

Effect of Organizational Justices on Creative Self-Efficacy and Innovation of Nurses

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Abstract

Background: Today, healthcare organizations are challenged to retain nurses' generation and to maintain justice that is a predictor of nurses' behaviors in their work environment. Nurses are the most significant and largest human resource of healthcare organization. **Research Aims:** to assess the effect of organizational justices on creative self-efficacy and innovation of nurses. **Methodology:** **Research design** A cross sectional research design was utilized at August 2019 - January 2020. **Setting:** Beni suef university hospital, fever and chest hospitals at Beni suef government and zagazig university hospitals & fever and chest hospitals at Zagazig city. **Sample:** Convenience sample include the 332 nurses. **Tools of data collection:** Researcher used tool contains four parts (Demographic characteristics of nurses, organizational justice, self-efficacy and innovation) **Results:** revealed that mean age of studied nurses was 34.11±5.96 years. Also, 52.1%, 56.9% and 55.7% of studied nurses had moderate level regarding distributive justice, procedural justice and in formational justice, respectively. Also, stated that educational level, innovation and justice had high frequency positive effect on self-efficacy scale. While, age and female gender had slight positive effect on innovation. **Conclusions:** the current study concluded that more than half of studied nurses had moderate organizational justice and about one quarter of them had low organizational justice. Also, more than half of studied nurses had moderate self-efficacy, about quarter of them had low self-efficacy. In addition more than half of studied nurses had moderate innovation; more than one quarter of them had low innovation. There was high positive correlation between organizational justice, self-efficacy and innovation with p value <0.01**. **Recommendation:** Continuous educational programs for nurses about self-efficacy and innovation behavior. Training program for head nurses and managers about achieving organizational justice among nurses. React positively to the innovative efforts of production nurses by provide nurses the time and resources to carry out innovative efforts.

Keywords: Organizational justice, self-efficacy, innovation

Introduction

Nursing as a profession includes direct interaction with individuals. Nurses are responsible for the human health. Hospitals must hire people who can help them accomplish their aims by adhering to the organization's values and missions. Hospitals must hire people who can help them accomplish their aims by adhering to the organization's values and missions (Hashish, 2020).

Organizational justice is characterized as the treatment of workers by the organization in

relation to the sacrifices they have made in order to accomplish the organization's and employees' goals. Organizational justice is described as nurses' perceptions of how healthcare institutions handle them equally or unfairly. It is one of the most important factors in achieving organizational success and the primary contributor to nurse work satisfaction (Mengstie, 2020).

One approach to solve the problem of hospitals and nurses being asked to do something for fewer is to improve the innovative behavior of nursing workers. Innovative action is referred to as a

discretionary mechanism that necessitates managerial and organizational support. Fostering an atmosphere that encourages creative thinking is a vital topic among practitioners and academics alike. However, the development of such an environment has manifested as a chief challenge opposite the organizations (Wan et al., 2018).

Self-Efficacy (SE) means to have a belief on one's own capabilities and is considered to be a cognitive resource. However SE is dissimilar from the concept of self-esteem, as SE can vary depending upon context and task. Researchers have characterized SE as "beliefs in ones capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands". Self-efficacy stated what goals must be chosen to track, how these goals can be attained, and how it reflected upon our job performance (Kadir et al., 2017).

Professional self-efficacy is concerned with specific activities and the ability to practice the many skills required becoming a professional nurse. A head nurse with a high level of self-efficacy would be more positive in their practice and achieve incredible results. Nurses' self-efficacy is expected to be one of the variables influencing their employee performance (Liu & Aunguroch, 2019).

Researchers differentiate innovation in to three forms: product innovation or service innovation, process innovation, and third form to be business model innovation. Product/service innovation is "the novelty and meaningfulness of new products introduced to the market in a timely fashion" (Bagheri & Akbari, 2018).

Innovation is not a new concept to the nursing profession. Nurses worldwide are engaged in innovative activities on a daily basis; Activities motivated by the desire to improve healthy person/patient care outcomes and the need to reduce costs. Many of these initiatives have resulted in significant improvements in the health of patients, populations and health systems. However, the nursing contribution to health care innovation is seldom recognized, publicized or shared among nursing and the wider public (Halstead, 2020). Organizations can get benefit from an

innovative workforce by selecting, nurturing, and developing transformational leaders who facilitate employees to innovatively create challenging work environments (Brodtkorb et al., 2019).

Aim of study

The current study aimed to assess the effect of organizational justices on creative self-efficacy and innovation of nurses.

Research questions:

- What is the organizational justice level of studied nurses?
- What is the self-efficacy level of studied nurses?
- What is the innovation level of studied nurses?
- Is there relationship between organizational justice and creative self-efficacy, innovation?

