

Role of Supportive work environment in healthcare organization: Mediating relationship of psychological capital

Zunnoorain khan¹ and Dr. Fuwad Bashir²

Keywords:

Supportive work Environment,
Psychological Capital
Quality of Care

ABSTRACT

The purpose of this study is to determine the mediating role of psychological capital between a supportive work environment and quality of care in the health sector of KPK. This study is one of the first to test the direct and indirect impact of a supportive work environment and quality of care in Pakistani healthcare centers. The proposed model was tested using a sample from doctors, and nurses working in healthcare organizations of Khyber Pakhtunkhwa. Questionnaires were distributed to 340 employees. A total number of 244 questionnaires were returned, with a response rate of 72%. For this study, four hypotheses were developed to achieve the objectives. The current study investigated direct impact of supportive work environment on quality of care. Specifically, the model was also examined the indirect impact of a supportive work environment on quality of care. The Structural equation modeling technique was used to test hypotheses. The result of the study suggested that a supportive work environment has a significant effect on the quality of care. Second, the mediating effect of psychological capital between supportive work environment and quality of care was significant. The reported findings of the study provided valuable insights of the research in different ways as a contribution to the literature as well as to the practitioners and policy makers by providing few guidelines.

INTRODUCTION

The healthcare system in Pakistan is comprised of public and private sectors providing primary, secondary and tertiary care systems. Primary and Secondary hospitals in Pakistan are mainly under the public sector in the form of basic health units, dispensaries, maternity and child health centers, district and rural health centers. According to the study by social and living standards measurement conducted in 2015-2016, 67.4% of Pakistanis consult the private sector for healthcare. The public health sector provides inadequate staff especially in secondary hospitals; furthermore, lack of better working

¹ PhD Scholar Shaheed Zulfiqar Ali Bhutto Institute of Science & Technology Islamabad Campus, Pakistan Email: 1431182@szabist-isb.edu.pk

² Assistant Professor Shaheed Zulfiqar Ali Bhutto Institute of Science & Technology Islamabad Campus, Pakistan

environment has reduced job satisfaction and effect on quality outcomes. Khyber Pakhtunkhwa geographically is the smallest province with 26 districts and 7 divisions. The majority of the population resides in rural areas; Peshawar is among the few densely populated urban centers and according to 2017 preliminary census population of Peshawar is 2.1 million. According to the Government of Khyber Pakhtunkhwa health sector strategy HSS 2010-2017, Khyber Pakhtunkhwa had to face many challenges and overcome certain weaknesses. The health outcomes need substantial improvement in the province. After the 18th amendment in the constitution of Pakistan, health administration devolved to the provinces. The government of Khyber Pakhtunkhwa has three tiers which include district, tehsil, and village. The rural health centers, mother and child health centers, public hospitals and basic health units have been devolved in districts. Teaching and tertiary hospitals are devolved into the province. Psychological capital is a critical component in the health sector which needs a positive work environment in contributing the quality of health services. Pakistan's healthcare organizations face a paradoxical challenge of to meet increasing demand with limited resources. The power of an individual's psychological development is characterized by optimism, hope, resilience, and self-efficacy (Luthans, Avolio, Avey, & Norman, 2007). Individuals often challenge themselves with great determination to achieve difficult tasks and goals. Individuals with hope set their goals and expectations through self-determination. In comparison to the hopeful individuals, optimists adopt change and see opportunities (Luthans et al., 2007). A positive attitude is observed in employees with high resiliency. Recently more attention has been given to PsyCap due to its contribution to positive behaviors. Employees were found more satisfied with their job with PsyCap and helped co-workers (Jung & Yoon, 2015). It is important to analyze the role of psychological capital for developing better organizational results, as knowing the fact psychological capital does not create in a vacuum. The Role of a supportive work environment played a significant role in concern with valuable contributions to the hospital and has an impact on quality outcomes. A supportive and attractive workplace attracts individuals in healthcare and encourages them to perform effectively.

