The Effect of Work Motivation Model on Nurse's Stress in Leith General Hospital, Kingdom of Saudi Arabia

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Abstract

Purpose: Nursing is a stressful occupation, it had been theorized that work motivation influences the degree of job stress. However, there is lack of research about the relationship between motivation and stress in health organizations. Therefore, the current study aims to explore the impact of organization motivation on work stress among nurses working in a public hospital in the Kingdom of Saudi Arabia

Methodology: Through a cross-sectional study, all nurses in Al-Leith hospital which is a semi-urban general public hospital were invited to be included in the study. They had been requested to a predesigned valid self-administered questionnaire including demographic variables, Motivation at work questionnaire (MWQ) and Workplace Stress Scale. SPSS ver 26 was used for data entry and statistical analysis; Pearson correlation coefficient was used and statistical significance was set at P-value <0.05.

Findings: Out of all interviewed nurses (n=204), non-Saudis formed 78.9% and the majority were female (86.8%), and two thirds had bachelor qualification (66.2%). The overall mean scores for the domains of the organization motivation were highest in shared values (Total mean±SD; 3.8±0.85) and intrinsic job motivation (Total mean±SD; 3.8±0.79), while the lowest was on influence on work (Total mean±SD; 3.3±0.94). The total work stress score accounted for 2.7±0.73. The correlation matrix displayed showed that the work stress showed significantly negative correlation with all domains of the work motivation p<0.05.

Recommendations: Work motivation, through its all domains, is inversely correlated with work stress. Stakeholders and policy makers of health organizations should take these findings in account when planning for improving occupational environment for nurses.

Keywords: *Work motivation, work stress, nurses, public hospitals.*

1.0 BACKGROUND

There has been a growing concern about the importance of considering nurses' needs, preferences and psychological needs, as an essential prerequisite to maintain, activate, sustain and improve nursing work and stability of healthcare system work at all.(1) By definition, motivation is an energetic force that originates within an individual, to be concerned with and approaching positive incentives and avoid negative incentives; where incentives as the anticipated reward or aversive event available in the environment.(2) While motivation can partly seen as a predictor for individual behavior; yet, individual and environmental variabilities should be considered in prediction.(3) Work motivation is the key energy to empower and enhance work-related behavior. In health care facilities, work motivation is an essential instrument to anticipate and shape nurse's behaviors according to consequences.(4) In the organizational context, motivation is explained as the stimulus of work behavior, which tiles the worker's effort to accomplish the organization's goals.(5) Ultimately, worker motivation is the end product of the continuous interactions between individuals (internal psychological process), their work environment (a transactional process) and the fit between these interactions with the societal context.(6) There are many factors that influence work motivation: internal factors, within the individuals, such as personality characteristics and talents; and external factors such as organizational and situational ones. Nurses' awareness about internal and external factors regarding their work motivation is a great director for improving their responsibility, accountability, independency and work stability.(7) High work motivation among them has significant positive relation and effects on nurses' performance, satisfaction, stress, engagement and emotional intelligence (EI) skills at work.(8)

Nursing has been identified as a stressful occupation;(9) stress in nursing is multifactorial; factors related to the nature of the job which includes patient care, decision making, taking responsibilities and facing challenges in increasing use of technologies. Other factors include interaction with the work environment. Stress has a cost for individuals in terms of health and wellbeing, as well as for the organization in terms of absenteeism and turnover, which in turn may impact the quality of patient care.(5,9,10) In Latvia, the researchers, through a survey to identify stressors in hospital environment, they found that the most frequently marked factors in nurses' surveys were "risk of infection", "inadequate remuneration for work" and "emotionally intensive work with people". They recommended further researches to expand the view about the relationship between work environment and stress in nurses in different settings.(11) Therefore, this study aims to assess the work motivation level and its related factors among nursing staff in a general public hospital, and to assess the job stress level and its association with work motivation level.

