Motivation and its Influence on Staff Nurses' Self Efficacy

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Abstract

Background: Well-motivated staff nurses with high levels of self-efficacy are valued assets for organizational success. ***Aim of study***: to assess motivation and its influence on staff nurses' self-efficacy. ***Subjects and Methods***: This cross-sectional study was carried out at Ain-Shams University Hospital on a convenience sample of 169 staff nurses. Data were collected using the motivational factors questionnaire and the General Self-Efficacy Scale. ***Results***: Staff nurses' age was 17-59 years, 46.2% males, and 37.3% with bachelor's degree. Overall, 53.3% had high total motivation, and 69.8% had high total self-efficacy. The scores of motivation and self-efficacy had significant positive correlation (r=0.190). In multivariate analysis, Age was a positive predictor of motivation score, while qualification and experience years were negative predictors. Being married was a positive predictor of the self-efficacy score. ***Conclusion and Recommendations:*** Staff nurses' self-efficacy and motivation are positively correlated. More efforts are needed to improve staff nurses' motivation and self-efficacy using innovative educational approaches. Further research is proposed to investigate the effect of interventions improving work motivation on self-efficacy.

Keywords: Staff Nurses, Self-Efficacy, Motivation

Introduction

Work motivation determines nurses' behavior and performance, and thus has been widely recognized as one of the prerequisites for high-quality nursing practice ***(Abate et al., 2022)***. Identifying nurses' motivators can help nurse managers to find a way to motivate nursing staff ***(Jiang et al., 2021; McCarthy et al., 2021)***. While many work tasks are not designed to be intrinsically interesting, factors related to both intrinsic and extrinsic work motivation must be considered when motivating the work force ***(Jing et al., 2020)***. Meanwhile, self-efficacy is quite critical for skill performance. It is a belief in one's capability to organize and conduct the courses of action required to produce given outcomes ***(Abu Sharour et al., 2022)***. The nurses who have high self-efficacy belief would view obstacles as an opportunity rather than a threat; they always want to overcome difficult situations, rather than to avoid the situations ***(Leal-Costa et al., 2020)***. Self-efficacy has a significant impact on performance; it can promote the motive to provide quality nursing care in any situation ***(Cheng et al., 2020)***.

Previous research indicates that it is possible that higher self-efficacy improves the motivation to work, or improvement of the work motivation leads to good self-efficacy ***(Sims and Skarbek, 2019; Leal-Costa et al., 2020)***. Thus, when the self-efficacy beliefs of nurses are developed, their achievement motivation can also improve. Hence, higher perception of self-efficacy increases individual's motivation to act and results in better performance. Meanwhile, motivation might increase self-efficacy. These mean that there might be reciprocal interaction ***(Nashwan et al., 2021; Salahat and Al-Hamdan, 2022)***.

Overall, with considering the level of self-efficacy and motivation of nurses in their work environment, it plays a key role in the quality of service to patients and the health care system, and there are many stressful factors in nursing workplace that can affect their clinical performance ***(Hoegen et al., 2022)***. Thus, motivating nurses is an urgent need as it increases their performance and consequently increases the efficiency of the services provided as well as patients' satisfaction ***(Rubel et al., 2020***

SIGNIFICANT OF THE STUDY

Motivation can improve the performance of staff nurses and strengthen their sense of commitment to their job activities. It helps staff nurses perform at higher level, maximizing the abilities of an individual. if individual worked in apposition where the individual doesn't feel motivated, that is probably when the individual starts to arrive late to work, and having negative thoughts regarding the work with un willingness to go to work, nobody wants to be in that status, which also very bad for the organization **(*Dell, 2017)***. It might also have a positive impact on their self-efficacy, which would help achieve the goals of their organizations. Thus, it may be speculated that well-motivated staff nurses with high levels of self-efficacy are the most valued issues for any organization's success. The researcher is interested in conducted this research in order to analyze the relationship between the self-efficacy and motivation of staff nurses.

Aim of the Study

To assess motivation and its influence on staff nurses' self-efficacy. It was aimed at answering the research question:

Research question: "What is the influence of motivation on staff nurses' self-efficacy?"

