

Nurses' Work Environment Characteristics and Job Satisfaction: Evidence from Georgia

Hemşirelerin Çalışma Ortamının Özellikleri ve İş Tatmini: Gürcistan'dan Bulgular

Tengiz Verulava¹, Revaz Jorbenadze², Beka Dangadz¹, Leila Karimi⁴

¹ School of Business, Public Health and Insurance Center, Iliia State University, Tbilisi, Georgia

² G. Chapidze Emergency Cardiology Center, Tbilisi, Georgia

³ La Trobe University, School of Psychology and Public Health, Australia

ABSTRACT

Introduction: The health care system and health care service delivery is essentially dependent on the number of medical staff working in the network, their level of education, work environment and job satisfaction. There is a shortage of nurses' in Georgia, which has an adverse effect on the health care system and patient care outcomes. The aim of this study is to measure the work environment characteristics, job satisfaction and to evaluate the association between these variables.

Methods: The quantitative research method was used. The Work Environment Scale and a Job Satisfaction Questionnaire were administered. Descriptive statistics were used to describe the sample and results of the questionnaires.

Results: The majority of nurse's reported lower levels of job satisfaction, work environment characteristics.

Discussion: The nurse shortage is caused by a variety of reasons, including the inability of the health care system to keep nurses in a workplace. Due to the economic situation, nurses' annual salary is very low. The hospitals are trying to reduce the number of nurses or not to hire additional nurses due to economic reasons. Nurses have less will to work with the existing working conditions. Policy makers should address many issues: improving recruitment, retention and return in order to keep or increase already few number of nurses. The development of programs to improve the nurse practice environment, especially staffing and resources, could improve nurse retention and thereby slow down the nursing shortage.

Key Words: Nurses, nursing work environment, job satisfaction, workforce issues, Georgia.

Received: 04.12.2017

Accepted: 09.07.2017

ÖZET

Amaç: Sağlık sistemi ve sağlık hizmeti sunumu esas olarak, sistemde çalışan tıbbi personelin sayısı, eğitim seviyeleri, çalışma ortamı ve iş doyumuna bağlıdır. Gürcistan'da sağlık sistemi ve hasta bakım sonuçları üzerinde olumsuz etkisi olan bir hemşire sayısında eksiklik var. Çalışmanın amacı, çalışma ortamı özelliklerini, iş doyum oranlarını ölçmek ve bu değişkenler arasındaki ilişkiyi değerlendirmektir.

Yöntem: Niceliksel araştırma yöntemi kullanıldı. Çalışma Ortam Ölçeği ve İş Tatmini Anketi uygulanmıştır. Örneklem ve anket sonuçlarını tanımlamak için tanımlayıcı istatistik kullanılmıştır.

Bulgular: Hemşirelerin çoğunluğu iş doyum düzeyinin ve çalışma ortamının özelliklerinin daha düşük olduğunu bildirmiştir.

Sonuç: Hemşire sıkıntısı, sağlık sisteminin hemşireleri bir işyerinde tutamaması da dahil olmak üzere çeşitli nedenlerden kaynaklanmaktadır. Ekonomik durum nedeniyle hemşirelerin yıllık maaşı çok düşüktür. Hastaneler ekonomik nedenlerle ya hemşirelerin sayısını azaltmaya ya da ek hemşire kiralamamaya çalışıyor. Hemşireler mevcut çalışma koşullarıyla çalışmak için daha az istek sahibidir. Sağlık politikası üzerinde çalışanlar, birçok konuyu ele almalıdır; hemşirelerin işe alımı, idamesi ve işer geri dönüşlerinin sağlanarak zaten daha az sayıda olan hemşire sayısını artırmayı düşünmelidir. Hemşire çalışma ortamını, özellikle personel ve kaynakları iyileştirmeye yönelik programların geliştirilmesi, hemşire sadakatini artırabilir ve böylece hemşire sayısındaki sıkıntı yavaşlatabilir.

