Launching the Crafting Concept: Application of Job Crafting Model and Its Effect on Nurses' Performance Effectiveness

Sally Mohammed Farghaly Abd El-Aliem [1], Ghada Mohamed Hamouda [2]

[1] Lecturer of Nursing Administration, Faculty of Nursing, Alexandria University, Alexandria, Egypt - Assistant Professor of Nursing Management and Education, College of Nursing- Princess Nourah Bint Abdulrahman University, Riyadh, KSA

[2] Assistant Professor of Nursing Administration, Faculty of Nursing, Alexandria University, Alexandria, Egypt- Associate Prof. of Nursing Administration, King Abdul-Aziz University

Abstract: **Job crafting at nursing refers to proactive behavior aimed at optimizing the fit between nurses' competencies and their job. Job crafting is a new trend at the moment in the healthcare sector. The way nurses can model their jobs has an effect on the quality of care offered to consumers. Recent studies have shown that job crafting is positively related to work engagement, job satisfaction and job performance. Research hypothesis: There was positive effect of effect of first-line nurse manager' job crafting model application on nurses' performance effectiveness. Methodology: Quasi experimental research design was conducted at inpatient medical and surgical care units and its specialties at a Governmental Hospital. Subject composed of 200 nurses and 24 first-line managers.** *First tool***; self-administered questionnaire containing two parts; demographic data of nurses and knowledge questionnaire sheet.** *Second tool***; job crafting questionnaire,** *third tool***; six-dimension scale of nursing performance.** *Results:* **there was marked improvement at mean scores of first-line nurse managers according to overall knowledge about job crafting at pre, immediately post and after three months of awareness workshop application with highly statistical significant difference where p value <0.01. Additionally, there was highly significant positive correlation between job crafting of first-line nurse managers and nurses' performance effectiveness and overall knowledge (P= .000, and .000, respectively). While, there was statistical significant positive correlation between first-line nurse managers over knowledge and nurses' performance effectiveness (P= .012).** *Conclusions:* **To conclude, the present study revealed that application of job crafting model for first-line manager had positive impact on nurses' performance effectiveness. Also, awareness workshop had positive effect on first-line managers' job crafting and overall knowledge regarding it.** *Recommendations***: Apply continuous awareness workshop for first-line nurse managers regarding job crafting indifferent work settings among different managerial positions Also, maintain positive work environment through proactive personality, increasing social job resources, increasing structural job resources, increasing job demands, vigor, dedication, absorption and in-role performance through to motivate nurses for health care service effectiveness.**

Keywords: **Job crafting, Performance effectiveness.**

I. INTRODUCTION

The concept of job crafting is closely linked with job design. The latter is commonly set up by the organization, which then starts to look for the right people to fit this design. It consists of three elements: knowledge, skills and abilities. Another concept is the one of job redesign. This is seen as a procedure in which the manager revises the content or roles of the job. So, job crafting has found its origin based on the concept of redesigning. In fact, it is job redesign on the level

of the employee and no longer on the level of management. Accordingly, **Lichtenthaler & Fischbach, 2019**, defined job crafting as "The physical and cognitive changes individuals make in the task or relational boundaries of their work"**.**

Job crafting consists of three aspects, being: "Task crafting, relational crafting and cognitive crafting". Task crafting is about the range and amount of tasks nurses develop to align them closer to their own skills or interests. Relational crafting concerns relations and communication with other staff members. An example is entering relations with colleagues who have the same passions or talents **(Yepes-Baldo et al., 2016)**. Lastly, cognitive crafting is adapting the purpose of the job and social atmosphere (**Wong & Tetrick, 2017).**

To improve the delivered quality, residential care centers have several possibilities. The first one is through enhancing job satisfaction of the employees. **Harbridge, (2018)** proved that highly satisfied staff delivers higher quality of care. The second possibility to improve the quality of care is by employing a higher number of nurses. The more nurses and assistant nurses are deployed; the higher consumers experience the quality. Lastly, the third possibility is to let the nurses partially craft their jobs themselves. **Audenaert et al., (2019)** reported that there is a positive relation between employee job crafting and employee performance. Job crafting can be seen as "changes that employees initiate in the level of job demands and job resources in order to make their own job more meaningful, engaging, and satisfying".