Research Objectives

- To determine the effect of supportive work environment and its impact on quality of care
- To investigate mediating role of psychological capital between supportive work environment and quality of care.

LITERATURE REVIEW AND HYPOTHESES

Supportive work environment

According to organizational support theory, employees in an organization can stimulate positive and favorable actions based on the level of support employee's experience in their work environment. Perceived organizational support outcomes associated with employee involvement, and quality of care (Eder & Eisenberger, 2008). Organizational support can be identified in different foci which includes support for training, social support and interaction among group members. Supportive work environment can stimulate sense of ownership and reciprocity toward the organization which translates important outcomes, such as enhanced sense of obligation and employee performance which in turn, improve health care. Employee's experience on career growth opportunities, status of facilities, job autonomy, rewards, co-worker support and supervisor support have impact on perceived organizational support. Health care quality is based on the resources which is actually provided by human resources, whereas, physical resources which predominantly relates to organizational support and may lead to higher satisfaction for healthcare professionals. Apart from the organizational support theory another theory, the social exchange theory also focuses on relationships between organization and co-workers (Hayhurst, Saylor, & Stuenkel, 2005).

Quality of care

Quality of care is relatively a new area of research in studies regarding the outcomes of healthcare organizations. Health care structure is mainly based on two important elements; actual care is related to the (process) whereas (outcome) is related to the sequence of interaction between individuals and healthcare organization. Structure in healthcare system refers to physical and staff characteristics. The most basic dimension of healthcare is to provide services and facilities which meet the needs of patients in the hospital. Improved outcomes are mainly the centeredness to the patients and a set of skills doctors' practiced for providing services to the individuals. Availability of resources is subject to the access of health facility and the availability of appointments provided to the patients' (S. Campbell, Braspenning, Hutchinson, & Marshall, 2002; S. M. Campbell, Roland, & Buetow, 2000)

Supportive work environment and quality of care

The Supportive work environment can be described as an environment that helps individuals to

perform effectively and can develop a healthy workforce that could influence the quality of care. The characteristics of a supportive work environment affect individual satisfaction that can develop discretionary behavior in doctors, nurses and other health workers in the hospital. Supportive work environment attributes include peer group, and supervisory support. Improvements in the working environment are necessary for better individual as well as organizational outcomes. According to the previous studies, perceived organizational support and co-worker support reported more satisfying working conditions (Koslowsky, Schwarzwald, & Ashuri, 2001). The quality of care in hospitals can be improved with a healthy work environment and doctors who perceived better organizational climate would respond effectively. Health workers faced high job demands which have a detrimental impact on quality outcomes furthermore, supervisory and co-worker support may play central roles to promote a positive work environment for doctors, nurses and other support staff in hospitals (Karasek, 1998). Another study of (Kurtessis et al., 2017) analysed the role of perceived organizational support and found that organizational members which include supervisors and co-workers can stimulate positive workplace outcomes in response to a supportive work environment. In a more recent study, (Ogbonnaya & Valizade, 2018) reported that positive correlations between healthcare performance and employee outcomes, also show evidence that employees are likely to perform well through organizational support and uphold positive values of an organization.

Hypothesis 1: supportive work environment has a significant and positive impact on the quality of care

Hypothesis 2: supportive work environment has a significant and positive impact on psychological capital

The Mediating role of psychological capital between supportive work environment and quality of care