Anahtar Sözcükler: Hemşireler, hemşirelik çalışma ortamı, iş doyumunu, işgücü sorunları, Gürcistan

Geliş Tarihi: 12.04.2017

Kabul Tarihi: 07.09.2017

INTRODUCTION

According to the World Health Organization, "The main goal of public health staff policy is to prepare appropriately qualified personal" (1). After the downfall of the Soviet system, independent Georgia inherited the excess medical infrastructure, large pool of beds and medical staff (2, 3). Georgia has one of the highest numbers of doctors per person in Europe. According to 2012 statistics, there are 4.8 doctors on 1000 capita (5). However, the number of nurses is very low and decreases every year (5). As a result, there is a serious shortage of nurses in Georgia. According to statistics, nowadays 13,000 nurses are employed in Georgia. According to the experts, in order to increase the quality of healthcare, it is necessary to increase this figure up to 30,000 and to achieve the European level the country has to prepare 1,400 nurses per year (6).

One of the most important indicators of quality of medical services is the nurses/doctors ratio. The recommended ratio by World Health Organization is 3/1; In Georgia, this ratio is 1/0.9 and stands in last place in Europe (5). This problem is a serious threat for the proper functioning of the healthcare system, for its cost-effectiveness and sustainability (5). Another major problem is an unequal geographical distribution of nurses in the country.

Reduction of the number of nurses in the country is significantly affected by the low salaries. The government does not regulate the salaries of nurses and it mostly depends on the goodwill of the medical facilities. Generally, nurses' monthly salary is less than 250 GEL (\$100). It should be noted that, in recent years the salary in rural regions was increased from 350 GEL to 455 GEL (\$180). According to the experts, a low salary for nurses in Georgia is caused by their low qualification, which in turn is caused by the fact, that there are no nursery training courses in country (6). According to the official statistics in Georgia, only 100 nurses graduate from the university annually, while the average number provided by the European standards should be 1400 graduate a year (4). Another serious problem is the aging process. The average age of highly qualified doctors and nurses who gained there education and vast experience during Soviet period is already above 50, and the deficit is expected to hit Georgian healthcare system in the coming years (5). During 2007-2011, the donor organizations sponsored the training program, which produced 1934 trained nurses for primary healthcare; but it was only 80% of what was needed (4).

Nurses are the main professional components of the 'front line' staff in most health systems, and their contribution is recognized as essential to meeting development goals and delivering safe and effective care (7). The shortage of nurses is an international problem, especially in countries with a low and average income. This has a negative effect on the healthcare system and on patient care outcomes (7-10). A range of studies have demonstrated links between a nurse staffing levels and a range of negative health outcomes (11). These include an increased mortality rates (12); adverse events after surgery (13); and increased cross infection rates (14). The OECD has noted, that 'Nursing shortages are an important policy concern, because numerous studies have found an correlation between a higher nurse staffing ratios and reduced patient mortality, lower rates of medical complications and other desired outcomes.' (15).

The shortage of nurses has a variety of reasons. The studies focusing on nursing shortages in developed countries have highlighted the main causes of these shortages as: an inadequate workforce planning and allocation mechanisms, resource-constrained undersupply of a new staff, poor recruitment, retention, and ineffective use of available nursing resources through inappropriate skill utilisation, poor incentive mechanisms and inadequate career support (16).

Other factors contributing to nursing shortages, which require policy attention, include: the healthcare system's inability to keep nurses in a workplace (17). The current working conditions are very unattractive for nurses, and therefore majority of them are not willing to work under those conditions (18). The working environment is an important factor in terms of their on-site restriction and job satisfaction (19). When there is already a deficit of nurses (20), then such issues become very important, because those, who work in medical facilities with negative environmental conditions, are not satisfied with their jobs and the probability of leaving work increases. The environment of working area is defined as the organizational characteristics of working environment that facilitate or impede the professional nursing practice (21).

Nurse retention is also a problem in many counties (22). Their intention to leave job ranges between 13.5-67.5% in the world (23). For example, in USA, 8.5-14% of nursing jobs are vacant. At the same time, this rate is higher for emergency (resuscitation) medical service departments (24). According to the studies, there is a significant negative correlation between the work environment and nurses' intention to leave (25).