Job crafting gives individuals control in changing their work environment because it enables individuals to "fit" the job to their needs and preferences by seeking resources, challenging demands, and reducing hindering demands on a daily basis. Also in healthcare, there is a growing awareness that recognizes the need for health care professionals to take a proactive role in shaping their future jobs to improve healthcare systems **(Bruning & Campion, 2018).**

Expanding job redesign with job crafting could be the answer to a pressing human resource management question, namely how organizations can create more opportunities for challenge, growth, and work involvement. Moreover, job crafting may be an avenue to integrate job design and job stress theories, by exploring the role of job stressors and job demands in combination with the motivating role of job resources **(Bakker and Demerouti, 2017)**. Job crafting specifically refers to individuals changing or crafting the boundaries or conditions of their job (i.e., job demands and resources) to increase their work meaning (e.g., develop knowledge or skills to help in goal attainment) **(Gordon et al., 2018).**
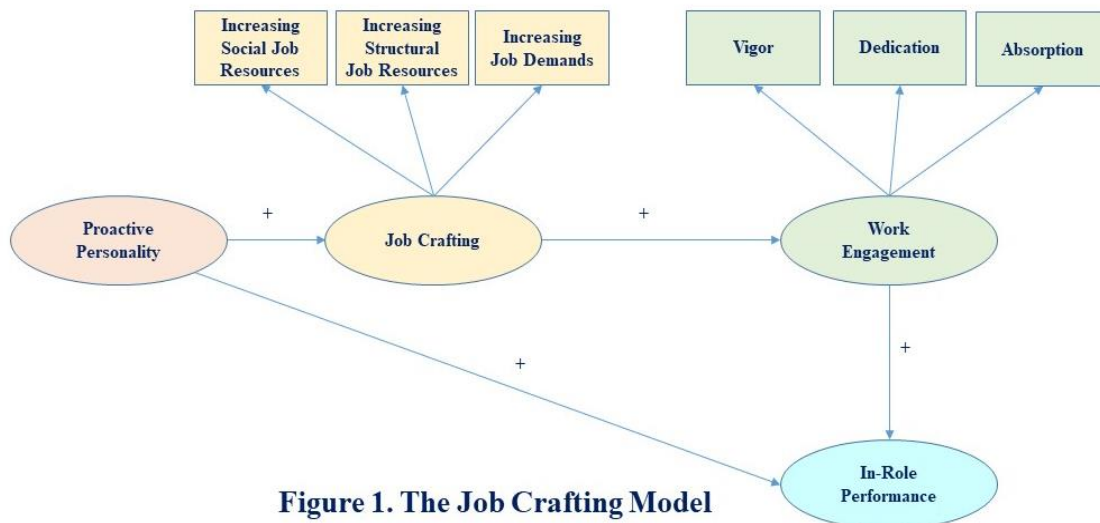

Figure 1. The Job Crafting Model

Hospitals involve a broad range of both healthcare and non-healthcare professionals. Nurses are an integral part of the healthcare professional team. They are demanded in the healthcare workforce markets and play a key role in maintaining the quality of hospital services. Accordingly, sufficient competencies are pivotal for nurses to provide quality nursing care and services, thereby improving patient satisfaction and enhance nurses' performance **(Lazazzara et al., 2019).** A number of studies have indicated that nurses' performance is considered as one of the essential factors in determining the quality of health service. Exceptional nursing benefits healthcare by contributing to the highest quality of nursing care and improving patient outcomes **(Sonoda et al., 2018).**

Nurses' involvement is essential to any significant healthcare improvement. Essential skills of nurses will need to meet job demands at any career juncture and effective performance as develop critical thinking/critical reasoning, make friends with technology, adapt to the broader picture, practice effective communication, stay current, develop mentoring relationships, refine personal compass, prepare for the unexpected, be people-oriented instead of task-oriented, and hone your teaching skills **(Delshad & Shiraz, 2019).**

II. SIGNIFICANCE OF THE STUDY

The health care organizations and their administrators, particularly human resources management, will be influenced in various ways by applying the new concept of job crafting. Professional nurses play a vital role in the provision of health care globally. The performance of health care workers, including professional nurses, link closely to the productivity and quality of care provision within health care organizations. It is important to identify factors influencing the performance of professional nurses to enhance the quality of health care delivery **(Setiawan et al., 2019).**

III. MATERIAL AND METHODS

The study aimed to:

Evaluate the effect of job crafting model application and its effect on nurses' performance effectiveness.

Research hypothesis:

There is positive effect of first-line nurse manager' job crafting model application on nurses' performance effectiveness.

Research design:

A quasi-experimental design was utilized.

Research setting:

The study was executed in all in-patient medical-surgical and intensive care units and its specialties at a Governmental Hospital. It is a teaching hospital equipped with 1724 beds. The capacity of Medical units was 951 and 100 beds in intensive care units. The number of inpatient units included in the study was 24 units: 13 medical and 11 surgical care units.

Subjects:

1- All first-line nurse managers, who were working in the previously mentioned settings and had at least one year of working experience as a first-line nurse manager, were included. (N = 24).

2- 207 nurses who worked at the previous mentioned settings regardless of their age, gender, qualification and experience. Where, seven nurses' withdrawal from the study without any reason. So, (N=200).

Sample size:

Convenient sample, the estimated sample size is 207 nurses, at confidence level 95% and precision rate at 0.05 by using **Steven equation, 2012**. Since the total number of available nurses is 400 nurses.

