Associations Between Nurses' Job Satisfaction and Organisational Culture in Nursing and Supportive Treatment Wards

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Key Words: *nurses, job satisfaction, organisational culture, nursing and supportive treatment unit.*

Summary. *The aim of the study was to evaluate associations between nurses' job satisfaction and organisational culture in nursing and supportive treatment units.*

Methods. A descriptive, cross-sectional, correlative design was applied in this study.

Results. The research results revealed that the score of general job satisfaction was 148.78±15.4, which allows stating that the majority of the nurses were satisfied with their job. It was also determined that nurses' job satisfaction was conditioned by the nature of work (18.64±3.1), supervision style (18.36±2.7) and relations with co-workers (17.42±3.7). The lowest nurses' job satisfaction was caused by their remuneration (7.89±2.8). The respondents claimed that clan organisational culture (3.92±0.7) was prevalent in nursing and supportive treatment units followed by adhocracy type organisational culture (3.79±0.8); hierarchy (3.55±0.7) and market (3.64±0.7) were claimed to be the rarest types of organisational culture. Correlations were found between clan type organisational culture and job satisfaction items. In the case of predominant market type organisational culture, a statistically significant increase in job satisfaction items, except for satisfaction with operating conditions, was observed.

Conclusions. The majority of the nurses were satisfied with their job, especially with the nature of work and supervision style. The study did not reveal one predominant organisational culture type; however, statistically significantly more often the respondents claimed that clan culture was prevalent in comparison with hierarchy type culture. A correlation between clan organisational culture and satisfaction with relations with co-workers was determined.

Introduction

All organisations want to achieve successful results and have satisfied clients and employees (1). Organisational culture affects not only the results of an organisation, but also its employees, both directly and indirectly. Conducted research studies show that atmosphere and culture of an organisation positively affect capacity, efficiency and effectiveness of employees and influence their job satisfaction, innovations, management and decision-making (2). Many scholars have been associating organisational culture and job satisfaction. The research conducted by Tsai shows strong association between organisational culture and job satisfactions of employees. According to the researcher, communicating and encouraging the organisational ethos, recognising and accepting their views have a positive influence on employee behaviour and attitudes towards work (3). Studies conducted by Tzeng et al. and Sempane et al. have confirmed that organisational cul-

ture determines high job satisfaction (4, 5). German scholars have analysed associations between organisational culture, job satisfaction and an interdisciplinary team and have determined that job satisfaction highly depends on organisational culture and teamwork (6). Hall et al. claim that organisational culture, originally understood as effective communication, positively affects job satisfaction, which in turn affects turnover of paediatricians in primary health care institutions (7). MacIntosh and Doherty have studied the effects of organisational culture on job satisfaction of employees in fitness institutions and their intentions to quit the job. The obtained results confirmed that there was an association between organisational culture and job satisfaction of employees. Three dimensions of organisational culture were found to have a great influence on job satisfaction: atmosphere and service programmes positively affected job satisfaction; meanwhile formalisation had a negative effect on job satisfaction

and intention to leave (8). Organisational culture affects job satisfaction in many aspects. According to various scholars, if employees identify themselves as part of an organisation, their job satisfaction naturally increases, which determines greater success of an organisation and better results (9, 10).

Associations between organisational culture and job satisfaction in nursing and supportive treatment units have not been studied so far in Lithuania. In order to achieve its ultimate goals, each organisation, including those in health care, should in the first place acknowledge the essential organisational culture aspects and their effects on job satisfaction of employees

In this light, the aim of our paper was to evaluate associations between nurses' job satisfaction and organisational culture in nursing and supportive treatment units.

Material and Methods

Study Design and Participants. For the research purposes, the institutions were selected from the general list of Lithuanian institutions (n=83) accredited by the State Health Care Accreditation Agency under the Ministry of Health with a licence to provide in-patient services of nursing and supportive treatment (12). According to the data of Statistics Lithuania 2011, there were 4,619 nursing bed places in the selected institutions. The 14 selected institutions were distributed in 3 counties of Lithuania, and 172 nurses (response rate 80%) participated in the research.

