

THE MEDIATING ROLE OF NURSES' GRIT ON THE RELATIONSHIP BETWEEN CLINICAL NURSING LEADERSHIP AND NURSES' PERFORMANCE: A CROSS-SECTIONAL STUDY IN SAUDI HEALTH SECTOR

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ABSTRACT

Background: The nurses made up the most of medical and health workforce globally. The aim of the study was to investigate the mediating role of grit on the relationship between clinical nursing leadership and nurses' performance.

Materials & Methods: This was quantitative and cross-sectional study; data was analyzed in SPSS and PLS-SEM. Questionnaire was adapted and distributed among nurse managers working in public and private healthcare organizations in Qassim province Saudi Arabia. Questionnaire had two sections, one consisted of demographic variables of nursing leaders such as age, gender, education, sector, and 2nd section consisted of items related with clinical nursing leadership, nurses' performance and nurses' grit. Measurement and structural models were developed to investigate the reliability, validity and hypotheses testing.

Results: Total 145 participants had participated in this study. 70.3% respondents were female, 66.89% work in public sector and 44.82% worked in PHCCs. Findings indicated that all factor loadings, average variance extracted (AVE), composite reliability (CR) and Cronbach alpha met threshold. Discriminant validity also met cutoff level. Moreover, all direct and indirect (mediating) effects are found significant. Regression results revealed that clinical nursing leadership (CNL) has significant effect on nursing performance (NP) $\beta = 0.377$, $p < 0.05$, moreover CNL has positive influence on nursing grit (NG) $\beta = 0.875$, $p < 0.05$; and NG over NP has positive impact i.e. $\beta = 0.461$, $p < 0.05$ respectively. In addition, mediating effect of NG on the relationship between CNL and NP is also significant $\beta = 0.403$, $p < 0.05$.

Conclusion: Nurses with high in grit, focus on long term goals and deliver quality patient care. Healthcare organizations must pay attention to nurses' grit as it helps in enhancing nurses' performance.

KEY WORDS: Nursing; Leadership; Grit; Performance; Healthcare.

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INTRODUCTION

Health sector is one of the most difficult industries with complex healthcare demands and it is difficult for hospitals and primary healthcare centers (PHCCs) to

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recruit competent, hardworking and motivated health professionals and retain them for long period of time. Due to increase in demand for health services due to shift in pattern of communicable and non-communicable diseases (NCDs) there is increase in demand of nursing managers and type of leadership for day to day working of nurses.¹ Nurse Managers must motivate their staff to deliver the best patient care services as per the standard care practice.² Leaders plays significant role in delivering quality patient care and staff development in health setting. Effective nursing leadership enhances nursing performance, commitment, and reduces job switching.³ Healthcare workers work under stressful environment and nurse managers should be able to work under pressure and should be able

make quick decisions using intuition which comes after experience.⁴ Culture play important role in practicing leadership, in western perspective nurse managers prefer to be decentralized while Arabic countries nursing leadership apply integrative role.⁵⁻⁷ Globally needs and demands of healthcare are shifting due to aging population, NCDs and unhealthy life styles, these challenges faced by health sector cannot be handled without efficient and effective nursing care.⁸ Nurses faced several issues, problems, challenges at workplace and work under great pressure and stress, therefore clinical leadership is essential.⁹ According to Gauld¹⁰, clinical leaders are those (nurses and physicians) which are not active clinically. Clinical leaders must possess clinical competence, effective communication skills; act as role model, approachability and cooperative.¹¹⁻¹³ Nurses' performance is defined as "delivering quality care to patients based on nurses' professionalism and by following standard procedures of care".¹⁴ Likewise nurses' grit is defined as "passion for long term goals".^{15,16} Nurses' grit also acts as driving factor to overcome failure in achieving long term objectives. Grit is a passion to obtain long term objectives.¹⁷⁻¹⁹ It helps the nurses to overcome their failures. Grit also includes passion and enthusiasm for chosen activities of one individual. It is interchangeably used by other terms such as engagement, self-control and sincerity. But grit can be measured by consistency of interest. It means keeping consistency and interest in obtaining a long term goal.²⁰⁻²¹ To the best of researcher's knowledge this is one of the pioneer studies in health sector of Qassim region of Saudi Arabia to answer the research question given below. The main aim of this study was to investigate the indirect (mediating) effect of grit on the relationship between clinical nursing leadership to enhance nurses' performance.



