

IMPACT OF JOB CRAFTING EDUCATIONAL PROGRAM ON NURSES WORK ENGAGEMENT AND JOB PERFORMANCE

AHMED GAMAL MEKHAMIER LASHEN*

Assistant lecturer of Nursing Administration, Faculty of Nursing Modern Technology & Information University, Egypt. *Corresponding Author Email: ahmedgamallashen2022@gmail.Com

MAHASEN ISMAIL ABD EL MEGEED

Professor of Nursing Administration, Faculty of Nursing Cairo University, Egypt.

AMAL HEBASHY ELEWA

Professor of Nursing Administration, Faculty of Nursing Cairo University, Egypt.

Abstract

Health care organizations identify the job crafting role for employees as, it led to work engagement and job performance by providing employees with the resources, alignment with personal values and strengths, and opportunities for learning and development that create a more engaged and productive workforce that ultimately benefits both employees and the organization. **Aim:** to measure the impact of job crafting educational program on nurses work engagement and job performance. **Design:** A quasi experimental design was utilized in this study. **Setting:** The study was conducted at Nasser Institute Hospital, Cairo, Egypt. **Sample:** A convenient sample of all staff nurses (n = 25) working at intensive care units during data collection period. **Study tools:** Five tools were utilized 1-Personal Characteristics Data Sheet, 2-Job Crafting knowledge Questionnaire (JCQ), 3-The Job Crafting Scale (JCS), 4-Work Engagement Scale (WES) and 5- Six Dimension Scale of Nursing Performance (SDNS). **Results:** Revealed that, 88%, 92%, of nurses had improved in the level of Job crafting knowledge immediately post and three months post program respectively. While 48% and 56% of nurses had improved in the level of Job crafting behaviors immediately post and three months post program respectively. Results added that, 88% and 92% of nurses had improved in the level of work engagement immediately post and three months post program respectively. Also 56% and 68% of nurses had improved in the level of Job performance immediately post and three months post program respectively. **Conclusion:** nurses had high Job crafting knowledge, job crafting behaviors, work engagement and job performance during post and three months after program implementation. There was positive statistically significant correlation between job crafting knowledge, job crafting behaviors, nurses work engagement and nurses' job performance. **Recommendations:** the health care organizations should carryout job crafting preparation programs and workshops to nurture the nurses' job engagement and nursing performance.

Keywords: Job-Crafting, Educational Program, Staff Nurses, Work Engagement & Job Performance

1. INTRODUCTION

Job crafting is an employee's initiative to shape their work environment to better suit their own requirements and preferences, as well as to accommodate organisational shifts. The first job creating strategy encourages individuals to proactively improve their working conditions, relationships, and skills. By expanding or contracting the scope of their responsibilities, employees' social contacts and their understanding of their place in the workplace can be influenced. According to the second method, job crafting is defined as actions taken to alter job demands and resources in order to improve the individual's fit

with the work environment. For example, workers could try to improve access to job-related structural and social resources, raise the difficulty of required tasks while simultaneously decreasing or optimising those that are counterproductive (Xin, Cai, Zhou, Baroudi, Khapova, 2020).

Numerous studies have found a correlation between job crafting and employee engagement because it allows workers to tailor their jobs to their specific preferences and strengths, which in turn increases their feelings of autonomy, competence, and connectedness at work. In addition, job crafting helps workers focus on what they're doing, which boosts their engagement and productivity (Schuler, Binnewies, & Bürkner, 2019; Chang, Rui, & Lee, 2020).

Employee work engagement is the degree to which workers are emotionally invested in their companies. Employees who are interested in their job bring these qualities to the table every day, using them to direct their efforts towards achieving organisational goals. Increasing attention is being paid to employee engagement throughout the world; this is not only a human resources problem, but a one that affects the entire company and has to be addressed (Lalwani, 2020).

Employee performance is influenced by a number of factors, including their surroundings and their own resources. It could encourage workers to put in more effort and feel less burned out on the job. Therefore, involvement might be considered a proactive and essential strategy for improving productivity in the workplace. Growing structural job resources and demanding job needs of the employees are believed to be the most critical factors of high job performance and high thriving (Robledo, & Zappalà & Topa. 2019), which in turn leads to a more engaged workforce that produces better results.

Nurses' job performance is measured by how well they carry out their assigned tasks and the results that they produce for their patients at healthcare facilities like hospitals (Jokiniemi, Kärkkäinen, Korhonen, Pekkarinen, & Pietilä, 2023). And Santos, Reis Neto & Verwael (2018) defined it as the capability of a person to carry out actions that contribute to the expansion of the technological core of the organisation. There are a number of ways to evaluate an employee's performance on the job, including the six dimension scale of nursing performance, which measures only one aspect of nursing performance, and more broad evaluations of nursing performance based on patient outcomes and satisfaction. It's essential for delivering excellent treatment and achieving good results for patients. Clinical knowledge, critical thinking, communication, teamwork, and the ability to make sound decisions are all necessary for successful job performance (Park, Lee, & Hong, 2020).

