Relationship between Workplace Empowerment and Innovative Work Behavior among Staff Nurses

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Abstract:

Background: workplace empowerment is an important measure of healthcare professional's response to increasing challenges and demands. Innovative work behavior is widely recognized as important for the effectiveness and success of organizations. Aim: the present study aimed at identifying the relationship between workplace empowerment and innovative work behavior among staff nurses. Design: A descriptive correlational design was used in carrying out this study. Setting: the study was conducted at Ain Shams University Hospital (medical wards and critical care units) which is affiliated to Ain Shams University. Subjects of the study included 166 staff nurses out of 292 they were chosen by simple random technique. Tolls of data collection: two tools were used namely workplace empowerment questionnaire and Innovative Work Behavior Scale. Results: More than half (59%) of the staff nurses had low empowerment levels and more than half (55%) of the staff nurses had low innovative work behavior. Conclusion: There was a statistically significant positive correlation between workplace empowerment and innovative work behavior. Recommendation: Provide an orientation program for newly nurses to facilitate their information about their organization.

Key words: workplace Empowerment, Innovative Work Behavior, Staff Nurses.

Introduction:

Workplace Empowerment the opportunity of a person to have access to resources, information and support needed to achieve organizational goals in performing their duties. (Mudallal, 2017). Empowerment in nurses is vital for both the health care system and society as a whole. For the health care system empowered nurse's results in more job satisfaction, increased nurse retention, and ultimately enhancing their commitment towards their profession. For society empowered nurses to become a source of motivation for and provide others more compassionate through community care coordination and mobilization (Gulzar, 2015).

Empowerment is a management technique that makes an employee the sole owner of the work. With this method, subordinates are empowered and become final decision makers on how and in what way they will do their work. A method of formulating empowerment and creating structures is the shared governance, as philosophy demand

acknowledgment and application of shared governance principles, professional nurses should be involved in authoritative programs which were controlled by managers as schedule, budget, and personnel evaluation in order to control their practice and expand their authority (Ulutas, 2018).

Structural and psychological empowerments are both determinants of nurses' innovative behavior, and psychological empowerment intervenes between structural empowerment and innovative behavior. (Knol & van Linge, ,2018) Empowerment promotes innovation by facilitating new thinking, new ideas, and new fashion of working among the employees for organizational performance. Innovation is being considered by organizations as an essential approach for effectiveness and competitiveness (Asurakkody, 2018).

Innovation is important to organizational growth and the ability to provide innovative solutions to pressing problems. Innovative behavior

is essential for nurses in today's dynamic health care systems (Knol & van Linge, 2018). Innovative work behavior refers to all worker behavior directed towards the creation, presentation, and/or application of ideas, processes, procedures, or methods to find better solutions to the newly created work-related(Spiegelaere, 2017). Innovative work behavior among nurses contributes to organizational innovation as other professions because this behavior is a result of the creativity and innovative participation of nursing staff (Afsar, 2016).

Significance of the study:

Workplace empowerment benefits not only to the individuals but also to the organizations. Giving employees' enough time, education and resource makes a positive impact on the perception of employees' self-sufficiency, satisfaction, confidence the meaningfulness of work. The employees with perception feel themselves more empowered, increase their efficiency and productivity within the organization, become the source of new ideas and innovation (Kahreh, 2016).

The study of innovative work behavior would help in generating proactive attitude towards novel technologies in the health care, developing new strategies. Thereby, motivating nurses to raise new ideas and to develop their creativity at part with national and international requirements. So the present study will be conducted to find out the relationship between workplace empowerment and innovative work behavior among staff nurses in Ain Shams University Hospitals.

Aim of the study:

This study aims at finding out the relationship between workplace empowerment and innovative work behavior among staff nurses through:

- 1-Assessing workplace empowerment among staff
- 2- Assessing innovative work behavior among staff nurses.

3- Identifying the relationship between workplace empowerment and innovative work behavior among staff nurses.

Research question

Is there a relationship between workplace empowerment and innovative work behavior among staff nurses?

Subjects and Methods:

Research Design:

Descriptive correlational design was used in the conduction of this study.

Research Settings:

This study was conducted at Ain Shams University Hospital (medical wards and critical care units). This hospital contains 835 beds. It provides general and medical services and its specialties which include endocrinology, immunology and allergic diseases, tropical medicine, chest diseases, geriatric and intensive care services.

