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KEYWORDS	ABSTRACT
Transformational Leadership, Physicians, Nurses, performance, Healthcare Organizations	<p>Leaders hold important positions in organizations and responsible to achieve objectives and targets on time. For this purpose, they need highly motivated and professional team by using vision, charismatic personality, & motivation skills to enhance the performance. Organizations faces difficult times such as low level of performance, commitment, & involvement, in such cases leaders have to apply transformational leadership style to boost the physicians and nurses' performance. The aim of current study was to investigate the impact of transformational leadership on performance as populations of current study were physicians and nurses employed by Ministry of Health, Saudi Arabia. The simple random sampling technique as used to select sample size. 450 questionnaires were distributed and 407 were received and used in analysis. PLS-SEM was used for analysis of data. Findings revealed that all scales met threshold and out of 4 hypotheses 3 are accepted. Idealized influence have significant role on enhancing performance but stimulation, consideration & motivation play significant role in increasing the physicians and nurses' performance in healthcare organizations.</p> <p> 2023 Journal of Social Research Development</p>
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INTRODUCTION

With increase in population and social transitions countries are facing numerous public health challenges including communicable and non-communicable diseases such as the infectious diseases, diabetes, and poor quality of the living, obesity, blood pressure, food insecurity, poor demand and supply of health services (Chu, Qiang, Zhou, Qiu, Yang, Song, Zhao & Yang, 2021). Due to major health emergencies such as pandemic that requires the high demand upon health system across the globe (Khan, Zahid & Ullah, Malik, Mughal, Begum, Han & Mohamed, 2022). In hospitals, and

primary healthcare centers leaders have to become flexible to adopt change to solve new health challenges. Leadership in healthcare organization is considered as one of the most significant factor for provision of the quality medical services (Jodar, Gené, Hito, Osaba & García, 2016; Masood & Afsar, 2017). The physicians and nurses not only serve patients but provide healthcare services to specific group, senior citizens more than age of sixty years, pregnant women, children due to which the physicians and nurses are mentally and physically exhausted (Qiao, Chen, Chen, Guan, Wang, Jiao, 2016). Transformational leadership is considered as idealized influence behavior and attitude, intellectual stimulation, individual consideration and inspirational motivation (Shaw, McBride, Casemore & Martin, 2018).

In healthcare setting transformational leaders motivate their medical staff (physicians and nurses) over their attitude and behavior and listen to their problems and help them to solve them so that their medical staff gives their best performance to increase hospital or primary healthcare center performance (Pearson, 2020). Fischer (2016) argued that transformational leadership style is liable for better work performance. It is evident from past studies (Chu et al., 2021; Zhang & Liu, 2018) applying transformational leadership principles makes the physicians and nurses more productive and efficient. Physicians, nurses and medical staff work under great pressure and stress throughout the World. Past studies pay sufficient attention upon leadership in macro perspective while micro perspective was overlooked therefore this study focus on micro perspective still, previous studies pay attention to management structure and management information system and infrastructure of organizations so study focus on employees which are assets of the organizations and help healthcare organizations to obtain competitive lead and organizational effectiveness (Busari, Khan, Abdullah & Mughal, 2020). Current study is one of pioneer studies to investigate impact of transformational leadership on physicians' and nurses' performance in public & private sector hospitals and primary healthcare centers of Saudi Arabia over lens of social exchange theory & leader member exchange. The main objective of this study is to:

1. Explore the influence of transformational leadership on physicians & nurses' performance in healthcare organizations
2. To determine the relationship between transformational leadership on physicians and nurses' performance in healthcare organizations

LITERATURE REVIEW

Relevant Supporting Theories

Social exchange theory (SET) given by Homans (1958) is deeply rooted in our professional as well as personal lives. It is used to understand the workplace behavior (Cropanzano, Anthony, Daniels, & Hall, 2017). Further, Cropanzano et al (2017) categorized SET as following: one initiative by actor towards target, response from target, third outcome relationship. In corporate World relationships are getting more complex and difficult to understand (Cooper & Morrison, 2019). According to SET process of leadership and followership is co-created by social connections between individuals. For organizations followership is as important as leadership for organizations (Ahmad, Nawaz, Ishaq, Khan & Ashraf, 2023). Likewise, it is very important to note that timing measures play important

role in establishing the relationship between two parties in different situations and circumstances. This timing of exchange is consistent with theory of leader member exchange (LMX) given by [Uhl-Bien and Maslyn \(2003\)](#).