2.0 MATERIAL AND METHODS

Through a cross sectional design, this study was carried out in Al-Leith general hospital, which is public hospital ruled by the ministry of health, Kingdom of Saudi Arabia. The hospital is providing services, through a total bed capacity of 120 beds, to around 450,000 population residing in the main Leith city and surrounding rural satellites. All nurses serving in the hospital (n=220) were invited to be included in the study. Two tools were used for collection of data from the respondents; first was the *Motivation at work questionnaire (MWQ)*, which includes six sections; four sections (1, 2, 3 and 4) represent the four instruments developed by Toode et al. (2015) for measuring nurses' background factors, shared values with the organization and society, individual influence on work, and selected working conditions.(12) The fifth section is the Intrinsic Job Motivation

Scale (IJMS) which was developed by Warr et al., in 1979, for measuring work attitudes and internal psychological status of the employee. It involves 8 scales of measurement: work involvement, intrinsic job motivation, higher order need strength, perceived intrinsic job characteristics, job satisfaction, life satisfaction, happiness at work and self-rated anxiety.(13) The sixth and last section is the Multidimensional Work Motivation Scale (MWMS) that was developed by Gagne et al. (2005). It was used for assessing both the level and the orientation of employees' work motivation based on employees' psychological response to different personal and organizational factors happening in the work situation and environment. Its main components were designed to measure the intrinsic motivation level, and three regulation styles: external regulation, introjected regulation and identified regulation (3 Items).(14)

The second tool was *The Workplace Stress Scale* which was developed by Marlin Company in 2011 to measure the employee stress during work. This 5 point Likert scale is composed of eight statements that represent employee feelings toward work against a rating options of Never=1, Rarely =2, Sometimes=3, Often=4, and Very Often= 5. The researcher will take the permission from primary or secondary authors and validity and reliability will be retested by the researcher using suitable techniques. Total scoring system is 40, less than or ≥ 15 = low level of job stress, from $16 \geq 20$ = fairly low job stress level, and from $21 \geq 25$ = moderate job stress level, $26 \geq 30$ = severe level of job stress, and from $31 \geq 40$ = severe and dangerous level of job stress.

In order not to disturb the routine of work of the nurses in the hospital and difficulties to know the time at which nurses could have the opportunity to respond to the questionnaire, and after getting approval, the researcher submitted the questionnaires at the head of each department, with a cover letter describing purpose of the study and contact number of the researcher for any clarification. The researcher collected the completed questionnaires at the end of working days. Data entry and statistical analysis were done using Statistical Package for Social Science (SPSS) version (26). Data were summarized as mean and standard deviation. Pearson correlation was used to test the correlation between motivation score and job stress score. Statistical significance was at P-value <0.05. Ethical approval was collected from the local Institutional Research Board (IRB) in the Directorate of Health Affairs in Jeddah.

3.0 RESULTS

Out of all interviewed nurses (n=204), there was marked dominance of females (86.8%) and non-Saudis (78.9%). and they were mainly aged <40 years (71.0%), and most of them were married (70.1%), and two thirds (66.2%) had bachelor qualifications as shown in table 1.

Table 1: Characteristics of the study group (n=204).

Characteristics	No.	Percentage
Gender:		
Male	27	13.2
Female	177	86.8
Nationality:		
Saudi	43	21.1
Non Saudi	161	78.9
Age categories:		
<30 years	70	34.2

30-<40 years	75	36.8
40-<50 years	45	22.1
≥40 years	14	6.9
Marital status:		
Single	53	26.0
Married	143	70.1
Divorced	6	2.9
Widowed	2	2.0
Education level:		
Bachelor	135	66.2
Diploma	62	30.4
Postgraduate	7	3.4

More than one half (53.4%) were working as registered nurses, and a total of 143 nurses (70.1%) had more than five years of experience. Slightly more than one quarter (28.4%) had one shift weekly, while 16.2% reported that they had more than five shifts as indicated in table 2.

Table 2: Characteristics of the study group (n=204).

Characteristics	No.	Percentage
Job title:		
Staff Nurse(RN)	109	53.4
Staff Nurse	36	17.6
Charge Nurse	22	10.8
Assistant Nurse	10	4.9
Nursing Supervisor	8	3.9
Nurse Manager	3	1.5
Others	16	7.8
Department:		
ER	51	25.0
Wards	32	15.7
ICU	8	3.9
Laboratory	1	0.5
Others	112	54.9
Years of experience:		
<5 years	61	29.9
5-<10 years	52	25.5
10-<15 years	42	20.6
15-<20 years	36	17.6
≥20 years	13	6.4
Average number of shifts weekly:		
1 shift	58	28.4
2 shifts	31	15.2
3 shifts	34	16.7
4-5 shifts	48	23.5
>5 shifts	33	16.2

Table 3 shows rating of the nurses for items reflecting shared values in the hospital, out of a maximum score of five, the highest agreement score was recorded for nurses who reported " I am proud to tell people what specialty or profession I am working in" (mean±SD; 4.1±0.91), and the lowest mean score was reported for the item "Managers here understand about employees having to meet family responsibilities" (mean±SD; 3.4±1.10). Generally, there was an acceptable level of perception about shared values (Total mean±SD; 3.8±0.85).

