenny et al., 2015).

### 5. Discussion

This study utilised for the structural model both a maximum likelihood estimate (MLE) and parcelling procedure. Appendix B shows the AMOS graph for this structural model. Upon testing, the overall model fit had a Chi square ( $\chi^2$ ) of 73.292 with 62 degrees of freedom. The chi-square = 73.292 which was insignificant (Hair et al., 1998). The model had a good fit as the GFI value was 0.969, higher than the 0.8 proposed by Kline (2010). As for the AGFI, the value of 0.954 was also higher than 0.8, the recommended value by Chau and Hu (2001). The CFI, TLI, and IFI values exceeded the threshold of 0.9 (Hair et al., 2006; Ho, 2006). Moreover, the root-mean-square error of approximation (RMSEA) also indicated a good model fit as the value was less than the cut-off point of 0.1 (Schumacker & Lomax, 2010). Furthermore, a good fit of the model was indicated by the relative NORMEDCHISQ value of 1.182 which was below 5 (Bagozzi & Yi, 1988). The value of R2 TUIN (0.13) fulfilled the requirement as the recommended threshold value was 0.10 (Quaddus & Hofmeyer, 2007). In conclusion, the research model developed in this study fit the data very well, based on the diagnostic checks.

The path coefficients and the results of the examination of the hypothesised direct effects can be seen in Figure 2 which outlines the detailed outputs of the structural equation model used to examine the research hypotheses.

It was discovered that both paths from TRLD and AULD to TUIN had a statistically significant negative relationship (p-value <0.05) as revealed in Figure 2. The standardised estimate of Beta for TRLD was -0.156 (p-value = 0.006). In other words, when the score of TRLD increased by 1 standard deviation (SD), the score of TUIN decreases by 0.156 SD. Hence, H1 was supported. In addition, the standardised estimate of Beta for AULD was -0.27 (p-value = 0.000). Thus, when the AULD score increased by 1 SD, the TUIN decreased by 0.274 SD. Therefore, H2 was also supported. In short, the study results indicated that AULD was a more important determinant of TUIN compare to TRLD.

As shown in the Figure 3, beginning with the first hypothesis that proposed the influence of transformational leadership style on turnover intention among public hospital nurses in Jordan, the results supported significant negative effect between the two constructs, in particular, the negative significant effect of transformational leadership on turnover intention. This result is aligned with that reported by Long et al. (2012), who revealed a negative transformational leadership-turnover intention relationship in several industries. A transformational leadership is one which has the skill to convince the employees to maintain their positions by instilling inspiration rather than depending on a two way relationship—they are inspired to look beyond their interests for the sake of the team's and the organization's interests (Tse et al., 2013).

**Table 2. Demographic profile**

<b>Group</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Region</b>		
North	82	23.2
Middle	190	53.7
South	82	23.2
<b>Hospitals</b>		
Princess Basma	53	15
Princess Rahma	24	6.8
Al-Rueshid	5	1.4
Al-Basheer	156	44.1
Dr.Jameel Al-Totaji	27	7.6
Princess Salma	7	2.0
Al-Karak	39	11.0
Ma'an	32	9.0
Queen Rania Al-Abdallah	11	3.1
<b>Gender</b>		
Male	103	29.1
Female	251	70.9
<b>Age</b>		
20-24	7	2.0
25-29	90	25.4
30-34	170	48.0
35-39	74	20.9
40-44	9	2.5
45-49	4	1.1
<b>Experience</b>		
Less than one year	14	4.0
1-5 years	86	24.3
6-10 years	160	45.2
11-15 years	72	20.3
16-20 years	15	4.2
21-25 years	4	1.1
26-30 years	3	0.8
<b>Education</b>		
Bachelor	329	92.9
Master	22	6.2
PhD	3	0.8
<b>Marital</b>		
Single	90	25.4
Married	262	74.0
Divorced	2	0.6
<b>Income</b>		
Less than 300	3	0.8
301-400	79	22.3
401-500	182	51.4
501-600	65	18.4

(Continued)

**Table2. (Continued)**

Group	Frequency	Percentage
601–700	17	4.8
701–800	5	1.4
801–900	1	0.3
901–1000	1	0.3
More than 1000	1	0.3
<b>Shift</b>		
Day shift	311	87.9
Night shift	43	12.1

Based on the above result, transformational managers would mitigate the turnover intention among RNs and transformational leadership dimension bring about a suitable environment that could mitigate RNs turnover intention in Jordanian public hospitals. Leadership studies in literature indicate that transformational leaders generally promote the participation of their followers in decision-making and in providing their opinions and feedback, notwithstanding the different opinions that may clash. According to Green et al. (2013), low turnover intention is related to low emotional exhaustion, unity in the group members, and followers' acknowledgement and rewards by the transformational leaders. This result is aligned with that of studies in the business management field that established a direct negative relationship between transformational leadership and turnover intention (Green et al., 2013; Hughes et al., 2010; Long et al., 2012; Wells & Peachey, 2011).

