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The leadership styles of primary healthcare center managers and center performance outcomes in Riyadh, Saudi Arabia: A correlational study

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Abstract:

BACKGROUND: Leadership is a wide concept that is rapidly developing. Diverse theories suggest different styles of leadership, with strong relationships between the different styles and their outcomes. The transformational style emphasizes motivating employees and encouraging them to find new ways of dealing with issues. The transactional (TL) style promotes ideas of rewards and punishments. The Laissez-faire style is characterized by relaxation and the tendency to leave things to happen with minimal interference.

MATERIALS AND METHODS: This is a descriptive cross-sectional study design conducted in Primary Healthcare Centers in Riyadh, Saudi Arabia. The leadership styles were assessed using a Multi-Factor Leadership Questionnaire, which identifies the different styles of leadership. SPSS v 26.0 was used for data analysis. t-test employed to compare leadership style between raters and managers. Logistics regression model used to determine the influence of leadership styles of managers. Pearson correlation coefficient determined the linear relationship between leadership styles and its domains.

RESULTS: A total of 130 respondents (65 managers vs. 65 raters) took part. “Raters” refer to any persons other than the manager, such as a secretary, nurse, doctor. The “manager” is when the person rates himself. The global transformation mean score was 3.55, for TL it was 3.42 and for passive avoidant, the mean score was 0.93. The passive avoidant ($t = 2.005$; $P = 0.047$) and management by exception (passive) (MBEP) mean scores of raters were statistically significantly higher than managers. In the binary regression model, MBEP was the independent significant predictor of manager.

CONCLUSION: The perceived leadership style of Primary Healthcare Center managers was transformational but with TL. Transformational leadership was positively correlated with TL leadership but negatively correlated with passive avoidant (The Laissez-faire style). The outcome of this study demonstrated that intellectual stimulation, idealized attributes, and inspirational motivation are perhaps better than contingent reward, active management.

Keywords:

Leadership styles, managers, multi-factor leadership questionnaire, primary healthcare center, raters

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Introduction

The definition of primary healthcare (PHC) by the World Health Organization

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is “essential healthcare based on scientifically sound and socially acceptable methods and technology, which make universal healthcare accessible to all individuals and families in a community. It is through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination.”^[1] In Saudi Arabia, the Ministry of Health (MOH), the major governmental agency entrusted with the provision of preventive, curative, and rehabilitative healthcare for the Kingdom’s population,^[2] provides healthcare services at three stages: primary, secondary, and tertiary. PHC focuses on curative and preventive primary care services, and referrals to secondary and tertiary hospitals.^[3] According to the Health Statistics Annual Book (2018), there are 2390 PHC centers across Saudi Arabia, 447 of them within the Riyadh municipality.^[2] PHC should be given priority as Saudi Arabia’s basic national strategy for healthcare provision. The introduction of PHC in the Kingdom has led to fundamental changes in health services. This positive effect will continue if adequate resources and all opportunities are judiciously utilized.^[4]

Leadership is a broad concept that is developing rapidly. It is seen as various dimensional processes that influence group setting to accomplish common goals. It has been studied in various theoretical styles and different disciplines.^[5] A good leader is distinguished by good communicating skills such as being a team player with forthright behavior toward others^[6] as well as the capacity to boost the morale of staff to accomplish target tasks effectively.^[7] There are theories that suggest different styles of leadership. These have shown strong relationships between the different styles and their outcomes in institutions, staff motivation, and stratification levels in the followers as pointed out in the Augmentation Model of Transactional (TL) and Transformational Leadership (TFL) conceptual model. This could be transformational and TL or Laissez-faire style. The transformational style emphasizes the importance of motivating employees, encouraging them to create new ways to deal with issues, influencing them to believe in their ideas and values and appreciating staff after they have accomplished the mission or achieved a goal. The TL style promotes the ideas of rewards and punishments. The Laissez-faire style is considered neither transformational either nor TL. It is characterized by relaxation and preference to leave things to happen by minimal interference, usually resulting in negative outcomes.^[8] Unfortunately, because these studies are outside the medical field, they do not concentrate and provide a clear picture of the optimal managers’ styles.^[5] However, recent studies have shown a significant drop in morbidity and mortality rates showing the interconnectedness

