

## The Mediating Effect of Employees' Job Satisfaction Between Leadership Styles and Patients Satisfaction in the Jordanian Public Hospitals

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### Abstract

*This study investigated whether employees' job satisfaction mediates effect between Leadership Styles and Patients Satisfaction in the Jordanian Public Hospitals. Data was collected using questionnaire from a sample of 672 employees (doctors and nurses) and 672 patients from the Jordanian Public Hospitals. Using SPSS and AMOS, the findings show that employees' job satisfaction mediated the effect between leadership styles and patients satisfaction. The research contributes to the body of knowledge and supports the role of employees' job satisfaction mediated the effect between leadership styles and patients satisfaction.*

**Key Words:** *Employees' Job Satisfaction, Leadership Styles, Patients Satisfaction, Jordanian Public Hospitals.*

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### Introduction

The Jordanian health care system is composed of 104 hospitals included, public, military, teaching, and private hospitals. Among these, there are 30 public hospitals constituting 28.8 % of the total number of hospitals in Jordan with a total of capacity 4,373 beds, constitute (37.1%) under the Ministry of Health (MOH). Around the world, many health care systems are undergoing major changes. Given its centralized management, the Jordanian health care system is experiencing many changes such as the shortage of employee's due to job dissatisfaction and the increased emphasis on providing a very high quality medical care. Employee's job satisfaction is a major concern to the health care sector. Lacks of health care

employee's job satisfaction will lead to high turnover rates and low quality of medical care (Mrayyan, 2005). With job dissatisfaction, employees may they change their careers or leave their jobs and effect of quality medical care in Jordanian public hospitals. The replacement of licensed professionals and experienced is time consuming and at the same time is costly.

Employee's job dissatisfaction is also often attributed to leadership styles, inadequate training, and motivation, lack of respect and heavy workloads. Limited studies have examined the link between employee's job satisfaction, and whether they provide, or fail to provide patient care and patient satisfaction. A study conducted by Hayajneh, AbuAlRub, and Athamneh (2009) in Jordan to determine the turnover rate among registered nurses in Jordanian hospitals. A proportional random sample of 25% of the total number of Jordanian hospitals was taken. The results indicated that the overall turnover rate was 36.6% due to job dissatisfaction. This result is considered a problem in Jordanian hospitals and that requires further researches to identify the problem and establish effective strategies to deal with.

The inability of health organization to provide quality medical care and employee's job satisfaction is due to high turnover (Marquis & Huston 2003). Recently reported by Committee Secretary of Jordanian Medical Association, Dr. Walid Salah (2014), in the earlier migration of 3000 doctors to work outside of Jordan due to job dissatisfaction, among that 90 percent of the three thousand doctors had left work in the Ministry of Health to attend a job abroad. This study attempts to investigate whether employees' job satisfaction mediated effect between Leadership Styles and Patients Satisfaction in the Jordanian Public Hospitals.

## Literature Review

Leadership style is defined as the manner and approach of providing direction, implementing plans, and motivating people. As seen by the employees, it includes the total pattern of explicit and implicit action of their leaders (Newstrom & Davis, 1993). Leadership style is considered by many researchers as an important variable in influencing functions of organizations. Leadership style can influence followers' job satisfaction and job performance (Robbins, 2001). Leadership style affects a range of factors such as job satisfaction, performance, turnover intention, and stress (Chen and Silverthorne, 2005) and so contribute to organizational success (Rad and YarMohammadian, 2006).

Patient satisfaction is defined as the patient's judgments on the quality of care, particularly the interpersonal relationships with clinicians and other care providers (Donabedian, 1988). Patient satisfaction is also related to a variety of downstream outcomes, such as the propensity to change health plans (Newcomer, Preston & Harrington, 1996) or to sue for malpractice (Levinson, Roter, Mullooly, Dull & Frankel, 1997). These results suggest that hospital leaders and managers must take the importance of the patient's role to evaluate and improve the quality of health care and services in hospitals.

Job satisfaction refers to feelings about specific job aspects, such as salary, benefits, and the quality of relationships with one's co-workers (Mueller & Kim, 2008). Hospitals with a shortage of nurses and high patient's rate are associated with low quality health care, more medical error, more patients' mortality and nurses more job dissatisfaction and burnout. O'Brien, Murphy, Shamian, and Hayes (2010), indicated that the higher turnover rates of hospital employees associated with lower job satisfaction and higher turnover rates were associated with an increased medical error and lower quality patient's care.

