

Working Environment Characteristics in Assessing the Quality of Working Life among the Nursing Managers Almaty city, Kazakhstan

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Abstract: A supportive work environment is necessary for employees' motivation and for creation of conditions for productive work. The quality of work environment affects satisfaction with job, work and private life, the opportunity for continuous personnel development and organizational culture. Despite the fact that there are a large number of studies in management, the quality of working life in Kazakhstan has remain uncovered. This is population-based study among nursing managers of health institutions in Almaty city over the period between 2013 and 2014. Questionnaire included the following sections: socio-demographic characteristics, job satisfaction, the impact of various risk factors of hospital environment, etc. The participants filled in their questionnaires anonymously and independently. Statistical processing was carried out by using IBM SPSS v.20.0 software. The main factors affecting the feeling of job satisfaction among managers of the nursing services included a wage rate; working conditions; organizational culture. The statistically significant relationships between the characteristics of the working environment and job satisfaction were revealed. Safety of hospital environment, staff morale, effective management and maintenance of a healthy lifestyle are important factors affecting the quality of working life and the health level of nursing managers.

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1. Introduction

Unsatisfactory working environment can cause professional errors, the syndrome of emotional burnout, violations of labor discipline and high employee turnover [1]. Creation of supportive work environment in a medical institution is a complex task and involves several characteristics: safety of hospital environment (protection against occupational hazard, stress), minimizing the negative impact of work on private life (flexible work schedules, social policy), differentiated salary, opportunity for continuous learning and development and ensuring the necessary resources for work. Although, many studies on the reasons for quitting the job among nurses indicate to insufficient salary (in some European countries that reason is up to 58-90%), the other important reasons include low prestige of the nursing profession and unsatisfactory working conditions [2]. The most important role in forming nursing work environment belongs to nursing managers.

This article represents the results of a sociological survey of nursing managers, devoted to the study of job satisfaction and the influence of

factors on the working environment. The objective of the research was to study the influence of different factors on the quality of working life in the medical institutions and job satisfaction of nursing managers and senior nurses.

2. Material and Methods

We used the results of the population-based study conducted among the nursing managers and senior nurses of polyclinics and multi-field hospitals of Almaty city over the period between 2013 and 2014. Eight multi-field hospitals in Almaty provide qualified hospital assistance to adults. Nursing managers of seven of those hospitals (except the infectious hospital) participated in the survey. Twenty-two district polyclinics provide outpatient care to the population. Ten polyclinics (1 or 2 polyclinics in each of the seven districts of Almaty) were randomly selected for the study. There were 295 nursing managers, who were working at the time of survey in these medical institutions. A structured questionnaire included socio-demographic characteristics, as well as the issues related to the assessment of quality and safety of working

environment, job satisfaction, etc. Out of 295 nursing managers to whom questionnaire was sent, 223 (75,6%) replied and were included in the survey.

The study included quantitative and qualitative methods. The survey was conducted anonymously. Job satisfaction, satisfaction with their managerial skills were evaluated on a 5-grade scale. Evaluation was expressed in the categories of satisfaction: 1- completely satisfied, 2 - satisfied, 3-hard to answer, 4 - unsatisfied, 5-completely unsatisfied. Positive assertions were coded as a large number – 5, and negative ones as the lowest number – 1. They were followed by aggregating estimates, based on the average arithmetic calculation and the subsequent ranking. The coefficient of internal consistency of Alpha Cronbach was 0.8.

The following factors, which influence on the quality of the working environment, were studied: providing the necessary resources and means of protection, the timely required information, support from administration, patients' evaluation of nursing quality, staff morale. The following indicators were calculated: mean; p-value. To identify the interrelation between nominal variables the criterion χ^2 of Pearson was used. The choice of this criterion is due to the following conditions: nominal (qualitative) data, independent monitoring, independent groups, and absolute numbers. To evaluate the strength of the interrelation between nominal variables the criterion of Cramer'sV was used for multi-field tables [5]. The verification procedure of distribution was conducted by using three criteria: graphical (histogram, Q-Q plot); with the help of descriptive statistics; tests of Kolmogorov-Smirnov, Shapiro-Wilk. The confidence interval for the share was calculated according to the formula [4-6]:

$$p \pm 1,96 \sqrt{\frac{p(1-p)}{N}}$$

3. Results

The nursing managers and senior nurses of polyclinics and multi-field hospitals of Almaty took part in research (N=223). All respondents were women, 156 of them (70%) worked in hospitals, 67 people (30%) - in polyclinics. According to distribution by positions: nursing managers - (N=65) - 29%, senior nurses (N=152) - 68%, senior midwives (N=6) - 3%. The average age of the respondents amounted to 44.8 (CI95%; 43,6-45,8). The length of service in the health system amounted to 23.9 years (95%CI; 22,8-25,1). The employment history of nursing managers amounted to 8,7years (95%CI; 7, 4, 0-8, 9). The majority of the specialists at the time of the survey were married (68%). The survey showed that 81% of the nursing managers in

varying degrees are satisfied with their work, 7% are not satisfied, it was difficult to answer for 12%. To identify the main factors influencing on job satisfaction, respondents were asked to evaluate the importance of each factor according to the scale from 1(the most important) to 5 (the least important). The main factors affecting the feeling of job satisfaction among nursing managers, in rank order are as follows:

1. Salary - 31%;
2. Working conditions (clean, light, ergonomic) - 23%;
3. Organization culture (values, traditions, the level of cooperation, administration style) - 17,4%
4. Respect to the profession -16,2%
5. Relationship with colleagues - 12,4%.