Methods:

Research design: A cross sectional research design was utilized at August 2020 - January 2021

Research Setting: The study was carried out at carried out at Beni suef university hospital, fever and chest hospitals at Beni suef government and zagazig university hospitals & fever and chest hospitals at Zagazig city
Subjects: Convenience sample include the nurses worked at previous mentioned setting and enthusiastic to participate at the study regardless age, gender, educational level and experience.

The estimated sample size was 332 nurses, at confidence level 95%, and the precision rate at 0.05 by using the equation devised by Thompson (2012) as the total number of available of nurses was 1500.

$P = 0.5$, $N =$ Total population, $Z =$ Z value "1.96", $D =$ Standard Error, $n =$ sample size

The instruments:**Study instrument included four parts:**

Part I: Personal characteristics of the nurses such as age, educational level, gender, experience, monthly income and residence

Part II: The Spanish Version of Colquitt's Organizational Justice Scale (**Colquitt, 2001**). This is based on Colquitt's four-dimensional measure that includes: Distributive Justice (**4 items**) as The workload is distributed fairly across all nurses and fair work schedule for all nurses...etc., Procedural Justice (**7 items**) as have you been able to express your views and feeling during those procedure and I am able to express my opinions and feelings about the procedures of my organization...etc., Interpersonal Justice (**4 items**) as My direct leader deals with me in a confident way and My supervisor refrains from incorrect notes or comments...etc., and Informational Justice (**5 items**) as My supervisor explains the procedures carefully and My supervisor's explanations regarding the procedures are reasonable...etc. Response options are delivered on a Likert scale ranging from 1 (to a small extent) to 5 (to a large extent), with higher scores indicating a higher level of perceived organizational justice. High justice if score >70%, moderate if score 50 to 70% and low justice if score <50%.

Part III: Creative Self-Efficacy is a (**19 items**) measure self-efficacy of nurses (**Tierney & Farmer, 2002**) as I have a knack for developing other people's ideas, I think my personality traits make me more creative in the workplace, I am interested in my work and find it fulfilling my interests and The opinion of other coworkers has a positive effect on my individual creativity...etc. Items were rated on a 5-point Likert scale ranging from 0 (Strongly disagree) to 5 (strongly agree). High self-efficacy if score >70%, moderate if score 50 to 70% and low self-efficacy if score <50%.

Part IV: Innovation work behavior Questionnaire: It was developed by (**De Jong, 2007**) to assess innovative work behavior. It consisted of 11 items as Look for opportunities to improve an existing nursing service or work relationship and Recognize opportunities to make a positive difference in work,

department, hospital or with client...etc. The answers were measured by likert scale with five points, ranging from 1 = never to 5= always. The scoring levels were arranged as follow; less than 65% for low innovative work behavior, from 65% to less than 75% for moderate innovative work behavior and $\geq 75\%$ for high innovative work behavior.

Field work:

A review of recent national and international related literature using journals, periodicals, textbooks, internet, and theoretical knowledge of the various aspects concerning the topic of the study. Preparation of data collection tools was carried out over a period of six months from beginning of August 2019 - January 2020. The investigators prepared the tools and translated them into Arabic form to become ready for use. The investigator distributed the data collection forms with instructions about how to fill them. The time required to fill the questionnaires sheet was from 20 to 25 minutes. The filled forms were collected in time and revised to check their completeness to avoid any missing data.

Pilot Study:

The pilot study was conducted with 33 nurses who represent 10% of total sample at the previously mentioned settings in order to test the applicability of the constructed tools and the clarity of the included tools. Also, to assess the reliability and validity of developing tool before using at the study. The pilot also served to estimate the time needed for each subject to fill in the questionnaire.

A group of experts in the administration nursing ascertained **the content's validity**; their opinions were elicited regarding the format, layout, consistency, accuracy, and relevancy of the tools. **Reliability testing** was carried out to test the reliability in terms of Cronbach's Alpha for organizational justice was 0.897, innovation work behavior was 0.866 and creative self-efficacy was 0.911.

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 24. Data were presented using descriptive statistics in the form of number and percent. Pearson correlation coefficient was used to measure of linear correlation between two sets of data. A linear regression model is a linear approach to modeling the relationship between a scalar response and one or more explanatory variables.

Ethical consideration:

The research ethics committee revised and approved the study. The submission of the answer to the questionnaire was considered as consent to take part in the study. Confidentiality of the study subjects' data was sustained throughout the study by making the nurses' data nameless.