While;

P= **0.5**

N= **Total population**

Z= **Z value "1.96"**

D= **Standard Error**

n= **sample size**

$$n = \frac{N \times p(1-p)}{\left[N - 1 \times \left(d^2 \div z^2\right)\right] + p(1-p)}$$

Tools for data collection:

The data was collected through:

1ˢᵗ Tool: First-line nurse managers' job crafting knowledge Questionnaire: This tool concerned with assessment first-line nurse managers' knowledge about job crafting, which prepared by the researchers after reviewing of literature related to job crafting **Demerouti et al., 2015**. This part was contained 10 questions as definition of job crafting, principles, forms of job crafting, models of job crafting, benefits of job crafting concept implementation, facilitators for job crafting implementation…. etc. The total score of first-line nurse managers' knowledge of job crafting were 10 grades, each item was evaluated as "correct" was taken one point and "incorrect" was taken zero point.

2ⁿᵈ Tool: Job Crafting Questionnaire: It was adapted by the researcher from **Slemp & Vella-Brodrick, 2013 and** used to assess first-line nurse managers' level of job crafting. It constructed from 19 items classified on three domains as **Task Crafting domain;** contained 7 items as "Introduce new approaches to improve your work and change the scope or types of tasks that you complete at work", **Cognitive crafting domain;** contained 5 items as "Think about how your job gives your life purpose and Reflect on the role your job has for your overall well-being", and **Relational crafting domain;** contained 7 items as "Make an effort to get to know people well at work and Organize or attend work related social functions". The total scores of the questionnaire were 38 grades, each positive item was evaluated as "agree" was scored with two points, "sometimes" was scored with one point and "disagree" was scored with zero point. The mean score for job crafting was calculated and it ranged from 0 to 38. The higher score indicates high level of job crafting.

3ʳᵈ Tool: Six Dimension Scale of Nursing Performance Effectiveness: It was adapted from **Schwirian, 1978 and Beauvais et al., 2011** and used to assess nurses' level of performance and its effectiveness including *Leadership* (5 items), *Critical care* (7 items), *Teaching and collaboration* (11 items), *Planning and evaluation* (7 items), *Inter-professional relationships and communication* (12 items) and *Professional development* (10 items). The total score of nurses' performance were 104 grades, each positive item was evaluated as "agree" was scored with two points, "sometimes" was scored with one point and "disagree" was scored with zero point. The mean score for nursing performance was calculated and it ranged from 0 to 104. The higher score indicates high level of nursing performance.

Additionally, *Demographic data sheet:* **was developed by the researchers including** age, gender, marital status, qualification and years of experience.

Methods:

1. An official permission was granted from the Director of the Governmental Hospital and the departments' heads in which the study was conducted. Researchers conducted a meeting with director of nursing services to explain the aim and objectives of the study, to acquire better cooperation, support and to stimulate first-line nurse managers and nurses to participate positively in the study.

2. Tools (II & III) were translated into Arabic and tested for its content and face validity by a jury of five experts (three professors and two assistant professors of nursing administration) opinions elicited regarding the format, layout, consistency, accuracy and relevancy of the tools. Accordingly, some modifications were done.

3. Reliability test was done for all tools; Cronbach's Alpha for knowledge = .799, Cronbach's Alpha for job crafting = .884 and Cronbach's Alpha for job performance effectiveness = .867.

4. Pilot Study: The pilot study was carried out on three and twenty of first-line manager and nurses, respectively. Those represent 10% of studied subjects at the previous mentioned settings in order to test the applicability and clarity of the constructed tools. The pilot has also served to estimate the time needed for each subject to fill in the questionnaire, no modification was done.

5. Initial assessment was intended to recognize the studied subjects' demographic characteristics; knowledge about job crafting; job crafting of first-line nurse managers and nurses' performance effectiveness.

6. The Model about job crafting **Bakker and Demerouti, 2017** was applied through raising-awareness workshop, to assist first-line nurse managers for their usage and apply of the job crafting. Based on the assessment phase, the workshop sessions' content and media (in the form of handout and visual materials) were prepared by the researchers, in Arabic

language to outfit first-line nurse managers' level of understanding, to improve their application of the job crafting activities through applying the job crafting model based on the related literature; through using theoretical knowledge, illustrative pictures, role play and some case studies. The handout was revised by a group of five experts from nursing administration and nursing education departments. Accordingly, some modifications were done and then the final forms were developed.