According to the studies, nurse's job satisfaction is correlated with good working conditions and good organizational environment (26). Job satisfaction significantly affects the retention of nurses in the workplace (27). According to the studies, nurses who had higher workload, also were less satisfied by their jobs (28). According to several studies, there is a correlation between nursing work environment and nurse's job satisfaction.

The aim of our study is to find out and discuss the correlation between nurses' work environment, nurses' retention and their satisfaction with working place in Georgia. In this way, it will be possible to identify the problems that require solution.

METHODS

The methodological basis of this research is the available literature about nursing activities. The method of quantitative research was used. Three large hospitals of Tbilisi were selected for research. All of the registered nurses who worked on these hospitals were asked to participate.

The following Demographic and professional characteristics were measured: age, sex, marital status, current nursing role (head nurse, unit's head nurse, nurse), employment status (full time, part time).

The Practice Environment Scale (PES) was developed to measure the nurse practice environment (21). Responses were in the range from 1 (strongly disagree) to 4 (strongly agree). The questionnaire was based on the Nursing Work Index (NWI) and the Nursing Work Index was revised to measure the hospital characteristics (29, 30). After completing a factor analysis of the NWI data, the PES was developed, which comprised of 5 characteristics: nurse participation in hospital affairs; nursing foundations for quality of care; nurse managerial skills, leadership, and support of nurses; staffing and resource adequacy; and collegial nurse-physician relations.

Nurse retention was measured by the following question, "I have Intentions to leave the current workplace", measured on a scale from 1 (strongly disagree) to 4 (strongly agree) (31, 32).

Job satisfaction was measured was measured using a single question that measures overall job satisfaction, "How happy you are with your working place?" measured on a range from 0 to 5.

The questionnaires were left in hospital's staff mailboxes. Questionnaires were returned in sealed envelopes to a central location on the unit. The data were anonymous. Descriptive statistics were used to describe the sample and the results of the questionnaires.

RESULTS

The majority of the respondents were women (n=100, 100%). Most respondents (38%) were 40-49 years old. Majority of the total respondents were married women (45%), single women were third of the total number (32%), the majority of nurses were full time workers (68%) (Table 1).

Table 1. Demographic and professional characteristics (N=100)

		Quantity	%
Gender	Female	100	100
	Male	0	0
Age	19-29	18	18
	30-39	27	27
	40-49	38	38
	50-59	17	17
	60 +	0	0
Marital status	Single	32	32
	Married	45	45
	Divorced	8	8
	Widowed	9	9
Nursing role	Missing	6	6
	Head nurse	3	3
	Unit's head nurse	7	7
Employment status	Nurse	90	90
	Full time	68	68
	Part time	32	32

According to table 2, the majority of nurses (56%) believe that they do not have the opportunity to fully develop their nursing careers and reach the clinical perfection and most of them (63%) think that they do not have the opportunity to take part in the hospital's policy decisions. There are almost equal number of respondents who believe (49%) or do not believe (51%), that chief nurse is a very important and visible staff member. 60% of respondents do not believe that the nurse has the same powers as other high-level executive staff of the hospital. 70% of respondents do not believe that there are some opportunities for nurses to advance at the hospital. 55% of respondents believe that the administration always listens and responds to employees' problems and concerns. 69% of respondents believe that nurses are not involved in the internal governance of the hospital (for example –

participation in committees working, policy making). 66% of respondents believe that the nurses do not have the opportunity to work in a hospital's committees.

According to table 3, the most respondents (64%) believe that the hospital is trying to develop educational programs for nurses. Most respondents (77%) believe that the administration expects high standards from the nursing activities. Most respondents (70%) believe that in the hospital, it is not recognized the concept of nursing and patient care environment is not imbued by this concept. Most respondents (60%) believe that they are working between on skillful and competent nurses. Most respondents (66%) believe that there are a quite applicable quality assurance programs in hospital. Most respondents (55%) believe that there are special programs for newly hired workers.