Robledo, Zappalà, & Topa. (2019) found that job crafting moderates the connection between work engagement and performance on the job. The good effect of work engagement and job performance is facilitated by the job crafting components "increasing structural job resources" and "increasing challenging demands." The purpose of this research is to evaluate the effect of a job-crafting educational programme on nurses' levels of work engagement and performance. Previous research by Moreira, Encarnaço,

Viseu, & Sousa. (2022) found that there was a connection between job-crafting, employees' levels of work engagement, and the quality of their work.

Significance of the study

Crafted employment may require individuals to hone their abilities through task redesign, increased difficulty, resource discovery, and the pursuit of new challenges that provide intrinsic value to the work. Employee-job compatibility is improved, and mastery experiences are encouraged. When job expectations and job resources are more in line with employee preferences and requirements, employees become devoted to their work and perform at a high level. That motivates people to be happy and put in extra effort at work, which in turn leads to development, success, and peak performance. According to recent research (Cardona, Vera, Lugo, Montalba'n, & Centeno.2019), this is true.

Job crafting has been shown to promote employee engagement, which might be utilised as a novel approach to enhancing workers' happiness and productivity at work (Dubbelt, Demerouti, & Rispens, 2019; Sakuraya, Shimazu, Imamura, & Kawakami, 2020). Employees who had done less job crafting would benefit from offering simpler and more realistic job crafting instances so that they could more quickly learn from the examples provided in the various job crafting cases. The circumstances for work crafting behaviours that lead to good performance and attainment of organisational goals may be created by organisations, for example by encouraging employees to execute tasks independently and with some autonomy.

The researcher gained the insight that health care administrators and nurse managers should assist nurses in reorganising their work in a way that is consistent with the organization's goals and promotes the efficient use of its resources. work crafting and other new approaches to work redesign have therefore come to acknowledge the importance of employees as active agents in the formation of their own employment. There have also been very few empirical investigations of "job crafting" in Egypt. The findings of this study will serve as a foundation for nurses seeking to enhance their professional practise.

Theoretical framework

According to the work Demand Resources Model (JD-R model), every work contains both demands—activities or skills required to do the job well—and resources—tools and opportunities for learning and development. To add, the (JD-R) model presupposes that every workplace is different. As a result, this form of job design is both more adaptable and stringent than its predecessors. In particular, the JD-R model is a heuristic model that describes the possible effects of two types of working environments on the happiness and productivity of employees.