Transformational Leadership Style

Physically and mentally exhaustion leads to low quality of medical services, low performance and less motivation among medical staff. Consequently, this study tried to answer how transformational leadership enhances physicians' and nurses' performance. In this connection, little is known about the transformational leadership and limited evidences are available for impact of transformational leadership and physicians and nurses' performance. To fill this gap which is prevailing in leadership literature in health settings this study has tried to investigate positive impact of transformational leadership (TL) on performance of physicians and nurses' in healthcare organizations. According to [Lo, McKimm and Till \(2018\)](#), in the transformational leadership theory, leaders lift the low level motivation of their employees to high level. The managers with transformational leadership have profound impact upon the performance of their medical staff. Consequently, it is assumed that the transformational leadership helps in enhancing performance of physicians and nurses in healthcare settings ([Lord, Day, Zaccaro, Avolio & Eagly, 2017](#)). According to [Elliot et al. \(2018\)](#) motivation varies with people, person with high motivation tends to take risk and responsibility work hard and enjoy taking challenges.

According to [McClelland \(1973\)](#), there are two main psychological aspects of the motivation one is motivation to avoid failure and other is motivation to pursue achievement. Leaders are the main source of new information, organizational change, and motivation for employees ([Nasir, Mukhtar, & Ramzan, 2023](#)). Leaders help their employees to work in team to achieve organizational objectives. When it comes to know about increasing motivation, and inspiring followers through attitude and behavior of the leaders, then transformational leadership is widely recommended ([Islam, Ahmad & Kaleem, 2021](#)). In this linking, the organizations work so hard to obtain their objectives on time. For this purpose, organizations hire leaders to encourage the workforce to achieve the objectives. Thus, the leaders play significant role in this matter. It has been reported in past studies that challenging tasks may increase the job satisfaction and employee performance. In this connection, the leaders with transformational style can do this. Involve them in new tasks, decision making, employees feel they are important members of the organizations thus work hard to achieve the objectives ([Umar, Arshad & Abbas, 2023](#)).

Physicians & Nurses Performance in Healthcare Organizations

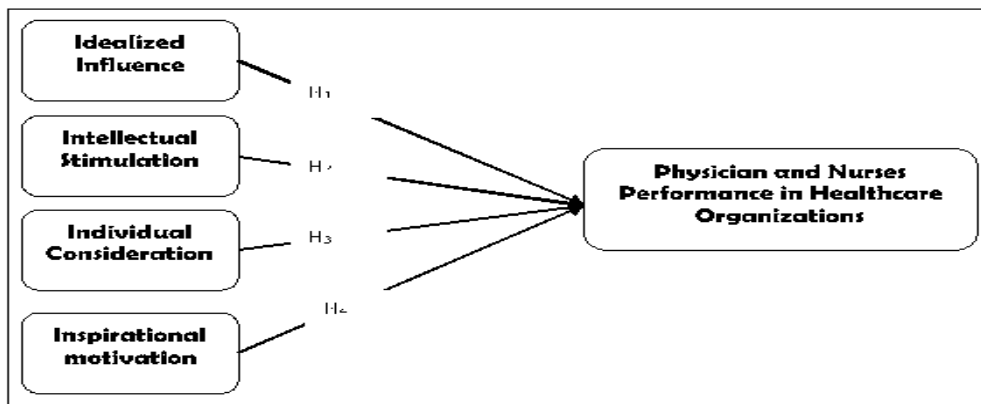
Numerous studies have been reported to investigate the impact of leadership style on performance ([Chu et al., 2021; Shaw et al., 2018](#)). The health professionals with high motivation got from their leadership exhibits high level of performance ([Musunguzi et al., 2018](#)). In addition, [Judson et al \(2015\)](#) argued transformational leaders motivate their medical staff to push in to their work to have better performance. Moreover; the coping style play important role in enhancing performance of healthcare professionals. An individual with positive coping (PC) style evaluate the risk and takes challenges and solve problems using novel methodologies. The positive psychology helps healthcare professionals to work better at their workplace. In this drive, the relevant literature revealed that