## Hypothesis Development

As shown in Figure 1, explaining the relationship of employees' job satisfaction as mediating effect between leadership styles and patient's satisfaction

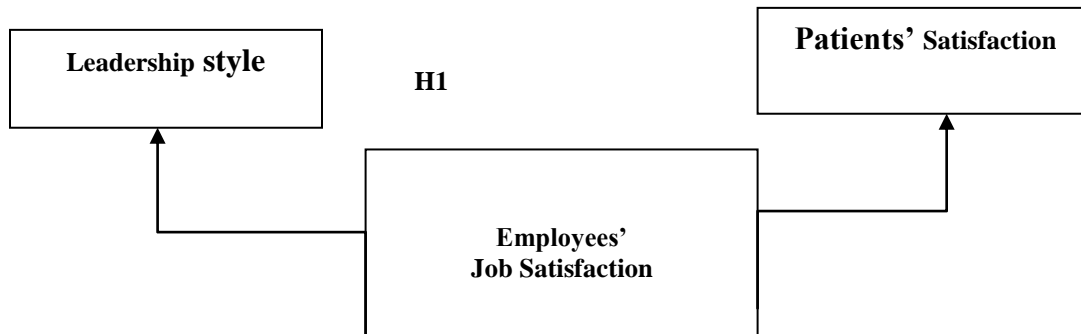


Figure 1. Theoretical framework of the study

Previous researches have shown there is a significant relation between leadership style and employees' job satisfaction (Yoon & Thye, 2002; Freund, 2005; Lin et al, 2011), and also there is a significant relationship between employees' job satisfaction and patients' satisfaction (Hui – ChingWeng et al, 2011; Al-Mailam, 2005; Tzeng, Ketefian, & Redman, 2002). However there are no researchers studied the mediating effect of employee's job satisfaction in relationship between leadership style and patients' satisfaction. Therefore the hypotheses were developed and suggest the employees' job satisfaction mediates effect between leadership style and patients' satisfaction.

H1: Employee's job satisfaction mediates effect between leadership style and patients satisfaction.

## Methodology

The target population are involved in this study were doctors and registered staff nurses from different units who are working in Jordanian public hospitals. The number of sample size has been chosen to achieve the target of this study, were 672 employees (doctors and nurses), they were asked to evaluate the leadership styles of their hospital unit's managers and present employee's job satisfaction. Similarly, 672 patients were recruited from those served by these doctors and nurses to present the patients satisfaction about the medical care they received from 48 units among 10 randomly selected Jordanian public hospitals.

The questionnaire was based on scales adapted from previous studies. The Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (2000) with 32 items on a scale 1 (not at all) to 5 (frequently, if not always) were used to measure the leadership styles. Job Satisfaction Survey (JSS) developed by Spector's (1985) with 16 items on a scale 1 (disagree very much) to 6 (agreed very much) used to measure employee's (doctors and nurses) job satisfaction. Patient Satisfaction Questionnaire (PSQ - 18) used to measure patients' satisfaction with 10 items on a scale 1 (strongly disagree) to 5 (strongly agree).

The profiles of respondents are as follows: 57.1% of employees participants were male and 42.9% were female (78% married and the rest stated as non-married). However, only 3.6% was noted that their age is more than 55 years old. The amount of salary they annually received was asked according to 6 different categories, the amounts of less than 400JD, to greater than 1400JD. Regarding the educational levels, 21.6% respondents held of a diploma certificate, 48.7% had bachelor's degree. However, 29.7% were holder of a postgraduate certificate (Ph.D. and master's degrees). According to the data, doctors and nurse have 1 to 35 year experience working in hospital (M= 11.94, SD= 7.41).

Moreover, for the patients under the care of nurse and doctors, 43% of respondents were male and 57% were female with a marital status of 84.8% married and 15.2% were non-married. Overall, the age was grouped into 4 categories of 18 to above of 55 years old. However, the patients' educational status illustrated that 36.6% are not educated, 26.8% have a high school certificate, 31.5% have diploma and only

5.1% have bachelor's degree. In addition, job status of patients showed that 41.1% work for the Jordanian government and 31.8% occupied as non-governmental job and 27.1% of patients were jobless.