Table 2. Nurse Participation in hospital affairs (%)

	Highly agree	agree	Do not agree	Highly disagree
Nurses have the opportunity of developing a nursing career and reaching the clinical perfection	12	32	34	22
Nurses have the opportunity to take part in the hospital's policy decisions	16	21	43	20
Chief nurse is a very important and visible staff member	22	28	23	28
Chief nurse has the same powers as other high-level executive staff member of the hospital.	13	27	42	18
There are opportunities for advancement	12	18	56	14
The administration always listens and responds to employees' problems and concerns.	19	26	36	19
Nurses are involved in the internal governance of the hospital (for example, practice, participation in committees working, policy making).	11	20	51	18
Nurses do have the opportunity to work in a hospital's committees	18	16	49	17
The administrators (heads) of nursing make consultations with nurses about everyday problems.	42	34	15	9

Table 3. Nurses contribution in respect of to the quality of medical services (%)

	Highly agree	Agree	Do not agree	Highly disagree
The hospital is trying to develop educational programs for nurses	12	52	24	12
The administration expects high standards from us	36	41	13	10
The hospital recognizes the value of nursery and its role in patient care	12	18	53	17
I am working among skillful and clinically competent nurses	33	27	22	18
There is a good quality care program in hospital	22	40	26	12
There is a special program for newly hired workers	29	26	26	19
There are a daily nursing plans for patients	28	46	19	7
There are favorable conditions for continuous patient care	44	35	13	8

According to table 4, 34% of respondents think that the hospital managers are always trying to be supportive towards them. Most respondents (71%) believe that the head nurse is also a good manager and a good leader.

Most respondents (56%) believe that a good performance is always followed by praise and recognition. Most respondents (72%) believe that the head nurse supports nursing staff's decisions, even if it will lead to a conflict with doctors.

Table 4. Nurse Manager Ability, leadership, and support of nurses (%)

	Highly agree	Agree	Do not agree	Highly disagree
Hospital managers always try to be supportive	12	42	24	22
Nurses gain experience and are not punished for minor mistakes	16	21	43	20
The head nurse is a good manager and a good leader	35	36	13	16
Good performance is always followed by praise and recognition	19	37	36	8
The head nurse supports nursing staff in decision-making, even if it leads to a conflict with doctors	32	40	16	12

According to table 5, the most respondents (63%) believe that they have the favorable conditions to spend appropriate time with their patients. Most respondents (54%) believe that there is enough time and opportunity to discuss patients care problems with other nurses.

Most respondents (66%) do not believe that there are enough nurses to conduct high-quality medical services. Most respondents (73%) do not believe that there are enough personnel for work.

Table 5. Staffing and Resource Adequacy (%)

	Highly agree	Agree	Do not agree	Highly disagree
There is enough time to spend with patients	22	21	43	12
There is enough time and opportunity to discuss patients care problems with other nurses.	29	25	30	16
There are enough nurses for qualitative patient care	15	19	46	20
There are enough personnel	12	15	48	25
The average rate	20	20	42	18

According to table 6, The most respondents (73%) believe that doctors and nurses have good working relationships with each other. 56% of respondents believe that the nurses and doctors are working as a team.

Also, the majority of respondents (56%) believe that the doctors and nurses have the good cooperation between each other (Collaborative practice).

Table 6. Collegial relationships between nurses and doctors (%)

	Highly agree	Agree	Do not agree	Highly disagree
Doctors and nurses have a good working relationship with each other.	33	40	14	13
Nurses and doctors are working as a team	27	29	32	12
Doctors and nurses in hospital have cooperation between each other (Collaborative practice).	25	31	30	14

According to table 2, 38% of respondents have intentions to leave current workplace in the medical facility.

Table 7. Nurses job retention (%)

	Highly agree	Agree	Do not agree	Highly disagree
I have Intentions to leave the current workplace	12	26	38	24

According to table 8, the majority of nurses' job satisfaction level is low (table 8). On the question, "To what extent are you happy with your place of employment?" most of the respondents measured 3 points (40%).

