



# Assessment of leadership styles at hospitals in Gaza strip of Palestine

## *Evaluación de estilos de liderazgo en hospitales de la Franja de Gaza de Palestina*

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### Abstract

This paper show the results of the analysis of the leadership styles of managers and their staffs' performance, so as the relationship between them from the perspectives of the subordinate staffs. A Multifactor Leadership Questionnaire (MLQ-5X) and a demographic form were used to collect the data from a random sample of 400 Gaza's hospitals' staffs. The analysis shows that the managers styles can be classified as corresponding to transformational and transactional styles. The results also indicate the significant relation between the transformational and transactional leadership styles and the hospitals' staffs' behavior. Further, the estimation of a regression analysis offers evidence of the power that transformational and transactional leadership styles have in predicting the behavior of hospitals' staff. An implication is that hospitals' managers in Gaza Strip should take advantage of the styles of leadership in enhancing the level of their staff efforts when introducing new services.

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*Keywords:* hospital; leadership style; transformational leadership; Gaza Strip; Palestine

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## Resumen

Este artículo muestra los resultados del análisis de los estilos de liderazgo de los gerentes y el desempeño de sus equipos, así como la relación entre ellos desde la perspectiva de los equipos subordinados. Se utilizó un Cuestionario de Liderazgo Multifactorial (MLQ-5X) y un formulario demográfico para recopilar los datos de una muestra aleatoria de 400 empleados de hospitales de Gaza. El análisis muestra que los estilos de los gerentes se pueden clasificar como correspondientes a los estilos transformacional y transaccional. Los resultados también indican la relación significativa entre los estilos de liderazgo transformacional y transaccional y el comportamiento del personal de los hospitales. Además, la estimación de un análisis de regresión ofrece evidencia del poder que tienen los estilos de liderazgo transformacional y transaccional para predecir el comportamiento del personal de los hospitales. Una implicación es que los gerentes de los hospitales en la Franja de Gaza deberían aprovechar los estilos de liderazgo para mejorar el nivel de los esfuerzos de su personal al introducir nuevos servicios.

*Código JEL:* I12

*Palabras clave:* Hospital; estilo de liderazgo; liderazgo transformacional; tira de gas; Palestina

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## Introduction

In different disciplines and from different theoretical perspectives the concept of leadership has been examined. It is an energetic concept that changes over time. As a result, literature has defined leadership in dissimilar ways (Solà et al., 2016). In general, it is defined as a multidimensional approach, involving a situation of stimulus within a group, in a setting that seeks to achieve purposes that reflect a mutual vision (Sauquet, 2008; Barrett et al., 2005). Healthcare leadership positions are often seen as a highly specialized subset of broader management areas and many of the broader management education debates (Garman et al., 2010).

However, healthcare professionals did not express such intricate issues and practical difficulties to keep their organizations feasible. With turbulent changes taking place in expense, delivery, and social systems, healthcare leaders are faced with trying to meet their organizations' health mission in an environment of operative pressures (Spinelli, 2006). If our healthcare organizations (HCOs) are to survive today, suitable styles of leadership are mandated to maintain HCOs in the track of its' targeted goals.

Nonetheless, the systematic study of leadership gain eminence around the middle of the 20th century, mainly because a much higher value was placed on healthy management techniques rather than leadership skills. Even then, the former works on this theme were limited to a wide range of leadership concepts, including the identification of a leader's desirable traits or actions. Research has only recently become more in keeping with the appreciation of leadership as a process of influencing other people within a particular OC and the interactive relationship between a leader and the staff.

In fact, countless but alike meaningful management descriptions have been published over the years. Burns (1978) emphasized the lack of a universally accepted understanding of the concept of leadership, claiming that this deficiency is partly caused by the divergent works of scholars who pursue separate disciplines and who explore various and often unrelated questions or glitches. The vast majority of researchers define leadership in a way that is appropriate for their research, so it is indispensable to be familiar with a series of theories and researchers and to accept leadership as a compound and multifaceted phenomenon (Marriner-Tomey, 1993).

World Health Organization (WHO) (2007) emphasizing the role of leadership in low-income countries in achieving the Millennium Development Goals related to health and comforting that better management and leadership are keys to efficiently using these possessions to achieve assessable outcomes. The Palestinian Governments are therefore trying as much as possible to improve the working environment in the Ministry of Health (MOH) and the quality of the introduced health services.

Moreover, as leadership is a key of change, ability of building employee, inspiring them, transmitting loyalty to meet the organizational visions and objectives in the sight of maintaining its identity. Leadership role in complex organizations like the HCOs is more significant. Thus, this study highpoints the styles of leadership and its' effect in supporting the extra-effort, effectiveness, satisfaction of human resources at hospitals in Gaza Strip (GS) of Palestine.

## **Literature review**

### *Leadership and development of the full range leadership model*

There are many theories of leadership and corresponding definitions developed (Chan & Harn, 2001). Three main theories have been examined in order to gain a solid understanding of leadership in this study. The three theories of leadership are trait personality, contingency and transformational. These three theories were the main focus here, as they were common in the literature. However, the Bass' Full Range Leadership Model (FLM) (1985) forms the basis of this study's framework (Bass and Riggio, 2010). The main objective of which was to conduct a quantifiable investigation of the important elements of sound leadership and the impact on selected results. However, in his book *Leadership*, Burns (1978) introduced this more fully. Burns was very much inspired by Maslow's human needs theory.