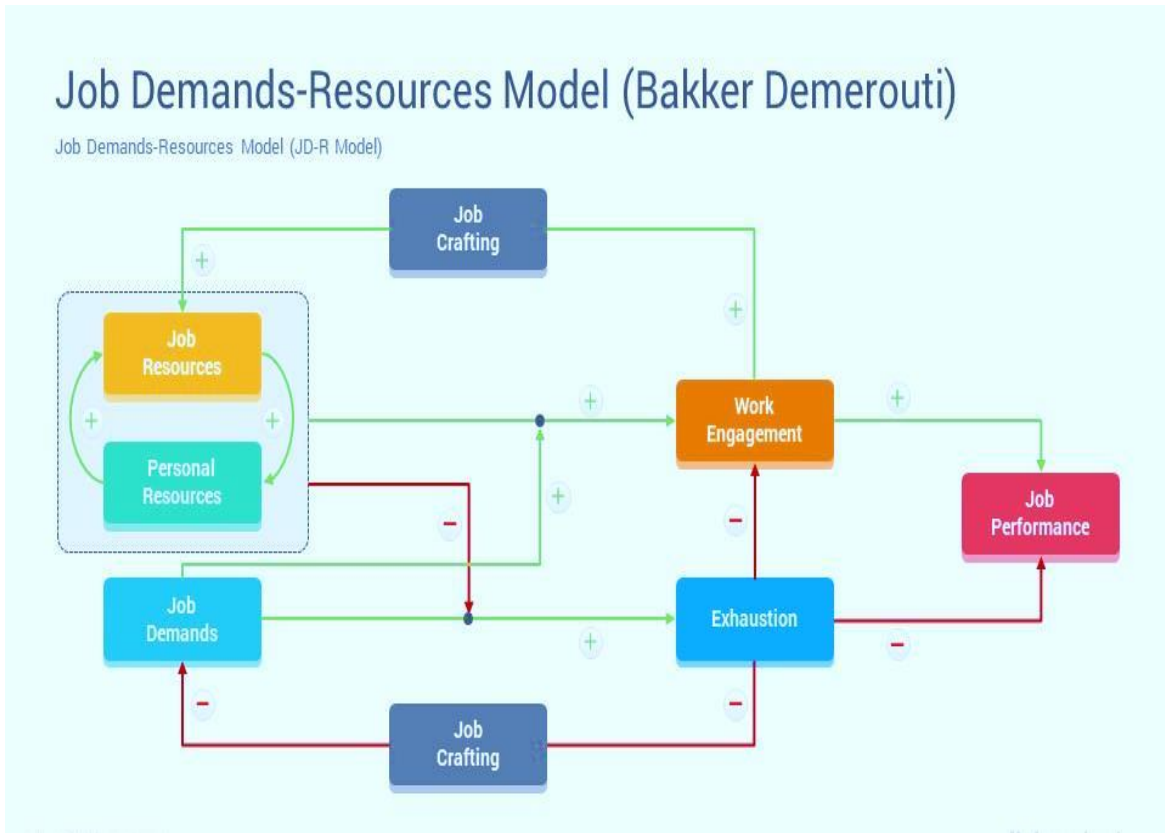


Figure 1: Job Demands Resources Model. (JD-R), adopted from bakker,2011

1) The first set of working conditions concerns job demands, which represent characteristics of the job that will potentially evoke strain if they exceed the employee's adaptive capability such as workload and time pressure. More specifically, job demands refer to those physical, social or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs (Bakker & Demerouti, 2017).

2) The second set of working conditions concerns the extent to which the job offers resources to individual employees. Job resources refer to those physical, psychological, social or organizational aspects of the job that, (1) may be functional in achieving work goals, (2) may reduce job demands and the associated physiological and psychological costs and (3) may stimulate personal growth and development. Job resources are the main initiators of employees' work engagement and consequently of enhanced performance. Job resources may be located at the organizational level (e.g., pay, job security, career opportunities), at the interpersonal level and that of social interactions (e.g., supervisor and coworker support, team climate), at the level of organization of work (e.g., role clarity, participation in decision making) and at the level of the task (e.g., skill variety, task identity, task significance, autonomy, performance feedback) (Den Hoven, 2018).

Aim of the study

The current study aimed to measure the impact of job crafting educational program on nurses work engagement and job performance.

Operational Definition

Job crafting is self-initiated changes employees make in their job design, in order to enhance employee's capabilities and adapt to dynamic changes of the job.

Research hypotheses

H1: After implementation of the job crafting educational program there will be differences in nurses' job crafting knowledge test scores, compared to pre-program test scores, and after three months later.

H2: After implementation of the job crafting educational program there will be differences in nurses mean scores of work engagement post program compared to pre-program, and after three months later.

H3: After implementation of the job crafting educational program there will be an increase in nurses' job performance post program compared to pre- program, and after three months later.

2. METHODS

Research design

A quasi experimental (one group pretest/posttest) design was utilized in this study to achieve the aim of the current study.

Setting

The current study was conducted in two different selected intensive care units at Nasser institute hospital, which affiliated to the secretariat of specialized medical centers, Ministry of health, Cairo, Egypt.

Sample

A convenient sample of (25) staff nurses working at intensive care units during data collection period. All participants had bachelor degree, working in critical care units, had one year of experience, and provide direct patient care.

Tools of data collection: Five tools for data collection were utilized as follows:

First tool: Personal characteristics data sheet, this tool was developed by investigator to assess age, gender, working experience, working unit, daily working hours, and working status.

Second tool: To evaluate nurses' familiarity with job crafting in the workplace, an investigator used a questionnaire originally developed by Slemg and Vella-Brodrick (2013). There are a total of fifteen objects; they are split into three categories: task

crafting, cognitive crafting, and relational crafting, each of which has five pieces. Method of scoring: Each question was assigned a value of 0 (no) or 1 (yes). The sum of all question scores was fifteen (15), The final score is calculated and shown as follows: Knowledge of job making was rated as poor when responses were below 50%, moderate when responses were between 66% and 86%, and high when responses were 90% or higher.

Third tool: J.C.S., or the Job Creativity Index: It was modified from the original instrument developed by Tims, Bakker, and Derks (2012) to analyse job-crafting practises amongst nursing staff. The scale's twenty-one items are broken down into four categories: "Increasing Structural Job Resources" (five items), "Decreasing Hindering Job Demands" (six items), "Increasing Social Job Resources" (five pieces), and "Increasing Challenging Job Demands" (five things). Method of scoring: Items were rated on a five-point likert scale, with 1 representing "never," 2 "rarely," 3 "sometimes," 4 "often," and 5 "always." All questions were answered to a total of (105). If the sum of your scores is below 50%, that means you have a poor perception of work crafting behaviours on the job; if it's between 65% and 85%, that means you have a moderate perception; and if it's between 85% and 100%, that means you have a high perception.

Fourth tool: Abed and Hebashy (2016) utilised a modified version of the Work Engagement Scale (WES) created by schaufeli (2006) to evaluate the dedication of their nursing team. There are a total of sixteen items on the scale, and they are split across three categories: "Vigour" (six), "Dedication" (five), and "Absorption" (five). Method of scoring: Items were rated on a three-point likert scale: (1) for strong disagreement, (2) for some uncertainty, and (3) for strong agreement. All questions were answered to a total of (48) points. Scores below 50% showed a low degree of perceived job engagement, while scores between 65% and 85% suggested a moderate level, and scores between 85% and 100% indicated a high level.