Table 8. Nurses job satisfaction (%)

	1	2	3	4	5
To what extent are you happy with your place of employment?	6	16	40	28	10

DISCUSSION

As the study shows, nurse job satisfaction is low. The most significant and lowest rated characteristic of the nursing practice environment was 'appropriate staffing and resources'. However, these results were not unexpected, according to the fact that in emergency departments of hospitals, the bed occupancy rate is relatively high. The problem becomes further compounded if we consider the significant decrease in the amount of nurses. The level of intention to leave the job turned out to be significant (38%). For comparison, on the international level, the level of intention to leave the job by nurses range from 13.5-67.5% (23, 33).

Due to the economic situation, nurses' level of compensation is low. The hospitals are trying to reduce the number of nurses or not to hire new nurses due to the economic reasons. The nurses deficit increases the workload. Today, the number of patients per nurse in Georgia exceeds all standard and recommended norms. Due to a small salaries, nurses are forced to work in several places. Currently there is no state standard for how many patients should a nurse serve.

Accordingly, because of low salaries and hard work, the nursing profession is not attractive and prestigious. The number of nurses decreases annually. This is partly due to the fact that a nurse working conditions (and patient-nurse ratio, salary) in Georgia is only determined on medical facility's level and Ministry of Health and the Nurses Association does not participate in this process. There are significant differences between hospitals in salaries. Therefore, to improve working conditions it is most likely that nurses will change their place of work.

Policy makers should address supply side issues: improving recruitment, retention and return- getting, keeping with these relatively scarce nurses. Factors related to work environment can be crucial, and there is some evidence that decentralized style of management, flexible employment opportunities, participation in decision making, access to continuing professional development, Proper compensation can improve the retention of nursing staff.

CONCLUSION

Given the fact that the nursing shortage is a health system problem, which undermines health system effectiveness, policy makers should acknowledge and try to improve those practice environment characteristics that were shown to be related to nurse job satisfaction and intent to leave. Special attention should be paid to staffing and resource allocation in larger hospitals. The development of programs to improve the nurse practice environment, especially staffing and resources, could improve nurse retention and thereby slow down the nursing shortage. The state should facilitate professional growth of nurses. Without training on modern standards of nurses, it is impossible to further develop the health system. It is necessary to raise the motivation of nurses, their activity and their interest in training courses.

Conflict of interest

No conflict of interest was declared by the authors.

REFERENCES

1. World Health Organization. The world health report: working together for health, Geneva, 2006.
2. Verulava, T., Kalandadze, T. 2001. Health Care System in Georgia. Metsniereba. Tbilisi.
3. Verulava, T., Maglakelidze, T. Health Financing Policy in the South Caucasus: Georgia, Armenia, Azerbaijan. Bulletin of the Georgian National Academy of Sciences, 2017;11: 143-50.
4. Ministry of Labour, Health and Social Affairs. Georgia Health System Performance Assessment. Tbilisi. 2013; 12-20
5. Gzirishvili D. Independent Georgia - Social and Health Protection Systems. Analytical Review. Open Society Georgia Foundation. Tbilisi. 2012; 21-43.
6. Verulava T, Jorbenadze R, Barkalaia T. Introduction of universal health program in Georgia: Problems and Perspectives. Georgian Med News, 2017; 262: 116-20.
7. Buchan J, Aiken L: Solving nursing shortages: a common priority. J Clin Nurs 2008, 17:3262-8.
8. Verulava, T., Jincharadze, N., Jorbenadze, R. (2017). Role of Primary Health Care in Re-hospitalization of Patients with Heart Failure. Georgian Medical News, 264: 135-9.
9. Verulava, T., Gabuldani, M. (2015). Accessibility of Urgent Neurosurgery Diseases by the State Universal Healthcare Program in Georgia (country). Gazi Medical Journal, Vol 26: 42-5.
10. Verulava, T., Sibashvili, N. (2015). Accessibility to Psychiatric Services in Georgia. Journal of Psychiatry: Open Access, 18: 1-5.
11. Kane RL, Shamiyan TA, Mueller C, Duval S, Wilt TJ. The association of registered nurse staffing levels and patient outcomes: systematic review and meta analysis. Medical Care 2007;45:1195-204.
12. Aiken LH, Clarke SP, Sloane DM, Lake ET, Silber JH, Sochalski J. Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. Journal of American Medical Association 2002a; 288:1987-93.
13. Kovner C, Gergen J. Nurse staffing levels and adverse events following surgery in US hospitals. Image: Journal of Nursing Scholarship 1998;30:315-21.
14. Stanton, M. Hospital Nurse Staffing and Quality of Care. AHRQ, MD, USA: Agency for Health Research and Quality. Research into Action, Issue 14; 2004.
15. Organisation for Economic Co-operation and Development (OECD) Towards High Performing Health Systems. Paris: OECD; 2004. p. 59.