Study Instrument. An anonymous questionnaire was used as the study instrument. The questionnaire was designed on the basis of research studies of foreign scholars (1, 11).

The questionnaire consisted of three groups of questions. The first group of questions was intended for studying the dominant organisational culture in nursing and supportive treatment units. The given statements were assessed according to the Likert scale, where 1 – disagree very much and 5 – agree very much. The maximum possible score was 5. The internal consistency of the questionnaire was

Table 1. Evaluation of Internal Consistency of the Questionnaire on Organisational Culture

Types of Organisational Culture	Cronbach Alfa Coefficient
Adhocracy	0.683
Market	0.622
Clan	0.732
Hierarchy	0.543
Total	0.870

sufficient (α>0.5) (Table 1).

We extracted 4 factors from the organisational culture via principal component analysis, used the Varimax of the rotation method, and defined them as follows: hierarchy culture is internally focused and stable; clan culture is internally focused and flexible; adhocracy culture is externally focused and flexible; and market culture is externally focused and stable.

The second group of questions was intended to evaluate nurses' job satisfaction in nursing and supportive treatment units. To study the subjects' job satisfaction, we used Spector's job satisfaction survey (JSS), which has been designed to estimate the general job satisfaction and 9 items of job satisfaction.

The job satisfaction survey consists of 36 statements (4 statements for each of 9 subscales) that may be evaluated on a 6-point scale, where 1 – disagree very much, 2 – disagree moderately, 3 – disagree slightly, 4 – agree slightly, 5 – agree moderately, and 6 – agree very much. The total score of responses towards statements in each subscale may vary from 4 to 24, and the total general score from 36 to 216. A greater total score of one subscale shows greater satisfaction with a particular aspect, and a greater general score shows greater general job satisfaction. In the survey, 19 statements are negative, and a greater score in the responses to these statements means lower satisfaction. The negatively worded statements are then reverse scored ($6\rightarrow1$, $5\rightarrow2$, $4\rightarrow3$, $3\rightarrow4$, $2\rightarrow5$, $1\rightarrow6$). The internal consistency of Spector's questionnaire was performed, and the Cronbach alfa for each subscale was α>0.5, while the general Cronbach alfa was α=0.890; therefore, the internal consistency of the scale was considered sufficient.

The third group of questions was designed to evaluate sociodemographic characteristics.

Research Ethics. Permission of the Bioethics Centre of the Lithuanian University of Health Sciences and consent of the authorities of all the institutions selected for research were obtained. The study was conducted following the confidentiality principle, the survey of nurses was anonymous and the questionnaires were coded. Since no interventions were applied, the subjects did not experience any risk or damage. The only inconvenience was time spent by the research subjects to fill in the questionnaire.

Statistical Data Analysis. The statistical data analysis was performed with SPSS 17.0 software. In order to estimate the distribution of the analysed attributes in the chosen sample size, the descriptive data statistics – absolute (n) and percentage (%) rates – were used. To determine the normal distribution of quantitative data, the Kolmogorov-Smirnov test was employed. The lowest and the highest values of quantitative data are shown. Arith-

metic mean ranks (m) and standard deviations (SD) were calculated.

The Spearman correlation coefficient (r) was used to calculate the strength of the relationship between variables: $0 < |r| \leqslant 0.3$ shows weak dependence; $0.3 < |r| \leqslant 0.8$ shows moderate dependence; and $0.8 < |r| \leqslant 1$ shows strong dependence. The correlation coefficient is positive when one variable increases if the other variable also increases, and it is negative if one variable decreases when the other variable increases. The difference between variables in the groups of the subjects was considered statistically significant at the significance level $P \leqslant 0.05$, and very significant at the significance level $P < 0.001$.