between leadership and performance as well as better financial, operational, and organizations workflow.^[9] In the same vein, the Dr. Hekmat *et al.*, study underlines how obstacles and the lack of efficient healthcare leaders can adversely affect the community.^[10] Therefore, we can define medical leadership in this article as the ability to innovate significant changes in the medical organization to save lives, money, and effort. In addition the ability to influence others in such a way that they voluntarily work to benefit patients and the general public.^[11] Furthermore, in recent times healthcare systems have the challenge of providing affordable care with sustainable but high quality health services.^[9] The use of PHC has become the first line in any medical treatment, that is made available and accessible to all citizens and residents. This is considered one of the cornerstones in the Saudi 2030 vision. In this article, we endeavor to discover the different PHC managerial styles and correlate them with the best PHC center outcomes. The aim is to discover the best PHC manager style in assigning leaders in our Primary Healthcare Centers (PHCC), and provide data to be used as a national database to rearrange and fill the gaps in the leadership skills that ensure better outcomes in our healthcare system.

Materials and Methods

This descriptive, correlational multi-center study was conducted in PHCC in Riyadh, Saudi Arabia. Data were collected through a questionnaire that assessed the leadership style for each manager. The questionnaire was the Multi-factor Leadership Questionnaire (MLQ), developed by Bernard Bass and Bruce J. Avolio. from Mind Garden, Inc., which identifies the different styles of leadership (transformational, TL, or Laissez-faire style)^[12] by multiple questions. This questionnaire targeted the managers of PHCC in Riyadh and assistant managers of PHCC and raters upon ethical approval. We then compared the self and rater forms and the leadership styles of the first and second clusters. The study was conducted in all PHCC in Riyadh that belonged to the first or second cluster. To reduce the selection bias, the samples were equal in all geographical areas. Data collection was done by the researchers using MLQ interview questionnaire from June to October 2020. Ethical approval was obtained from the MOH Central Institutional Review Board vide Letter No 20-174E dated 02/09/2020 and informed written consent was taken from all participants.

Descriptive statistics were used to describe the overall group of respondents, specifically mean and standard deviation (SD) for continuous variables as well as numbers and percentages for categorical variables. The comparison of leadership styles between rater and manager was conducted using independent samples

t-test. Significant results reported were then placed into the logistics regression model to determine the influence of leadership styles of a manager where the odds ratio and 95% confidence interval (CI) were also reported. Pearson correlation coefficient was performed to determine the linear relationship between leadership styles and its domains. Two-tailed analysis with $P < 0.05$ was used as the cutoff for statistical significance, while $P < 0.01$ was considered highly statistically significant. All data analyses were performed using the Statistical Package for Social Sciences, version 26 (SPSS, Armonk, NY: IBM Corp, USA).

Results

One hundred and thirty participants, all of whom were Saudis, were involved in the study (65 raters vs. 65 managers), as described in Table 1. Of the raters ($n = 65$), a high proportion of them (81.5%) mentioned that they were at a lower organizational level than the person they rated whereas 60.4% of the managers were in the younger age group (<40 years). Seven of the 65 managers were female (10.77%) and 58 were male (89.23%), but all raters in the study were male.

The descriptive statistics of leadership styles using MLQ is given in Table 2. The results showed that the mean score of transformation leadership was 3.55 (SD 0.41) and in its subscales, intellectual stimulation had the highest mean (3.72), followed by idealized attributes (mean: 3.68) and inspirational motivation (mean: 3.62) while idealized behaviors was the least (mean: 3.36). The mean score for TL leadership (TRL) was 3.42 (SD 0.56) and in its subscales, the mean scores of contingent reward and management by exception (active) (MBEA) were 3.65 and 3.18, respectively. In passive avoidant, the mean score was 0.93 (SD 0.82); in its subscales, the mean score of management by exception (passive) (MBEP) and Laissez-faire were 1.15 and 0.71, respectively. Finally, for positive/organizational outcomes, the mean score of extra effort, effectiveness, and satisfaction was 3.60, 3.84, and 3.86, respectively.