SUBJECT AND METHODS

Research design and study setting: This cross-sectional analytic study was carried out at Ain-Shams University Hospital affiliated to Ain Shams University. It has 13 departments and units such as the digestive system and endocrinology departments, liver diseases, kidney, blood diseases, immunology, and natural therapy units, in addition to the Intensive Care Units (ICUs). **Study subjects:** The study sample included 169 staff nurses working full time in their current unit/department. The sample size was calculated to detect a correlation of 0.25 or stronger between staff nurses' scores of motivation and self-efficacy (small effect size) using the G*Power software package at 95% level of confidence and 90% power, and accounting for an expected non-response rate of around 20%. They were recruited by convenience sampling.

Data collection tools: Data were collected using a self-administered questionnaire with two tools. The first tool was the motivational factors questionnaire developed by ***William (2008)*** and modified by ***Sheta (2020)***. It has 38 items categorized under seven dimensions: Job security 8 items**,** Hospital policy 12 items, Nature of work 4 items, Peer interaction 5 items**,** Supervision 2 items, Responsibility to work 4 items and achievements 3 items.

On a 5-point Likert scale from "Never encourage at all" to "Always Encourage." The scores are summed-up and converted into percentage scores. The perception level of motivation was considered high if the percentage was 60% or greater. The second tool was the General Self-Efficacy Scale developed by ***Schwarzer and Jerusalem (1995)*** and reused by ***Abo Habieb (2013)***. It has 21 items on a 5-point Likert scale from "strongly disagree" to "strongly agree." The total score was converted into a percentage score. The level of self-efficacy was considered high if the score was 60% or more.

The tools were translated into Arabic language by an English language specialist. They were then presented to a panel of experts from nursing faculty staff in nursing administration for face and content validation. The reliability of the tools was assessed through examining their internal consistency. They demonstrated high levels of reliability with Cronbach's Alpha coefficients 0.94 for the motivation scale and 0.93 for the self-efficacy scale. They were then pilot-studied on 17 staff nurses and finalized accordingly. These staff nurses were not included in the main study sample.

Fieldwork: The researcher secured all required official authorization to conduct the study. She personally met with each participant staff nurse to explain the purpose of the study and invite him/her to take part in the research. Those who provided their verbal consent to participate were handed the data collection form and given instructions in how to complete it. The researcher was available all the time to answer any questions and verify the completeness of each sheet once it had been filled out.

Administrative design and Ethical considerations: All necessary approvals were obtained using official channels. The study protocol was approved by the Scientific Research Ethics Committee at the Faculty of Nursing, Ain Shams University. The researcher met with each staff nurse to explain the purpose of the study and to obtain a verbal informed consent to participate after confirming the right to refuse or withdraw at any time. They will be reassured about the anonymity and confidentiality of the data collected.

Statistical analysis: Data entry and statistical analysis were carried out on SPSS 20.0 statistical software package. Categorical variables were compared using Chi-squared test. The inter-relations among quantitative variables and ranked ones were examined using Spearman rank correlation. In order to identify the independent predictors of the scores of motivation and self-efficacy, multiple linear regression analysis was used. Statistical significance was considered at p-value <0.05.

Results

The study sample consisted of 169 staff nurses whose age ranged between 17 and 59 years, with a median of 30.0 years as presented in the following tables and figures

Table 1. Slightly less than a half of them were males (46.2%) and married (47.3%). Only 37.3% carried a bachelor's or higher degree. Their experience years ranged between <1 to 40, with a median of 7.0 years.

Table 2 illustrates a variation in nurses' motivation among its different dimensions. The percentages of nurses reporting high motivation ranged between 42.0% for the dimension of achievement to 71.0% for the dimension of peer interaction. Overall, slightly more than half of the nurses had high total motivation (53.3%). Concerning self-efficacy, more than two thirds of them had high total self-efficacy (69.8%).

Table 3 points to no statistically significant relations between nurses' total motivation and any of their personal characteristics. Although the percentages of nurses having high total motivation were higher among those married and having a diploma degree, the differences could not reach statistical significance.