7. The *introductory session* started with setting the agenda; introducing the purpose of the raising-awareness workshop; and assessing the first-line nurse managers' knowledge (First-line nurse managers' knowledge and tool I "job crafting"). *First session*, it was a teaching session including: defining concepts, purpose, scope, core characteristics and basic functions of job crafting. In *second session*, the participants described supervisory roles including: identifying the key features of productive supervisory relationships; how much job crafting model they had participated in and the type and structure of job crafting. *Third session,* included theoretical content of the model with illustrative pictures, concerning its proactive personality, increasing social job resources, increasing structural job resources, increasing job demands, vigor, dedication, absorption and in-role performance. *The last session,* encompassed the simulated application of the job crafting model to familiarize and guarantee the conformity of first-line nurse managers and its application in their clinical settings to practice the skills related to building a supervisory relationships and to articulate the skills they desired to develop based on the awareness workshop. After each session, content was summarized by the researchers along with the outcome of the activities with mutual constructive feedback. It has been concluded that first-line nurse managers should conduct meeting with nurses to perform reflective practices to validate their own job crafting methods and innovative behaviors.

8. Methods of teaching used were: interactive lectures, group discussion and role play. Instructional media was used; it included handout and visual materials showed with laptop.

9. The evaluation phase was emphasized by using the study tools (Tool I, Tool II & Tool III) to assess the effect of workshop sessions on study subjects, immediately post-implementation and after three months "follow up". Also, assess the effect of job crafting model application on nurses' performance effectiveness through using Six Dimension Scale of Nursing Performance (Tool III).

10. Data was collected three times (pre; immediately after; and after three months from Job crafting awareness workshop application), by the above-mentioned tools that were distributed among the study subjects at their working units. Each questionnaire took approximately from 20 to 30 minutes/participant. The data was collected for a period of 4 months started from 1st of May 2019 to End of August 2019.

11. *Ethical Considerations*: An informed written consent was obtained from the study subjects after explanation of the aim of the study. Privacy and right to refuse to participate or withdraw from the study were assured during the study. Confidentiality and anonymity regarding data collected were maintained.

IV. STATISTICAL ANALYSIS

Data collected from the studied sample was revised, coded and entered using Personal Computer (PC). Computerized data entry and Statistical analysis were fulfilled using the Statistical Package for Social Sciences (SPSS) version 22. Data were presented using descriptive statistics in the form of mean and S.D. Linear regression model is a linear approach to modeling the relationship between a scalar response and one or more explanatory variables. T. test used to compare means pre and post intervention.

V. RESULTS

Table 1 showed that, the mean age of first-line managers was 35.91 ± 9.30. As regard gender and marital status, 83.3% and 79.2% were female and married, respectively. In relation to the educational level, it was found that, 54.2% of them had higher education. Also, mean years of experience was 15.7 ± 7.85. Regarding nurses, the mean age of them was 33.84 ± 8.22. 72.5% and 80.5% of the studied nurses were female and married, respectively. 52.5% of them had technical nursing degree and mean years of experience was 14.2 ± 8.92.

Figure 2 illustrated that 54% of first-line nurse managers had no previous knowledge about job crafting. While, 46% of them had previous knowledge.

Table (2) indicated that there was marked improvement at mean scores of first-line nurse managers according to task crafting at pre, immediately post and after three months of awareness workshop application (9.18±1.99, 17.55± 4.61, 15.08±3.64, respectively), relational crafting (8.62±3.00, 18.53± 4.34, 16.19±4.73, respectively) with highly significant differences (where P = 0.009, and 0.005), respectively. Also, there was slight improvement at mean scores of cognitive crafting at pre, immediately post and after three months of awareness workshop application (7.05±2.03, 13.47± 3.70, 13.01±3.22, respectively) with significant difference as p value = 0.10. Also, it was found that there was a highly significant difference in relation to total job crafting at pre, immediately post and after three months of awareness workshop application where p value = .000 with mean score 24.31±7.19, 49.47±12.08, and 46.14±10.26, respectively.

Figure (3) revealed that mean scores of total job crafting at pre implementation of awareness workshop was 24.31±7.19, 49.47±12.08 at immediately post, and 46.14±10.26 after three months.

Table (3): clarified that there was marked improvement at mean scores of first-line nurse managers according to overall knowledge about job crafting at pre, immediately post and after three months of awareness workshop application with highly statistical significant difference where p value <0.01.

Table (4): illustrated that there was highly statistical significant difference in relation to nurses' performance effectiveness and its domains (Leadership, Critical care, Teaching and collaboration, Planning and evaluation, Inter-professional relationships and communication, and Professional development) where p value <0.01. Also, it was found that there was a highly significant difference in relation to total nurses' performance effectiveness at pre, immediately post and after three months of awareness workshop application where p value = .000 with the highest mean score of immediately post implementation was 128.69±24.69.

Figure (4): revealed that mean scores of total nurses' performance effectiveness at pre, immediately post and follow up were 76.94±18.3, 128.69±24.69, and 123.07±21.94, respectively.

Table (5): indicated that there was highly significant positive correlation between job crafting of first-line nurse managers and nurses' performance effectiveness and overall knowledge (P= .000, and .000, respectively). While, there was statistical significant positive correlation between first-line nurse managers over knowledge and nurses' performance effectiveness (P= .012).