Psychological Capital is acknowledged as a positive and high-performance construct (Abbas & Raja, 2015) which explicate such as self-efficacy by taking confidence is a compulsory effort to complete the task, optimism is developing a positive attitude to be successive in present and future, while hope is a continuous approach towards a goal to be successful and resilience as nourishing and taking actions to stand strong even when surrounded by difficulties and hardships (F. Luthans, Youssef, 2007). The science of positive psychology is essentially a positivity of individual personality, positivity concerning person experience, the positivity of organizations to develop and enhance the quality of life and avoid different cognitive disorders that are developed when an individual is depressed (Csikszentmihalyi & Seligman, 2000). According to Nelson and Cooper (2007), positive organizational

behavior emphasizes more on the strengths of their employees relatively than weaknesses. As a matter of fact, in the organization Psychological Capital navigate to raise the value of humans (skills and knowledge of particular employee) and social (individual social network) capital (Stajkovic & Luthans, 2001). Psychological capital can be achieved by little investment as done for social and human capital and as well as unlike traditional capital. Psychological capital is related to positive job outcomes specifically related to performance, satisfaction and turnover intentions (Luthans, Norman, Avolio, & Avey, 2008). According to the positive psychological literature, Psychological Capital and its abilities or resources are not just a fixed characteristic but it is comparative/ superlative (Avey et al., 2010). As there are no common features in positive attributes and conditions empirically and conceptually, therefore modern studies also support their uniqueness and discriminant validity (Avey, Luthans, Smith, & Palmer, 2010).

Similarly another study of (Hannah & Luthans, 2008) provide a model in which Psychological Capital is planned to come from self-motivated practices that stimulate expectations, aims, norms and values and self-monitoring ideas which are started particularly and are specifically linked to the setting or situation. While on the other side, trait-like attributes are universal which give usual or trained responses that are shown on chronic stimulation of intellectual affective processing units. Exposure and prearranged provocations can guess the response. There might be people who show general efficacy which is a trait-like construct not state like, theorized by (Bandura, 1997), which makes them more confident and successful in different situations and settings over time. While self-efficacy (according to Bandura, 1997, it is a state like construct and a very important part of Psychological Capital) is related to area or field and it can be created for a particular setting, situation or a job by having experience, demonstration, motivation and physical and mental arousal these characteristics of Psychological Capital tend to create positive expectations and stimulate goal setting, achievement and motivation which leads to persistence and success in a specific situation. The social cognitive theory provides the basis for Psychological Capital (Bandura, 1997), which creates mutual relations between people, their past performance or behavior and the environment. It supports the difference between trait-like attributes and flexible Psychological Capital construct. Moods, feelings, and sentiments are short-lived or temporary as compared to state like Psychological Capital. Psychological Capital capabilities should be maintained to achieve success and to achieve goals. Therefore it is concluded that psychological capital may play a role in between supportive work environment and employees' performance. Particularly in organization the employees who perceive that there exists a supportive environment are likely to experience higher psychological capital which in turn can produce better employees' outcomes, such as in case of a health

worker which would further demonstrate the importance of psychological capital in supportive environment and its impact on quality of care.

Hypothesis 3: Psychological Capital mediates the relationship between supportive work environment and quality of care

Hypothesis 4: Psychological Capital has a significantly positive impact on quality of care