Fifth tool: The SDNS is a six-factor measure of nurse efficacy. It was originally designed by Schwerin (1978) and then updated by the researcher to assess the efficiency of the nursing staff. There are a total of fifty-two items on the scale, and they are split up into six categories: teaching/collaboration (eleven), leadership (5), critical care (7), interpersonal interactions & communication (12), planning & evaluation (7), professional development (ten), and self-assessment & reflection (8). Method of scoring: It was evaluated using a binary scale. Scores ranged from 0 (not done) to 1 (completed), with a grand total of 52. Performance below 50% was deemed poor, performance between 65% and 85% was deemed good, and performance between 85% and 100% was deemed exceptional.

Content validity and reliability: Content validity was checked by a panel of three experts from nursing administration department at faculty of nursing Cairo University. The content, coverage, clarity, wording, length, format and the overall appearance of the tool were checked. Reliability was tested using Cronbach's alpha test for internal consistency of the job crafting knowledge questionnaire, the job crafting behaviors questionnaire, the

work engagement scale and the nursing performance scale which were 0.91, 0.82, 0.91 and 0.91, respectively.

Ethical and human rights

The proposed study has been given the green light by multiple authorities, including the research ethical committee at the Faculty of Nursing at Cairo University, the medical director at the Nasser Institute hospital, and the vice dean of postgraduate studies and research at the Faculty of Nursing at Cairo University. The goal and nature of the study were conveyed to the head nurses of the selected ICUs that were included in the study after obtaining formal permits from the research ethical committee, the Faculty of nursing at Cairo University, and the ministry of health ethical committee. The nurses in this study choose to take part voluntarily, thus it was important to explain the study's goals and methods, and let them know they may stop participating at any moment without negative consequences. The nurses' data was encrypted in a way that no outsider could access it without the participant's knowledge and consent. The nursing staff's informed consent was documented in writing. The research ethics committee of the Faculty of Nursing at Cairo University gave its stamp of approval.

Procedure: The current study was conducted on 4 phases: assessment, planning, implementation, and evaluation phase.

- i. **During the assessment phase:** the researcher prepared a list of nursing staff number and distribution in the selected work setting as well as fulfilling the inclusion criteria. The researcher explained the aim, nature, and significance of the study for nursing staff to obtain their acceptance to participate in the study, then their acceptance in written form was obtained.
- ii. **In the planning phase:** An initial evaluation (pretest) of the staff nurses' knowledge of job crafting was measured using "Job Crafting Knowledge, job crafting behaviours, and work engagement self-administered questionnaires" before the programme was implemented. The "Schwirian six-dimension scale of nursing performance" was also used to evaluate the nurses' work. The researcher performed three separate observations (intermittent observation) on each subject, and then averaged the results. The educational requirements of the nursing staff were analysed based on the results obtained from the first evaluation of nurses' knowledge of job crafting and observation of job crafting behaviours. The timetable for the training programme was set according to the investigator-designed programme that was validated by nursing administration department specialists.
- iii. **In the implementation phase,** after designing and reviewing the training program, it was implemented for nursing staff. The job crafting educational program was carried out in eight weeks (October /2022 to November /2022) the program was supposed to be 16.5 hours classrooms teaching and practice the duration of each session was one hour, with total number of eleven sessions, offered in two sessions per week. The duration of training sessions were 45-60 minutes for each session

and at the beginning of the first introductory session include: orientation to the nursing staff about program purpose, objectives, session's contents, time and place of each session. Each session started by explaining objectives, outlines and at the end of each session allow study participates ask questions and take feedback after each session to assess their knowledge. The program sessions were given at the morning shift at 10 am and at the afternoon shift at 3 pm.

- iv. **The program description:** This initiative, dubbed the Job Crafting Educational Programme for Nurses, seeks to evaluate the effectiveness of that programme on nurses' motivation and productivity on the job. The intended outcome of this programme was for participants to learn the skills essential for job crafting, incorporate those skills into their daily work routines, and ultimately see an improvement in their level of engagement and productivity on the job. Eleven training sessions totaling 3 hours and 45 minutes were used to implement the programme.
- v. **Evaluation and follow up phase:** In this phase the investigator evaluated the nursing staff at immediate and after three months post program implementation by using the same previously used tools (Job Crafting Knowledge Questionnaire, Job Crafting Scale, Work Engagement Questionnaire and Job Performance Tool) to assess nursing staff knowledge about job crafting, their job crafting behaviors, work engagement and their job performance (immediate post program December 2022 and after three months post program March 2023).

3. RESULTS

Part (1): Frequency distribution of study sample personal characteristics data (table 1 & figure 1)

Table 1: Frequency distribution of study sample personal characteristics data (N=25)

Personal characteristics	Frequency	%
Gender		
Male	13	52.0
Female	12	48.0
Experience		
1-<3	5	20.0
3-<6	11	44.0
6-<9	9	36.0
Work hours/day		
8 hrs	1	4.0
12 hrs	24	96.0
Work status		
Full time	16	64.0
Part time	9	36.0
Working unit		
Medical ICU	17	68.0

Personal characteristics	Frequency	%
Surgical ICU	8	32.0

Table (1) indicates that, more than half (52.0%) of nurses were males and near half (44%) of them had (3-<6) years of experience. The highest percentage (96%) of them worked twelve hours shifts per day. A round two thirds (64%) of them were worked full time and the majority (68.0%) of them worked in medical intensive care unit.