Subjects:

The subjects of this study consisted of staff nurses who are working at the pre mentioned setting. The study sample estimated to be 166 staff nurses out of 292 participated in the study. Simple random sampling technique was used. Based on the sample size equation.

$$n = \frac{N \times p(1-p)}{\left[N-1 \times \left(d^2 \div z^2\right)\right] + p(1-p)}$$
(Thompson, Steven 2012).

N: Population size

p: the percentage of the phenomenon existence in the research population it is assumed as 50%

q: (1-p) = 50%

d: Estimated error level = 5%

z: The standard value corresponding to the confidence level 95% which is 1.96

n: Sample size

95% confidence level and p = 0.5 are assumed

Tools of the study:

Data were collected using two main tools namely:

1-Workplace Empowerment Questionnaire:

This tool aimed at assessing workplace empowerment among staff nurses. This tool developed by (Laschinger,etal, 2001). it consists of two parts:

First part: included questions related to socio-demographic characteristics of respondents such as age, sex, working department, educational level, and experience.

Second part: It was aimed to assess workplace empowerment among staff nurses it consists of 39 items categorized under four main dimensions: Opportunity (14 items), Information (10 items), Support (8 items), Resources (7 items).

❖ Scoring system:

Empowerment items were scored 0, 1, 2, 3, and 4 for the responses: absolutely, rarely, often, some often, and always respectively. For each dimension, the scores of the items were summed up and the total was divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score. The subjects were considered high empowerment if the percent score was 60% or above and low empowerment if having a score of less than 60% (Osman ,2017).

2-Innovative Work Behavior Scale

To assess innovative work behavior among staff nurses. This tool developed by (De Jong, 2007). It consisted of 11 items divided to four elements: idea exploration (3 items), idea generation (3 items), idea championing (2 items) and idea implementation (3 items).

❖ Scoring System

Innovation items were scored 1, 2, 3, 4 and 5 for the responses: never, rarely, sometimes, usually, and always respectively. For each element, the scores of the items were summed up and the total was divided by the number of the items, giving a mean score for the part. These scores were converted into a percent score. The subjects were considered low innovative work behavior if the

percent score was less than 65%, from 65% to less than 75% for moderate and high innovative work behavior if the score was \geq 75% (kamel &Aref, 2017).

Operational design:

The operational design for this study included three stages namely, preparatory phase, pilot study and field work.

Preparatory phase

A review of literature was done regarding current and past available literature covering the various aspects of the study variables using text book, articles, magazines and internet search. This was necessary for the investigator to get aquatinted with and oriented about aspects of the research study as well as to assist in development of data collection tools.

• Validity of the tools

The study tools were validated by five experts in Nursing Administration, three of them are assistant professors of nursing administration in faculty of nursing at Ain Shams University, two assistant professor of nursing administration from faculty of nursing at Cairo University. Jury group reviewed the tool to judge its clarity, comprehensiveness and accuracy. Their opinions were elicited regarding the tool format, layout, parts and scoring system. According to jury recommendations the investigator modified items of the tools as rephrasing of some statements in order to be clear, accurate and comprehensive.

Testing reliability of proposed tools was done by Cronbach alpha test. The result was 0.86 for workplace empowerment questionnaire and 0.89 for innovative work behavior scale.

Pilot study

Pilot study was carried out after development of the tools and before starting the actual data collection. It was carried out on 16 participants of the study subjects. They represent 10% staff nurse. The aim was to confirm understand ability, clarity, feasibility of the tool, and estimating the time required for filling the questionnaire sheet. Study subjects were excluded from the main study sample. Based on the pilot study, no modification was made. This stage took one week.

Fieldwork:

The field work for this study extended through the period from beginning of August 2019 to December 2019.

The investigator meet the nursing director of the study setting to explain the aim of the study and obtain official permission to determine the suitable time for collecting data from the study participants. Oral agreements of staff nurses to participate in the study was obtained after explaining the aim and objectives to them. The investigator distributed the questionnaire sheets to the participants individually in their workplace and was present all the time for any needed clarification. The filling time for the questionnaire sheets took about 10 to 15 minutes. Data collection was done during the morning shifts according to a pre-determined schedule for four days per week from 10 am to 1 pm. The investigator checked the completeness of each filled sheet after the participant completed it to ensure the absence of any missing data.

Ethical Considerations

Prior study conduction, approval was obtained from the scientific research ethical committee in Faculty of Nursing, Ain Shams University. In addition, the researcher met the director of Ain Shams University Hospital either medical or nursing and explained the aim of the study to gain their approval. The study subject assured that anonymity and confidentiality would be guaranteed and they informed that they allowed choosing to participate or not in the study and that they have the right to withdraw from the study at any time.