Results

Table (1) showed that mean age of studied nurses was 34.11 ± 5.96 years, 74.7% of them were female and 76.2% of them were married. Related educational level, 48.2% of studied nurses had technical health institute. Regarding experience, 47% of studied nurses had experience ranged from 5 to 10 years. According to monthly income, 82.2% of studied nurses had insufficient income. Regarding residence, 60.2% of studied nurses from rural area.

Table (2) revealed that 52.1%, 56.9% and 55.7% of studied nurses had moderate level regarding distributive justice, procedural justice and informational justice, respectively. Also, detected that 27.7% of studied nurses had low interpersonal justice. Related total justice, 57.2% of studied nurses had moderate organizational justice and 24.7% of them had low organizational justice.

Figure (1) reported that 54.8% of studied nurses had moderate self-efficacy, 24.4% of them had low self-efficacy. While, 20.8% of them had high self-efficacy.

Figure (2) reported that 56.6% of studied nurses had moderate innovation, 26.8% of them had low innovation. While, 16.7% of them had high innovation.

Table (3) demonstrated that there was high positive correlation between organizational

justice, self-efficacy and innovation with p value $<0.01^{**}$

Table (4) stated that high significant model detected through F test value was 10.580 with p value <0.01 . This model explained 44% of the variation in organizational justice scale detected through R^2 value 0.44. Also, explained that, self-efficacy and innovation had high frequency positive effect on organizational justice scale at p value $<0.01^{**}$. While, monthly income and experience had slight positive effect on organizational justice scale with p value <0.05 .

Table (5) stated that high significant model detected through F test value was 13.088 with p value <0.01 . This model explained 52% of the variation in self-efficacy scale detected through R^2 value 0.52. Also, explained that, educational level, innovation and justice had high frequency positive effect on self-efficacy scale at p value $<0.01^{**}$. While, experience and marital status had slight positive effect on self-efficacy with p value <0.05 .

Table (6) stated that high significant model detected through F test value was 14.568 with p value <0.01 . This model explained 56% of the variation in innovation scale detected through R^2 value 0.56. Also, explained that, educational level, self-efficacy and justice had high frequency positive effect on innovation at p value $<0.01^{**}$. While, age and female gender had slight positive effect on innovation with p value $<0.05^*$.

Table (1): Distribution of studied nurses according to their Personal characteristics of the nurses (N=332).

Items	N	%
Age		
20 - <30	94	28.3
30 - <40	155	46.7
40 or more	83	25
Mean SD	34.11±5.96	
Gender		
Male	84	25.3
Female	248	74.7
Marital status		
Married	253	76.2
Not married	79	23.8
Educational level		
Diplom	92	27.7
Technical health institute	160	48.2
Bachelor of nursing	66	19.9
Postgraduate	14	4.2
Experience		
< 5years	95	28.6
5 - < 10 years	156	47
>10 years	81	24.4
Monthly income		
Sufficient	59	17.8
Insufficient	273	82.2
Residence		
Rural	200	60.2
Urban	132	39.8

Table (2): Distribution of studied nurses according to organizational justice scale (N=332).

Items	High		Moderate		Low	
	N	%	N	%	N	%
Distributive Justice	71	21.4	173	52.1	88	26.5
Procedural Justice	68	20.5	189	56.9	75	22.6
Interpersonal Justice	79	23.8	161	48.5	92	27.7
Informational Justice	63	19	185	55.7	84	25.3
Total	60	18.1	190	57.2	82	24.7