In the second hypothesis (H2), the study proposed a significant negative relationship between authentic leadership and turnover intention and the results are in support of it. Related studies in literature like Yemi-Sofumade (2012) also reported a negative authentic leadership-turnover intention relationship, which means, in the context of this study, nurse leaders should adopt authentic leadership characteristics for the subordinates to have lower likelihood to have turnover intentions and higher likelihood to have positive work outcomes. Such leadership approach promotes the engagement of followers in work-related issues and the well-being of the leader's psychology. Empirical findings to the relationship between authentic leadership and turnover intention are however still lacking (Azanza et al., 2015). Several ways can be used to shed light on the influence on turnover intention, relating to the employee's emotional attachment to the organization and their work satisfaction level (Gatling et al., 2016).

Similarly, Hancock et al. (2013) stated that a company needs to prevent high employee turnover in order to steer clear of incurring social capital and human losses. In this study, the relationship between authentic leadership and turnover intention was examined and according to the obtained results, turnover intention of public hospitals in Jordan is minimized through authentic leadership in that this leadership approach plays a significant role in workplace condition development, where bullying behavior and burnout stress among new RNs are minimized. In addition, in such workplace condition, job satisfaction, performance, quality of healthcare services and patient care and care for their families are all enhanced. Of similar importance, minimizing nurse turnover could minimize loss of capital and cost in selecting, recruiting, training and developing recruits as evidenced in past literature (e.g., Dess & Shaw, 2001; Hancock et al., 2013). Essentially, this study addressed the gap in literature when it comes to the relationship between the two constructs and lays the foundation for future studies to confirm the negative relationship in the context of Jordanian public hospitals and similar contexts.

The results supported hypotheses H1 and H2, in consistent with transformational leadership and authentic leadership theories, with the theories proposing that leaders inspire nurses to look beyond

**Table 3. Result of CFA for measurement model**

Construct	Item	Convergent validity			Internal Reliability Cronbach Alpha
		Factor Loading	Average Variance Extracted (AVE) <sup>a</sup>	Composite Reliability (CR) <sup>b</sup>	
Idealised Influence—Behaviour (IIB)	IIB1	0.656	0.559	0.834	0.834
	IIB2	0.739			
	IIB3	0.810			
	IIB4	0.777			
Idealised Influence—Attribute (IIA)	IIA1	0.740	0.618	0.866	0.863
	IIA2	0.805			
	IIA3	0.821			
	IIA4	0.776			
Inspirational Motivation (IMV)	IMV1	0.825	0.718	0.910	0.908
	IMV2	0.879			
	IMV3	0.881			
	IMV4	0.801			
Intellectual Stimulation (ISM)	ISM1	0.754	0.606	0.860	0.858
	ISM2	0.784			
	ISM3	0.815			
	ISM4	0.759			
Individualised Consideration (ICS)	ICS1	0.794	0.656	0.884	0.884
	ICS2	0.803			
	ICS3	0.835			
	ICS4	0.808			

(Continued)

**Table 3. (Continued)**

Construct	Item	Convergent validity			Internal Reliability Cronbach Alpha
		Factor Loading	Average Variance Extracted (AVE) <sup>a</sup>	Composite Reliability (CR) <sup>b</sup>	
Rational Transparency (RTS)	RTS1	0.773	0.615	0.889	0.888
	RTS2	0.78			
	RTS3	0.800			
	RTS4	0.759			
	RTS5	0.808			
Internalised Moral Perspective (IMP)	IMP1	0.816	0.684	0.896	0.895
	IMP2	0.831			
	IMP3	0.850			
	IMP4	0.810			
Balance Processing (BPR)	BPR1	0.858	0.768	0.909	0.908
	BPR2	0.903			
	BPR3	0.868			
Self-Awareness (SAW)	SAW1	0.795	0.678	0.894	0.894
	SAW2	0.845			
	SAW3	0.831			
	SAW4	0.823			
Transformational Leadership (TRLD)	IIB	0.846	0.723	0.929	0.924
	IIA	0.833			
	IMV	0.787			
	ISM	0.920			
	ICS	0.859			