In 1985, Bass, a Burns disciple, developed the concept of transformational leadership (TFL) further by spreading its prospect from the scope of needs to the sphere of consciousness. As the main drivers of organizational performance, Bass identified five leadership factors: individualized

consideration, charismatic leadership (idealized influence), intellectual stimulation, contingent rewards and management by exception (active and passive). The first three of these factors are related to TFL and the last two to transactional leadership (TRL). Several studies reveal that nurses prefer TFL rather than TRL (Perez, 2014).

The dominant transformational factors, however, are linked to greater job satisfaction among staffs, their willingness to make extra effort and their perceptions that their leaders are effective. Research by Alloubani et al. (2015) explains that there is a positive relationship between TFL and behaviour with organizational consequences such as leader effectiveness, job satisfaction and employee readiness to make additional efforts.

Several previous studies have some topic of the influence of leadership style on performance by Dwiantoro et al. (2018) concluded that the type of TRL has a significant positive effect on performance, the type of TRL has a significant influence on the impact of transformational performance. leadership on employee performance, and TRL does not affect employee performance. According Asbari et al. (2020) conducted a study and concluded that the influence of TFLs on performance. TRL does not affect performance. According to Aqmarina et al. (2016) conducted a study and concluded that the type of TFL was negative and did not significantly affect employee transactional leadership performance while there was no significant effect on employee performance.

One of the most popular leadership styles is TFL, which focuses on helping employees advance their knowledge and abilities (Budur, 2020). To ensure that people perform at their best, TRL focuses on rewards and penalties based on work results (Azizaha et al., 2020). Laissez-faire leadership (LFL), in contrast, takes a hands-off position and provides people the flexibility to make judgments (Robert & Vandenberghe, 2021).

Transformational leaders can exploit the potential capabilities of the individuals via an influential approach and then implement their knowledge in a practical way, which leads to transforming their organisations and improving their existence and performance as well (Aragón-Correa et al., 2007). It has been proposed by Noruzy et al. (2013) that there is a positive relationship between transformational leadership and knowledge management via exploitation of existing knowledge and exploration of new knowledge. Transformational leaders can create a highly interactive social context that enhances individual's communication, shares activities, and discovers new work approaches and knowledge (Bryant, 2003). It creates a sense of shared pathways and directions (Bass, 1999). In addition, it encourages individuals to take risks, be innovative and increases employee commitment (Bass, 1999; García Morales et al., 2008).

Hence, Bass and Riggio (2010) suggested that TFLs try to renovate their followers by increasing their awareness of the results of their tasks and encouraging them to surpass their own self-centeredness

for the interests of the organization by activating their higher wishes. Bass identified three basic styles of leadership by grouping certain leadership traits: TRL, TFL and LFL. The style of transaction requires responsibilities, monitors performance and aims at achieving the desired effect by inciting a reward system. TFL aims to inspire and give individual attention to staffs while also inspiring their intellectual needs. The third style, LFL, involves being separate from leadership responsibilities, rather than leading from a distance.

Burns (1978) claimed that the styles of TFL and TRL exist as a dichotomy in which either the leader is one or the other. Bass expanded Burns' theory of a dichotomy between TFL and TRL leaders by presenting his three styles of leadership in a continuum. Bass also took Burns' claims from the political science community and applied them to business and non-profit organizations.

### *Transformational leadership and healthcare*

Healthcare managers and leaders employ a variety of leadership philosophies, including traditional leadership (autocratic, democratic, laissez-faire, bureaucratic, and situational) and modern leadership (charismatic, transactional, transformational, connective and shared leadership; Huber, 2017; Major, 2019).

Leaders must have the ability to instruct and inspire their subordinates to achieve corporate goals since they are the people that their subordinates trust (Fahlevi et al., 2019). Human resource management, positive working relationships between coworkers, and effective leadership are anticipated to boost job productivity in order to reach the maximum level of staff growth (Kadiyono et al., 2020). Therefore, leadership is a crucial pillar in the administration of hospitals and other healthcare facilities. Hospitals and healthcare institutions are characterized by staff-intensive, capital-intensive, technologically-intensive, and problem-intensive practices (Al-Hashimi and Al-Hashimi, 2021). In order to produce successful organizational outcomes, leadership entails the capacity to motivate, direct, and guide staffs (Cai et al., 2019).

Meanwhile, Alshammari et al. (2014) argued that TFL is the most operative style for use in subcultural healthcare facilities. Research indicates that culture affects TFL because social groups tend to differ in their understanding of different styles of leadership (Spreitzer et al., 2005). To examine any discrepancy in the effectiveness of TFL across different cultures, Spreitzer et al. (2005) studied leaders in North America and Asia. Based on their findings, TFL can be effective or ineffective in different environments because different people value different leadership styles. However, the majority of the staff found it to be one of the best styles of leadership.

Spiritually more developed healthcare leaders can achieve significantly more positive results for their organizations by challenging the process, sharing a common vision and motivating others to work in a classic way (Yukl et al., 2002). Despite thousands of publications on the topic of health leadership (Kim et al., 2012), fairly little research has been accepted out on a high academic evaluation. It is crucial to use theory to guide research into leadership in healthcare to ensure that the perceptions and structures that the research aims to address are both appropriate and applicable. Wong and Cummings (2007) and Wong et al. (2013) conducted two systematic reviews of leadership literature and patient outcomes, identifying 20 good methodological quality articles (research design, sampling, measurement and statistical analysis). Similar findings were recorded with few methodologically valid papers and some focused on management theories.

However, very few studies have taken into account theoretical perspectives other than TFL (Akerjordet K & Severinsson, 2010; Katrinli et al., 2008; Wong et al., 2013). The theory of transformation of leadership is therefore the most influential theory for conducting research in healthcare. The theory of leadership in transformation emphasizes the interdependence of staff and leaders. It was therefore especially striking in care-related areas such as nursing and teaching. According to Welford (2002), the TFL is the most advantageous for clinical nursing, both medical and surgical, and the most suitable for empowering nurses (Sofarelli & Brown, 1998).