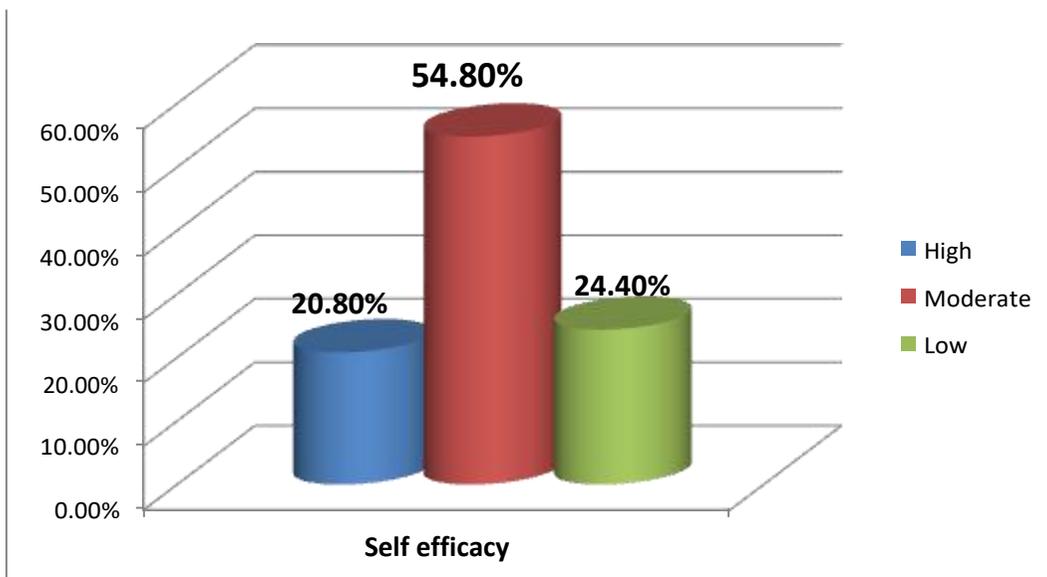


Figure (1): Distribution of studied nurses according to self-efficacy (N=332).

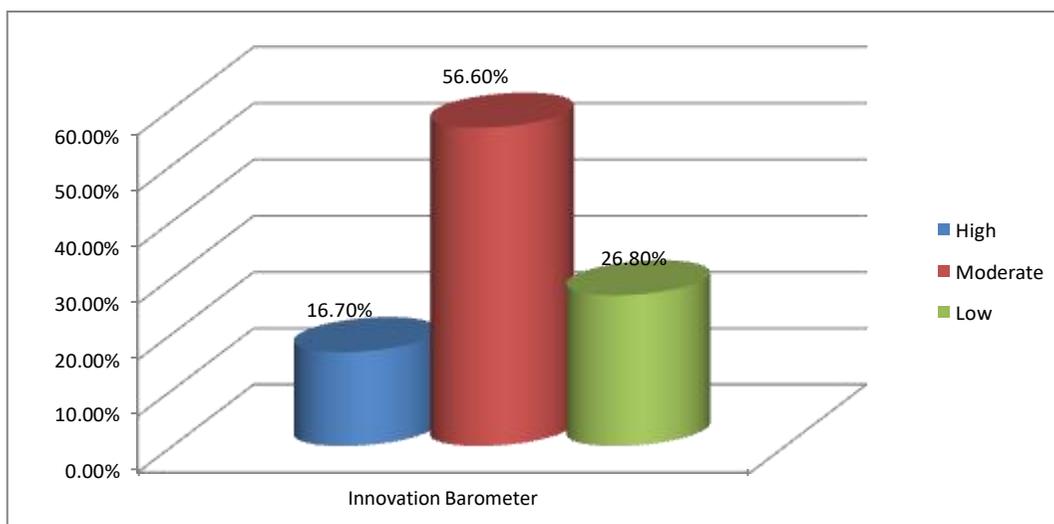


Figure (2): Distribution of studied nurses according to innovation (N=332).

Table (3) Correlation between domains of strengths and difficulties questionnaire scale

		1	2	3
organizational justice scale	R			
	P.			
Self-efficacy	R	.688		
	P.	<0.01**		
Innovation	R	.720	.609	
	P.	<0.01**	<0.01**	

Table (4): Multiple Linear regression model for organizational justice scale

	Unstandardized Coefficients	standardized Coefficients	T	P. value
	B	Bet a		
Self-efficacy	.297	.219	5.908	<0.01**
Innovation	.302	.276	6.007	<0.01**
Monthly income	.198	.132	2.011	<0.05*
Experience	.210	.167	3.106	<0.05*
ANOVA				
Model	R ²	F	P. value	
Regression	0.44	10.580	<0.01**	

a. Dependent Variable: organizational justice scale

b. Predictors: Self-efficacy, Innovation, Monthly income and Experience

Table (5): Multiple Linear regression model for self-efficacy

	Unstandardized Coefficients	standardized Coefficients	T	P. value
	B	Bet a		
Educational level	.367	.312	7.455	<0.01**
Innovation	.401	.352	7.305	<0.01**
Justice	.420	.373	7.114	<0.01**
Experience	.224	.187	2.955	<0.05*
Marital status	.235	.175	3.466	<0.05*
ANOVA				
Model	R ²	F	P. value	
Regression	0.52	13.088	<0.01**	

a. Dependent Variable: Self efficacy

b. Predictors: Educational level, Innovation, justice, Experience and Marital status

Table (6): Multiple Linear regression model for innovation

	Unstandardized Coefficients	standardized Coefficients	T	P. value
	B	Bet a		
Educational level	.436	.384	8.019	<0.01**
Organizational justice	.399	.325	7.005	<0.01**
Self-efficacy	.424	.386	8.411	<0.01**
Age	-.230	.189	2.990	<0.05*
Gender "female"	.201	.175	3.002	<0.05*
ANOVA				
Model	R ²	F	P. value	
Regression	0.56	14.568	<0.01**	

a. Dependent Variable: Innovation

b. Predictors: Educational level, Organizational justice, Self-efficacy, Experience and Gender "female"