As regards the relations between nurses' self-efficacy and their personal characteristics,

Table 4 demonstrates a statistically significant relation with their age (p=0.04). It is evident that the percentage of nurses having high self-efficacy was highest among those in the age group 40+ years.

As displayed in

Table 5, the nurses' total scores of motivation and self-efficacy had a statistically significant positive correlation (r=0.190). Meanwhile, no significant correlations were revealed with their level of nursing qualification or experience years.

The multivariate analysis **Table 6** identified nurses' age as a statistically significant independent positive predictor of their motivation score. Conversely, their level of qualification and their experience years were negative predictors. The model explains 14% of the variation in the motivation score.

As for nurses' self-efficacy score, Table 7 demonstrates that being married was the only independent positive predictor, although with borderline statistical significance. The model explains only 2% of the variation in the self-efficacy score.

Table 1: Demographic characteristics of nurses in the study sample (n=169)

	Frequency	Percent
Age:		
<30	74	43.8
30-	54	32.0
40+	41	24.3
Range	17-59	
Mean±SD	32.9±10.2	
Median	30.0	
Married:		
No (single/divorced/widow)	89	52.7
Yes	80	47.3
Gender:		
Male	78	46.2
Female	91	53.8
Nursing qualification:		
Diploma	106	62.7
Bachelor or higher	63	37.3
Experience years:		
<5	60	35.5
5-	38	22.5
10+	71	42.0
Range	<1.0-40.0	
Mean±SD	10.8±10.1	
Median	7.0	
Department:		
Surgical	25	14.8
Medical	31	18.3
Critical care	55	32.5
Wards	39	23.1
Special units	19	11.2

Table 2: Motivation and self-efficacy among nurses in the study sample (n=169)

	Frequency	Percent
High (60%+) motivation:		
Job security	79	46.7
Hospital policy	94	55.6
Nature of work	119	70.4
Peer interaction	120	71.0
Supervision	83	49.1
Responsibility to work	89	52.7
Achievements	71	42.0
Total motivation:		
High	90	53.3
Low	79	46.7
Self-efficacy:		
High	118	69.8
Low	51	30.2

Table 3: Relations between nurses' total motivation and their characteristics

	Total motivation					
	High		Low		X^2 test	p-value
	No.	%	No.	%		
Age:						
<30	34	45.9	40	54.1		
30-	33	61.1	21	38.9	3.06	0.22
40+	23	56.1	18	43.9		
Married:						
No (single, divorced, widow)	43	48.3	46	51.7		
Yes	47	58.8	33	41.3	1.84	0.17
Gender:						
Male	40	51.3	38	48.7		
Female	50	54.9	41	45.1	0.23	0.63
Nursing qualification:						
Diploma	61	57.5	45	42.5		
Bachelor	29	46.0	34	54.0	2.10	0.15
Experience years:						
<5	30	50.0	30	50.0		
5-	22	57.9	16	42.1	0.59	0.75
10+	38	53.5	33	46.5		
Department:						
Surgical	13	52.0	12	48.0		
Medical	18	58.1	13	41.9		
Critical care	28	50.9	27	49.1	1.50	0.83
Wards	19	48.7	20	51.3		
Special units	12	63.2	7	36.8		

Table 4: Relations between nurses' self-efficacy and their characteristics

	Self-efficacy					
	High		Low		X^2 test	p-value
	No.	%	No.	%		
Age:						
<30	49	66.2	25	33.8		
30-	34	63.0	20	37.0	6.36	0.04*
40+	35	85.4	6	14.6		
Married:						
No (single, divorced, widow)	58	65.2	31	34.8		
Yes	60	75.0	20	25.0	1.93	0.16
Gender:						
Male	55	70.5	23	29.5		
Female	63	69.2	28	30.8	0.03	0.86
Nursing qualification:						
Diploma	75	70.8	31	29.2		
Bachelor	43	68.3	20	31.7	0.12	0.73
Experience years:						
<5	37	61.7	23	38.3		
5-	27	71.1	11	28.9	3.23	0.20
10+	54	76.1	17	23.9		
Department:						
Surgical	20	80.0	5	20.0		
Medical	22	71.0	9	29.0		
Critical care	37	67.3	18	32.7	2.77	0.60
Wards	28	71.8	11	28.2		
Special units	11	57.9	8	42.1		