(Continued)

**Table 3. (Continued)**

Construct	Item	Convergent validity			Internal Reliability Cronbach Alpha
		Factor Loading	Average Variance Extracted (AVE) <sup>a</sup>	Composite Reliability (CR) <sup>b</sup>	
Authentic Leadership (AULD)	RTS	0.881	0.702	0.904	0.901
	IMP	0.807			
	BPR	0.823			
	SAW	0.839			
Turnover Intention (TUIN)	TUJN1	0.912	0.787	0.937	0.936
	TUJN2	0.872			
	TUJN3	0.870			
	TUJN4	0.894			

a: Average Variance Extracted = (summation of the square of the factor loadings)/ {(summation of the square of the factor loadings) +(summation of the error variances)}; b: Composite reliability = (square of the summation of the factor loadings)/ {(square of the summation of the factor loadings) + (square of the summation of the error variances)}. Table 4 demonstrates that all constructs indicate a good level of discriminant validity based on the condition set by Fornell and Larcker (1981).

**Table 4. Discriminant validity of constructs**

Constructs	TRLD	AULD	TUIN
TRLD	<b>0.850</b>		
AULD	0.315	<b>0.838</b>	
Turnover Intention	-0.243	-0.324	<b>0.887</b>

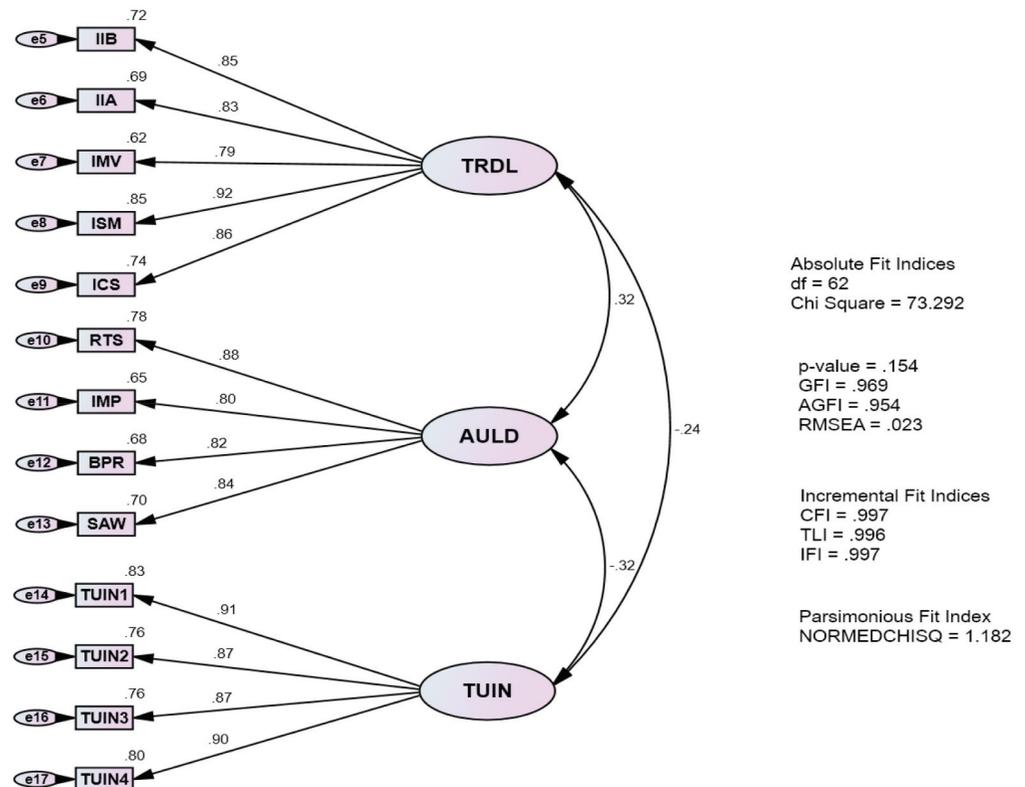
Note: The highlighted values show the average variance extracted whereas the remaining values represent the square correlations.

their interests and shift their focus to that of the team and group, as a result of which, turnover among them will be minimized and they will maintain their positions in Jordanian public hospitals.