Discussion

One of the incredible challenges confronting healthcare organizations is to maintain high workplace justice that is a predictor of nurses' self-efficacy. Nursing innovation is a fundamental source of progress for health care systems around the world. Hence, the current study aimed to assess the relationship between organizational justice and creative self-efficiency, innovation perceived role of nurses' behavior. According to organizational justice, the current study

demonstrated that more than half of studied nurses had moderate level regarding distributive justice, procedural justice and informational justice, respectively. Also, detected that more than one quarter of studied nurses had low interpersonal justice. Related total justice, more than half of studied nurses had moderate organizational justice and about one quarter of them had low organizational justice. Also, there was high positive correlation between organizational justice with innovation behavior and self-efficacy of nurses. These results attributed to the environment of

the governmental hospital has proven to be more exposed to organizational injustice because of the shortage of nurses, work overload, and nurse managers' personal attitude and behavior. These results cohort with the study performed by **Hany et al., 2020** who found that more than two fifth (40.5%) of staff nurses had also low perception level toward procedural justice dimension and less than half (49.1%) of staff nurses had low perception level toward total organizational justice. Also, support with the study conducted by **Elkhol y et al., 2020** who stated that nurses had low level of organizational justice. In addition, similar with the study by **Kimwolo et al., 2019** who revealed that fair work at organization improve innovative work behavior. Meanwhile, these results inconsistent with the study by **Ajlouni et al., 2021** who detected that the composite average score of organizational justice was 3.67 (SD = 0.57).

Regarding to self-efficacy, the present results revealed that more than half of studied nurses had moderate self-efficacy, about quarter of them had low self-efficacy. While, only one fifth of them had high self-efficacy. Also, mentioned that educational level, innovation and justice had high frequency positive effect on self-efficacy scale. While, experience and marital status had slight positive effect on self-efficacy. These results explained as two thirds of studied nurses had nursing diplom and technical health institute and ineffective training unit at the governmental hospitals. These result in consistent with the study performed by **Lee & Suh, 2017** who reported that mean score of studied nurses related self-efficacy 3.73 ± 0.519 with mean percent 74.6% and disagreement with the study by **Handiyani et al., 2019** who reported that there were significant differences in self-efficacy of male and female nurses ($p=0.009$) and nurses in Indonesia have good self-efficacy. While, cohort with the study done by **Singh et al., 2019** who found that there was a positive relationship between self-efficacy and well-being in the workplace and **De Clercq et al., 2018** who detected that atmosphere of justice improve self-efficacy. Also, supported with the study conducted by **Ghosh et al., 2019** who found that found that there was positive correlation between self-efficacy and

innovative work behavior. On other hand, the present results disagree with **Kurnia et al., 2019** who found that the majority of respondents had high self-efficacy.

According to innovation scale, the present results mentioned that more than half of studied nurses had moderate innovation; more than one quarter of them had low innovation. While, less than one fifth of them had high innovation. Also, explained that, educational level, self-efficacy and justice had high frequency positive effect on innovation. While, age and female gender had slight positive effect on innovation. These results consistent with the study performed by **Hernaes et al., 2019** who reported that Age is a significant moderator in the relationship between cognitive work and innovative work behavior. Meanwhile, supported with **Phung et al., 2019** who found that personal factors (advancement of knowledge) have a positive impact on innovative work behavior. Also, cohort with **Ebijuw et al., 2019** who detected that self-efficacy increases creativity in the organization. In addition, similar with **Afsar et al., 2018** detected that employee involvement in innovative work is very important for organizational competitiveness and **Adam et al., 2020** who found that minority of studied nurses had innovation behavior at work.

Conclusion

To conclude our study, more than half of studied nurses had moderate organizational justice and about one quarter of them had low organizational justice. Also, more than half of studied nurses had moderate self-efficacy, about quarter of them had low self-efficacy. In addition more than half of studied nurses had moderate innovation; more than one quarter of them had low innovation. There was high positive correlation between organizational justice, self-efficacy and innovation with p value $<0.01^{**}$.

Recommendation:

1. Continuous educational programs for nurses about self-efficacy and innovation behavior.

2. Training program for head nurses and managers about achieving organizational justice among nurses.
3. React positively to the innovative efforts of production nurses by provide nurses the time and resources to carry out innovative efforts.
4. Further research, can be conducted to identify the factors that enhance innovative work behavior and organizational justice.

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