Results

Social Demographic Characteristics of Respondents. According to the data presented in Table 2, more than half (57.6%) of the respondents were 46–65 years old. Besides, 72.7% of the subjects were married and more than half (51.7%) had college education. It was determined that 57.0% had the workload of 1 full-time position, and the mean length of service was 22 years.

Evaluation of Nurses' Job Satisfaction in Nursing and Supportive Treatment Units. The study data revealed that the general job satisfaction score was 148.78±15.4, which allows stating that the majority of the nurses were satisfied with their job. The low-

est total score in the evaluation of general job satisfaction was 102, and the highest was 206 (general score from 36 to 216).

We also assessed 9 separate job satisfaction items and found that job satisfaction was conditioned by the nature of work (18.64±3.1), supervision (18.36±2.7) and relations with co-workers (17.42±3.7). The lowest job satisfaction was conditioned by pay (7.89±2.8) (Fig. 1).

Evaluation of Prevalent Organisational Culture in Nursing and Supportive Treatment Units. In the study, the type of organisational culture dominant in nursing and supportive treatment units was determined according to the nurses' opinion. The estimated results showed that the dominant organisational culture types in nursing and supportive treatment units selected for the research were clan (3.92±0.7) and adhocracy (3.79±0.8). In the nurses' opinion, hierarchy (3.55±0.7) was the rarest type of organisational culture and market was relatively rare (3.64±0.7) (Fig. 2).

Evaluation of Associations Between Job Satisfaction and Dominant Organisational Culture in Nursing and Supportive Treatment Units. Associations between job satisfaction and dominant organisational culture in nursing and supportive treatment units were assessed according to the strength of the relationship between variables. Spearman correlation coefficients between separate job satisfaction items