Mughal ... Empirical Evidence On

the transformational leadership theory, leaders lift the low level motivation of their employees to high level (Lo, McKimm & Till, 2018). On the other hand, professionals with negative coping styles avoid taking risk and challenges and exhibits low performance level. Besides, Udod et al (2017) working in pressure and stressful environment, over burden with heavy work load, lead to low level of performance at workplace.

According to Li et al (2017), PC overcome the negative effects of stress upon performance while NC increases the negative effects upon the performance. The employees' performance can be measured through the success of the organizations. Low level of performance is caused due to less appreciation of hard work by the management of the organizations, it makes the employees isolated from their colleagues and employees perceived as less chances of growth in the professional life (Ali, Malik & Mehak, 2023). Saudi health workers work under great stress and pressure (Albejaidi, 2021). argued that transformational leadership style is liable for better work performance. In this linking, it is evident from past studies applying transformational leadership principles makes the physicians and nurses more productive and efficient in attaining assigned responsibilities (Zhang & Liu, 2018). They have already low level of motivation therefore it is crucial for the hospital administration especially managers and directors of hospitals to motivate the health professionals i.e. physicians and nurses and recognize their hard work and appreciate them for their struggles so that they keep performing their duties (Albejaidi & Nair, 2019).

Figure 1 Theoretical Framework



Hypotheses Development

Scars and spars literature is available on positive relationship among transformational leadership style and performance of healthcare professionals in healthcare setting. More importance is given to leadership styles in non-medical setting while neglecting the significance of healthcare setting. Process of physicians and nurses cognitive, behavioral and affective changes limits the theoretical and practical implications of scientific research. Relationship between transformational leadership and performance is reported positive in numerous studies (Udod et al 2017; Shaw et al., 2018; Chu et al., 2021). Relationship between leadership style and performance is reported positive and significant in past studies (Saeed & Mughal, 2019). Studies found positive link between idealized influence and

performance (Khan, Shah & Chachar, 2023). Leaders may have positive influence upon employees through their attitude and behavior to get optimum performance from their workforce. Also, there is positive effect of intellectual stimulation on worker performance (Almeida et al., 2022). Further, leaders can pay individual attention to each and every employee to listen their problems and help them to solve problem through individual consideration (IC). Individual consideration has positive impact on enhancing employees' performance (Asrar-ul-Haq & Kuchinke, 2016). Besides, leaders play important role to motivate their team members. Highly motivated team is capable of attaining competitive advantage and high level performance. There is significant relationship in inspirational motivation and employees' performance (Faizan, Nair & Hague, 2018). Therefore, the current study hypothesizes the following:

- H1: The idealized influence has positive significant effect upon physicians' and nurses' performance.
- H2: The intellectual stimulation has positive significant effect on physicians' & nurses' performance.
- H3: The individual consideration has positive effect upon the physicians' and nurses' performances.
- H4: The inspirational motivation has positive effects upon the physicians' and nurses' performances.