Administrative Design:

An official letter requesting permission to conduct the study was directed from the dean of the Faculty of Nursing, Ain Shams University to the hospital director to obtain their approval to carry out this study. This letter included the aim of the study and photocopy from data collection tools in order to get the permission and help for collection of the data.

IV.Statistical Design:

Data entry was done using SPSS V20 computer software package. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables and means and \pm standard deviations for quantitative variables. Qualitative variables were compared using chi-square test. Cronbach's Alpha coefficient was calculated to assess the reliability of the tools through their internal consistency. Pearson correlation co-efficient (r) was used for assessment of the inter-relationship among quantitative variables. The confidence level chosen for the study was 95%. Statistical significance was considered at p value <0.05.

Results:

Table (1): show (49.4%) of the studied nurses their age range 20-<30 years with mean 31.04 ± 8.44 . Moreover, (63.9%) of the studied nurses are female. Also, (47.6% and 54.2%) of them have technical nursing institute and working in medical units, respectively. Regarding to experience (38%) of the studied nurses their experience is <5 years with mean 10.03 ± 7.98 .

Table (2): show that (54.2%) of staff nurses had high level in the opportunities available to them at work. While, (65.7%) of the studied nurses had low level in the information, available to them at work, respectively.

Figure (1): show that (59%) of the studied subjects had totally low level of empowerment.

Table (3): shows that (63.8%) of staff nurses are low in idea championing. While, more than one quarter (29.5%) of staff nurses had high in idea generation.

Figure (2): show that (55.4%) of staff nurses are low in the total innovative work behavior. Moreover, (30.1%) of them are moderate in the total innovative work behavior. While, (14.5%) of them are high in the total innovative work behavior.

Table (4): shows that there is highly statistically significant relation between total workplace empowerment of studied nurses and their age and education level at (P = < 0.01). Moreover, there is statistically significant relation

between total workplace empowerment of studied nurses and their experience at (p= < 0.05). While, there is statistically insignificant relation between total workplace empowerment of studied nurses and sex and working department at (yP= > 0.01).

Table (5): shows that there is highly statistically significant relation between total innovative work behavior of studied nurses and their age, sex and experience at (P=<0.01). Moreover, there is statistically significant relation

between total innovative work behavior of studied nurses and their education level at (p=<0.05). While, there is statistically insignificant relation between total innovative work behavior of studied nurses and working department (P=>0.01).

Table (6): illustrates that there is positive correlation between total workplace empowerment of the studied nurses and their total innovative work behavior.

Table (1): Socio-demographic characteristics of the studied nurses (n=166).

Items	No	%
Age (year)		
20-<30	82	49.4
30-<40	51	30.7
40-<50	24	14.5
≥50	9	5.4
x S.D 31.04 ± 8.44		
Sex		
Male	60	36.1
Female	106	63.9
Working department		
Critical care units	76	45.8
Medical units	90	54.2
Education level		
Diploma	46	27.7
Technical nursing institute	79	47.6
High education	41	24.7
Experience (year)		
<5 ⁻	63	38
5-<10	30	18.1
10-<15	25	15.1
15-<20	21	12.7
> 20 > 20	27	16.3
$x S.D$ 10.03 ± 7.98		*Wv2

Table (2): Number and percentage distribution of total empowerment level among studied subjects (n=166).

Items				\mathbf{W}_{i}
	Na	0/6	No	0/a
	. 10		1 NW	
				2 H A
Opportunity	90	54.2	76	45.8
Information	57	34.3	109	65.7
Support	64	38.6	102	61.4
Resources	74	44.6	92	55.4

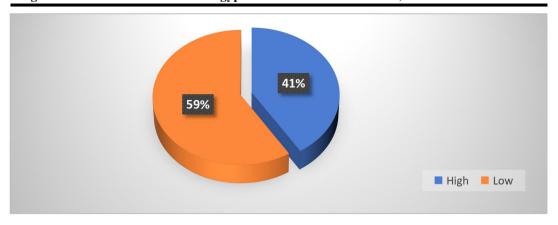


Figure (1): Total empowerment level among staff nurses in the study (n=166).

Table (3): Number and percentage distribution of the studied nurses according to their total innovative work behavior (n=166).