As we move from LFL through TRL and TFLs, the efficacy of the tasks and procedures increases (Al-Dossary, 2022). According to a recent systematic review of 18 studies (Wei et al., 2020), effective leadership can lower staff stress by empowering and fostering job satisfaction, boosting engagement, and fostering a positive work environment. In a similar manner, TFL was linked to lower intention to quit, but TRL and LFL were linked to higher voluntary turnover (Magbity et al., 2020).

The most important contribution in the creation of TFL is reflected in the ability of leaders to be able to influence the ideal qualities of TFLs to become an inspiration for staff and create valuable values and concepts in individuals and leaders understand the needs of growing staff and to meet these needs and nurture individuals, will apply a coaching style (individual considerations) until the creation of employee performance and job satisfaction that is felt by employees increases. Permanent emotional intelligence officers are proven to improve employee performance but not the job satisfaction felt by employees.

## **Methodology**

The purpose of this study was to describe the hospitals' staffs' perceptions of their hospitals' managers' leadership styles within their hospitals. TFL and TRL styles' ratings as perceived by the staffs were based

upon Bass's leadership (Bass,1985; Bass & Avolio, 1994) theory. This study focused on respondents' perceptions of leadership because they are factors that are theoretically and empirically linked to the staffs' experience in the workplace (Bass & Avolio, 1993; Schein, 2010; Trice & Beyer, 1993; Waldman & Yammarino,1999). The study used the MLQ5x instruments to measure the staffs' perceptions of their manager's leadership styles and their characteristics.

TFL, TRL, LFL are the dependent variables and leadership perceived behaviors are the leadership outcomes. In order to analyze these variables, multiple regression models were used. Multiple regression is an equation based on correlation statistics in which predictor variables are entered in the equation so as to determine the strength of their relationships with the dependent variable (Polit & Hungler, 1999; Nieswiadomy, 1998). Leadership was described in terms of Bass's (1994) MLQ. The MLQ5x was used to collect data regarding the independent variables: TFL, TRL and LF style. Hospitals were described by the demographic questionnaire.

### *Sampling*

The sample size was derived from a group of different categories working at different departments in governmental and NGOs hospitals in GS. Subjects were obtained from a population of fulltime-working employees. The target population of this study included physicians, nurses, paramedics and administrators. The author chose different size hospitals from a cross-section of the GS hospitals to ensure that the sample would be representative for all GS hospitals. Random sampling was employed for this study.

The sample can be described as stratified because the hospitals were categorized according to the hospitals' owners and the respondents were further grouped by professions. It can be described as a random selection because individuals were chosen randomly from within each professional group. Therefore, selecting the sample in this way ensured that it would represent the hospitals (the study population) and the professional groups (the target population). The questionnaire targeted staffs for their perceptions about the styles of their superordinate leaderships at their hospitals.

The author believes that it was very important to elicit the views of staffs from different departments and specialties, because the literature review indicates that obtaining views from different areas will lead to valuable and reliable findings on the phenomenon under study. Cramer (1994) notes that greater validity and reliability can be given to the research findings by selecting participants from different backgrounds, while Punch (2013) argues that bias in the research findings can be avoided by such diversity in the sample.

The total number of staff working in governmental and non-governmental at the time of calculating the sample was 3022. The author's initial goal was to obtain at least 341 questionnaire responses from the chosen sample. This total sample size was then increased to 400 because the size of the NGOs Hospital sample would have been considered too small, so the author increased it to 30 questionnaires for each hospital. According to Hays (1981), a minimum sample size of 30 for each category is necessary where samples are to be divided into sub-samples. In order to reach this sample size, 470 questionnaires were distributed which recorded a response rate 85%.

### *Multifactor Leadership Questionnaire (MLQ)*

The internationally renowned MLQ developed by Bass (1998) was used to measure the independent variables: TFL, TRL, and LFL style and their subordinate's reported job satisfaction, extra effort and effectiveness. The MLQ5x is both a self-report and rater-report measure of leadership style and leader effectiveness. Strong evidence supports the validity and reliability the current version of the MLQ Form 5X (Antonakis et al., 2003).

The MLQ has been widely utilized by Bass and others in the fields of business, military and industry. It has also been used to research leadership styles of hospitals' departments. The latest version of the MLQ, Form 5X, has been used in hundreds of research agendas and academic theses (Bass & Avolio, 1995). This study analyzes only employees' perceptions using the rater form. They complete the MLQ5x to determine how frequently or to what degree they may observe the displays of leading figures or engagement in 36 different actions of leadership styles and in 9 additional (behavior) leadership outcomes.

The MLQ is a 45-point survey that measures TFL, TRL and LFL with a five-point Likert scale. For each answer to the leadership factors, numerical values are given. The values are the following: 4 = frequently, 3 = quite frequently, 2 = occasionally, 1 = occasionally, 0 = not at all. The MLQ tests a wide spectrum of leadership styles and attitudes, including TFL, TRL, with LF, with three leadership trait results; extra effort; effectiveness; and satisfaction.

The numerical values are summarized and divided by the factor number of items. The average values for each factor indicate the leadership style characteristic. The factors for TFL are idealized attributes, idealized behavior, inspirational motivation, intellectual stimulation, and individualized consideration. The TRL factors are contingent reward and management by exception, active and passive, however LFL measures non-leadership. There are also nine items that measure the outcome variables of effectiveness, extra effort, and satisfaction.