Table 3: Average scores for the responses of the nurses about shared values at work.

Shared values at work items	Mean ± SD
I am proud to tell people what specialty or profession I am working in	4.1±0.91
I am proud to tell people what institution I am working in	3.8±1.04
I share values and beliefs of this hospital	3.9±0.93
People working here are encouraged to develop themselves	3.6±1.03
Managers here understand about employees having to meet family responsibilities	3.4±1.10
Total	**3.8±0.85**

Table 4 demonstrates that the nurses had almost the same perception for all items reflecting their influence on work, with an overall mean score (mean±SD; 3.3±0.94). Regarding involvement in work. Table 5 shows that the highest score was recorded for perception of nurses about "Having a job is very important to me" (mean±SD; 4.3±0.82), while the lowest score was recorded for "I should hate to be on the dole" (mean±SD; 3.3±0.95), with an overall all mean score at (mean±SD; 3.7±0.64).

Table 4: Average scores for the responses of the nurses about their influence on work.

Influence on work items	Mean ± SD
I have influence on what tasks to do	3.3±1.03
I have influence on how to do the work	3.4±1.06
I have influence on intensity (pace) of work	3.3±1.03
Total	**3.3±0.94**

Table 5: Average scores for the responses of the nurses about involvement in the work.

Involvement in the work items	Mean ± SD
Having a job is very important to me	4.3±0.82
I would soon get very bored if I have no work to do	3.6±1.08
If unemployment benefit were high, I would still prefer to work	3.7±0.96
The most important things that happen to me involve work	3.7±0.85
Even if I won a great deal of money on the pools, I would continue to work.	3.7±1.00
I should hate to be on the dole	3.3±0.95
Total	**3.7±0.64**

Table 6 shows the mean scores for the items reflecting intrinsic job motivation, the highest score was recorded for the item "I feel a sense of personal satisfaction when I do the job well" (mean±SD; 4.0±1.04), while the lowest score was recorded for "My opinion of myself goes down when I do this job badly" (mean±SD; 3.4±1.08); the overall mean score for the intrinsic job motivation was (mean±SD; 3.8±0.79).

Table 6: Average scores for the responses of the nurses' intrinsic job motivation.

Intrinsic job motivation items	Mean ± SD
I try to think of ways of doing my job effectively	3.9±0.93
I feel a sense of personal satisfaction when I do the job well	4.0±1.04
I take pride in doing my job as well as I can	3.9±0.94
I like to look back on the day's work with a sense of a job well done	3.8±1.04
I feel unhappy when my work is not up to my usual standard	3.5±1.04
My opinion of myself goes down when I do this job badly	3.4±1.08
Total	**3.8±0.79**

Respecting the perceived higher order need strength, the highest score was found in the item "I use my skills to do the maximum" (mean±SD; 4.1±0.96), and the lowest score was recorded for "I have opportunity to make my own decision" (mean±SD; 3.3±1.10), with a total mean score (mean±SD; 3.6±0.83) as shown in table 7.

Table 7: Average scores for the responses of the nurses about perceiving higher order need strength.

Perceiving higher order need strength items	Mean ± SD
I have opportunity to learn new things	3.5±1.10
I use my skills to do the maximum	4.1±0.96
I achieve something that value	3.8±0.93
I have opportunity to do challenging work	3.6±1.06
I have opportunity to extend my range of abilities	3.5±1.09
I have opportunity to make my own decision	3.3±1.10
Total	**3.6±0.83**

As shown in table 8, out of a maximum of five, the total work stress score accounted for 2.7±0.73, with the highest score recorded for the item "I receive appropriate recognition or rewards for good performance."

Table 8: Average scores for the responses of the nurses about perceived work stress.