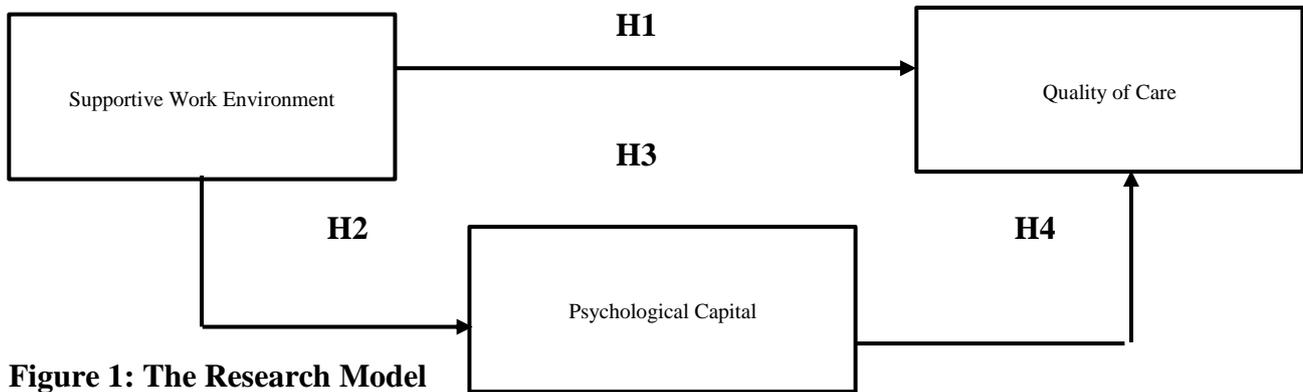


Figure 1: The Research Model

Research Methodology

The study population refers to the collection of total elements out of which a representative sample is drawn for a research through which certain conclusions may be derived (Schindler & Cooper, 2006). Since it is impossible to study the carry out a census and study each element of the population, a representative sample whose characteristics match those of the entire population selected, and that represent the study population to draw valid conclusions about it. Based on the objectives, direct, mediation hypotheses were formulated. To achieve the objectives of the study and test hypotheses, theoretical justifications discussed. For the current study data collected from a secondary and tertiary hospital. A sample of 340 was initially collected from which 244 were useable for proposed objectives. The population of the current study consists of full time health workers i.e. clinical staff, doctors, nurses, health directorate officials of the Peshawar region. The sampling frame obtained from certain organizations such as the health directorate, territory hospitals of Peshawar region including Leady Reading Hospital, Khyber Teaching Hospital, Hayatabad medical complex, and district as well as zonal hospitals under health department of KP.

Table 1: Construct reliability and validity

Construct	CA	rho_A	CR	AVE
QC		0.869	0.959	0.895
SR		0.928	0.930	0.954
PGI		0.791	0.904	0.862
POS		0.850	0.858	0.909
PsyCap		0.870	0.883	0.894
SWE		0.779	0.850	0.824

Note: QC=Quality of Care, SR= Supervisory Relationship, PGI= Peer Group Interaction, POS= Perceived organizational support, PsyCap= Psychological capital, SWE= Supportive work Environment, CR= Composite reliability, AVE= Average Variance Extracted, CA= Cronbach's alpha

According to table 1 in which the value of AVE reflects overall amount of variance in the indicators, were in the range of 0.510 and 0.876 and depicts that values are exceeded recommended values. Composite reliability, factor loadings and AVE used to access the convergent validity. Composite reliability indicates the latent construct values ranged from 0.824 to 0.954, which exceeded from the threshold value of 0.7.

Table 2: Fornell- Larcker Criterion

	QC	SR	PGI	POS	PsyCap	SWE
QC	0.769					
SR	0.288	0.935				
PGI	0.004	0.226	0.823			
POS	0.195	0.32	0.308	0.877		
PsyCap	0.179	0.464	0.343	0.029	0.721	
SWE	0.272	0.856	0.571	0.68	0.434	0.599

Note: QC=Quality of Care, SR= Supervisory Relationship, PGI= Peer Group Interaction, POS= Perceived organizational support, PsyCap= Psychological capital, SWE= Supportive work Environment

The table 2 is showing out Fornell-Larcker criterion. Discriminant validity is examined squared correlations between the construct and the variance extracted for the construct. Results of the discriminant validity reveals that the squares correlation is less than the square root of the average variance extracted, demonstrating that discriminant validity results are adequate.

MEASUREMENT MODEL

Measurement model tested and checked all constructs for reliability, convergent and discriminant validity. Based on Table 1, Composite reliability scores were greater than 0.7 which is the threshold suggested by (Hair Jr, Sarstedt, Hopkins, & Kuppelwieser, 2014) while the value of average variance extracted for all constructs exceeded than 0.5. According to (Fornell & Larcker, 1981) average variance extracted of each construct should be higher than the correlation with all other variables. The results of

the study demonstrated that based on SEM analysis that a supportive work environment had a strong and significant direct impact on psychological capital and quality of care among a sample of Khyber Pakhtunkhwa hospital employees. Table 1 shows that values of average variance extracted (ave) exceeded than the recommended value which is 0.5, indicating that convergent validity results are adequate. The values of composite reliability of all constructs were well above than 0.70.