The tool for this study was developed in English, and in other research it was translated into Arabic. The Burlingame and Blaschko (2010) translations of questionnaires were carried out using a traditional three-step protocol. The MLQ5x questionnaire was translated into the local language (Arabic) because participants might not fully understand English, then used back-translation in order to check it.

### *Data collection*

A cover letter and instruction requirement directed to the governmental and NGOs hospitals' participants, the MLQ and demographic questions were accompanied. The cover letter included the following information: (i) the aim of the questionnaire, (ii) an estimate of the time it was expected the participants would require answering the questions and (iii) a statement guaranteeing anonymity and confidentiality for the participants.

In June 2018, after obtaining the approval of the hospitals to conduct the study, the author delivered all questionnaires to the participants by a data collection team, believing that because participants were likely to feel under no obligation to be involved in the study, follow up would help in increasing the response rate. The data collection was completed by December 2018.

Overviewing of the questionnaires was the first step prior to data entry. This step followed by using the Software Statistical Package for Social Sciences (SPSS) version 22 and coded variables entered into the program. Data entry conducted in congruency with the data collection. Samples of entered questionnaires were checked followed by conducting frequency distribution to check accuracy, missing values and conduct data cleaning. Co-relational descriptive and parametric statistics were used to analyze the collected data.

### *Ethical and administrative considerations and procedures*

Compliance with the Palestinian Health Research Council (Helsinki Committee) was completed and approved. Administrative approval was obtained from the Human Resources Development General Directorate in the MOH for conducting this study at Governmental hospitals. An Academic approval was asked from Ankara University and official letter from the supervisor. Administration approvals from the directors of the NGOs hospitals were obtained. To guarantee the participants rights, a covering letter was used to indicate that the participation was voluntary. In addition to, a statement that there were no anticipated adverse effects form the completion of the questionnaire.

## Results and discussion

The main purpose of this study was to determine the hospitals' staffs' perceptions pertaining to the leadership styles. In addition, to identify the leadership styles that lead to best outcomes (extra effort, effectiveness, satisfaction) within governmental and NGOs hospitals in GS of Palestine. According to the author's research, this study considers a milestone study of leadership styles of managers as perceived by participants from unlike units among the GS hospitals' sector.

### *Hospitals' and participants' characteristics*

A total of five hospitals in GS were included in this study. Three of these were public hospitals (AlShifa, AlAqsa, AlRantisi) and two were NGOs hospitals (AlAwda, Public Aid). The demographic analysis represented about 60% of the sample was male and 40% was female. Most of the participants' age ranged between 20-40 years. The importance of selecting participants in this age group (young adult) was because they are at their prime stage of identity formation and ready to intimacy. In addition to motivation in young adulthood that promotes the self-efficacy which lead to attain the work requirement.

The percentage of participants by profession included 37.2% nurses which was the highest, physicians with 28.8%, administrators constituted 19.0% and paramedics represented the lowest percentage with 15.0%. The compound hospitals' participants represented 55.3% while the small hospitals' participants had 26.4% with only 18.3% for the large hospitals. This indicates that the author included different staff categories due to the different hospitals' sizes according to the MOH classifications, to ensure the multiplicity of the culture views and to determine the discrepancy between categories. Also, to include the various numbers of participants in each hospital according to its capacity. Given the diversity of participants, different types of tools may need to deal with the various categories, which group had the priority to start the development with, and where the focus of efforts had to be augmented.

From the participants 65.1% had between 1-10 work years in hospitals. Approximately 81% had 6 years or more of working in the healthcare sector. Around 71% of them were ordinary employees while nearly 21% were sections or departments' heads; the rest were having other different positions. This indicates that the working staffs in GS hospitals may have different knowledge about the leaderships' styles that drive them and awareness of their outcomes.

Moreover, the MLQ5x rater form analyzed three leadership styles and three leadership outcomes (Table 1). The LFL had the lowest mean ( $M = 3.26$ ,  $SD = 0.92$ ) while the TFL style had the highest mean ( $M = 3.68$ ,  $SD = 0.57$ ) followed by TRL ( $M = 3.50$ ,  $SD = 0.47$ ). In Saudi Arabia, Omer (2005) and Abu-

AlRub et al.38 found the same results as both nurses and their managers had a higher rating to transformational factors than transactional factors. The Participants perceived the leadership styles of their managers in this study as TFL at a moderate-high level. In the selected hospitals, both TFL and TRL styles were blended. This result was consistent with Bass (1990), who stated that transformational and transactional approach of leadership can be applied at the same time. Moreover, Al-Dossary (2022) revealed that among nurse managers, TFL was most favoured, followed by TRL and LFL approaches. However, compared to LFL, both TFL and TRL among nurses obtained higher mean scores.

Furthermore, Idealized influence (behavioral) was the most perceived leadership behavior ( $M = 3.79$ ,  $SD = 0.69$ ), followed by idealized influence (attributed) ( $M = 3.73$ ,  $SD = 0.69$ ), inspirational motivation ( $M = 3.70$ ,  $SD = 0.72$ ) and Individual consideration ( $M = 3.63$ ,  $SD = 0.76$ ). Intellectual stimulation ( $M = 3.58$ ,  $SD = 0.64$ ) was the least perceived TFL dimension. The inspirational motivation was found to be one of the three highest leadership outcomes. Bass and Avolio (1994) highlighted that inspirational motivation plays a non-neglected role in the constitution of the vision of a dynamic framework for the organization's operations.