RESEARCH METHODOLOGY

Study Design, Population & Sample

This study is quantitative in nature and for this purpose primary data was collected from hospitals and primary healthcare centers from physicians and nurses. Nature of data was cross-sectional and self-administered questionnaires were used for collecting data. As per Saudi Arabia's Statistical Book year 2017 and Ministry of health, Albejaidi and Nair (2019) there are total 16760 physicians and 60, 240 nurses employed by MoH, Saudi Arabia's. Thus, according to Krejcie and Morgan (1970) table for sample, 384 sample size was planned by simple random sampling non-probability convenience sampling technique. Thus, 450 questionnaires were distributed and 407 completed questionnaires were received and used in the analysis.

Measures

The measurement of variables in an important phase in research that offers significant information about the research variables. In present research study, transformational leadership questionnaire was adopted from the previous research like Khan et al (2020) it comprises of 16 items, four items for each construct and performance scale was adopted from the previous study Ariani et al (2022) as originally developed and validated by Baldrige (2010) with 6 items. All items were measured on seven-point scale.

Data Collection, Analysis Techniques and Tools

The smart PLS-SEM was used to analyze the data. Measurement model and structural model were developed to test reliability, validity of the scales and testing of hypotheses. In this regard, data for transformational leadership was collected from the physicians and nurses while questionnaire of performance concerning the nurses and physicians was filled by the management of the healthcare concerned organizations in order to record and analyze the views of respondents and extracting the desired information.

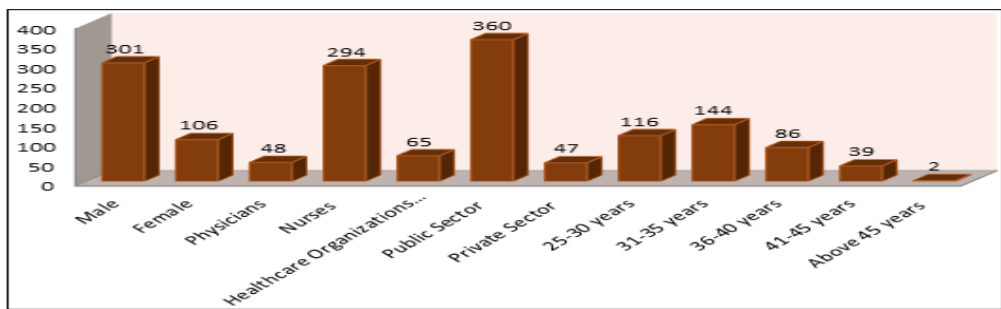
RESULTS OF STUDY

Table 1 Demographic Information of Respondents

Variables	n	%
Male	301	73.95
Female	106	26.05
Physicians	48	11.79
Nurses	294	72.23
Healthcare Organizations Managers/Directors	65	15.97
Public Sector	360	88.45
Private Sector	47	11.54
25-30 years	116	28.5
31-35 years	144	35.4
36-40 years	86	21.1
41-45 years	39	9.6
Above 45 years	2	5.4

Table 1 presents personal characteristics of respondents. It is evident that majority of respondents were male with 301(73.95%) followed by female counterparts 106 (26.05%). Further analysis of results revealed that majority of the respondents were nurses 294 (72.23%) followed by managers and directors of hospitals 65 (15.97%) while only 48 (11.79%) physicians participated in the study. also, 360 (88.45%) respondents belong to public sector healthcare organizations while 47 (11.54%) belong to private sector organizations. Respondents were asked about their age, most of respondents belong to 31-35 years of age 144 (35.4%) followed by age of 25-30 years 116 (28.5%), 86 (21.1%) belong to age of 36-40 years and 39 (9.6%) belong to age of 41-45 years and 2 (5.4%) were higher than age of 45 years.

Figure 2 Graphical Presentation of Healthcare Professionals’ Demographic Data



Confirmatory Factor Analysis

Threshold for measurement model is suggested by Hair et al (2017). It was recommended that all factor loadings could be higher than 0.5, ideal loadings could be >0.70, for composite reliability CR >0.70, Average variance extracted AVE >0.50 and Cronbach alpha >0.70. For hetero trait mono trait ratios value of less <1 is suggested. Table 2 presents the measurement model shows that values met threshold (Figure3), Table 3 exhibits discriminant validity. It is assumed that all scales in this study are found reliable and valid.