## Findings

### Measurement Model

In this study, measurement model was used to examine the effect between independent variables and the outcome variable. Measurement model is the second level of analysis in structural equation modeling which is considered as part of data preparation because it is used to access normality of the measurement instruments. Three confirmatory factor analyses were used to assess the overall measurement model for leadership styles (LS), Employees Job Satisfaction (EJS) and Patients Satisfaction (PS).

The first CFA model for Leadership Styles Leadership styles consist of two subscales of transactional and transformational styles. Transactional style is assessed by 12 items while this figure has 20 items for transformational. In addition, subscales of this indicator are separately tested for CFA. The CFA model of TF leadership style was made up of 20 items. Some items are less than 0.5; therefore, they were removed to improve the model fit to achieve the required level of the indexes, the  $\chi^2$  129.106,  $df = 27$ ,  $p\text{-value} = 0.000$ ,  $GFI = 0.960$ , and  $AGFI = 0.933$ . Furthermore, the root-mean-square error of approximation (RMSEA) result was 0.075 which is accepted and below 0.10. The CFA model of TA leadership style was made up of 12 items. some items were removed for improvement in model fit The  $\chi^2$  was 57.663,  $df = 14$ ,  $p\text{-value} = 0.000$ ,  $GFI = 0.977$ , and  $AGFI = 0.954$ . Furthermore, the root-mean-square error of approximation (RMSEA) result was 0.068 which is accepted and below 0.10. The second CFA model of EJS was made up of 16 items and some items were removed because they were below the recommended cut-off value of 0.50 the modified CFA model was  $\chi^2 = 14.844$ ,  $df = 6$ ,  $GFI = 0.993$ ,  $AGFI = 0.975$  and  $RMSEA = 0.044$ . The third CFA model of PS with 10 items and the factor loading were above the cut-off 0.5, therefore no items was removed. The measurement model of patients satisfaction showed relatively perfect fit with directories with  $\chi^2 = 81.472$ ,  $df = 31$ ,  $GFI = 0.977$ ,  $AGFI = 0.959$  and  $RMSEA = 0.049$ .

In this study, measurement model was used to examine the relationship between (independent) variables and the outcome (dependent) variable. Therefore, the analysis of measurement model using AMOS shows that the structural model is fit, which means the model fits the data as illustrated by the following Goodness-of-Fit indices in figure 2 below;  $\chi^2$  (CMIN) = 838.843 ( $df = 338$ ), relative  $\chi^2$  (CMIN/df) = 2.482,  $AGFI = .900$ ,  $GFI = .917$ ,  $CFI = .973$ ,  $IFI = .973$ ,  $RMSEA = .047$ , relative  $\chi^2$  (CMIN) should be  $< 5$ , while  $AGFI$ ,  $GFI$ ,  $CFI$ ,  $IFI$  and  $TLI$  should be  $> .9$

(Bentler, 1983; Hu and Bentler, 1999; Byrne, 2010) and  $RMSEA$  and  $RMR$  should be  $< .08$  (Browne and Cudeck, 1989; MacCallum et al. 1996; cited in Bryne, 2010). According Hair et al., (2009) if any 3 – 4 of the Goodness-of-Fit indices are within the threshold then the entire model is fit therefore, based on this reason the structural model for this study fits the data. Furthermore Byrne (2001) suggested that,  $RMSEA$  should be  $< .08$

Once the uni-dimensionality of the constructs was achieved, each of the constructs was assessed for their reliability and validity. Reliability is assessed using Cronbach's alpha, construct reliability (CR) and average variance extracted (AVE), whilst for validity using construct, including convergent and discriminant. Table 1 represents the result of Cronbach's alpha and convergent validity for the overall measurement model. The AVE ranged from .60 to .84 was above the cut-off 0.50 for all second-order constructs as suggested by Nunnally and Berge (1994). The composite reliability values exceeded the recommended value of .60 for all constructs as recommended by Bagozzi and Yi (1988) ranging from .82 to .95.