Nonetheless, the results from the descriptive statistics showed that the participants sometimes perceived the leadership as showing a combination of TFL (team-oriented) and TRL (task-focused) styles, with LFL being shown rarely. In addition, leaderships who were perceived to frequently exhibit extra effort, effectiveness and satisfaction, encourage staff to do better than they expected; make them better successful, stick them to targets and also emitting satisfaction between them.

Table 1  
 Descriptive statistics of the Leadership independent and dependent variables

Variable	n	mean	SD
Independent variables			
Transformational	400	3.68	0.575
Transactional	400	3.50	0.468
Laissez-Faire	400	3.26	0.923
Dependent variables			
Extra effort	400	3.62	0.838
Effectiveness	400	3.64	0.789
Satisfaction	400	3.68	0.848

The participants perceive their TFLs as leaders that are to be well-regarded; appreciated and trusted; who encourage those around them; inspire innovation and creativity; consider staffs' development and achievement. Leaders show the motivational behavior by inspiring meaning and challenge to their subordinates' work environment. They encourage them to envision attractive foreseeing conditions for themselves. The leaders try to visualize the future positively and to accomplish their desires perfectly. TRLs offer acknowledgment when goals are attained; stipulate the standards for compliance taking

curative action as quickly as possible; avoid dictating values and standards to be accomplished. However, LFLs sidestep getting intricated in vital issues and making choices (Bass, 1999). Small setting hospitals such as some of this study may afford the leaders with the occasion to greatly encourage and stimulate staffs. Thus, these results indicated that the leadership styles in GS hospitals are from the positive and active styles. This promotes the ability to change and implement new strategies and behaviors within these hospitals.

### *Inferential analysis*

Regarding the participants' profession, the data showed that there were no statistically significant differences between leadership styles and also between outcomes except for TRL. In addition, regarding the participants' work position, the data showed that there were no statistically significant differences between leadership styles and outcomes except for LFL. However, the author pointed out that the profession and work position variables had not reflected differences because the assessment was related to the strategic level of the hospitals' leaderships. Thus, all employees' categories and positions focus on the organizational-level management of the hospitals and this what the author needed to accomplish in his study.

Additionally, to compare the leadership styles with the different hospitals' sizes, One Way-ANOVA test was used. There were statistically differences between hospitals' sizes regarding the TRL and LFL. Small hospitals' leaderships had the highest mean with the TRL ( $M = 3.62$ ) and the compound hospitals had the highest mean with LFL ( $M = 3.46$ ). The Post-hoc test showed that the differences were between compound and large hospitals for the TRL and between the compound and small hospitals for the LFL. This slightly moderates the rating of managers' leadership scores.

By using t-test to differentiate between the leadership styles regarding the hospitals' owners, it showed that there were significant differences between the TFL and TRL styles and also between outcomes except for satisfaction. Though, the NGOs hospitals had the highest means with the TFL and TRL ( $M = 4.00$  and  $M = 3.84$  respectively at  $p$ -value = 0.00). The author explained that non-governmental hospitals were small hospitals therefore management style in small settings generally clearer than the larger one. Nonetheless, the role of leadership in small hospitals can be investigated and noticed more than larger and compound hospitals.

The results analysis showed that there were no statistically significant differences between leadership styles and also between outcomes regarding work years in hospitals. Alshammari (2014) showed that the staffs responses indicated that experience years had a significant but not strong negative correlation with laissez-fair leadership ( $r = -0.125$ ,  $p < 0.05$ ). These results disagreed with AlHarthi et al.

(2013) that showed there were significant differences among participants' who had experience more than 6 months and contingent reward and extra effort outcomes. The author specified that the work-years did not affect the perceptions, maybe because of the continuous change in the hospitals' management level in GS hospitals, therefore the leadership did not stay constant for long periods. This made most of the participants roughly at the same level of their assessments of their leaders' styles.

Nevertheless, to investigate the best leadership style depends on the better outcome, a 2-tailed Pearson product–Moment correlation (Pearson's  $r$ ) was used to calculate the correlation coefficient among satisfaction, effectiveness and extra effort variables and leadership styles (TFL, TRL and LFL) depend on participants' point of views. Pearson's product-moment correlation coefficient is used to measure a relationship between two variables and can be any value between -1 and 1 and is most accurate when the variable measures show sufficient covariance. The correlation coefficients between TFL and TRL styles and each outcome variable of extra-effort, effectiveness and satisfaction were significant and positive ( $r=0.717$ ,  $r=0.775$ ,  $r=0.661$  and  $r=0.487$ ,  $r=0.448$ ,  $r=0.381$  subsequently) (Table 2).

Table 2  
 Pearson's correlations between the leadership styles and outcomes

Variables	Extra Effort	Effectiveness	Satisfaction
Transformational	0.717*	0.775*	0.661*
Transactional	0.487*	0.448*	0.381*
Laissez-Faire	0.072	-0.095	-0.800

There were higher positive correlations and significant relationships between TFL and outcomes; satisfaction ( $r = 0.49$ ), extra effort ( $r = 0.45$ ) and also with effectiveness ( $r = 0.38$ ). The correlation coefficients between LFL style and outcome variables were not significant and almost negative. It is concluded that the TFL style is the best predictor of extra effort, leadership effectiveness and job satisfaction. According to Al-Dossary (2022), it is apparent from the findings that all categories of organizational commitment and transformative leadership are moderately correlated (correlations ranged between 0.30 and 0.49). These results supported that the TFL style was preferred more than the TRL style (Bass & Avolio, 1995). Thus, the working staff under managers with a higher TFL style had more positive job effectiveness, extra effort and satisfaction compared to working under managers with other styles of leadership. Organizational outcomes were better gained with TFL style (Bass & Avolio, 1995; Bass & Avolio, 2004). These marks specified by the author to be seen as opportunities for policymakers and high management levels in hospitals seeking to sustain positive culture, improving performance and inspiring quality of outcomes.