Total innovative work behavior	Hiş	h	Mod	lerate		Low
	No	%	No	%	No	ø%
Idea exploration.	26 40	15.7 29.5	46	27.7 18.7	94	56.6
Idea generation. Idea championing.	49 25	29.5 15.1	35	21.1	ov 106	63.8
Idea implementation.	43	25.9	22	13.3	101	60.8

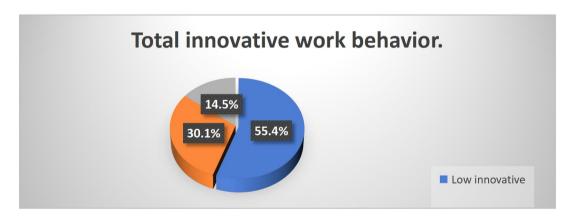


Figure (2): Percentage distribution of the studied nurses, total innovative work behavior (n=166).

Table (4):Relation between characteristics of the studied nurses and their total workplace

empowerment (n=166).
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		Total	workplace	Chi square			
Items			ipowered =68) %		powered =98) %	X2	P- Value
	20-<30	34	50	48	49		
Age	30-<40	16	23.6	35	35.7	15.03	.002**
(year)	40-<50	9	13.2	15	15.3		
	≥50	9	13.2	0	0.0		
Sex	Male	27	39.7	33	33.7	.633	0.426
	Female	41	60.3	65	66.3		
Working	Critical care	36	52.9	40	42.8		
department	units					1.250	0.125
	Medical units	32	47.1	58	59.2		
	Diploma	10	14.7	36	36.7		
Education level	Technical institute	28	41.2	51	52.1	13.39	0.001**
	High education	30	44.1	11	11.2		
Experience (year)	≤5	31	45.6	32	32.7	9.950	0.041*
	5-<10	6	8.8	24	24.5		
	10-<15	13	19.1	12	12.2		
	15<20	6	8.8	15	15.3		
	≥20	12	17.6	15	15.3		

Significant**highly significant at p < 0.05.

Table (5): Relation between characteristics of the studied nurses and their total innovative work behavior (n=166).

			Total in	Chi square					
Items			.ow =92) %		erate 50) %		ligh =24) %	X2	P- Value
	20-<30	33	35.9	34	68	15	62.5		
Age	30-<40	41	44.6	10	20	0	0.0	45.07	.000**
(year)	40-<50	15	16.3	0	0.0	9	37.5		
	≥50	3	3.3	6	12	0	0.0		
Sex	Male	27	29.3	15	30	18	75	18.35	.000**
	Female	65	70.7	35	70	6	25		
Working	Critical care units	30	32.6	26	52	20	83.3		
department								1.23	0.120
	Medical units	62	67.4	24	48	4	16.7		
	Diploma	22	23.9	21	42	3	12.5		
Education level	Technical institute	51	55.4	19	38	9	37.5	16.11	0.031*
icvei	High education	19	20.7	10	20	12	50		
Experience	<5 <u>̃</u>	23	25	28	56	12	50	36.40	.000**
(year)	5-<10	24	26.1	3	6	3	12.5		
	10-<15	12	13	13	26	0	0.0		
	15-<20	15	16.3	0	0.0	6	25		
	≥20	18	19.6	6	12	3	12.5		

Significant**highly significant at p < 0.05.

Table (6): Correlation between total workplace empowerment of the studied nurses and their total innovative work behavior.

Item	Total innovative work behavior			
	R	P- value		
Total workplace empowerment	0.351	.000**		

(*) Statistically significant at p<0.05

Discussion:

Regarding to the demographic characteristics, the finding of the current study revealed that, slightly less than half of the studied nurses their age range 20-<30 years with mean 31.04 ± 8.44 . Moreover, about tow third of the studied nurses are female. Also, less than half and more than half of them have technical nursing institute and working in medical units, respectively. Regarding to experience more than one third of the studied nurses their experience is <5 years with mean 10.03 ± 7.98 .

These results are supported by the study conducted by **Mahgoub**(2019) who has reported that, the majority of the study sample were female and had techical degree. This result is not consistent with study conducted by **Radwan**(2017) who found that, Majority of the respondents were female, had age <40 years old, had secondary nursing school, work in ICU, and had experience years more than 20 years.

The result of the present study revealed that, more than half of staff nurses had low empowerment level. This study finding is relevant and consistence with **Osman** (2017) who reported that, more than two thirds of staff nurses had low empowerment level. In the same context, a study by Mariano et al., (2018) in their study found that, total empowerment scores were relatively low among staff nurses in their workplace, and a study conducted by **Safaan**, (2017) who stated that, staff nurses had lower scores of work empowerment than nurse managers.

However, this result was contradicted with a study conducted at Main Mansoura University Hospital and Urology and Nephrology Center by Radwan (2017) has revealed that, study subjects reported that; most of studied nurses had high levels of

empowerment. Also, a study conducted by Fatehy(2015) who reported that ,two thirds of nurse teachers were totally empowered.