Table 2. Social Demographic Characteristics of Respondents

| Attribute	Group	Number of Respondents	Percentage
Sex	Male	0	0
	Female	172	100
Age group	Group 1 (<26 years)	5	2.9
	Group 2 (26–45 years)	65	37.8
	Group 3 (46–65 years)	99	57.6
	Group 4 (>65 years)	3	1.7
Family status	Married	125	72.7
	Single	10	5.8
	Divorced	26	15.1
	Widow	11	6.4
Education	Higher university	10	5.8
	Higher non-university	73	42.4
	College	89	51.7
Workload	<1 full-time position	21	12.2
	1 full-time position	98	57.0
	>1 full-time position	53	30.8
Work shift	Afternoon	29	16.9
	24 hours	40	23.3
	Night	92	53.5
	Day	121	70.3
Position occupied	General practice nurse	169	98.3
	Senior nursing administrator	3	1.7
Total number of respondents		172	
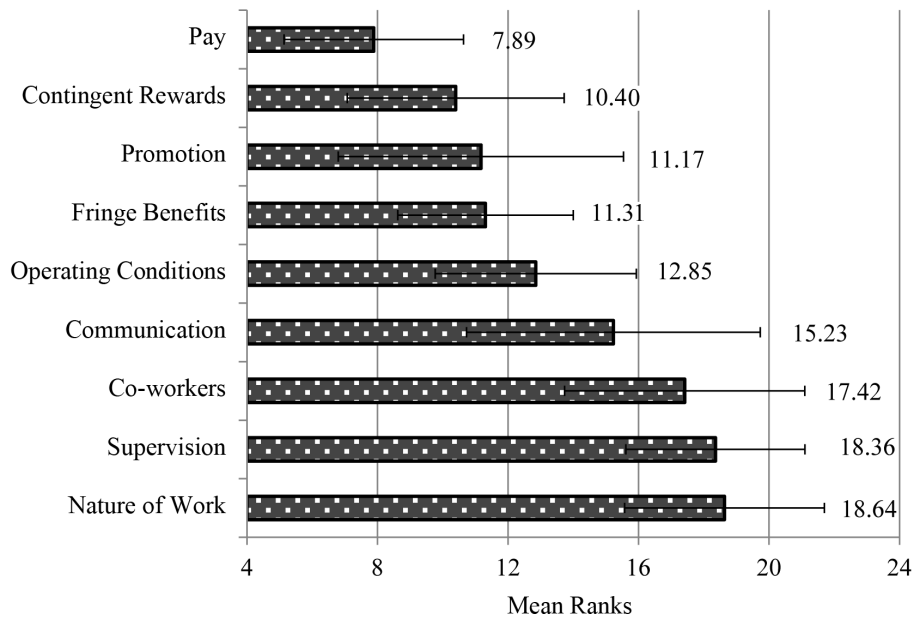
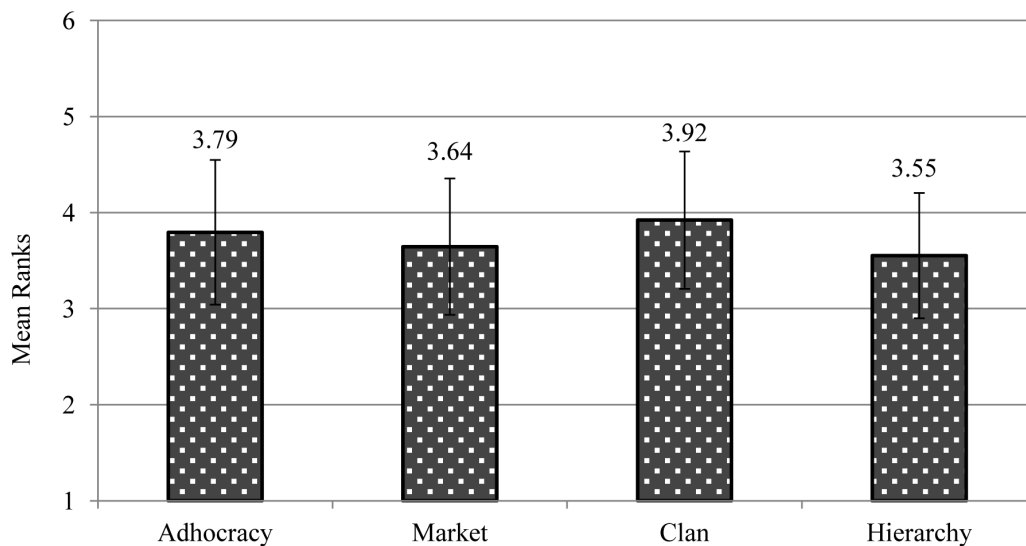*Fig. 1.* Evaluation of nurses' job satisfaction

Fig. 2. Distribution of organisational culture types in nursing and supportive treatment units

and types of organisational culture were estimated (Table 3).

In the nursing and supportive treatment units with adhocracy as the dominant organisational culture type and greater nurses' satisfaction with supervision, a statistically significant positive correlation of moderate strength was determined (r=0.334, *P*=0.001). Statistically significant but weak correlations were determined between adhocracy and satisfaction with pay (r=0.259, *P*=0.001), nature of work (r=0.203, *P*=0.008), communication (r=0.266, *P*=0.001), possibility of fringe benefits (r=0.259, *P*=0.001) and relations with co-workers (r=0.194, *P*=0.011).

In nursing and supportive treatment units with the dominant market organisational culture, all the items of satisfaction increased statistically significantly, except for satisfaction with operating conditions. In all the cases, a positive statistically significant but weak association was determined between the variables, except for the association between satisfaction with pay and market type of organisational culture, which showed a moderate positive statistically significant correlation (r=0.386, *P*=0.001).