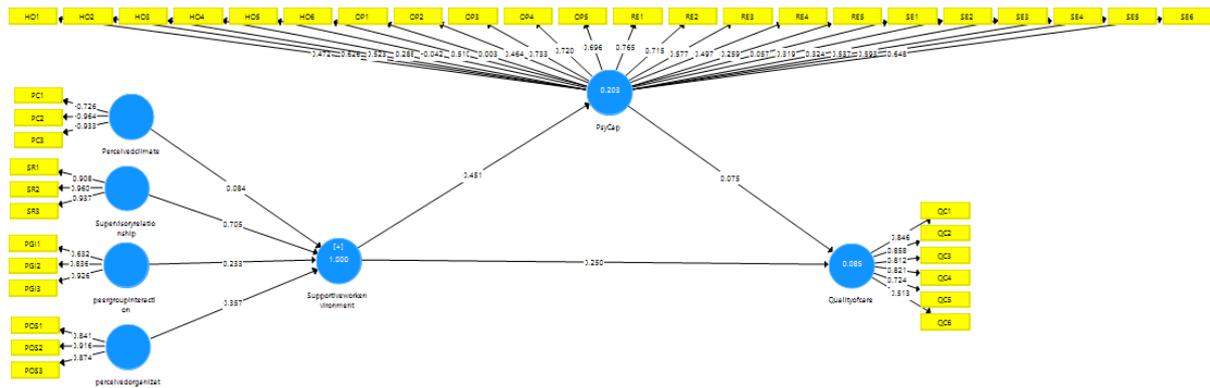


Figure 2. Measurement Model

Table 3: Path Coefficients and Hypothesis Testing

Hypothesis	Causal Path	Beta	Sample Mean	SE	T- Values	P-Values	Result
H1	SWE -> QC	0.229	0.231	0.039	5.908*	0.000	Supported
H2	SWE -> PsyCap	0.686	0.688	0.029	23.597*	0.000	Supported
H3	SWE -> PsyCap -> QC	0.710	0.708	0.031	22.718*	0.000	Supported
H4	PsyCap -> QC	0.157	0.159	0.028	5.620*	0.000	Supported

Beta= regression weight, SE= standard error *p < 0.01

Structural Model:

The Structural model used for testing hypothesis, the bootstrapping technique was performed with a re-sampling of 500, t-statistics were calculated for the hypothesized relationships. Table 3 shows the hypothesis testing, from analysis, it was found that supportive work environment ($\beta= 0.229$, $P < 0.01$) was positively related to the quality of care. A supportive work environment ($\beta= 0.686$, $P < 0.01$) was positively related to psychological capital. It was also found that a psychological capital ($\beta= 0.157$, $P < 0.01$) is positively related to the quality of care. For mediation of psychological capital, the indirect effect has been tested, ($\beta= 0.710$, $P < 0.01$) results are significant which indicated that there is a mediating effect of psychological capital. In summary, hypotheses of current study were supported.