This suggests that TFL leadership style affects staffs' impressions about their relations with their managers and their wishes and belongings to the organizations. These consequences recommend that

managers accorded high TRL scores are those who had a high level of belief among their staffs, and who share decision making and responsibility with their subordinates. As a result, of such leadership, staffs are encouraged and are obligated to administrative effects. Our conclusions advocate that a TFL style can attain a high level of staff engagement through enabling strategies and evocative contribution.

Moreover, managers who were supposed as representing the LFL of their leadership styles for dealing with problems caused advanced levels of dissatisfaction among their staffs. It is likely that the display of such unreceptive behaviors by the leader prime to the absence of effectiveness of outcomes. Therefore, staff may mistrust with their managers, especially in such complex environments like GS hospitals' context. For that, the managers should be positioned towards having an ability of challenges' anticipation and planned actions.

Furthermore, multiple regression analysis was performed to examine the effects of the independent variable on the dependent variable. The Variance Inflation Factor (VIF) and tolerance values, which is the variance ratio that the variables cannot explain, were examined. A Variation Inflation Factor (VIF) of less than 10 indicates the absence of multicollinearity and autocorrelation (Hair et al., 2010).

The first research question of this study is: leadership styles are significant predictors of the leadership outcomes. These variables were examined by the Multiple Linear Regression Analysis conducted between them.

It was observed that the calculated VIF values were between 1.453 and 1.925, and the tolerance values were between 0.701 and 0.896. Thus, it was concluded that there was no multiple dependency problem and the reliability of the model was high. Durbin Watson values calculated within the scope of the research were found to be 1.9-2.0 (Table 3).

According to the results of the regression analysis, it was concluded that the TFL and LFL had effect on extra-effort ( $\beta=0.630$ ;  $p<0.001$ ) and ( $\beta=0.086$ ;  $p=0.033$ ) TRL had no effect on extra-effort ( $\beta=0.049$ ;  $p=0.287$ ). The regression equation for the model established as a result of the Multiple Linear Regression analysis for extra-effort =  $(0.891 \times \text{transformational}) + (0.085 \times \text{transactional}) + (0.079 \times \text{laissez-faire}) + (-0.186)$ .

Also, it was concluded that while TFL had effect on effectiveness ( $\beta=0.677$ ;  $p<0.001$ ). The TRL and LFL had no effect on effectiveness ( $\beta=0.023$ ;  $p=0.596$ ) and ( $\beta=-0.073$ ;  $p=0.060$ ). The regression equation for the model established as a result of the Multiple Linear Regression analysis for effectiveness =  $(0.902 \times \text{transformational}) + (0.038 \times \text{transactional}) - (0.062 \times \text{laissez-faire}) + (0.421)$ .

Moreover, it was concluded that while TFL had effect on satisfaction ( $\beta=0.562$ ;  $p<0.001$ ). The TRL and LFL had no effect on satisfaction ( $\beta=0.05$ ;  $p=0.302$ ) and ( $\beta= -0.068$ ;  $p=0.144$ ). The regression equation for the model established as a result of the Multiple Linear Regression analysis for satisfaction =  $(0.804 \times \text{transformational}) + (0.089 \times \text{transactional}) - (0.063 \times \text{laissez-faire}) + (0.641)$ .

The regression analysis showed that the model of leadership styles had significant relationship (F (3.391)=99.604; p<0.001) for extra-effort outcome and (F(3.391)=121.537; p<0.001) for effectiveness and (F(3.390)=70.315; p<0.001) for satisfaction. The leadership styles all together disclose 43.3% of staffs' extra-effort, 48.3% and 35.1% of staffs' effectiveness and satisfaction respectively.

Table 3  
 Regression of Leadership Styles on Leadership Outcomes

Variable	B	Standard Error	$\beta$	t	p	VIF
Extra-effort						
Standard	-0.186	0.264		-0.703	0.482	
Transformational	0.891	0.062	0.630	14.360	0.000*	1.925
Transactional	0.085	0.080	0.049	1.067	0.287	2.310
Laissez-faire	0.079	0.037	0.086	2.146	0.033*	1.453
R =0.658	R <sup>2</sup> =0.433					
F (3.391) =99.604	p =0.000	Durbin-Watson =2.0				
Effectiveness						
Standard	0.421	0.238		1.769	0.078	
Transformational	0.902	0.056	0.677	16.153	0.000*	1.925
Transactional	0.038	0.072	0.023	0.530	0.596	2.310
Laissez-faire	-0.062	0.033	-0.073	-1.889	0.060	1.453
R =0.695	R <sup>2</sup> =0.483					
F (3.391) =121.537	p =0.000	Durbin-Watson =1.9				
Satisfaction						
Standard	0.641	0.287		2.235	0.026*	
Transformational	0.804	0.067	0.562	11.962	0.000*	1.922
Transactional	0.089	0.086	0.050	1.034	0.302	2.303
Laissez-faire	-0.063	0.040	-0.068	-1.584	0.114	1.450
R = 0.592	R <sup>2</sup> =0.351					
F (3.390) =70.315	p =0.000	Durbin-Watson =2.0				

\*p<0.05

### Confirmatory factor analysis

Confirmatory factor analysis (CFA) was conducted to address the reliability and validity of the study's constructs (Gerbing & Anderson, 1985). The primary objective of CFA is to evaluate the factor structure within a measuring model and to ascend how correctly the measuring model fits its data (Bollen, 1989). Within CFA model, each measure in a data set that is considered to be an observed indicator of one or more underlying latent constructs. The CFA model assumes that there are two sources of variation in responses to observed indicators. That is, observed indicators are assumed to be influenced by latent underlying factors and by unique measurement error (e.g. the influence of unmeasured variables). Unlike Exploratory Factor Analysis (EFA), in CFA, one or more models are built and the prediction of the interrelationships between the latent and observed variables within the model is given before the analysis.