Table (6) revealed that the outcomes of a multiple linear regression analysis designed to predict first-line nurse managers' job crafting (as the dependent outcome) from the independent predictors; first- line nurse managers' demographic characteristics, nurses' performance effectiveness and overall knowledge. The model showed that the first-line nurse managers qualification was the strongest independent predictor of job crafting as beta =.864; while the lowest predictor was for their gender as beta = .068. The overall significance of the model was R= .867 with .438 Std. error of estimate. Additionally, there was a statistical significant difference between job crafting and all predictors except first-line nurse manager gender (T= 1.825, p= 054).

Table (7) illustrated that the outcomes of a multiple linear regression analysis designed to predict nurses' performance effectiveness (as the dependent outcome) from the independent predictors; nurses' demographic characteristics, first-line nurse managers' job crafting and overall knowledge. The model showed that the nurses' years of experience was the strongest independent predictor of nurses' performance effectiveness as beta =.638; while the lowest predictor was for their gender as beta = .128. The overall significance of the model was R= .799 with .476 Std. error of estimate. Additionally, there was a statistical significant difference between performance effectiveness and all predictors except nurses' gender and marital status) (T= 2.681, 3.494, p= .060, 051), respectively.

Table (1): Distribution of Demographic Characteristics of Studied Subjects.

Demographic Characteristics	First-Line Nurse Managers (N=24)		Nurses (N=200)	
	N	%	N	%
Age				
20 - <25	0	0	55	27.5
25 - <30	2	8.3	65	32.5

30 - < 35	10	41.7	30	15
35 or more	12	50	50	25
$\bar{x}$S.D	35.91 ± 9.30		33.84 ± 8.22	
Gender				
Male	4	16.7	55	27.5
Female	20	83.3	145	72.5
Marital Status				
Married	19	79.2	161	80.5
Not Married	5	20.8	39	19.5
Qualification				
Secondary nursing degree	0	0	62	31
Technical nursing degree	0	0	105	52.5
Bachelor nursing degree	11	45.8	26	13
Higher education	13	54.2	7	3.5
Years of Experience				
5<15 years	6	25	69	34.5
15 - <25 years	12	50	84	42
>25 years	6	25	47	23.5
$\bar{x}$S.D	15.7±7.85		14.2±8.92	

First-Line Nurse Managers Regarding Previous Knowledge about Job Crafting
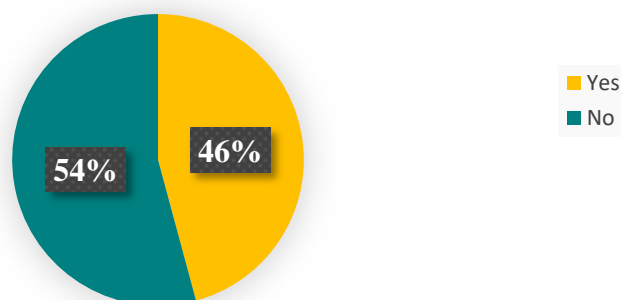

Figure (2): Percentage Distribution of First-Line Nurse Managers Regarding Previous Knowledge about Job Crafting (N=24).

Table (2): Distribution of First-Line Nurse Managers Mean Scores at Pre, Immediately Post and Follow Up of Job Crafting Awareness Workshop. (N = 24)

Job Crafting Domains	Pre Mean±SD	Immediately Post Mean±SD	Follow up (after 3 months) Mean±SD	Friedman test	P value
Task Crafting	9.18±1.99	17.55± 4.61	15.08±3.64	8.091	.009**
Cognitive crafting	7.05±2.03	13.47± 3.70	13.01±3.22	7.282	.010*
Relational crafting	8.62±3.00	18.53± 4.34	16.19±4.73	11.038	.005**
Total Job Crafting	24.31±7.19	49.47±12.08	46.14±10.26	17.100	.000**