Table 1: Average Variance Extracted (AVE) and Construct Reliability (CR)

	CR	AVE
Employee Job Satisfaction (EJS)	.82	.60
Transformational Leadership (TF)	.95	.75
Patient Satisfaction (PS)	.95	.84
Transactional Leadership (TA)	.95	.76

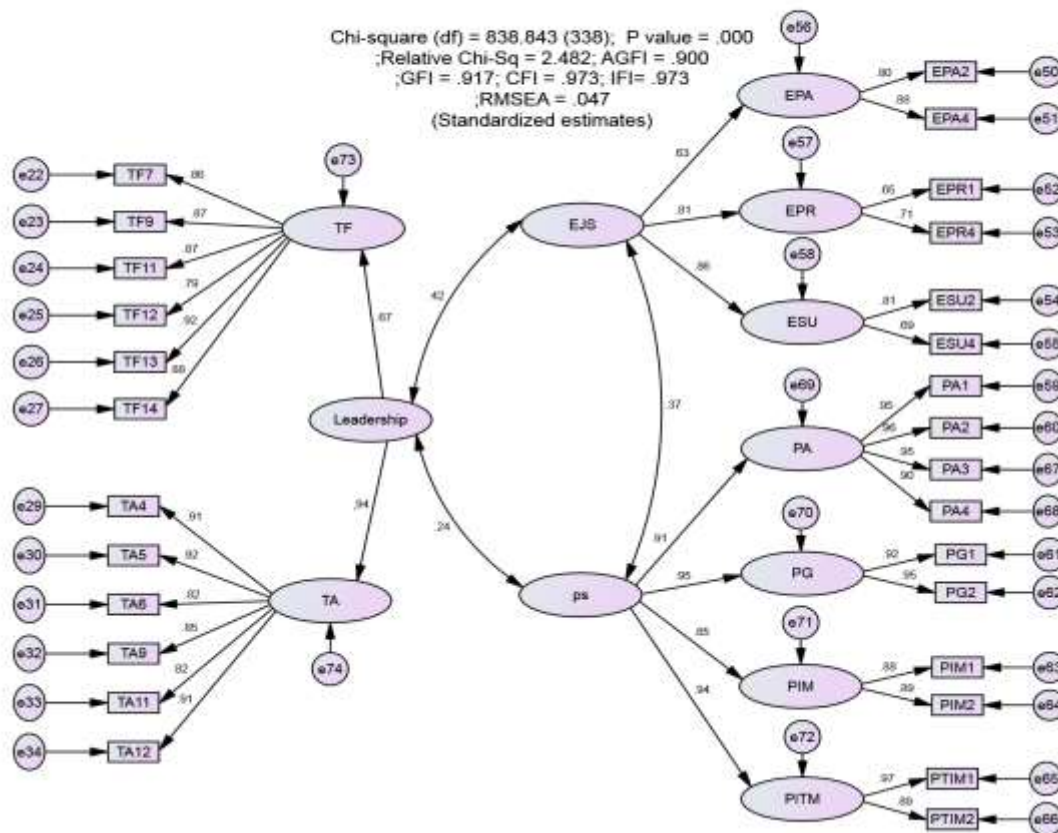


Figure 2. The Measurement Model with Standardized Factor loading: Leadership style with its two subscales

**Structural Model**

Structural equation modeling is the third level of analysis so, in this study, structural equation modeling was used to examine the individual and collective contribution of set of predictors (independent) variables entered in to the equation in relation to the outcome (dependent) variable. Therefore, the analysis of structural equation modeling using AMOS shows that the structural model is fit, which means the model fits the data as illustrated by the following Goodness-of-Fit indices in figure 4.2 below;  $\chi^2$  (CMIN) = 838.843 (df = 338), relative  $\chi^2$  (CMIN/df) = 2.482, AGFI = .900, GFI = .917, CFI = .973, IFI = .973, TLI = .969, RMSEA = .047, relative  $\chi^2$  (CMIN) should be < 5, while AGFI, GFI, CFI, IFI and TLI should be > .9 (Bentler, 1983; Ho and Bentler, 1999; Bryne, 2010) and RMSEA should be < .08 (Browne and Cudeck, 1989; MacCallum et al. 1996; cited in Byrne, 2010). According Hair et al., (2009) if any 3 – 4 of the Goodness-of-Fit indices are within the threshold then the entire model is fit therefore, based on this reason the structural model for this study fits the data.



The testing of hypothesis, in determining the mediating effect of employee’s job satisfaction mediates effect between leadership style and patients satisfaction. As this hypothesis is determined to test the medication effect of employees’ job satisfaction on association between leadership styles and patients’ satisfaction, the researcher required to assess the mediation model. The result below is based on Figure 4, which shows the standardized regression for the mediation effect.