A series of four CFA models were used to assess the factor structure of the MLQ5x. The first measurement model that was tested looked at the TFL items, the second model was focused on the TRL items and the third model on the Laissez-faire items and the last one was on the outcome variable items: satisfaction, effectiveness and extra-effort. The CFA model was conducted using maximum likelihood (ML) estimation procedures. The chi-square ( $\chi^2$ ) for the transformational leadership model was significant ( $\chi^2=274.677$ ,  $df=170$ ,  $P<0.001$ ). The RMSEA=0,038 and the model fit indexes NFI=0.881, TLI=0.939, CFI=0.950 indicated that the model had a good fit to the data. The LFL model is also had a good fit to the data as it obtained non-significant and low Chi-square value ( $\chi^2=10.379$   $df=5$ ,  $p=0.055$ ). The RMSEA=0.054 and the model fit indexes NFI=0.991, TLI=0.986, CFI=0.995 were also good fit. The outcomes models also had a good fit as can be seen in Table 4. The RMSEA =0.067 and the model fit indexes NFI =0.939, TLI =0.924, CFI =0.960 were also good fit. The TRL original model was the only one that had a poor fit. The RMSEA =0.074 and the model fit indexes NFI=0.137, TLI=0.337, CFI=0.541. Thus, it was apparent that some modification in specification was needed in order to determine a model that better represents the sample data. In the modified model 5 items have been extracted by examining the modification indices due to their high inter-scale correlations or their low regression weights <0.4. These extracted items (questions) were Q11, Q16, Q24, Q27, Q35. As illustrated in Table 5., the modified model with the 7 items presented fit indexes, that improved substantially when compared with the initial model. The likelihood ration test of the prespecified model yielded  $X^2 = 43.3,0$ ;  $df = 14$ ;  $X^2/df = 3.0$ . The fit indices (CFI =0.937, NFI =0.910, TLI =0.905), and RMSEA =0.078 of the model were indicative of a moderate good fit.

Table 4  
 Fit Indices of The CFA Original Model for The MLQ5x Questionnaire

Fit Index	Model 1 Transformational	Model 2 Transactional	Model 3 Laissez-faire	Model 4 Outcome
Chi-square $\chi^2$	274.677*** (df=170)	456.237*** (df=54)	10.379 (df=5)	66.488*** (df=24)
Minimum value of the discrepancy function divided by degrees of freedom (CMIN/df)	1.616	8.449	0.055	2.770
Root mean square error of approximation (RMSEA)	0.038	0.074	0.054	0.067
Normed fit index (NFI)	0.881	0.137	0.991	0.939
Comparative fit index (CFI)	0.950	0.541	0.995	0.960
Tucker-Lewis Index (TLI)	0.939	0.337	0.986	0.924



Table 5  
 Fit Indices of The CFA Modified Model for The Transactional Leadership Style

Fit Index	Model 2 Transformational Leadership
Chi-square $\chi^2$	43.30*** (df=14)
Minimum value of the discrepancy function divided by degrees of freedom (CMIN/df)	3.0
Root mean square error of approximation (RMSEA)	0.078
Normed fit index (NFI)	0.910
Comparative fit index (CFI)	0.937
Tucker-Lewis Index (TLI)	0.905