*Significant at level P< 0.05; **highly significant at P<0.01

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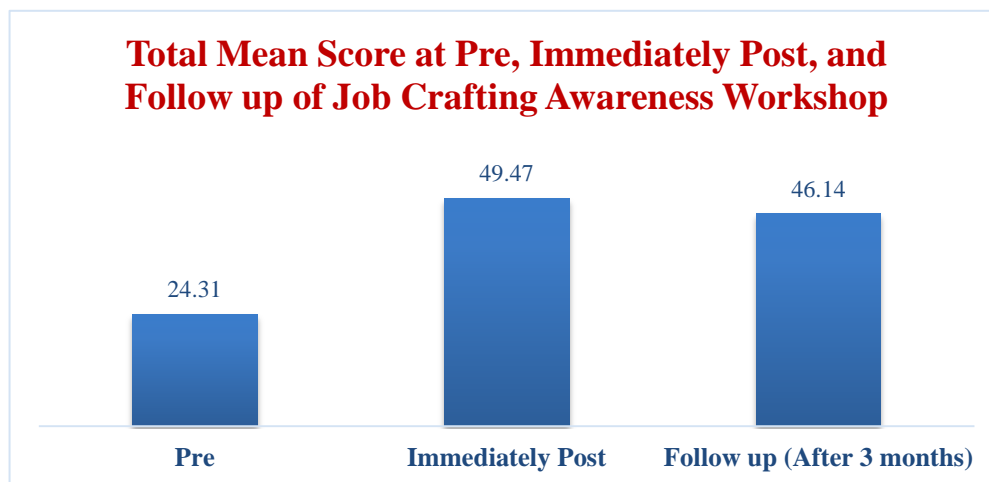
Figure (2): Distribution of First-Line Nurse Managers Total Mean Scores at Pre, Immediately Post and Follow Up of Job Crafting Awareness Workshop. (N = 24).

Table (3): First-Line Nurse Managers' Job Crafting Knowledge Pre, Immediately Post and Follow Up of Job Crafting Awareness Workshop (N=24).

First-line nurse managers' job crafting knowledge	Pre Mean±SD	Immediately Post Mean±SD	Follow up (after 3 months) Mean±SD	Friedman test	P value
1. Definition of job crafting	0.38±0.24	0.75± 0.45	0.69±0.33	5.981	.010*
2. job crafting principles	0.29±0.17	0.76± 0.48	0.73±0.51	6.915	.009**
3. Forms of job crafting	0.30±0.29	0.91± 0.23	0.90±0.36	6.888	.009**
4. Models of job crafting	0.41±0.16	0.94± 0.20	0.89±0.34	7.282	.008**
5. Benefits of job crafting concept implementation	0.28±0.19	0.87± 0.22	0.90±0.39	8.191	.006**
6. Factors enhance job crafting implementation	0.39±0.17	0.69± 0.30	0.71±0.51	4.304	.012*
7. Hinders/barriers of job crafting implementation	0.31±0.18	0.88± 0.33	0.77±0.26	6.647	.009**
8. To what extent do you think that the hospital needs job crafting?	0.26±0.34	0.75± 0.21	0.80±0.09	9.162	.005**
9. Why the hospital needs job crafting?	0.44±0.25	0.96± 0.13	0.89±0.21	9.886	.004**
10. Effects of job crafting implementation on job crafters	0.32±0.30	0.92± 0.19	0.90±0.17	10.494	.002**
Overall Knowledge	3.88±1.99	9.87±2.76	8.65±2.94	13.261	.000**

*Significant at level P< 0.05; **highly significant at P<0.01

Table (4): Means of Studied Nurses Pre, Post and Follow Up Awareness Regarding Their Performance Effectiveness (N=200).

Nurses' Performance Effectiveness Domains	Pre Mean±SD	Immediately Post Mean±SD	Follow up (after 3 months) Mean±SD	Friedman test	P value
Leadership	7.28±2.03	12.66±3.38	12.01±3.21	10.054	.006**

Critical care	10.62±3.08	17.09±4.41	18.00±4.17	13.884	.002**
Teaching and collaboration	18.74±6.14	27.68±8.13	26.49±7.22	16.325	.000**
Planning and evaluation	9.67±3.45	19.38±5.15	18.27±4.29	15.287	.001**
Inter-professional relationships and communication	17.69±6.03	28.68±8.68	27.73±7.00	14.669	.002**
Professional development	16.20±4.74	25.95±6.08	25.43±5.72	15.265	.001**
Total Nurses' Performance Effectiveness	76.94±18.3	128.69±24.69	123.07±21.94	19.375	.000**

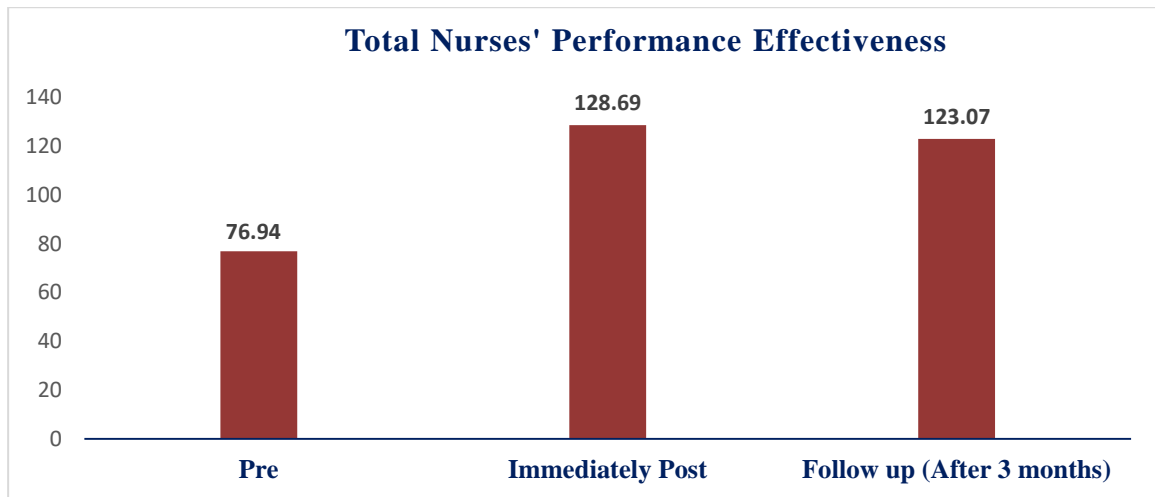*Significant at level P< 0.05; **highly significant at P<0.01