The highest number of positive statistically significant correlations of moderate strength were de-

Table 3. Associations Between Job Satisfaction and Organisational Culture Type

Job Satisfaction Item	Value	Adhocracy	Market	Clan	Hierarchy
Pay	r	0.259	0.386	0.294	0.300
	P	0.001	0.001	0.001	0.001
Promotion	r	0.142	0.216	0.205	0.259
	P	0.064	0.005	0.007	0.001
Supervision	r	0.334	0.290	0.380	0.204
	P	0.001	0.001	0.001	0.007
Fringe benefits	r	0.035	0.236	0.053	0.107
	P	0.646	0.002	0.490	0.164
Contingent rewards	r	0.259	0.227	0.358	0.078
	P	0.001	0.003	0.001	0.311
Operating conditions	r	0.030	−0.071	−0.012	0.042
	P	0.693	0.355	0.878	0.585
Co-workers	r	0.194	0.178	0.526	0.198
	P	0.011	0.020	0.001	0.009
Nature of work	r	0.203	0.218	0.205	0.147
	P	0.008	0.004	0.007	0.055
Communication	r	0.266	0.266	0.290	0.230
	P	0.001	0.001	0.001	0.002

termined between clan organisational culture and job satisfaction items. In the case of dominant clan organisational structure, the nurses were mostly satisfied with relations with co-workers (r=0.526, P=0.001). However, there were no statistically significant correlations determined between this type of organisational culture and possibility of contingent rewards as well as satisfaction with operating conditions (P>0.05).

The smallest number of statistically significant correlations were determined between job satisfaction items and hierarchy as the dominant organisational culture type in nursing and supportive treatment units. However, the more hierarchy prevails, the more nurses are satisfied with their pay (r=0.300, P=0.001), greater possibility of promotion (r=0.259, P=0.001), better communication (r=0.230, P=0.002), relationship with supervisors (r=0.204, P=0.007) and co-workers (r=0.198, P=0.009).

Discussion

Nurses comprise the biggest part of staff in health care institutions. Therefore, the quality of provided services and satisfaction of patients with the services received largely depend on nurses' work and efforts. It is especially important to make research into job satisfaction of staff, as high quality services and good results of an organisation can only be achieved if staff is satisfied (13).

A number of studies assessing nurses' job satisfaction and related factors have been performed by foreign researchers. An overview of nurses' job sa-

tisfaction conducted in 2012 revealed that as much as 78% of nurses who participated in the study were satisfied generally and 91% were satisfied with their career in nursing (15). In a Norwegian study of 2,095 nurses, researchers determined that nurses were also satisfied with their job (198.5 of 308 possible points) (14). The results of our study are in line with those obtained by foreign researchers. Nurses in nursing and supportive treatment units were generally satisfied with their job (148.78±15.4 of 308 possible points).

In our study, we assessed 9 separate job satisfaction items and determined that nurses' job satisfaction was enhanced by the nature of work (18.64±3.1), supervision style (18.36±2.7) and relations with co-workers (17.42±3.7). Meanwhile, job satisfaction was diminished by poor communication (15.23±4.5), inadequate pay (7.89±2.8), limited promotion possibilities (11.17±4.4) and absence of fringe benefits (11.31±2.7). Similar results were also obtained by researchers in the United States (US), who assessed nurses' job satisfaction. Nurses who participated in the US study and our respondents were satisfied with the nature of their work (P<0.05), co-workers (P<0.05) and supervisors (P>0.05). Nurses in the United States and Lithuania had discrepant views towards communication at work (P<0.05); American nurses expressed controversial assessment of contingent rewards and fringe benefits, meanwhile Lithuanian nurses did not expect such things at all (P<0.001). Nurses in both countries were dissatisfied with their pay, especially nurses in Lithuania (P<0.001) (16).

Assessment of organisational culture in health care institutions is an important factor enabling enhancement of job satisfaction of staff and quality of services provided. Health care institutions where organisational culture encouraging stability and control and clearly defining aims is implemented have better possibilities to realise innovations, maintain the patient-oriented care model, and reduce patient concerns about their illness and job dissatisfaction of staff. It is, thus, important for authorities of health care institutions to know the organisational culture of their institutions before any new health care reform is being implemented (17).