In Table 3, Pearson correlation coefficient revealed that the first and second order variables showed significant correlation in nearly all leadership styles and their subscales, with the exception of the correlation between MBEA and TFL, between TRL among (Passive avoidant leadership [PAL]), idealized behaviors, MBEP and Laissez-fair, between PAL among idealized behaviors, individual consideration and MBEA, between EE and Laissez-faire as well as between satisfaction (SAT) and MBEA. All these variables did not reach statistical significance ($P > 0.05$). It can be further noted that, PAL showed significant inverse correlation among EE ($r = -0.182$; $P < 0.05$), EFF ($r = -0.311$; $P < 0.001$), SAT

Table 1: Basic characteristics of the participants (n=130)

Study variables	N (%)
Group	
Rater	65 (50.0)
Manager	65 (50.0)
Rater best description (n=65)	
I am at a higher organizational level than the person I am rating	2 (03.1)
I am at a lower organizational level than the person I am rating	53 (81.5)
I do not wish my organizational level to be known	2 (3.1)
The person I am rating is at my organizational level	8 (12.3)
Manager age group (years) (n=53)	
<40	32 (60.4)
≥40	21 (39.6)

Table 2: Leadership styles using multi-factor leadership questionnaire (n=130)

Leadership style variables	Mean±SD
Transformational	3.55±0.41
Intellectual stimulation	3.72±0.47
Idealized attributes	3.68±0.52
Inspirational motivation	3.62±0.59
Individual consideration	3.39±0.64
Idealized behaviors	3.36±0.52
Transactional	3.42±0.56
Contingent reward	3.65±0.48
Management by exception (active)	3.18±0.93
Passive avoidant	0.93±0.82
Management by exception (passive)	1.15±1.08
Laissez-faire	0.71±0.80
Positive/organizational outcomes	
Extra effort	3.60±0.58
Effectiveness	3.84±0.31
Satisfaction	3.86±0.47

SD=Standard deviation

($r = -0.386$; $P < 0.001$), idealized attributes ($r = -0.420$; $P < 0.001$), inspirational motivation ($r = -0.229$; $P < 0.001$), intellectual stimulation ($r = -0.366$; $P < 0.001$), contingent reward ($r = -0.182$; $P < 0.05$). However, it exhibited positive significant correlation with MBEP ($r = 0.905$; $P < 0.001$) and Laissez-faire ($r = 0.820$; $P < 0.001$). Other leadership style variables showed positive significance with their subscales ($P < 0.001$).

On measuring the differences of leadership styles between raters and managers, it was found that the leadership styles of raters were statistically significantly higher in passive avoidant ($t = 2.005$; $P = 0.047$) and Laissez-faire ($t = 2.268$; $P = 0.025$). Other leadership style variables were not statistically significant between raters and managers ($P < 0.05$) [Table 4].

In the binary regression model, managers were predicted to be higher in passive management by exception than

Table 3: Correlation (Pearson-r) between first and second order variables as well as between organizational outcomes and leadership (n=130)

Leadership styles variables	TFL	TRL	PAL	EE	EFF	SAT
TFL	1					
TRL	0.339**	1				
PAL	-0.304**	0.130	1			
EE	0.504**	0.574**	-0.182*	1		
EFF	0.679**	0.348**	-0.311**	0.603**	1	
SAT	0.621**	0.180*	-0.386**	0.558**	0.520**	1
Idealized attributes	0.748**	0.227**	-0.420**	0.384**	0.530**	0.496**
Idealized behaviors	0.630**	0.171	-0.038	0.257**	0.374**	0.358**
Inspirational motivation	0.813**	0.329**	-0.229**	0.448**	0.576**	0.486**
Intellectual stimulation	0.735**	0.299**	-0.366**	0.447**	0.654**	0.611**
Individual consideration	0.797**	0.241**	-0.121	0.353**	0.432**	0.402**
Contingent reward	0.510**	0.574**	-0.182*	0.495**	0.330**	0.399**
MBEP	-0.281**	-0.170	0.905**	-0.189*	-0.273**	-0.327**
MBEA	0.142	0.904**	-0.046	0.433**	0.246**	0.008
Laissez-faire	-0.241**	-0.096	0.820**	-0.116	-0.266**	-0.346**

*Correlation is significant at the 0.01 level (two-tailed), **Correlation is significant at the 0.05 level (two-tailed). TFL=Transformational, TRL=Transactional, PAL=Passive avoidant leadership, EE=Extra effort, EFF=Effectiveness, SAT=Satisfaction, MBEA=Management by exception (active), MBEP=Management by Exception (passive)

Table 4: Leadership styles between rater and manager (n=130)