Table 2 Confirmatory Factor Analysis (Measurement Model)

Items	Loadings	AVE	CR	Alpha
III	0.672			
II	0.743	0.598	0.855	0.778
II3	0.835			
II4	0.831			
IS1	0.847			
IS2	0.828			
IS3	0.859	0.715	0.909	0.867
IS4	0.848			
IC1	0.837			
IC2	0.856	0.707	0.906	0.862
IC3	0.819			
IC4	0.851			

Table 2a Confirmatory Factor Analysis (Measurement Model)

IM1	0.824			
IM2	0.854	0.705	0.905	0.860
IM3	0.833			
IM4	0.846			
P1	0.811			
P2	0.816			
P3	0.802	0.633	0.912	0.884
P4	0.797			
P5	0.791			
P6	0.755			

Table 3 Discriminant Validity

Variables	1	2	3	4
IC				
II	0.896			
IM	0.898	0.847		
IS	0.981	0.963	0.855	
Performance In HCO	0.809	0.750	0.885	0.788

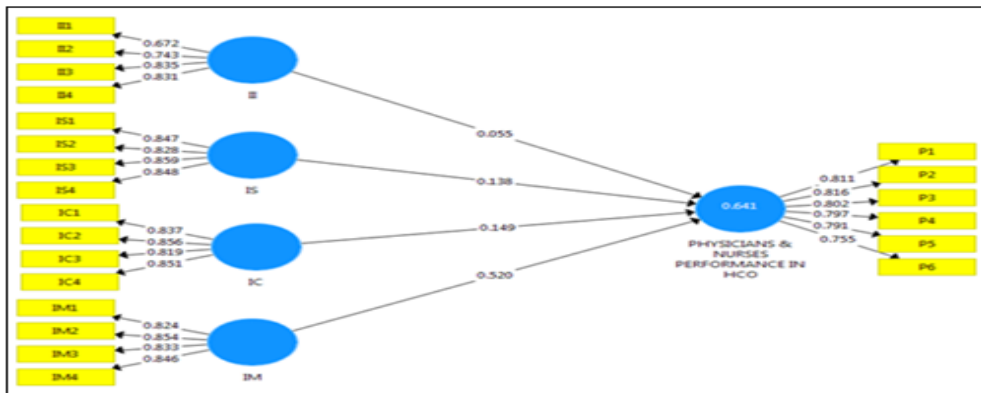
Table 4 Hypotheses Testing

Hypotheses	β	SE	T	P Values	LLCI	ULCI
II \rightarrow Performance	0.055	0.077	0.717	0.237	-0.076	0.182
IS \rightarrow Performance	0.137	0.071	1.927	0.027	0.021	0.255
IC \rightarrow Performance	0.149	0.067	2.238	0.013	0.034	0.251
IM \rightarrow Performance	0.521	0.063	8.277	0.000	0.425	0.631

Table 4 shows findings of structural model i.e. hypotheses testing. It is revealed from the results that impact of idealized influence is not significant on performance ($\beta=0.055, p>0.05$) as values of LLCI and ULCI exhibits zero i.e. one is negative and other is positive. Moreover, the impact of IS, IC and IM are found significant upon physicians and nurses' performance (0.137**, 0.149**, 0.521***) it implies that

intellectual stimulation is responsible for 13.7% change in performance of medical staff, individual consideration is responsible for 14.9% change while highest change is possible in performance of physicians and nurses of HCO due to inspirational motivation i.e. 52.1%. H1 is rejected while H2H3 and H4 are accepted.