**Assessment of Full Mediation Model Vs. the Indirect Model**

Awang (2014) detailed the methods of examining the mediating effect between variables. He pointed out that in order to test the mediating effect, the researchers are required to compare the direct effect and the indirect effect (the direct effect is the effect that goes directly from the exogenous construct to the endogenous construct, while the indirect effect is the effect from exogenous construct to endogenous construct that goes indirectly through the mediator in the model). Following the procedure of Awang (2014), he suggested first to examine the standardized regression weights and the probability values, which indicated the significance of the respective path.

Thus, for the hypothesis H1 that employee job satisfaction mediates effect between leadership and patient satisfaction, Figure 3 is extracted from figure 4 to ease the calculation and explanation of the mediator.

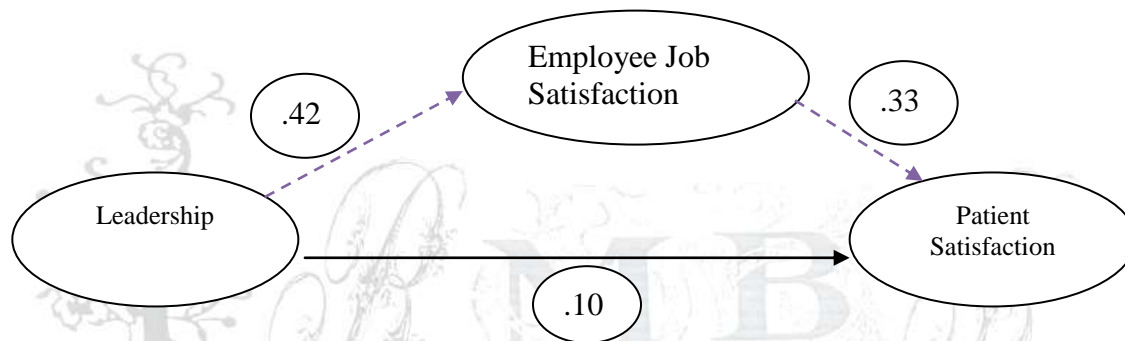


Figure 3: Mediation relationship between leadership and patient satisfaction (Taken from Figure 4)

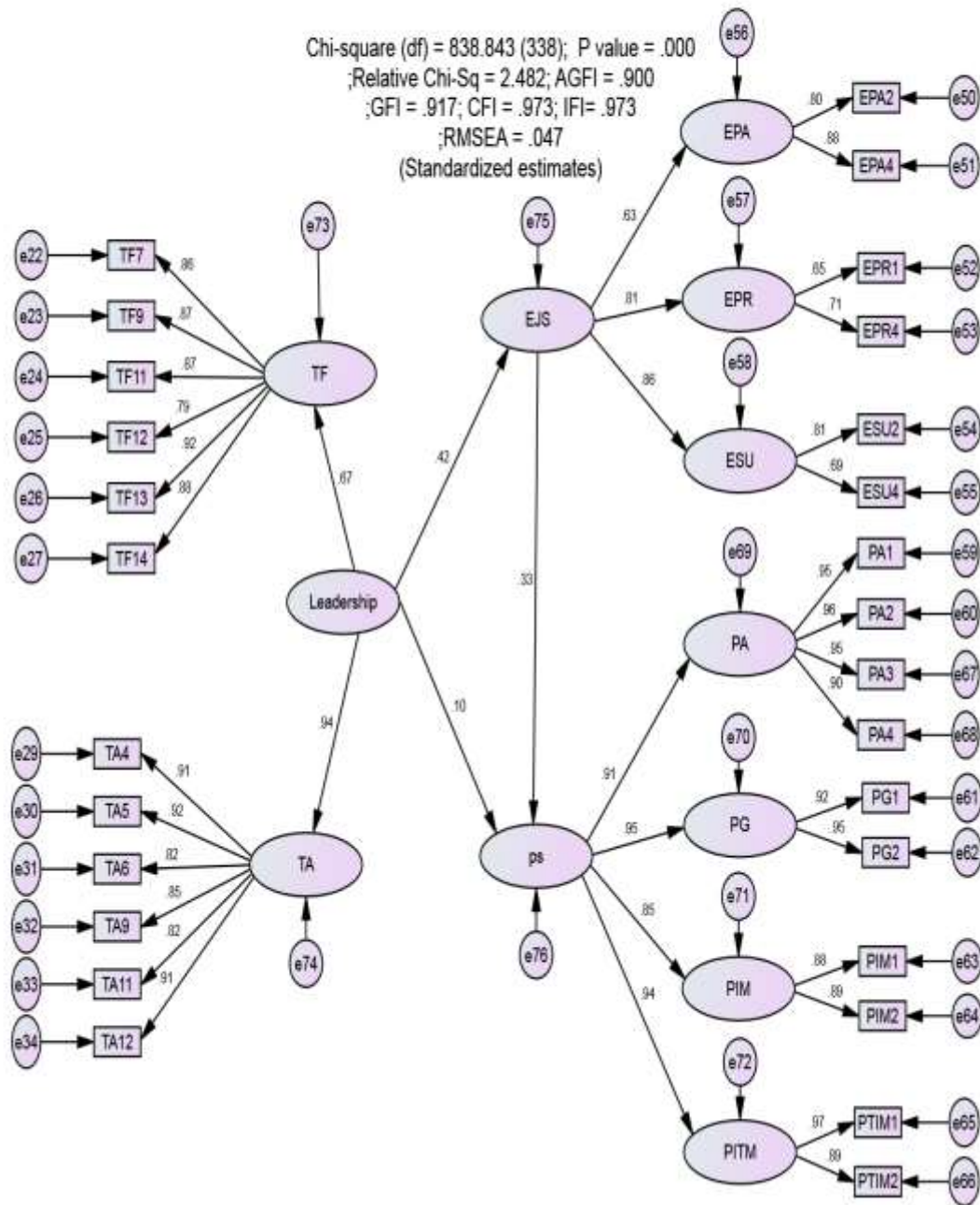
The indirect effect represented by dotted lines is .14 (.42 \* .33=.14) while the direct effect from leadership to patient satisfaction is .10. Since the indirect effect is greater than the direct effect then the mediation occurs. To determine whether the mediation is full or partial mediation, the related hypotheses must be tested.