Figure (3): Total Mean Score of Studied Nurses at Pre, Immediately Post and Follow Up Awareness Workshop Regarding Their Performance Effectiveness (N=200).

Table (5): Correlation Between First-Line Nurse Managers' Overall Knowledge, Job Crafting and on Nurses' Performance Effectiveness.

Variables	**Job crafting**	**Overall knowledge**
Performance effectiveness	R .978 p. .000**	R .641 p .012*
Overall knowledge	R .866 p. .000**	

*significant <0.05 **highly significant <0.01

Table (6): Multiple Linear Regression Model of First-Line Nurse Managers' Demographic Characteristics, Nurses' Performance Effectiveness, and Overall Knowledge in Relation to Job Crafting.

Model	**Unstandardized Coefficients**	**Standardized Coefficients**	**T**	**P. value**
	B	β		
Age	.847	.395	10.482	.004**
Gender	.321	.068	1.825	.054
Qualification	1.001	.864	15.407	.000**
Marital status	.594	.462	7.351	.010*
Years of experience	.899	.763	11.678	.003**

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Performance Effectiveness	.968		.855	13.869	.001**
Overall knowledge	.977		.268	12.433	.002**
Model summary					
Model	R	R square	Adjusted R square	Std. error of estimate	
Regression	.867	.751	.796	.438	

SE: standard error; T: t-test value. *Significant at level P≤ 0.05**;** **highly significant at P≤0.01

a. Dependent Variable: Job crafting

b. Predictors: (constant) demographic characteristics of first-line manager as "Age, Gender, Qualification, Marital status, Years of experience" and Job performance of staff nurses.

Table (7): Multiple Linear Regression Model of Nurses' Demographic-Characteristics, First-Line Nurse Managers' Job Crafting, and Overall Knowledge in Relation to Nurses' Performance Effectiveness.

Model	Unstandardized Coefficients	Standardized Coefficients	T	P. value
	B	β		
Age	.756	.374	10.141	.009**
Gender	.168	.128	2.681	.060
Qualification	.933	.434	12.460	.003**
Marital status	.154	.168	3.494	.051
Years of experience	.988	.638	14.530	.001**
Job crafting	1.102	.615	16.310	.000**
Overall knowledge	.614	.462	6.684	.014*
Model summary				
Model	R	R square	Adjusted R square	Std. error of estimate
Regression	.799	.638	.678	.476

SE: standard error; T: t-test value. *Significant at level P≤ 0.05; **highly significant at P≤0.01

a. Dependent Variable: performance effectiveness of staff nurses

b. Predictors: (constant) staff nurses' demographic characteristics as "Age, Gender, Qualification, Marital status, Years of experience" and Job crafting of first-line manager.

VI.   DISCUSSION

Job crafting has positive effects on health care settings from completely different views as financial performance; presented in annual profits, the job satisfaction of health care team; presented in spending a respectable amount of their time and money in activities as training and learning, and has positive effects on organizational commitment of health care professionals **(Hakanen et al., 2017**).

According to first-line nurse managers' previous knowledge, the current study revealed that more than half of them had no previous knowledge about job crafting. This result may be due to a term of job crafting that is not widely used and does not hold training and introductory courses about it. This result disagree with the study conducted by **Teng, 2019** about "job crafting and customer service behaviors in the hospitality industry: Mediating effect of job passion", who found that more than three quarter of nurses had previous knowledge about concept of job crafting. Also, in regular with **Hakanen et al., 2017** titled in "high job demands, still engaged and not burned out? The role of job crafting", who reported that mostly of them had training courses about job crafting.

Regarding means of studied first-line nurse managers at pre, immediately post and follow up job crafting awareness workshop, the current study illustrated that there was an improvement for task crafting and relational crafting. This results may due to the appropriate prepared guidelines according to pretest level of first-line nurse manager, using illustrative methods, demonstration & re-demonstration, allow questions to get their feedback and group discussion. This result supported with the study performed by **Gordon et al., 2018** titled in "individual job redesign: Job crafting interventions in healthcare" and **Bakker, 2018 titled in "**job crafting among health care professionals: The role of work engagement", who reported that there was enhancement at nurse supervisors' practice regarding job crafting after training courses.