Work stress items	Mean ± SD
Conditions at work are unpleasant or sometimes even unsafe.	2.5±1.21
I feel that my job is negatively affecting my physical or emotional well-being.	2.5±1.31
I have too much work to do and/or too many unreasonable deadlines.	2.8±1.15
I find it difficult to express my opinions or feelings about my job conditions to my superiors.	2.7±1.22
I feel that job pressures interfere with my family or personal life.	2.7±1.22
I have adequate control or input over my work duties.	2.8±1.06
I receive appropriate recognition or rewards for good performance.	3.2±1.22
I am able to utilize my skills and talents to the fullest extent at work.	2.2±1.04
Total	**2.7±0.73**

The correlation matrix displayed in Table 9 illustrates that the work stress total score showed significantly negative correlation with all domains of the work motivation p<0.05, with a relatively

higher correlation coefficients for both shared values (r=.450, p<0.001) and higher order need strength (r=.449, p<0.001).

Table 9: Correlation matrix between stress scores and work motivation domains.

Work motivation domains	Stress score	
	Correlation coefficient	p
Shared value	-.450	<0.001
Influence on work	-.166	0.018
Involvement in work	-.216	0.002
Intrinsic motivation	-.189	0.007
Higher order need strength	-.449	<0.001

4.0 DISCUSSION

Motivation has been discussed under many theories;(15) the most common was what had been outlined by Maslow who defined motivation as a "state of mind, filled with energy and enthusiasm, which drives a person to work in a certain way to achieve desired goals." In this way, motivation is a force which pushes people to work with a high level of commitment and focus; he added that "People do not work for security or money only, but they work to contribute and to use their skills".(16) According to McClelland's theory of needs; there are three motivating drivers, which do not depend on gender or age. These are: first is the "achievement" which is the need to accomplish and demonstrate own competence with anticipating acknowledgement of their progress. Second is the "affiliation" which is the belonging and social acceptance. Third is the "power" which is the need for controlling own work or the work of others.(17) Work motivation, at the macro level, can be categorized into two types, endogenous process (individual, cognitive) theories and exogenous cause (environmental) theories.

Motivation at work is very important in achieving the following: increased productivity and improved employee performance, stability of workforce, positive workplace culture, better teamwork and workplace harmony.(18) Based on these concepts, the current study aimed at assessment of work motivation and its impact on work stress among nurses in a general public semi-urban hospital in Saudi Arabia. Saudi nurses formed only 21.1% which indicates that working in semi-urban is not favored by the Saudi nurses, they rather prefer to work in urban hospitals.(19) Also, it was found that most of the nurses were females and had Bachelor degree, which proves what had been pointed by Al-Mutairi in 2015, that the ministry of health in KSA had put criteria for hiring nurses with priority to those who have bachelor qualification and suitable ages.(20) The assessed work motivation showed an acceptable level in all domains, particularly regarding the "shared value' domain (3.8±0.85) and "intrinsic job motivation" (3.8±0.79).

The mean job stress score was (2.7±0.73) which indicates an average level of stress,(21) and it had been found that the stress score were negatively correlated with all domains of the work motivation. These finding come in accordance with what had been reported by Cordioli et al (2019),(22) which provides an evidence for the substantial role of work motivation on shaping the degree of job stress among the workers. Work stress has been recognized as a complex phenomenon resulting from interaction of the employees with their organizational environment; many theories were suggested to explain job stress; for example Nakakis and Ouzouni (2008) hypothesized that work stress is an end product for the balance between work demand and

employee' capability.(23) While Karasek (1979) put a great weight for the degree of freedom for the employee to share in decision at work as a predictor for the degree of job stress,(24) Our findings came in accordance to what had been reported in in Taiwan and China,(25,26) they attributed the inverse correlation between work motivation and stress to what had been hypothesized by Greenberg and Baron (2000) that the work stress being a cognitive and psychologic complex affected by external pressure at work, it is logic to expect the protective effect of motivation on the stress.(27)

5.0 CONCLUSION

Nurses in Al-Leith hospital perceived acceptable level of work motivation, and they had an average level of work stress. There is inverse correlation between motivation and work stress. These findings provide evidence about the importance of work motivation that should be considered when planning for improving the work environment for nurses in the health organization which eventually reflected on the quality of health services.

6.0 RECOMMENDATIONS

Policy makers and stakeholders of health organization should put work motivation of nurses as one of the main domains to control for the level of work stress that would eventually reflected on the quality of services.

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