(*) Statistically significant at p<0.05

Table 5: Correlation between nurses' anxiety and pain scores and their perception and coping scores

	Spearman's rank correlation coefficient	
	Motivation scores	Self-efficacy scores
Self-efficacy score	.190*	
Characteristics:		
Qualification level	-.090	-.095
Experience	-.012	.017

(*) Statistically significant at p<0.05

Table 6: Best fitting multiple linear regression model for the motivation score

	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Constant	46.13	6.41		7.19	<0.001	33.46	58.79
Age	1.21	0.27	0.90	4.45	<0.001	0.67	1.74
Qualification level	-6.51	2.19	-0.23	2.97	0.003	-10.84	-2.19
Experience years	-1.26	0.28	-0.93	4.55	<0.001	-1.80	-0.71

r-square=0.14 Model ANOVA: F=9.26, p<0.001

Variables entered and excluded: gender, marital status, department

Table 7: Best fitting multiple linear regression model for the self-efficacy score

	Unstandardized Coefficients		Standardized Coefficients	t-test	p-value	95% Confidence Interval for B	
	B	Std. Error				Lower	Upper
Constant	71.94	1.49		48.370	<0.001	69.00	74.87
Married	3.82	2.16	0.14	1.766	0.079	-0.45	8.09

r-square=0.02 Model ANOVA: F=3.12, p=0.079

Variables entered and excluded: gender, qualification, experience, department, motivation score

Discussion

Motivation is defined as a process that initiates, guides, and maintains goal-oriented behavior, driving good work performance ***(Sharififard et al., 2020)***. Employee's self-efficacy is also essential for high performance ***(Takashiki et al., 2023)***. It leads to achievement of desired outcomes with a sense of self-worth and belief in own abilities ***(Young et al., 2020)***. On the other hand, motivation reflects a desire, self-efficacy reflects an intention to act ***(Xiong et al., 2020)***. Self-efficacy and motivation seem to be correlated ***(Xu et al., 2023)***.

The present study aim was to assess motivation and its influence on staff nurse's self-efficacy through assessing motivation level and self-efficacy level among them and finding out the influence of motivation on staff nurses 'self-efficacy. The results of the study indicate that staff nurses' scores of motivation and self-efficacy are positively correlated, which clarifies the relationship and answers the research question.

The present study results revealed that the lowest motivation among staff nurses was in the dimension of achievement. This could be due to the lack of appreciation and of opportunities for training in the form of educational programs. Similar findings were reported by nurses in a study in Iran where a majority reported lack of career development opportunities ***(Zamanzadeh et al., 2023)***. Moreover, the motivation dimension of job security was the second lowest among the current study staff nurses, which could be attributed to the low salaries and incentives not commensurate with the efforts deployed at work. Added to these is the lack of support services as means of transportation, medical care, nursery in the workplace, as well as social activities. In agreement with this, a study in Bangladesh demonstrated that job security was

a significant determinant of work motivation among healthcare workers ***(Mahmud et al., 2023)***.

At the other extreme, the motivation dimension with the highest score among the current study staff nurses was that of peer interaction. This reflects the importance of good interpersonal relationships with peers , supervisors, and subordinates, as well as with doctors. In congruence with this, a study in Iran examining the factors affecting nurses love of the nursing profession found that the interpersonal relations among colleagues was a significant factor with positive influence ***(Bolandian-Bafghi et al., 2022)***. Another dimension of motivation with high level among the staff nurses of the current study was that of "the nature of work." This indicates that they give high value to the fact that the work they perform fits their individual preferences. This is of major importance in their satisfaction with their work and could significantly influence their quality of work life as demonstrated in a study on nurses in Ghana ***(Poku et al., 2023)***. Overall, almost one-half of the staff nurses in the present study had low work motivation, which is a quite worrying given the importance of motivation and its potential positive impact on work performance. In agreement with this, ***Sharififard et al. (2020)*** highlighted that work motivation is essential for the improvement of performance at work as it fosters worker's seeking to better achievement through driving his/her behavior. Meanwhile, and in congruence with the results of the current study, a study in Ethiopia found that 56-66% of respondent healthcare providers had high work motivation ***(Abate et al., 2022)***. On the same line, ***Alhadidi et al. (2023)*** in a study reported that the level of nurses' motivation was relatively high.