In relation to the first-line managers' knowledge regarding job crafting, the present study showed that that there was an improvement in the overall job crafting knowledge at immediately post and follow up implemented awareness workshop. At the point of researchers view this improvement due to methods of teaching were used as interactive lectures, group discussion and role play. Instructional media was used; it included handout and visual materials showed with laptop. These results regular with the studies conducted by **Afsar et al., 2019** and **Park, 2019** titled in "the role of job crafting and knowledge sharing on the effect of transformational leadership on innovative work behavior and effects of documentary education on study crafting and nursing recognition in nursing students", respectively, who reported that training courses had high positive impact on nurses' knowledge regarding job crafting and performance.

Concerning with nurses' performance effectiveness, the present study revealed that there was an enhancement in nurses' performance immediately post job crafting awareness workshop implementation. This result supported with the study conducted by **Lichtenthaler & Fischbach, 2018** about leadership, job crafting, and employee health and performance, who found improvement at health care workers' performance after applying leadership and job crafting. Also, regular with **Dubbelt et al., 2019** titled in "the value of job crafting for work engagement, task performance, and career satisfaction", who revealed that job crafting improvement at task performance.

Related to the correlation between studied variables, the current study showed that there was highly significant positive correlation between job crafting of first-line nurse managers and overall knowledge with nurses' performance effectiveness. This result in contrast with the study conducted by **Villajos et al., 2019** about "Job crafting among labor union representatives: its impact on work engagement and job satisfaction", who reported that there was slight significant correlation between job crafting and work engagement & job satisfaction. On the other hand, this result at same line with the study conducted by **Romeo et al., 2019** about "job crafting and well-being in the elderly care sector", who found that there was positive correlation between job crafting and nurses' care related to elderly people.

In relation to job crafting linear regression model, the present study revealed that there was significantly higher frequencies effect of qualification, nurses' performance effectiveness, years of experience, overall knowledge and age as predictors on job crafting. While, gender was not predicted by relation to job crafting. This result inconsistent with the study performed by **Demerouti et al., 2019** about "Job Crafting Interventions: Do They Work and Why?" who reported that age and marital status had no impact on job crafting. But, the result was consistent with the study conducted by **Romeo et al., 2019**, who revealed that years of experience and educational level had impact on nurses' job crafting. Also, supported with **Devotto et al., 2020** who about Work engagement and job crafting of Brazilian professionals.

As for, nurses' performance effectiveness linear regression model, there was significantly higher frequencies effect of job crafting, years of experience, qualification, overall knowledge and age as predictors on nurses' performance effectiveness. While, gender and marital status were not predicted by relation to nurses' performance effectiveness. This result consistant with the study conducted by **Poortaghi et al., 2020** about " Significant influencing factors and practical solutions in improvement of clinical nursing services", who revealed that knowledge and experience had highly impact on nurses' performance. On the other hand, the result was inconsistent with the study performed by **Khatab et al., 2019** titled in " Factors Affecting Nursing Performance in Caring Patients with Cerebral Stroke during First Golden Hours", who reported that marital status had negative impact on nurses' performance. Also, supported with **Tadić Vujčić, 2019** about " Personal Resources and Work Engagement: A Two-Wave Study on the Role of Job Resources Crafting among Nurses", who reported that there was high effect of job crafting on nurses' care.

VII. CONCLUSION

To conclude, the present study revealed that application of job crafting model for first-line nurse managers had positive effect on nurses' performance effectiveness. Also, awareness workshop had positive effect on first-line nurse managers' job crafting and overall knowledge regarding it.

VIII. RECOMMENDATIONS

According to the results of current study, the following recommendations are suggested:

Hospital administrators should:

• Apply continuous awareness workshop for first-line nurse managers regarding job crafting indifferent work settings among different managerial positions.

- Support and inspire innovation and job crafting among nurses.

- Plan for the coordination of care, especially within multidisciplinary health care teams, through encouraging teamwork to develop cooperation for the benefits of patient safety, welfare and quality of care and effective nursing performance.

- Introduce job crafting strategies in their human resources' strategic plan to remain competitive in today's healthcare market.

- Maintain positive work environment through proactive personality, increasing social job resources, increasing structural job resources, increasing job demands, vigor, dedication, absorption and in-role performance through to motivate nurses for health care service effectiveness.

Future researches are needed to investigate the factors and challenges affecting job crafting, and readiness for job crafting application in practice in relation to nurses' competencies. Additionally, to replicate the current study with different variables, such as: organizational performance, talent management, and human resource management, in both governmental and non-governmental health care sectors.

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