Figure 1: Theoretical framework

MATERIALS AND METHODS

The current study adopted survey approach. Self-administered questionnaires were distributed. Population of the study were all clinical nursing leaders (nurse managers) working in Qassim region Saudi Arabia in public and private hospitals and PHCCs. Hospitals include secondary and tertiary hospitals, central hospital, mother and child hospital and dispensaries such as PHCCs. Non-probability convenience sampling technique was used to select the sample size. To calculate sample size table of Krejci and Morgan²⁵ was used. The current study has focused on nurse managers. Total 145 nurse managers have participated from different healthcare organizations. Clinical nursing leadership scale with 9 items was adopted form Mrayyan et al.⁹ and nurses grit scale

was adopted from Cho and kim.¹⁴ it has 12 items for two constructs one is consistency of interest and second is steadiness of effort. The current study has adopted six items for consistency of interest. Nurses performance questionnaire is adopted from Ko et al.²² it has 16 items for four constructs but this study has adopted only 3 items for work performance construct. All items were measured on 7 point Likert scale.

SPSS and PLS-SEM 4 were used for data statistical analysis. Measurement model was developed to run confirmatory factor analysis to check the reliability, convergent validity and discriminant validity. While to test the hypotheses structural model was developed.

RESULTS

Demographic information of the 145 respondents is presented in the table 1 below. Respondents were asked about their gender, sector, type of organization, age, education, designation, length of service in this position, and number of subordinates.

Table 1: Demographic Information of the respondents

Variables	Characteristics	n	%
Gender	Male	43	29.65
	Female	102	70.34
Sector	Public	97	66.89
	Private	48	33.10
Organization Type	PHCCs	65	44.82
	Secondary Hospitals	39	26.89
	Tertiary Hospital	36	24.82
	Mother & Child Hospital	4	2.75
Age	25-30 Years	3	2.06
	31-40 Years	55	37.93
	41-50 Years	47	32.41
	50 and above	40	27.58
Education	Diploma	87	60
	Bachelor	58	40
Designation	Head Nurse	49	33.79
	Director Nurse	52	35.86
	Methodologist Nurse	44	30.13
Length of service in leadership	1-2 Years	9	6.20
	3-5 years	36	24.65
	6-10 years	51	34.93
	11-15 and above	49	33.79
Nurses under direct supervision	1-2 Nurses	66	45.51
	3-5 Nurses	54	37.24
	6-10 Nurses	25	17.24

Measurement model findings are presented in table 2. Threshold values for factor loadings is >0.70, for average variance extracted (AVE) >0.50, for composite reliability (CR) is >0.70 and for Cronbach alpha is >0.70. Table 3 presented the values of hetero trait mono trait ratios i.e., discriminant validity. For discriminant validity cut off level is <1. From the tables and (See figure 2) it is evident that all items and their respective factor loadings, AVE, CR and Cronbach alpha met threshold criteria and discriminant validity also met the cut off level therefore it is assumed that questionnaires used in the study are reliable and valid. Moreover, clinical nursing leadership and

nurses grit explained 65.8% variance upon nurses' performance.

Table 3: HTMT Ratios Discriminant Validity

Variables	1	2	3
1.Clinical Nursing Leadership			
2.Nurses Grit	0.996		
3. Nurses Performance	0.871	0.928	

Table 2: Confirmatory Factor Analysis of measurement model

Variables	Items	Loadings	AVE	CR	Alpha
Clinical Nursing Leadership	CNL1	0.769			
	CNL2	0.812			
	CNL3	0.728	0.571	0.908	0.906
	CNL4	0.703			
	CNL5	0.772			
	CNL6	0.784			
	CNL7	0.781			
	CNL8	0.722			
	CNL9	0.720			
Nurses' Grit	NG1	0.76	0.561	0.845	0.843
	NG2	0.706			
	NG3	0.742			
	NG4	0.774			
	NG5	0.738			
	NG6	0.770			
Nurses' Performance	NP1	0.808	0.754	0.860	0.838
	NP2	0.890			
	NP3	0.905			
R ² = 0.658					

Table 4: Direct Effects (Structural Model)