Leadership style variables	Group (mean±SD)		t-test	P-value [§]
	Rater	Manager		
Transformational	3.52±0.47	3.59±0.34	-0.931	0.354
Idealized attributes	3.67±0.56	3.70±0.48	-0.378	0.706
Idealized behaviors	3.28±0.49	3.43±0.53	-1.628	0.106
Inspirational motivation	3.58±0.68	3.66±0.50	-0.772	0.442
Intellectual stimulation	3.66±0.50	3.69±0.52	-0.658	0.512
Individual consideration	3.38±0.74	3.40±0.51	-0.171	0.864
Transactional	3.38±0.58	3.45±0.54	-0.665	0.507
Contingent reward	3.65±0.48	3.65±0.48	-0.045	0.964
Management by exception (active)	3.12±0.96	3.24±0.89	-0.778	0.438
Passive avoidant	1.07±0.92	0.79±0.68	2.005	0.047**
Management by exception (passive)	1.37±1.18	0.95±0.93	2.268	0.025**
Laissez-faire	0.78±0.93	0.63±0.66	1.307	0.302
Positive/organizational outcomes				
Extra effort	3.58±0.61	3.62±0.54	-0.405	0.686
Effectiveness	3.83±0.31	3.85±0.31	-0.351	0.726
Satisfaction	3.80±0.61	3.92±0.25	-1.500	0.136

**Significant at P<0.05 level, §P-value has been calculated using independent sample t-test. SD=Standard deviation

Table 5: Binary regression analysis to determine the influence of leadership styles to manager (n=130)

Factor	OR	95% CI	P-value
Passive avoidant	1.562	0.998-2.444	0.051
Management by exception (passive)	1.459	1.043-2.042	0.027**

**Significant at P<0.05 level. OR=Odds ratio, CI=Confidence interval

raters (OR = 1.459; 95% CI = 1.043–2.042; P = 0.027) while passive avoidant showed no significant impact after conducting regression model [Table 5].

Discussion

The traditional use of the TFL style by the managers results in better quality services and higher satisfaction of patients.^[13,14] Conversely, in TFL, the managers can motivate their staff to be more efficient and improve

their performance. Although the TFL style can have a positive effect on staff performance by focusing on individual interactions,^[15] our aim in this study was to determine the leadership styles of primary healthcare center managers and find out whether there was any direct association with performance outcomes. Overall, the findings of this study revealed that the TFL (mean: 3.55) style was more preferred by the managers than either TL (mean: 3.42) or passive avoidant (mean: 0.93). This is consistent with the study by Musinguzi

et al.,^[16] in which health workers preferred leaders who had transformational rather than TL or Laissez-Faire leadership styles. This was comparable to the studies conducted in Spain,^[5] Malaysia,^[17] and in Singapore.^[18] However, in nursing leadership, 50% of the head nurses at Iran University of Medical Sciences preferred a TRL style to transformational (29.4%) or PAL (20.6%),^[19] which accords with our results. In Saudi Arabia, although nurse managers preferred transformational over TL and Laissez-faire, they did not display the ideal level of transformation leadership, The average score was only 2.55 out of 5 points,^[20] which was not consistent with our results. They argued that the poor rating of TFL styles was likely to be the result of unavailability of a suitable context in many different situations such as power, knowledge, and appropriate organizational environment to benefit from a certain leadership style. The study suggests that the ideal levels of effective leadership should have a mean score of 3 or greater.^[12] Further, the results of 30 respondents recruited from three healthcare organizations in Pakistan showed that the TL style was preferred over the TFL style.^[21] They further noted that TL had a positive significant impact on staff performance. Perhaps this was because the employees of healthcare organization usually encountered professionals,^[22] where contingent recognition/reward and management by exception rather than charisma, inspirational motivation and intellectual stimulation would promote better leadership behaviors by stimulating subordinates.^[21]

Pertaining to TFL subscales, the global mean score of intellectual stimulation has the highest ratings (mean: 3.72), followed by idealized attributes (mean: 3.68) and inspirational motivation (mean: 3.62). In a study of Pihie *et al.*,^[17] the head of the department of the research unit rated inspirational motivation mean as: 2.73, idealized influence behavior mean as: 2.61 and idealized influence attribute mean as: 2.55 as the top three choices of TFL domains which have similarities with the results of the present study, although their rating was below the ideal level (mean: ≥ 3.0) considered the turning point. In nursing leadership,^[20] they found that the domains of TFL were also below the ideal level. They stated that inspiration motivation (mean: 2.73), idealized influence behavior (mean: 2.61), and idealized influence attribute (mean: 2.55) were the top three highest TFL domains, which were more comparable than those of Pihie *et al.*^[20]

For TRL subscales, we noted that our results were above the ideal score. The mean scores of contingent reward and active management by exception were 3.65 and 3.18, respectively, while in a study by Asiri *et al.*,^[20] both subscales were below the ideal levels (contingent reward mean: 2.50; active management by exception mean: 2.47).