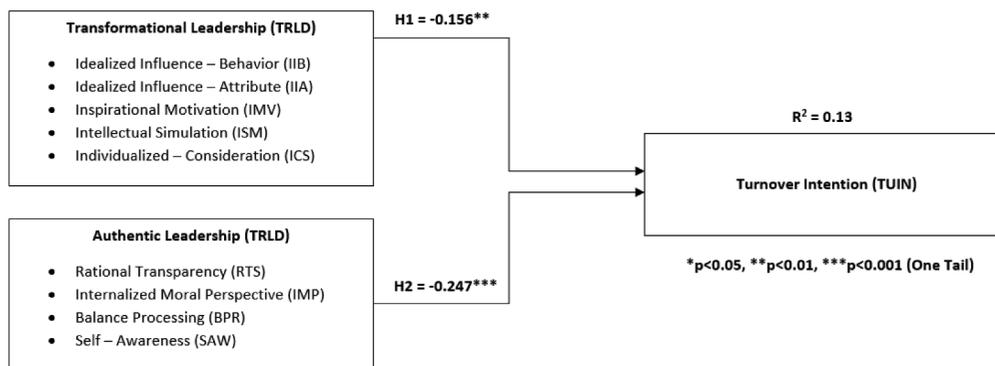
**6. Conclusion**

This study aimed to determine the relationship between TRLD, AULD, and TUIN of 354 RNs from nine public hospitals in Jordan. In terms of contribution to the literature, this study incorporated several important theories including TRLD and AULD in the development of a theoretical model that consisted of all the relevant variables and their hypothesised relationships. According to the results, TRLD and AULD had a negative relationship with TUIN. In addition, the study also added evidence to the research field of TRLD, AULD, and TUIN by providing information from the perspective of a Middle Eastern healthcare sector, i.e. Jordan. The study results also emphasised the roles of both leadership types in mitigating the TUIN of RNs in Jordanian public hospitals. The stakeholders who are involved in the decision-making process should take note of these findings to develop effective strategies for retaining the nurses and other healthcare staff. Furthermore, as the authentic leadership has been found to have strongest effect on nurses’ turnover intention, the

**Figure 2. AMOS graph of measurement model.**



**Figure 3. Structural model results.**



practitioner and relevant stakeholders need to find a way and mechanism to develop authentic leaders by deploying a sound talent management practices.

The findings of this study have several implications for RNs management in Jordanian public hospitals, primarily when they adopt high-quality leadership development. Consequently, healthcare quality is improved through working environment enhancement, within which leadership quality works on mitigating turnover intention and enhances job satisfaction and commitment among RNs. In this regard, nurse leaders can consolidate interactions and relationships with subordinates through an effective work relationship that is supported by loyalty, contributions, professionals and mutual respect. They can avail of the study findings to bring about and maintain high-quality relationships using the least centralization in management and obtaining the nurses' participation in decision-making processes. Eventually, this will minimize nurses' turnover intention and their actual turnover.

Lastly, the Ministry of Health in Jordan is recommended to address nurses' issues through high-quality relationship development and motivation through the restructuring of the reward system, with the objective of enhancing nurses' work satisfaction. The above goal may be achieved through the leaders' use of promotion and recognition processes involving the number of service years and future planning of the nursing professionals.

Future studies could consider adopting a qualitative approach to provide richer data and findings on this topic. This would also add depth to the knowledge of the TRLD and AULD characteristics of nursing leaders in Jordanian public hospitals and their association with the intention of RNs to leave nursing positions. In addition, this study could be expanded to include other settings such as private hospitals, or private and public hospitals in combination.

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#### Author details

Omar Hamdan Mohammad Alkarabsheh<sup>1</sup>

Amar Hisham Jaaffar<sup>2</sup>

E-mail: [Ahisham@uniten.edu.my](mailto:Ahisham@uniten.edu.my)

ORCID ID: <http://orcid.org/0000-0002-4746-5409>

Pok Wei Fong<sup>3</sup>

Dirar Abdelaziz Attallah Almaaitah<sup>4</sup>

Zeinah Hamdan Mohammad Alkharabsheh<sup>5</sup>

Alireza Nazarian<sup>6</sup>

<sup>1</sup> College of Business Management and Accounting (COBA) and Institute of Energy Policy and Research (IEPRE), Universiti Tenaga Nasional (UNITEN), Malaysia.

<sup>2</sup> College of Business Management and Accounting, Universiti Tenaga Nasional (UNITEN).

<sup>3</sup> Faculty of Accountancy and Management, Department of Economics, Universiti Tunku Abdul Rahman (UTAR), Malaysia.

<sup>4</sup> Faculty of Business Administration, Department of Human Resource, Northern Border University, Arar, Saudi Arabia.

<sup>5</sup> School of Nursing, The University of Jordan, Amman, Jordan.

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