Although the current study bivariate analyses could not detect significant relations between nurses' total motivation and any of their personal characteristics, the multivariate analysis identified age as a significant positive predictor, while the level of qualification and experience years were negative predictors. The effect of age is expected since those nurses in their mid-career are likely to be more satisfied with the work they perform, with feelings of self-actualization when compared with younger-age ones. The finding is in agreement with the results of the study carried out by ***Rashad and Bayoumy (2020)***, where a significant relationship was reported between motivation staff nurses' age.

As for the higher motivation among current study diploma nurses, it could be explained by the fact that those carrying a bachelor's degree or higher might expect to have better achievements given their higher level training but could not attain a high achievement given the work conditions and resources. This would lead to despair and lower motivation as claimed by ***Bushuven et al. (2023)*** in a study in Germany. Concerning the negative impact of experience years, it could be attributed to the effect of routine daily work and associated boredom that increases with longer years of practice. A similar association was addressed in a study of the means of supporting nurses and midwives in the United Kingdom ***(Baldwin et al., 2022)***.

The second main study variable assessed in the present study was the staff nurses' self-efficacy. The results indicate that more than two-thirds of them had a high level of self-efficacy. The finding is in agreement with previously published related research results. For instance, ***Elsherif and Sabra (2022)*** in a study found that around three quarters of the studied nurses had moderate to high level of self-efficacy. On the same line, ***Abdel-Azeem et al. (2023)*** in a study found that around two-thirds of the staff nurses in the sample had moderate to high self-efficacy.

Regarding the factors affecting the self-efficacy of the current study staff nurses, the bivariate analysis revealed that significantly more staff nurses with high self-efficacy were in the age group 40+ years. This could be due to the combined effects of age and experience years in fostering their self-efficacy with acquisition and accumulation of knowledge and skills, and thus they seek more achievement. In agreement with this, ***Lin et al. (2021)*** found that staff nurses' high self-efficacy is associated with more ability to select and perform challenging tasks that need more knowledge, skills, and experience. On the same line, ***Abdel-Azeem et al. (2023)*** demonstrated a significant positive relationship between staff nurses' self-efficacy and their age, level of qualification, and years of experience

Meanwhile, the multivariate analysis identified staff nurses' marital status as a significant factor influencing their self-efficacy. Thus, the analysis revealed that being married was a positive predictor of this score. This could be attributed to the stability of family life among married ones compared to divorced and widowed ones, and even the single ones, which is in congruence with the results of ***Zhang et al. (2023)*** in China.

The main goal of the current study was to examine the relationship between staff nurses' work motivation and self-efficacy. The results showed a significant positive correlation between staff nurses' total scores of motivation and self-efficacy. Thus, a higher level of work motivation is expected to be associated with more self-efficacy, which provides an answer to the main research question. In agreement with this, ***Hampton et al. (2020)*** emphasized that self-efficacy greatly affects nurses' performance particularly in decision-making and influences their motivation to perform at work. Moreover, a study on Chinese nurses demonstrated that self-efficacy and work motivation were correlated and played an important mediating role in their work engagement ***(Dan et al., 2023)***.

Conclusion and Recommendations

In conclusion, staff nurses' self-efficacy is higher than their work motivation, and these are positively correlated. The study recommends provision of more opportunities for training and career advancement, with better incentives and more support services, and increasing staff nurses' participation in decision-making. Further research is proposed to assess the effect of interventions improving staff nurses' work motivation on their self-efficacy.

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