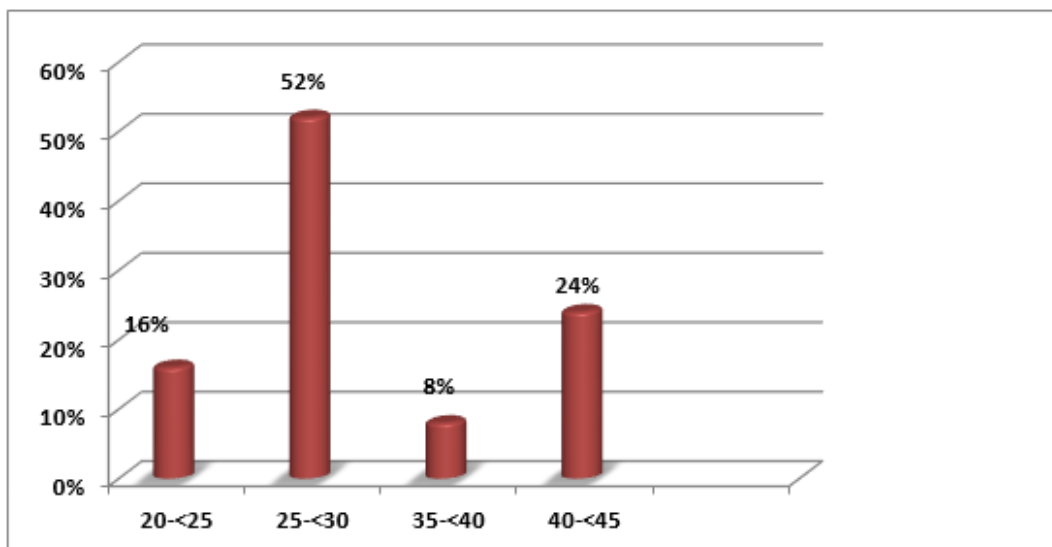


Figure 1: Frequency distribution of study sample according to age group (N=25)

Figure (1) illustrates that more than half (52%) of nurses were in age group of (25-<30) years old. While the least percentage (8%) of them were in age group of (35-<40) years old.

Part (II): Frequency distribution of study sample job crafting knowledge scores during different period of assessment at preprogram, immediately post program and three months post program (N=25)

Table 2: Frequency distribution of study sample job crafting knowledge domains test scores at preprogram, immediately post program and three months post program. (n=25)

Job crafting knowledge domains	Preprogram		Post program		Three-month post program		X ²	P
	No.	%	No.	%	No.	%		
Task Crafting domain	10	40	22	88	22	88	4.5	0.03*
Cognitive Crafting domain	9	36	22	88	23	92	5.4	0.02*
Relational Crafting domain	10	40	22	88	22	88	4.5	0.03*
Total	10	40	22	88	22	88	11.25	0.00*

*Significant at p-value<0.05

Table (2): indicates that there were a statistical significant difference of perceived nurses job crafting knowledge total domains during different periods of assessment (P= 0.03, 0.02, 0.03) respectively. Also shows that, nurses had highest knowledge percent of three domains task, cognitive and relational during post program (88%) and three months post program (88%,92%,88%) respectively.

Table 3: Frequency distribution of study sample job crafting knowledge levels during different period of assessment at preprogram, immediately post program and three months post program (N=25)

Job crafting knowledge levels	Preprogram		Post program		Three-month post program		X2	P
	No.	%	No.	%	No.	%		
Low (≥ 50%)	16	64	3	12	2	8	24.2	0.00*
Moderate (≥ 65% - > 85%)	0	0.0	0	0.0	0	0.0		
High (85%- 100%)	9	36	22	88	23	92		

*significant at p-value<0.05

Table (3): indicates that, there was high statistical significant (P=0.00) difference between nurses job crafting knowledge scores during different periods of assessment. The highest percentage (92%) of nurses had high Job crafting knowledge levels scores at three month post program implementation, (88%) of them had high job crafting knowledge level scores at post program implementation. While, around two thirds (64%) of them had low knowledge level at preprogram.

Part (III): Frequency distribution of study sample job crafting behaviors during different period of assessment preprogram, immediately post program and three months post program (N=25)

Table 4: Frequency distribution of study sample job crafting behaviors domains test scores during different period of assessment preprogram, immediately post program and three months post program (N=25)

Job crafting behaviors domains	Preprogram		Post program		Three-month post program		X2	P
	No.	%	No.	%	No.	%		
Increasing structural job resources	15	60	20	80	18	76	1.4	0.02*
Decreasing hindering job demands	15	60	19	76	18	72	0.41	0.04*
Increasing social job resources	15	60	18	72	19	76	0.51	0.00*
Increasing challenging job demands	15	60	20	80	19	76	0.16	0.87
Total	15	60	19	76	19	76	1.18	0.27

*Significant at p-value<0.05

Table (4): shows that, there was a statistically significant difference between nurses job crafting behaviors domains ; increasing structural job resources, decreasing hindering

job demands & increasing social job resources ($P=0.02, P=0.04$ & $P=0.00$) respectively, except increasing challenging job demands ($P=0.87$).