Figure 3 CFA/Measurement Model



DISCUSSION

It is confirmed from the findings that transformational leadership and its attributes are positively related with physicians' and nurses' performance in the healthcare organizations. Though idealized influence does not have significant impact on performance but in the literature it has positive role upon performance. It is also evident from the findings whenever organizations want to enhance their performance, it is better for the managers to apply transformational leadership. When organizations face low level of performance from employees, high turnover rate, low level of commitment and less immersion in organizational matters in that situation transformational leaders are found significant for bringing better performance. Transformational leaders have vision, charismatic personality and have the ability to motivate employees (Busari et al., 2020). Thus findings of current study are in line with findings of past studies of (Chu et al., 2021; Khan et al., 2020). Leadership plays important role on other hand according to Kelley (1992) followership is important and have significant upon organizational effectiveness. The followers are the assets of the organizations and these assets cannot be imitated by the competitors.

Followers are intangible assets/human resource which helps organization to obtain the competitive advantage and to obtain the sustainable performance (Malik, Mughal, Azam, Cao, Wan, Zhu & Thurasamy, 2021). From the findings of the study it clears that leadership style plays important role in improving performance of employees in health sector and primary healthcare centers (Alzghaibi, Alharbi, Mughal, Alwheeb, & Alhlayl, 2023; Alzhaibi, Mughal, Alkhamees, Alasqah, Alhlayl, Alwheeb, & Alrehiely, 2022). There were four hypotheses developed in which one is not accepted i.e. idealized influence (II) is found insignificant on physicians and nurses' performance. Accordingly, it is assumed that the transformational leadership helps in the enhancing performance of physicians and nurses in healthcare settings (Lord, Day, Zaccaro, Avolio & Eagly, 2017). The findings of this study are not in line with findings of Chu et al (2021) they have reported positive impact of II on

medical staff performance. There is significant positive impact of intellectual stimulation, individual consideration and inspirational motivation was recorded. These findings are in line with findings of (Shaw et al, 2018; Pearson, 2020; Udod et al, 2017; Lo et al., 2018).

CONCLUSIONS

It is concluded that so as to have better performance and quality services healthcare organizations i.e. hospitals and PHCCs management have to motivate their medical staff. Listen to the problems and try to solve their problems. Also, it is concluded that inspirational motivation is emerged as most dominant variables as it scored highest beta values followed by individual consideration and intellectual stimulation. Low level of performance is caused due to less appreciation of hard work by the management of the organizations, it makes the employees isolated from their colleagues and employees perceived as less chances of growth in the professional life (Ali, Malik & Mehak, 2023). The relationship between transformational leadership and performance is reported positive in many studies (Udod et al 2017; Shaw et al., 2018; Chu et al., 2021). On contrary idealized influence does not have significant impact. The inspirational motivation can lead to have better relationship among management and followers. Listening to problems of each employee help management to create friendly relationship, increase level of trust of employees and in return employee would performance better in HCOs.

Implications, Limitations & Future Direction

The managers of Saudi hospitals and PHCCs, project directors in MoH and physicians and nurses can take benefits from the findings of current study. Also, managers can pay special attention to each and individual employee in healthcare organization to solve professionals and personal issues of medical staff. Director of healthcare organizations provide all administrative support to medical staff for smooth functioning of organizations' so that medical staff renders their best services and optimum performance can be realized. This study has long body of knowledge of transformational leadership, and physicians and nurses' performance but there are few limitations which are vital to address. First one must be careful while generalizing findings to other sector as study focus on health sector. Second this study investigated simple model thus it is suggested that future studies may use complex models with mediators and moderators such as trust in leadership, followership dimensions and servant leadership styles.

REFERENCES

- Ahmad, R., Nawaz, R., Ishaq, I., Khan, M., & Ashraf, A. (2023). Social exchange theory: Systematic review and future directions. *Frontiers in Psychology*, 13:1015921.
- Akbar, U., Arshad, M., & Abbas, K. (2023). The role of spiritual leadership and inclusion practices upon workplace spirituality. *Journal of Social Research Development*, 4(1), 116–123.
- Albejaidi, F. (2021). The mediating role of ethical climate between organizational justice and stress: A CB-SEM analysis. *Amazonia Investiga*, 10(38), 82–96.
- Albejaidi, F., & Nair, K. S. (2019). Building the health workforce: Saudi Arabia's challenges in achieving Vision 2030. *International Journal of Health Planning and Management*. 1–12.
- Baldrige National Quality Program. 2009-2010 Health care criteria for performance excellence. *Gaithersburg, MD: Baldrige*, 2010.