All these enumerated factors are external. We found out the secondary and relative strong relationships between job satisfaction and: age (V Cramer's=0,5; p=0.018), the length of service (V Cramer's=0,4; p=0.03), the position held (VCramer's=0,3; p=0.02) and salary (V Cramer's=0,4; p=0.02). The study also identified the relationship of the average force between job satisfaction and: the availability of necessary funds for organizing care (VCramer's=0,4; p=0.0001), safety of hospital environment (VCramer's=0,4; p=0.0001), staff morale (VCramer's=0,4; p=0.0001), timeliness and completeness of the necessary information provided (VCramer's=0,5; p=0.0001), as well as positive assessment of nursing care quality by patients (VCramer's=0,4; p=0.0001).

We have investigated the opinion of nursing managers about the different factors of the working environment: occupational hazard, safety of hospital environment, staff morale, and introduction of new nursing technologies.

Occupational hazard. The answers to the question "What occupational hazard do you often face with at work?" were as follows: psychosocial - 71%±3,9%, biological - 14%±3,0%, chemical - 9%±2,5%, ergonomic - 3%±1,4%, physical - 3%±of 1.4%.

The safety of the working environment. The question "Does your organization provide the safety of hospital environment in full (prevention and protection against risk factors, provision with protective glasses, gloves, masks etc)?" revealed the following: 23%±3.7% of the respondents answered negatively, it was difficult to answer for 8,5%±2,4%, 68,5%±4.1 % answered positively.

Innovative working environment. The question "What innovative nursing technologies were implemented within the year in your organization?" revealed the following: over a third of respondents (32%±4,0) replied – "no technologies", 54%±4,3%

pointed out "development of algorithms for providing nursing care in branches, 9%±2.5% - "organization of schools for patients", it was difficult to answer for 5%±1.9%.

Staff morale. Most of the respondents described the staff morale in their organization as satisfactory (65%±4,1). 30%±4,1% - as "good" and 5%±1,9% as "bad".

According to the two-factor ("motivationally-hygienic") theory of job satisfaction (by F. Herzberger), "motivational" factors include internal factors as well. For this purpose, we studied satisfaction of nursing managers with their management competencies (table 1).

Table1. Satisfaction of the heads of nursing services with their qualifications in the field of management (NM nurses managers, SN senior nurses, Mdw midwives; Cs, completely satisfied; Ps partially satisfied; Dta, difficult to answer; Us Unsatisfied; Cu, Completely Unsatisfied)

Position	Cs,%	Ps,%	Dta,%	Us,%	Cu,%
NM	22	36	6	30	6
95%CI	0,1-0,3	0,2-0,4	0,01-0,1	0,2-0,4	0,01-0,1
SN,Mdw	17	33	30	12	8
95%CI	0,1-0,2	0,1-0,3	0,2-0,4	0,07-0,2	0,02-0,09

Despite high rates of job satisfaction (81%), 54% of the respondents regularly wanted to leave their work within last year. Some statistical correlations were found between the desire to leave the work and various factors of working environment (table 2).

Table2. Influence of various factors on the desire to leave the work

Parameter: <i>the desire to leave the work</i>	χ^2	df	p-value
Working conditions	27,0	12	0,0008
Staff morale	25,0	9	0,003
Occupational hazard	42,8	15	0,0001
Implementation of innovative technologies	26,0	12	0,01
Satisfaction with management competencies	28,3	15	0,02

After the respondents had rated their health we determined statistical relations between risk factors of hospital environment and health level. About a third (34%) of the respondents assessed their health as "good", 33% of the respondents considered their health as "satisfactory" and 33% of the respondents considered their health as "bad". We identified statistical relationship between the level of health and

safety of a hospital environment ($\chi^2_{16}=26,9$; $p=0.04$), and also staff morale ($\chi^2_{16}=30,4$; $p=0.01$).

4. Discussions

The survey showed that the significant majority (81%) of nursing managers in varying degrees are satisfied with the work. This data is higher than in some studies [2,3]. In our opinion, the results are explained by the long employment history and experience of our respondents. The main motivating factors, which influence on work of nursing managers, are salaries, working conditions and the level of organizational culture. 25% of the heads of nursing services have to combine the basic work with side job that can adversely affect the quality of work.

As known, job satisfaction is affected by the organizational, group and personal factors [7]. Supportive work conditions are important not only for the physical, mental and emotional health of an employee, but also directly linked to the effectiveness and efficiency of work.

A significant part of the factors determining the degree an employee satisfies with work, are beyond the control of management. The greatest interest is the knowledge of situational factors in the organization, which determine the values of the survey results showed that innovative nursing technology are poorly implemented in health institutions and not enough attention is paid to the safety of hospital environment, which negatively affects the health of staff and job satisfaction [12].

5. Conclusions

The existence of statistically significant correlations between risk factors of the working environment and job satisfaction shows the expediency for implementation of programs for prevention and reduction of risk factors in each health institution. It is appropriate to divide general medical work and management of nursing managers for rational distribution of tasks and responsibilities for the management levels. Nursing managers and senior nurses need to learn the scientific approach to the basic functions in management of nursing services. The safety of hospital environment, staff morale and a healthy lifestyle are important factors influencing on the level of health among nursing managers and the quality of working life [13,14]. Accordingly, it is advisable to study the characteristics of the working environment in assessing the overall quality of working life.

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