16. Canadian Institute of Health Information (CIHI) Bringing the Future in Focus: Projecting RN Retirement in Canada. Canada: Canadian Institute of Health Information; 2003.
17. Coomber B, Bariball KL. Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: a review of the research literature. *Int J Nurs Stud* 2007, 44:297–314
18. Buchan J, Aiken L. Solving nursing shortages: a common priority. *J Clin Nurs*, 2008; 17:3262–8.
19. Kramer M. The magnet hospitals: excellence revised. *J Nurs Admin*, 1990, 20:35–44.
20. McClure ML. Magnet hospitals insights and issues. *Nurs Admin Q*, 2005, 29:198–201.
21. Lake ET: Development of the practice environment scale of the nursing work index. *Res Nurs Health*, 2002, 25:176-88
22. Twigg D, McCullough K. Nurse retention: a review of strategies to create and enhance positive practice environments in clinical settings. *Int J Nurs Stud*, 2014; 51:85–92.
23. El-Jardali F, Alameddine M, Dumit N, Dimassi H, Jamal D, Maalouf S: Nurses' work environment and intent to leave in Lebanese hospitals: implications for policy and practice. *Int J Nurs Stud*; 2011, 48:204-14.
24. Levatak L, Buck R. Factors influencing work productivity and intent to stay in nursing. *Nurs Econ* 2008, 26:159-65.
25. Warshawsky NE, Havens DS: Global use of the practice environment scale of the nursing work index. *Nurs Res* 2011, 60:17–31.
26. Lu H, Barriball KL, Zhang X, While AE. Job satisfaction among hospital nurses revisited: a systematic review. *Int J Nurs Stud* 2012, 49.
27. Currie EJ, Carr Hill RA: What are the reasons for high turnover in nursing? A discussion of presumed causal factors and remedies. *Int J Nurs Stud*; 2012, 49.
28. Nirel N, Yair Y, Smuel H, Riba S, Reicher S, Toren O. Registered nurses in Israel. Work force-patterns and goals. Jerusalem, Israel: Meyers-Joint Brookdale Institute of Health Policy Research; 2010:47.
29. Aiken LH, Patrician PA: Measuring organizational traits of hospitals: the revised nursing work index. *Nurs Res* 2000, 49:146–53.
30. Joyce J, Crookes P: Developing a tool to measure 'magnetism' in Australian nursing environments. *Aust J Adv Nurs* 2007, 25:17–23.
31. Zurmehly F, Martin PA, Fitzpatrick JJ: Registered nurse empowerment and intent to leave current position and/or the profession. *J Nurs Mgmt* 2009, 17:383–91.
32. Fitzpatrick JJ, Campo TM, Lavandero R: Critical care staff nurses empowerment, certification and intent to leave. *Crit Care Nurs* 2011, 31:e12–e217.
33. Ujarine AS, Zrinyi M, Toth H, Zekanyne IR, Szogedi I, Betlehem J. Intent to stay in nursing: internal and external migration in Hungary. *J Clin Nurs*, 2011, 20:882–91.