Table (5): Frequency distribution of study sample job crafting behaviors levels during different period of assessment at preprogram, immediately post program and three months post program (N=25)

Job crafting behaviors levels	Preprogram		Post program		Three months post program		X ²	p-value
	No.	%	No.	%	No.	%		
Low ($\geq 50\%$)	10	40	0	0	3	12	16.5	0.002*
Moderate ($\geq 65\% - > 85\%$)	5	20	13	52	8	32		
High (85%- 100%)	10	40	12	48	14	56		

*Significant at $p\text{-value} < 0.05$

Table (5): illustrates that, there was a high statistically significant difference ($X^2=16.5, P=0.002$) between nurses perceived level of job crafting behaviors during different period of assessment at preprogram, immediately post program and three months post program. Data in table clarifies that nurses had high levels of job crafting behaviors (40%, 48%, 56%,) during preprogram, immediately post program and three months post program respectively.

Part (V): Frequency distribution of study sample work engagement perception during different period of assessment preprogram, immediately post program and three months post program (N=25)

Table 6: Frequency distribution of study sample perception of work engagement domains during different period of assessment at preprogram, immediately post program and three months post program (N=25)

Work engagement domains	Preprogram		Post program		Three-month post program		X ²	P
	No.	%	No.	%	No.	%		
Vigor	19	76	21	84	21	84	0.25	0.61
Dedication	20	80	22	88	22	88	0.07	0.81
Absorption	18	72	20	80	21	84	0.02	0.98
Total	19	76	21	84	21	84	0.21	0.80

*Significant at $p\text{-value} < 0.05$

Table (6): shows that, all perceived domains that involves vigor, dedication, absorption of work engagement during three periods of assessment were statistically insignificant ($X^2=0.25.P= 0.61$), ($X^2=0.07.P=0.81$) and ($X^2=0.02.P= 0.98$) respectively. Also shows that, nurses had highest percent (84%, 88%, & 84%) of vigor, dedication and absorption during different period of assessment at immediately post program and three months post program respectively.

Table 7: Frequency distribution of study sample total perception of work engagement levels during different period of assessment at preprogram, immediately post program and three months post program (N=25)

Work engagement levels	Preprogram		Post program		Three-month post program		X2	p-value
	No.	%	No.	%	No.	%		
Low ($\geq 50\%$)	1	4	0	0	0	0	10.0	0.04*
Moderate ($\geq 65\% - > 85\%$)	9	36	3	12	2	8		
High (85%- 100%)	15	60	22	88	23	92		

*Significant at p-value<0.05

Table (7): indicates that, there was a weak statistical significant difference ($X^2=10.0$, $p=0.04$) between nurses perception of work engagement during different period of assessment. Also, they had a high perception of work engagement (92%, 88%, and 60%) during three-month post program, immediately post program, and preprogram respectively.

Part (VI): Frequency distribution of study sample job performance during different period of assessment preprogram, immediately post program and three months post program (N=25)

Table 8: Mean differences between study sample job performance domains during different period of assessment at preprogram, immediately post program and three months post program (N=25)

Job performance domains	Preprogram		Post program		Three-month post program		X2	P
	No.	%	No.	%	No.	%		
Teaching & Collaboration	14	56	18	72	20	81.5	0.9	0.04*
Leadership	12	48	17	68	18	72	0.86	0.03*
Critical care	22	88	22	88	24	97.7	0.03	0.90
Interpersonal relations & communication	14	54	16	64	17	67.5	0.44	0.01*
Planning & evaluation	8	32	18	72	20	80	0.9	0.04*
Professional Development	13	52	21	84	22	86.7	0.44	0.01*
Total	14	56	19	76	20	80	1.89	0.16

*Significant at p-value<0.05

Table (8) shows that, the domains that involves teaching & collaboration, leadership, interpersonal relations & communication, planning & evaluation and professional development of job performance during three periods of assessment were statistically significant ($X^2=0.9.P=0.04$), ($X^2=0.86.P=0.03$), ($X^2=0.44.P=0.01$), ($X^2=0.9.P=0.04$) and ($X^2=0.44.P=0.01$) respectively. Also shows that, nurses have highest percent of job performance domains during three months post program (81.5%, 72%, 97.7%, 67.5%,

80%, and 86.7%) respectively. While domain of critical care domain was insignificant statistically ($\chi^2=0.03$, $p= 0.90$).