Primary Healthcare Center managers exhibited poor perception of PAL style (global mean: 0.93), and among its subscales, the mean score of passive management by exception was 1.15 while Laissez-faire was even less (mean: 0.71), which was consistent with the literature.^[5,17,20] Furthermore, we noted that raters had significantly better perception of the PAL style and passive management by exception ($P < 0.05$). However, it is interesting to note that managers are said to have a better perception of passive management by exception than the raters.

Consequently, the results of a better leadership style have a positive effect in organizational outcomes. In this study, satisfaction with the leadership style had the highest mean score of 3.86, followed by effectiveness (mean: 3.84) and extra effort (mean: 3.60). Our results also demonstrated that extra effort, effectiveness, and satisfaction had significant positive correlation with both TFL and TL, but inversely correlated with passive avoidant ($P < 0.05$). This indicates that an increase in the scores of TFL and TL will also increase the scores of the three domains of positive organizational outcome (EE, EFF, and SAT) but may decrease with regard to passive avoidant. Therefore, TFL and TL leadership positively influence satisfaction, extra effort and effectiveness but negatively influence passive avoidant leaders. These findings are somewhat similar to the study done in Uganda^[16] in which TFL showed a positive correlation with job satisfaction ($r = 0.38$), motivation ($r = 0.32$), and teamwork ($r = 0.48$), while TL was correlated positively with teamwork ($r = 0.18$) and job satisfaction ($r = 0.21$). They further surmised that facilities whose leaders embrace TFL leadership had the skills to motivate their staff more than those whose leaders adopted TRL. In Spain,^[5] reports indicated that nurses showed a better TRL style over transformational, although both TL and transformational styles correlated with efficiency and job satisfaction. Our findings are also strikingly similar to the study published in Singapore^[18] which indicated that TFL demonstrated positive, significant strong correlation with extra effort, effectiveness, and satisfaction. On the other hand, Asiri *et al.*^[20] provided contrary views. They documented that nursing commitment appeared to be negatively correlated with TFL behaviors, but was positively correlated with TL behavior.

It is important to note that satisfaction, extra effort, and effectiveness were positively correlated with leaders who demonstrated idealized attributes and behaviors, those leaders who displayed inspirational motivation, intellectual stimulation, individual consideration, and those who gave contingent rewards. However, satisfaction, extra effort, and effectiveness were negatively correlated with passive management by exception and Laissez-Faire leadership. This means that managers concentrate on staff needs and concerns, satisfy their conditions and necessities, encourage and motivate

them to go beyond what they had projected. However, the satisfaction, efforts, and effectiveness could be less among those managers who exhibited less responsibility, not endeavoring to assist employees, avoiding to deal with vital issues raised in the department. Consistently, Musinguzi *et al.*, report that among health worker leaders,^[16] motivation was positively associated with leaders who displayed idealized influence-behavior and intellectual stimulation but negatively associated with management by exception. Similarly, they further noted that job satisfaction was positively associated with intellectual stimulation while teamwork was positively associated with idealized influence-behavior, idealized influence attribute, and contingent reward.

Conclusion

The perceived leadership style of Primary Healthcare Center managers was transformational, but with some TL features. TFL was positively correlated with TRL but negatively correlated with passive avoidant. Raters favored passive avoidant and passive management by exception than the managers though it was the least option. The outcome of this study demonstrated that intellectual stimulation, idealized attributes, and inspirational motivation are likely to be better than contingent reward, active management by exception, passive management by exception, and Laissez-Faire. Thus, it is important for managers to consider TFL style as the more acceptable leadership style to either TL or passive avoidant styles. Nevertheless, both leadership styles (TFL and TL) have a positive impact on extra effort, effectiveness, and job satisfaction. Although the overall outcome of this study demonstrated that PHC managers perceived leadership as transformational, this finding is subject to further verification. Further research is, therefore, recommended for a better insight into the preferred leadership styles of healthcare professionals in PHCC.

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Conflicts of interest

The manuscript has been read and approved by all the authors, and the requirements for authorship have been met, and each author believes that the manuscript represents honest work.

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