- Ali, H., Malik, M. S., & Mehak, S. (2023). Mediating role of workplace isolation and moderating role of workplace integration between enterprise social media and employees' performance. *Journal of Social Research Development*, 4(1), 50–67.
- Almeida, C., Yoshikuni, C., Dwivedi, R., & Larieira, C. L. C. (2022). Do leadership styles influence employee information systems security intention? A study of the banking industry. *Global Journal of Flexible Systems Management*, 1-16.
- Ariani, N., Sansuwito, T. B., Prasath, R. A., Novera, M., Sarli, D., & Poddar, S. (2022). The effect of leadership styles on nurse performances and job satisfaction among nurses in Dumai Public Hospital: *Technological Innovation as Mediator*. 18, 229-234
- Alzghaibi, H., Mughal, Y.H., Alkhamees, M., Alasqah, I., Alhlayl, A.S., Alwheeb, M.H., and Alrehiely, M. (2022). The impact financial resources on implementation of large-scale electronic health records in the Saudi Arabia's primary healthcare centers: Mixed methods. *Frontier in Public Health* 10:1037675.
- Chu, H., Qiang, B., Zhou, J., Qiu, X., Yang, X., Song, X., Zhao, E., & Yang, Y. (2021). The Impact of transformational leadership on physicians' performance in China: A Cross-Level Mediation Model. *Frontiers in Psychology*, 12:586475.
- Cooper-Thomas, H. D., & Morrison, R. L. (2019). Give and take: needed updates to social exchange theory. *Industrial and Organizational Psychology*, 11, 493–498.
- Cropanzano, R., Anthony, L., Daniels, R., & Hall, V. (2017). Social exchange theory: a critical review with theoretical remedies. *The Academy of Management Annals*, 11, 479–516.
- Elliot, J., Aldhobaiban, N., Murayama, K., Kobeisy, A., Gocłowska, A., & Khyat, A. (2018). Impression management and achievement motivation: investigating substantive links. *International Journal of Psychology*, 53, 16–22.
- Faizan, R., Nair, S. L. S., & Haque, A. U. (2018). effectiveness of feminine and masculine leadership styles in relation to contrasting gender's performances. *Polish Journal of Management Studies*, 17(1), 78-92
- Fischer, S. A. (2016). The transformational leadership in nursing: A concept analysis. *Journal of Advanced Nursing*, 72, (11), 2644– 2653.
- Hair, F., Hult, M., Ringle, C. M. & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). 2nd Edition, Sage Publications Inc., Thousand Oaks, CA.
- Islam, T., Ahmad, S., Kaleem, A., & Mahmood, K. (2021). Abusive supervision & knowledge sharing: moderating roles of Islamic work ethic and learning goal orientation. *Management Decision*, 59(2), 205– 222.
- Jodar, G., Gené, J., Hito, D., Osaba, A., & García, L. (2016). Self-perception of leadership styles and behaviour in primary health care. *BMC Health Services Research* 16:572.
- Khan, H., Rehmat, M., Butt, T.H. et al. (2020). Impact of transformational leadership on work performance, burnout and social loafing: a mediation model. *Future Business Journal*, 6, 40.
- Khan, M., Shah, N., & Chachar, A. A. (2023). Impact of leadership style on job performance of employees: comparative analysis of banking sector. *Journal of Social Research Development*, 4(1), 229–240.
- Lo, D., McKimm, J., & Till, A. (2018). Transformational leadership: is still relevant to clinical leaders? *British Journal of Hospital Medicine*, 79, 344–347.