Table 9: Frequency distribution of nurses job performance levels during different period of assessment at preprogram, immediately post program and three months post program (N=25)

Job performance levels	Pre program		Post program		Three months post program		X ²	p-value
	No.	%	No.	%	No.	%		
Low ($\geq 50\%$)	10	40	1	4	2	8	28.0	.000*
Moderate ($\geq 65\% - > 85\%$)	13	52	10	40	6	24		
High (85%- 100%)	2	8	14	56	17	68		

*Significant at p -value <0.05

Table (9) indicates that, there was a high statistical significance difference ($\chi^2=28.0$, $p= 0.00$) between nurses job performance levels during different period of assessment. Around two thirds (68%) three months post program, more than half (56%) post program had high level of job performance. While (40%) had low level pre-program.

Part (VII): Correlation between job crafting knowledge, job crafting behaviors, work engagement and job performance (N=25)

Table 10: Correlation between job crafting knowledge, job crafting behaviors, work engagement and job performance (N=25)

Variables	Job crafting knowledge		Job crafting behaviors		Work Engagement		Job Performance	
	R	P	r	P	r	P	r	p
Job crafting knowledge	1							
Job crafting behaviors	0.67	0.00*	1					
Work engagement	0.35	0.00*	0.28	0.00*	1			
Job performance	0.38	0.00*	0.23	0.04*	0.26	0.02*	1	

*Significant at p -value <0.05

Table (10) reveals that there were positive statistical significant correlation between job crafting knowledge, job crafting behaviors, nurses work engagement and nurses job performance ($P=0.00$).

4. DISCUSSION

This study found that nurses' job crafting knowledge varied significantly between pre- and post-program periods, and that they possessed a particularly high percentage of knowledge in three areas: task, cognitive, and relational. According to the researchers, the educational programme provided the case studies and other exercises that the nurses

needed to grasp the job crafting idea and put it into practise. In support of this finding, Breevaart, Bakker, & Demerouti (2020) observed statistically significant differences in nurses' understanding of job crafting, while Hamouda & Farghaly (2020) discovered that a workshop on job crafting awareness improved nurses' knowledge of the topic overall. Applying a job-crafting training programme has been shown to boost job-crafting knowledge and decrease work barriers, as discussed by van Leeuwen, Taris, van den Heuvel, Knies, van Rensen, and Lammers (2021).

When examining nurses' "job crafting knowledge levels," the current study found that these levels are highly statistically significant, and that nurses had a high level of job crafting knowledge in post-program and three months after programme implementation. This may be attributable to the implementation of an educational programme about job crafting, which provides nurses with new knowledge, satisfies their needs through crafting their job, and increases their sense of work value. Employees who took part in the job-crafting intervention reported high levels of job-crafting and decreased levels of weariness, which is similar with the findings of a research by Demerouti, Soyer, Vakola, and Xanthopoulou (2021).

The current study found that nurses' perceptions of job-crafting behaviours varied little across assessment periods before, during, and after the intervention, but that nurses' perceptions of "increasing structural job resources" varied significantly across assessment periods. From the researcher's vantage point, a job-tailored education programme enables nurses on the front lines to better understand and promote the skills that contribute to their success as team players and role players. This finding is consistent with a research by Bakker, Bal, & Schaufeli (2020), which found that nurses' job-crafting behaviours were unimportant; instead, it suggests that outside forces are at play in shaping people's choices in the workplace. This finding is consistent with that of Badran and Akeel (2020), who found that following the training programme, the structural job resources component of job crafting received the greatest score and the lowering impeding job demands component received the lowest score. In contrast to the findings of Saheen and Mahmoud (2021), who found that nurses' work-crafting behaviours were unaffected by rising levels of structural job resources, we find the opposite to be true.

With respect to "Job-Crafting Behaviours Levels" The current study found that nurses' work crafting behaviour levels increased significantly after the programme was implemented and remained high three months later. Possible explanations include nurses' familiarity with job-crafting behaviours and their potential use in healthcare settings. Results like these corroborate those found in a research by Van Leeuwen, Taris, van den Heuvel, Knies, van Rensen, and Lammers (2021), who found that participants in the job-crafting intervention programme exhibited higher levels of job-crafting and career self-management. Similarly, Kassem and Ibrahim (2022) and Alharthi, Elseesy, and Aljohani (2023) found that, following the implementation of a job-crafting programme, nurses engaged in a high volume of job-crafting behaviours.

Work engagement domains showed statistically insignificant difference and nurses had high perceptions of vigour, dedication, and absorption in their work both immediately after the programme ended and three months later. One possible explanation is that workers derive satisfaction from their jobs because they are personally invested in them. This finding is consistent with research by Baghdadi, Abd-EL Aliem, and Alsayed (2021), who found that training nurses in job-crafting skills increased their perceptions of job satisfaction. Engaged nurses are more likely to have pride in their profession, focus on the needs of their patients, and take pride in the results of their efforts. However, a research by Schuler, Binnewies, and Bürkner (2019) revealed that nurses differed significantly on all three measures of professional engagement.