In our study, we determined the dominant type of organisational culture in nursing and supportive treatment units according to the views expressed by nurses. The obtained results demonstrated that the clan type (3.92±0.7) of organisational culture was prevalent in nursing and supportive treatment units, followed by adhocracy organisational culture (3.79±0.8). The nurses thought that hierarchy was the rarest type of organisational culture (3.55±0.7), and market organisational culture (3.64±0.7) was relatively rare. Slovenian researchers have conducted a study in 14 health care institutions and found that adhocracy and market organisational culture types were dominant in the selected health care institutions (18). However, in a longitudinal study conducted in England, the results showed clan as the prevalent type of organisational culture (19).

In our research of associations between job satisfaction and dominant organisational culture in nursing and supportive treatment units, we found the highest number of positive statistically significant moderate correlations between clan organisational culture and job satisfaction items. In the case where market organisational culture was prevalent, job satisfaction increased in terms of all items, except for satisfaction with operating conditions. Similar results have been reported by Lund who found that clan and adhocracy culture types positively and market and hierarchy culture types negatively correlated with job satisfaction (20). A study performed by Brazil about the influence of organisational culture on job satisfaction of staff revealed that hierarchy culture type negatively correlated with job satisfaction and efficiency of the clinic (21).

Conclusions

The majority of the nurses were satisfied with their job, especially with the nature of work and supervision style. The study did not reveal one predominant organisational culture type; however, statistically significantly more often the respondents claimed that clan culture was prevalent in comparison with hierarchy type culture. A correlation between clan organisational culture and satisfaction with relations with co-workers was determined.

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Statement of Conflict of Interest
The authors state no conflict of interest.

Slaugytojų pasitenkinimo darbu ir organizacinės kultūros sąsajų vertinimas slaugos ir palaikomojo gydymo skyriuose

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Raktažodžiai: slaugytojai, pasitenkinimas darbu, organizacinė kultūra, slaugos ir palaikomojo gydymo skyrius.

Santrauka. *Tikslas* – įvertinti slaugytojų pasitenkinimo darbu ir organizacinės kultūros sąsajas slaugos ir palaikomojo gydymo skyriuose.
Tyrimo metodika. Taikomi aprašomasis, skerspjūvio ir koreliacijos metodai.
Rezultatai. Remiantis tyrimo duomenimis, bendrasis pasitenkinimas slaugytojo darbu buvo 148,78 ± 15,4 balo. Vadinasi, galima teigti, kad dauguma slaugytojų yra patenkinti darbu. Nustatyta, kad pasitenkinimą darbu slaugytojams sukelia jų darbo pobūdis (18,64 ± 3,1 balo), vadovavimo stilius (18,36 ± 2,7 balo) ir santykiai su bendradarbiais (17,42 ± 3,7 balo). Mažiausią pasitenkinimą darbu slaugytojams sukelia jų atlyginimas – 7,89 ± 2,8 balo. Respondentų nuomone, slaugos ir palaikomojo gydymo skyriuose vyrauja klano organizacinė kultūra (3,92 ± 07 balo), kiek rečiau – adhokratijos (3,79 ± 0,8 balo), rečiausiai – hierarchijos (3,55 ± 0,7 balo) bei rinkos organizacinė kultūra (3,64 ± 0,7 balo). Nustatytos sąsajos tarp klano organizacinės kultūros ir pasitenkinimo darbu aspektų. Vyraujant rinkos organizacinei kultūrai statistiškai reikšmingai didėja visi pasitenkinimo darbu aspektai, išskyrus pasitenkinimą darbo sąlygomis.

Išvados. Didžioji dalis slaugytojų buvo patenkinti darbu ir juos labiausiai tenkino darbo pobūdis bei vadovavimo stilius. Nenustatyta vieno vyraujančio organizacinės kultūros tipo, tačiau statistiškai reikšmingai dažniau respondentai teigė, kad vyrauja labiau klano organizacinė kultūra nei hierarchijos. Nustatytas koreliacinis ryšys tarp klano organizacinės kultūros ir santykiais su bendradarbiais pasitenkinimo.

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