- Khan, S. N., Abdullah, S. M., Busari, A. H., Mubushar, M., & Khan, I. U. (2020). Reversing the lens: The role of followership dimensions in shaping transformational leadership behavior; mediating role of trust in leadership. *Leadership & Organization Development Journal*, 41(1), 1–18.
- Khan, W., Zahid, A., & Ullah, I., Malik, S. A., & Mughal, Y. A., Begum, A., Han, H., & Mohamed, A. (2022). Impact of COVID-19 on the wellbeing of micro and small entrepreneurs of rural Pakistan. *Frontiers in Public Health*. 1-9.
- Li, L., Ai, H., Gao, L., Zhou, H., Liu, X., Zhang, & Z. (2017). Moderating effects of coping on work stress and job performance for nurses in tertiary hospitals: a cross-sectional survey in China. *BMC Health Services Res.* 17:401.
- Lord, G., Day, V., Zaccaro, J., Avolio, J., & Eagly, H. (2017). Leadership in applied psychology: three waves of theory and research. *Journal of Applied Psychology*, 102, 434–451.
- Lu, L., Gao, M., Yang, T., & Gong, X. (2018). The updated physician's pledge and Chinese junior physicians. *Lancet* 391:305.
- Malik, Y., Mughal, H., Azam, T., Wan, Z., & Thurasamy, R. (2021). Corporate social responsibility, green human resources management, and sustainable performance: Is organizational citizenship behavior towards environment the missing link? *Sustainability*, 13(5), 1044.
- Masood, M., & Afsar, B. (2017). Transformational leadership and innovative work behavior among nursing staff. *Nursing Inquiry* 24:ee12188.
- McClelland, D. C., & Watson, R. I. (1973). Power motivation and risk-taking behavior. *Journal of Personality*, 41, 121–139. Ministry of Health. Statistical Yearbook (2017). Riyadh: Ministry of Health, Kingdom of Saudi Arabia; 20
- Musinguzi, C., Namale, L., Rutebemberwa, E., Dahal, A., Nahirya, P., & Kekitiinwa, A. (2018). The relationship between leadership style and health worker motivation, job satisfaction and teamwork in Uganda. *Journal of Healthcare Leadership*, 10, 21–32.
- Nasir, H. M. U., Mukhtar, S., & Ramzan, A. (2023). How leadership styles effects continuous improvement and innovation: a mediation & moderation model. *Journal of Social Research Development*, 4(1), 81–99.
- Pearson, M. M. (2020). The transformational Leadership Principles and Tactics for the Nurse Executive to Shift Nursing Culture. *The Journal of Nursing Administration*, 50, 142–151.
- Qiao, Z., Chen, L., Chen, M., Guan, X., Wang, L., Jiao, Y. (2016). Prevalence and factors associated with occupational burnout among HIV/AIDS healthcare workers in China: A cross-sectional study. *BMC Public Health* 16:335.
- Saeed, M., & Mughal, Y. H. (2019). Role of transactional leadership style upon performance: Mediating role of culture. *Journal of Managerial Sciences*, 13(1), 47–57
- Shaw, B., McBride, B., Casemore, S., & Martin, K. A. (2018). Transformational mentoring: Leadership behaviors of spinal cord injury peer mentors. *Rehabilitation Psychology*, 63(1), 131–140.
- Udod, S., Cummings, G. G., Care, W. D., & Jenkins, M. (2017). Role stressors and coping strategies among nurse managers. *Leadership Health Services* 30, 29–43.
- Uhl-Bien, M., & Maslyn, M. (2003). Reciprocity in manager-subordinate relationships: components, configurations, and outcomes. *Journal of Management*, 29, 511–532.
- Zhang, C., & Liu, Y. (2018). The salary of physicians in Chinese public tertiary hospitals: a national cross-sectional and follow-up study. *BMC Health Services Research*. 18:661.