The current study's findings on the "work engagement levels" of staff nurses over three distinct time points (pre-program, immediately post-program, and three months post-program) are encouraging. This might be regarded as evidence that nurses are more invested in their jobs since they have received recognition from the nursing unit management and are working in a safe and healthy environment. Thomas, Du Plessis, and Thomas (2020) discovered that after the job crafting intervention, participants were more engaged in their work than those in the control group at the post-intervention assessment point. Letona, Martinez, Ortiz, Carrasco, and Amillano. (2021) found a similar effect when they found that job creating exercises boosted workers' enthusiasm for their jobs. Although the job crafting intervention programme was shown to increase work engagement and job crafting in the intervention group, compared to the control group, this finding contradicts a study by Sakuraya, Shimazu, Imamura, and Kawakami (2020).

This study found that there were significant differences between the pre-program, immediate post-program, and three-month post-program assessments of nurses' job performance across all domains, and that nurses scored highly across many of these domains over the course of their careers. This might be attributed to the fact that nurses were given more autonomy over their work environment, leading to greater levels of job satisfaction and productivity. This finding is consistent with the findings of Shang's (2022) study, in which the author notes that job crafting by workers directly leads to higher levels of job performance. Organisations should actively promote job crafting as a means to enhance employees' sense of purpose in their work and maintain high levels of productivity. Toppa and Carmena (2022) found similar results, reporting that nurses' ability to shape their work environments was directly correlated with their productivity.

The current study found that nurses' "job performance levels" were statistically significant, and that they maintained a high level of performance both immediately after the programme was implemented and three months afterwards. This may be attributable to the success of job creating initiatives that help nurses acquire new skills that are more suited to their work. Rayan, Adam, and Abdrabou (2021) reported similar results, reporting that respondents' work performance improved significantly after they had received job crafting training. Job performance was also found to improve after an intervention similar to job crafting, according to research by Li & Moon (2022). Another

study, by Morsi and Ebraheem (2020), indicated that following job designing intervention, nearly half of staff nurses still performed poorly.

A positive statistically significant link was found between nurses' Job crafting knowledge and their Job crafting actions, as shown in the present study. The program's success may be attributed to the fact that staff nurses learned about job crafting as a concept for the first time and had hands-on experience with job crafting activities. Costantini, Demerouti, Ceschi, and Sartori (2021) found a similar correlation between workers' job crafting knowledge and their actions, therefore our findings are consistent with their findings. This finding is consistent with that of Carmena & Topa (2022), who found that nurses' job-crafting knowledge was positively correlated with their job-crafting actions.

According to the results of the present investigation, there was a statistically significant link between nurses' job crafting expertise and their level of involvement on the job. Baghdadi, Abd-EL Aliem, & Al-Sayed (2020) and Letona, Martinez, Ortiz, Carrasco, Amillano (2021) discovered that nurses' job crafting expertise was substantially positively associated to work engagement, and that job crafting boosted work engagement levels. In addition, Thai, To, Tran, Hoang, & Ho (2023) found statistical evidence of a link between employees' knowledge of job crafting and their level of involvement in their jobs.

The results also showed that staff nurses' work effectiveness was positively correlated with their level of expertise in job designing. Both Silva, Silva, and Caetano (2022) and Benedikt, Carmen.B, and Paul-Christian (2019) found that making workers aware of job creating strategies improved productivity on the job.

The current study's findings suggested a favourable, statistically significant relationship between staff nurses' job performance and their level of involvement on the job. From the perspective of the researchers, this may be because nurses' job satisfaction, feeling of cohesion, and emotional, cognitive, and future-oriented behaviours all improve when their levels of work engagement rise. Yao, Qiu, Yang, Han, and Li (2022) discovered that there is a "direct positive relation" between employee engagement and job performance, lending credence to this observation.

In this study, we found that staff nurses' job-crafting behaviours were positively related to their levels of involvement in their work and their subsequent productivity on the job. Similarly, Akbar, Usman, Lodhi, and Shang (2022) and Shang (2022) found a favourable correlation between job-crafting behaviours, involvement at work, and productivity on the job.

5. CONCLUSION

This study confirmed that the job crafting educational program increase job crafting knowledge, job crafting behaviors, work engagement and job performance of studied nurses. Post application of job crafting educational program, nurses job crafting knowledge and behaviors were a high statistically significant and nurse had high job crafting knowledge and behaviors levels. Also nurses had high percent of work

engagement and job performance domains and nurses had high work engagement and job performance level.

6. RECOMMENDATIONS

Based on this study results, the present study recommended that:

1. Application of job crafting educational program in health care organizations by human resource departments as organizational upgrading strategy.
2. Institutional guidelines and reward systems are required to ensure that nurses follow job crafter model in workplace.
3. Maintain open lines of communication between nurse directors and nurses that promotes trust and positive job outcomes.
4. Nurse's leaders should support staff and design future plan to maintain high level of staff work engagement and job performance.
5. Job crafting should be enrolled in curriculums to help student nurses to develop the skills necessary to become competent nurses, as well as to raise their job engagement and performance.
6. Further research to explore the mediating role of work engagement on job crafting behaviors and job performance, investigate the role of job crafting for different healthcare providers and replicate the study on a large sample and in different settings to generalize the results.

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