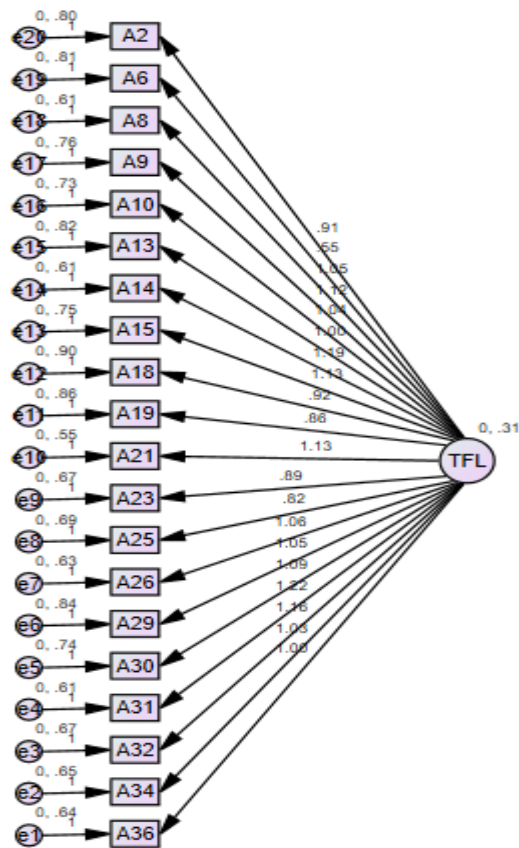


Figure 1. Measurement Model of Transformational Leadership Factors

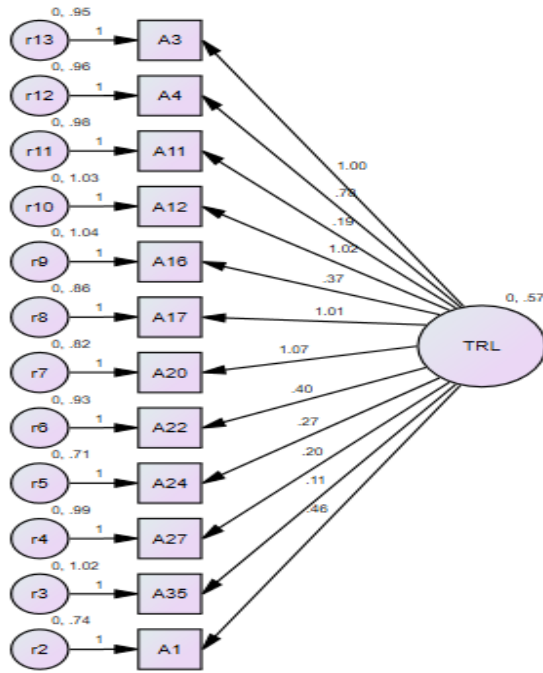


Figure 2. Measurement Model of Transactional Leadership Factors

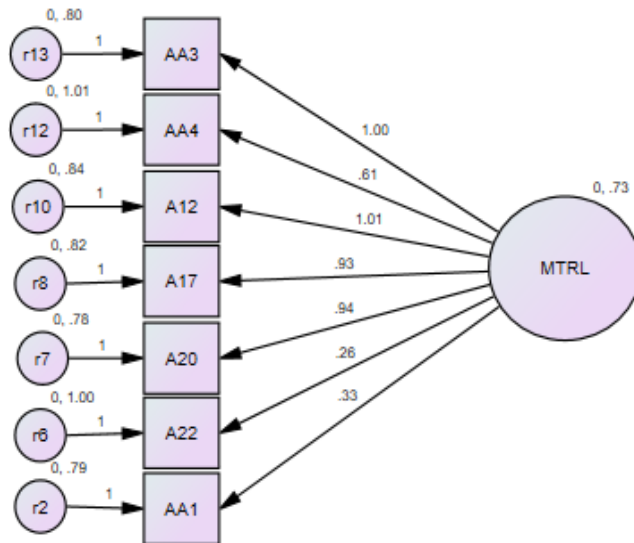


Figure 3. Measurement of Modified Model Transactional Leadership Style



Figure 4. Measurement Model of Outcome Factors

Table 5  
 Fit indices of the Confirmatory Factor Analysis models for the MLQ5x questionnaire

Fit Index	Model 1 Transformational	Model 2 Transactional	Model 3 Laissez-faire	Model 4 Outcomes
Chi-square $\chi^2$	268.885*** (df=170)	456.237*** (df=54)	0.764 (df=2)	66.701*** (df=24)
Minimum value of the discrepancy function divided by degrees of freedom (CMIN/df)	1.582	8.449	0.382	2.779
Root mean square error of approximation (RMSEA)	0.038	0.137	0.000	0.067
Normed fit index (NFI)	0.879	0.522	0.998	0.939
Comparative fit index (CFI)	0.951	0.541	1.000	0.959
Tucker-Lewis Index (TLI)	0.939	0.337	1.020	0.924

## Conclusions

The present study offers insight into the viewpoint of leadership styles and extends our understanding of the association between TFL, TRL and leadership outcomes. Overall findings of the study support the

propositions of the FLM that TFL outspreads the results of TRL toward results within prospects. TFL with its' dimensions was perceived slightly better by the staffs than TRL.

However, the correlation coefficients between TFL and TRL styles and each outcome variable of extra-effort, effectiveness and satisfaction were significant and positive. The correlation coefficients between LFL style and outcome variables were not significant and almost negative. Moreover, the results of the regression analysis were concluded that, the TFL was the only style to have effect on the three outcomes; extra-effort, effectiveness and satisfaction. The TFL style was found to be the most effective in achieving the organizations' outcomes and productivity and the staffs' requirements of career development and satisfaction.

Therefore, managers should learn to cater to the requirements of their workers because they play a key role in the lives of HCOs. Depending on the circumstance, either transformational management or transactional management may be more suitable. The results of this study further support the claim that hospitals' staffs prefer TFLs to TRLs. Given that all hospitals unit's daily activities are distinct from those in other settings, leadership styles can also be adaptable in order to accomplish the goal of sustainable organizational functioning and effective staff performance. Managers should be able to reframe the ideas of leadership styles in order to maintain a balance between transformational and transactional traits. The balance would further benefit from improving an open working atmosphere, structured control procedures, and collegial interactions between and among the personnel of the hospitals' communities, notwithstanding significant study on the inclinations of the transformational over the other.

### *Implications for further studies for policy*

Hospitals and other HCOs should recruit and endorse managers who possess the needed transformational talents to be more operative in achieving the organizational goals. Furthermore, policymakers should ensure that managerial training program includes the development of TFL and TRL qualities among hospitals' leaders. Moreover, the directors are advised to establish actions that will enhance the progress of confidence, admiration, and competence. It is important to provide staffs with prospects to participate their judgments and feelings. These judgments and views can then be filtrated and incorporated into supervision strategies.

Nonetheless, selecting genuine leadership styles and models may guarantee that managers are well-knowledgeable and prepared. Policymakers in Palestine HCOs should take advantage of the standing of TFL and TRL in attraction the level of occupation fulfillment. In line with our findings and results of previous research, the author can conclude that TFL can provide a lot of expediency to hospitals in GS and that further examination of leadership styles at unlike levels and stages can be well-

resulted. Appreciation and application of the furthestmost fit leadership style are decisive in transforming the hospitals sector in GS.

## **Abbreviations**

HCOs Healthcare organizations

TFL Transformational leadership

TRL Transactional leadership

LFL Laissez-faire leadership

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