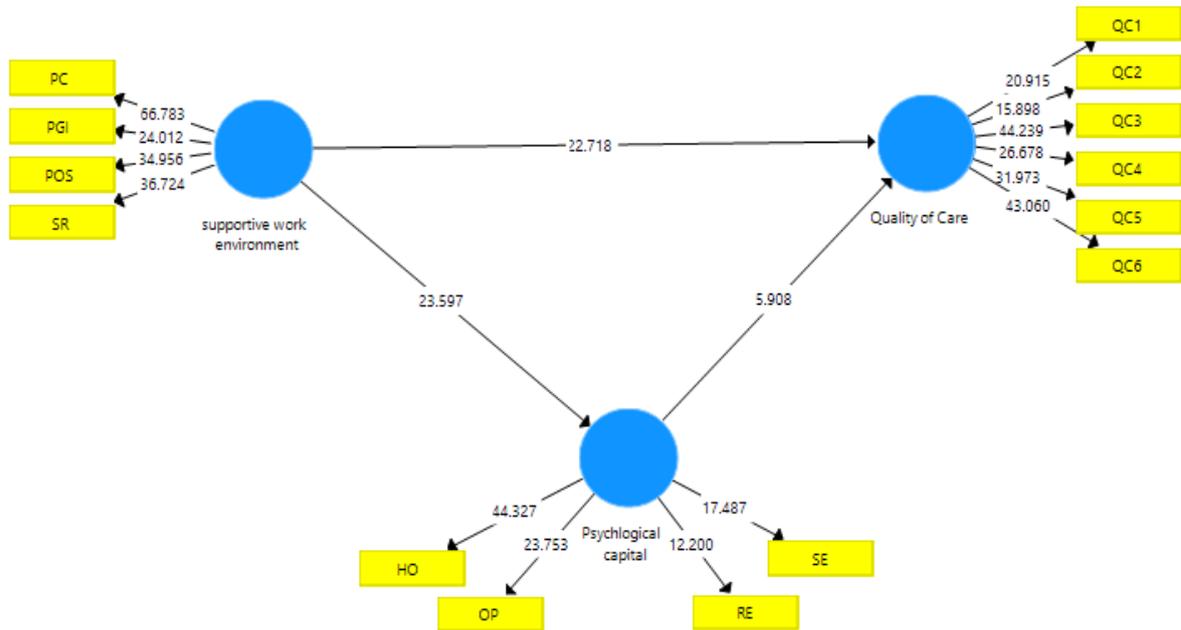


Figure 3: Structural Model

CONCLUSIONS AND MANAGERIAL IMPLICATION

The main purpose of the study was to test the role of a supportive work environment in quality of care and to find out the mediating role of psychological capital. The results of the study found that psychological capital has a significant relationship with the quality of care; H1 was supported (Bao & Taliaferro, 2015). The significant relationship between psychological capital and quality of care shows that characteristics of psychological capital i.e. hope, resilience, self-efficacy, and optimism have a greater impact on the quality of care: H2 was supported. For this reason, healthcare organizations need to enhance the various level of psychological capital which will achieve better results in the quality of care. Doctors with higher characteristics of psychological capital has positive effect on combating quality issues in healthcare. Self- efficacy, hope, optimism, and resilience have demonstrated essential influence among doctors and nurses. Psychological capital was a positive and potent predictor of the quality of care in the current study; H3, H4 was supported. Doctors with higher levels of psychological capital might be more resilient and much stronger in work and have more confidence to execute difficult tasks, coping with stressful situations in a more productive manner. As stated by past researchers (Wang, Chang, Fu, & Wang, 2012) The significant relationship between supportive work environment and

quality of care shows that healthcare organizations in Khyber Pakhtunkhwa are using the characteristics of the supportive work environment for achieving better healthcare, however, the role of perceived organizational support in doctors, particularly in nurses are relatively weak which indicated that secondary hospitals need to focus on these characteristics of the supportive work environment and enhance the level of perceived climate which further develop supportive working environment resulted in a better quality of care (Rudy, 2001) asserts that supportive work environment can develop healthy environment which resulted in better quality outcomes . The role of supervisory support has a stronger influence on the quality of care and showed a positive attitude in employees which leads to create a better working environment and promote higher patient satisfaction. In addition, the current study confirms significance of supportive work environment in healthcare organizations. Importantly, current study has extended the studies of quality of care by specifying and evaluating the results. Apart from the conclusion, implication of the study is highly related to health policy decision making in health sector of KP. This study supported that psychological capital has mediated relationship with quality outcomes.