Direct Effects	β	S.E	T	p	BCILL	BCIUL
CNL → NP	0.377	0.12	3.129	0.002	0.121	0.595
CNL → NG	0.875	0.019	45.538	0.000	0.827	0.905
NG → NP	0.461	0.118	3.891	0.000	0.239	0.705

Table 5: Mediating Effects (Indirect Effects of Structural Model)

Indirect Effect	β	S.E	T	p	BCILL	BCIUL
CNL→NG →NP	0.403	0.106	3.795	0.000	0.210	0.629

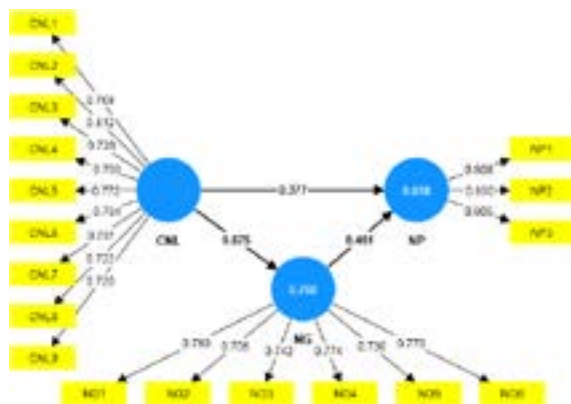


Figure 2: Confirmatory Factor Analysis Measurement Model

Direct effects are investigated through bootstrapping. Table 4 presented direct effects (regression) results. It is evident from the analysis of results that clinical nursing leadership has direct positive significant effect on nurses' grit (0.875**); clinical nursing leadership also have positive significant effect in nurses' performance (0.377**) and nurses grit has positive significant effect in nurses' performance. this implies that one percent change in clinical nursing leadership would bring 87.5% change in nurses grit and 37.7% change in nurses' performance as well as nurses grit also bring 46.1% change in nurses' performance.

Mediating effects of nurses' grit are presented in table 5. Analysis of results revealed that nurses' grit positively mediated between the relationship of clinical leadership and nurses' performance (0.403**). One percent change in nurses' grit could possibly increase relationship between CL and nurses' performance up to 40.3%. As all relationships are positively and significant hence it is concluded that it is nurses' grit play as complementary mediator role on the relationship between CNL and nurses' performance.

DISCUSSION

The current study has contributed to the body of knowledge of clinical nursing leadership, nurses' performance and nurses' grit in Saudi context. The current study findings are in line with findings of Hair et al. and Alrasheedi et al^{23,24} stated the positive impact of nursing leadership on nursing performance and job satisfaction of nurses in Saudi Arabia. Findings of the current study are also consistent with findings of Reed et al²¹ reported the positive role of nurses' grit on the nursing performance. The findings of current study also got support from findings of Cho and Kim.¹⁴ also reported significant mediating effects. The findings of the Alhamdan et al.⁷ also supported the findings of this study. Nurses with support, cooperation from their management and with level of grit would performance better.²⁶ They have consistency and interest to achieve long term objectives. Healthcare organizations in Saudi Arabia

could take benefit from the findings of this study to enhance their nursing staff performance. It would increase the quality of patient care, patient satisfaction, nurses' motivation and they would be involved and committed with their organizations for long time.

CONCLUSION

It is concluded that leadership and grit play very important role in improving performance. Attainment of long term objectives and support from the management in healthcare organization are crucial for nursing staff. Providing education, training, developing managerial and leadership skills to nurse managers at organizational level are essential in Saudi healthcare organizations.

Limitations And Future Research Directions:

This study offered theoretical and methodological contributions but it is necessary to mention some limitations and directions for future studies. The sample size is taken from nurse managers it is recommended that future studies may collect data from nurses about their managers to have better understanding. Secondly the data used in this study is cross-sectional collected from single source which could create biasness. It is recommended to use qualitative data as supplement in future to support quantitative data. Thirds grit is used a mediator in this study it is recommended that mediators like commitment, engagement could be used in future studies. One must be careful in generalizing the findings to other sectors as this study focus on health sector.

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CONFLICT OF INTEREST

Authors declare no conflict of interest.

GRANT SUPPORT AND FINANCIAL DISCLOSURE

None declared.



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