Regarding the level of innovative work behavior, the present study revealed that, half of staff nurses had low innovative work behavior. This result may be due to the fact that the concept of innovation behavior is relatively new. Innovation behavior is quite a new and unfamiliar concept.

These results are supported by the study conducted by Le et al. (2015), who found that the vast majority of participants had a low level of innovation behavior. Moreover, the finding of the current study was in the same line with Tung et al. (2014), who indicated that most of the respondents had not been taught about innovation and innovative behavior. Thus, they might not realize what nursing innovation behavior is and why it is important.

The findings of the current study are in disagreement with that of a study conducted by (kamel &Aref, 2017) at Benha university hospital, Who investigated the perception of staff nurses about organizational culture and its relationship to innovative work behavior at critical care units and pointed out that half of staff nurses have highly innovative work behavior. Moreover, the finding of the current study was in a contradiction with Jung&Yoon, (2018) whose study that was conducted at Republic of Korea. Who revealed that Participants showed a moderate level of innovative behavior.

Regarding to the relation between demographic characteristics and their total workplace empowerment the present study revealed that significant relation between total workplace empowerment of studied nurses and their age, education level and experience. Staff nurse with age between 20-30 years had highest score regarding empowerment sources. This

result may be explained as; subjects of this age became more mature and still had motivation and ambitious to achieve their role efficiently, not affected with work hinders and had more competence. Also staff nurse who had bachelor recorded the highest score regarding to all sources of empowerment.

This result was congruent with the study done by osman (2017) who mentioned that there was a relation between empowerment and age. On the Same line, the study done by Dirmitriades (2015)reported empowerment was found to be correlated with employee demographic variables; age and work experience. On the contrary, the study done by Elshaer (2016), found that there was no significant difference statistical subjects' perception of work empowerment sources and their age and experience. Another study done by Ingersoll & Olsan (2015) reported that perception of empowerment was negatively associated with age.

Regarding relation between demographic characteristics and innovative work behavior the present study revealed highly statistically significant relation between total innovative work behavior of studied nurses and their age, sex, educational level and experience. This result may be explained as; subjects of this age became more mature and still had motivation and ambitious to achieve their role efficiently, not affected with work hinders and had more competence. Also nurse who had bachelor recorded the highest score regarding to all elements of innovative work behavior. This result was congruent with the study done by Arif (2018), who found a significant difference across sex as female study participants reflected the more innovative work behavior as compared with male study participants.

On the contrary, the study done by **Abd El Fattah(2017)**, found that there was no statistical significant difference between subjects' perception of sample innovation behavior levels and their age and experience.

Regarding the relation between workplace empowerment and innovative work behavior. The result current study results showed that there was a statistically significant

positive correlation between workplace empowerment and innovative work behavior. This answer our research question "is there is a relationship between workplace empowerment and innovative work behavior".

The present findings supported by Mercy.(2020) who emphasized that Employee empowerment positively and significantly affects Innovative work behavior, empowering employees increases their efficiency and productivity through creation of new ideas within the organizations. This means that when employees are empowered, they feel valued, accomplish their duties effectively, and also are free to choose how to perform their tasks. On the same line the study done by Sinaga, (2020) indicated that psychological empowerment have a significant effect on innovative work behavior. Thus, it is very important for organization public in North Sumatera to increase the role of transformational leadership and make their employees feel empowered.

Conclusion:

In the light of the study findings, it can be concluded that more than half of the studied nurses had low empowerment level. More than half of staff nurses had the high empowerment level related to opportunity. Less than two third of the studied nurses had low level in the information available to them at work. Two third of the studied nurses had low level in the support available to them at work. More than half of staff nurses had the low empowerment level related to resource. There was significant relation between total workplace empowerment of studied nurses and their age, education level and experience. Also, more than half of staff nurses had low innovative work behavior. There was highly statistically significant relation between total innovative work behavior of studied nurses and their age, sex, educational level and experience. There was a statistically significant positive correlation between workplace empowerment and innovative work behavior.

Recommendations:

In view of the study results, the following recommendations are suggested:

- Provide orientation program for newly nurses to facilitate their information about their organization.
- 2) Allow nurses to share in different committees in their work setting to form new relationship, learn new skills, and gain recognition.
- Implement and maintain education and training programs that aimed to increase awareness of all staff member about importance of empowerment and innovation.
- 4) Nurse Managers should react positively to the innovative efforts of nurses by providing them the time and resources to carry out innovative efforts and support innovation as a job requirement

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