Limitations and future directions

The current study relied on quantitative research methods, although this methodological approach was adequate for achieving objectives of the study, future studies are encouraged to apply another method like multi variance technique. Furthermore, findings of the study were based on cross-sectional, future research could imply longitudinal methodology to better understand relationships between variables. Future research could also focus on other possible relationships between a supportive work environment and quality of care. Future research will need to examine the role of peer group interaction in healthcare organization.

REFERENCES

- Abbas, M., & Raja, U. (2015). Impact of psychological capital on innovative performance and job stress. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 32(2), 128-138.
- Avey, J. B., Luthans, F., Smith, R. M., & Palmer, N. F. (2010). Impact of positive psychological capital on employee well-being over time. *Journal of Occupational Health Psychology*, 15(1), 17.
- Bandura, A. (1997). 199 Self-efficacy: The exercise of control. *H. Freeman New York, NY*.
- Bao, S., & Taliaferro, D. (2015). Compassion fatigue and psychological capital in nurses working in acute care settings. *International Journal of Human Caring*, 19(2), 35-40.
- Campbell, S., Braspenning, J. a., Hutchinson, A., & Marshall, M. (2002). Research methods used in developing and applying quality indicators in primary care. *Quality & Safety in Health Care*, 11(4), 358-364.
- Campbell, S. M., Roland, M. O., & Buetow, S. A. (2000). Defining quality of care. *Social Science and Medicine*, 51(11), 1611-1625.

- Csikszentmihalyi, M., & Seligman, M. E. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5-14.
- Eder, P., & Eisenberger, R. (2008). Perceived organizational support: Reducing the negative influence of co-worker withdrawal behavior. *Journal of management*, 34(1), 55-68.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. In: SAGE Publications Sage CA: Los Angeles, CA.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM). *European business review*.
- Hannah, S. T., & Luthans, F. (2008). A cognitive affective processing explanation of positive leadership. *Affect and emotion: New directions in management: Theory and research*, 97.
- Hayhurst, A., Saylor, C., & Stuenkel, D. (2005). Work environmental factors and retention of nurses. *Journal of Nursing Care Quality*, 20(3), 283-288.
- Jung, H. S., & Yoon, H. H. (2015). The impact of employees' positive psychological capital on job satisfaction and organizational citizenship behaviors in the hotel. *International Journal of Contemporary Hospitality Management*.
- Karasek, R. (1998). Demand/Control model: A social-emotional, and psychological approach to stress risk and active behavior development. In *ILO encyclopedia of occupational health and safety*: ILO.
- Koslowsky, M., Schwarzwald, J., & Ashuri, S. (2001). On the relationship between subordinates' compliance to power sources and organisational attitudes. *Applied Psychology*, 50(3), 455-476.
- Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2017). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of management*, 43(6), 1854-1884.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60(3), 541-572.
- Luthans, F., Norman, S. M., Avolio, B. J., & Avey, J. B. (2008). The mediating role of psychological capital in the supportive organizational climate—employee performance relationship. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 29(2), 219-238.
- Ogbonnaya, C., & Valizade, D. (2018). High performance work practices, employee outcomes and organizational performance: a 2-1-2 multilevel mediation analysis. *The International Journal of Human Resource Management*, 29(2), 239-259.
- Rudy, E. B. (2001). Supportive work environments for nursing faculty. *AACN Advanced Critical Care*, 12(3), 401-410.
- Schindler, P. S., & Cooper, D. R. (2006). *Marketing research*: Tata McGraw-Hill Education.
- Stajkovic, A. D., & Luthans, F. (2001). Differential effects of incentive motivators on work performance. *Academy of Management Journal*, 44(3), 580-590.
- Wang, Y., Chang, Y., Fu, J., & Wang, L. (2012). Work-family conflict and burnout among Chinese female nurses: the mediating effect of psychological capital. *BMC Public Health*, 12(1), 915.