Table 2: The regression weights between construct (Unstandardized estimate from Figure 5)

			<b>Estimate</b>	<b>S.E</b>	<b>C.R</b>	<b>P</b>	<b>Result</b>
EJS	<---	Leadership	.57	.07	7.97	.00	Significant
PS	<---	Leadership	.16	.06	2.80	.00	Significant
PS	<---	EJS	.39	.07	5.71	.00	Significant

Since the direct effect and the indirect effect are significant, the mediation is partial. In other word, employee job satisfaction partially mediates the relationship between leadership and the patient satisfaction. Thus H1 was accepted.

Figure 4 the Structural Model; Leadership Styles towards Employees Job Satisfaction and Patient Satisfaction



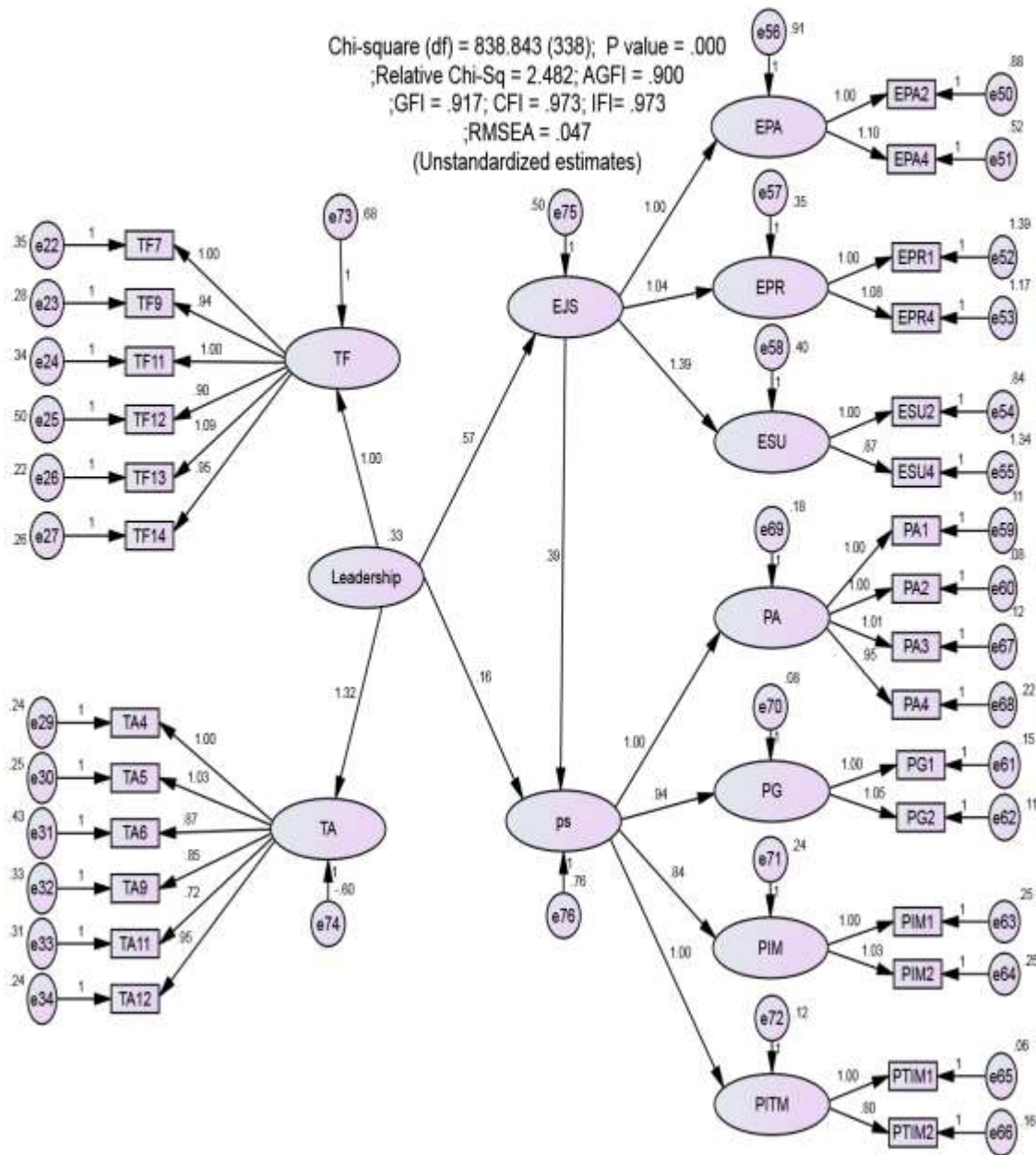


Figure 5 Structural Model: Leadership Style toward employee job satisfaction and Patient Satisfaction (Unstandardized estimates)



## Discussion and Conclusion

### Employee's job satisfaction mediates effect between leadership styles and patients satisfaction.

The last objective of this study was to explore the mediating effect of employees' job satisfaction on the relationship between leadership style and patients' satisfaction. For this objective, this study stated this question, "Does employee's job satisfaction mediates effect between leadership style and patients' satisfaction?" Based on path effect that uses SEM, the results obtained from testing hypothesis 1, indicated that employees' job satisfaction has partial significant mediating effect on the relationship between leadership style and patients' satisfaction. Thus, hypothesis 1 was accepted.

To the best of the researcher's knowledge, no studies were investigated whether employees job satisfaction mediates the relationship between leadership styles and patients satisfaction, the finding of this study showed that leadership styles has effect on patients satisfaction through employees job satisfaction.

The findings generally supported with previous study by Vahey and Aiken (2004) examined the effect of work environment on nurse burnout, and nurse burnout, on patients' satisfaction. The results indicated that in units that having employee's job satisfaction reported significantly lower burnout, and patients were higher satisfaction more than twice likely as other patients in other units.

Brunetto and Farr-Wharton, (2006) argued that the relationships between management and employees and quality of communication has impacts the employees themselves and also has an impact on organizational effectiveness by affecting productivity. Employees are more satisfied with their employer when management helps them and offers them the support and necessary resources to provide quality patient care.

In conclusion, the current study found significant effect of employee's job satisfaction mediates the relationship between leadership styles and patient's satisfaction Therefore, in order to achieve the objectives and a positive organizational outcome, leaders need to use the right leadership style. Increasing employee's job satisfaction in hospitals is one of the important key in meeting challenges of health care quality outcomes, retention of employees. On the other hand, healthcare employee's job satisfaction is a very important parameter that influences productivity as well as quality of health care and reach to patient's satisfaction.

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