

Original Article

Job Satisfaction in Primary Health Care in Athens, Greece: A Pilot Study

Ioannis Moisoglou, RN, MSc, PhD

Quality Assurance and Continuing Education Unit, General Hospital of Lamia, Greece

Evangelia Meimeti, RN, PhD

Postdoctoral Researcher Department of Pharmaceutical Technology- National and Kapodistrian University of Athens, Greece

Training Coordinator for the Nursing Specialty "Public Health / Community Nursing" in Central and Western Macedonia, 3rd Regional Health Authority of Macedonia, Thessaloniki, Greece

Eleni Arvanitidou RN, MSc

General Hospital «G. Papanikolaou», Thessaloniki, Greece

Petros Galanis, RN, MPH, PhD

Assistant Professor, Faculty of Nursing, National and Kapodistrian University of Athens, Athens, Greece

Giannoula Ntavoni, RN, MSc, PhD(c)

Deputy Chief Executive Officer, 1st Regional Health Authority of Attica, Greece

Dimitrios Zavras, PhD

Department of Public Health Policy, School of Public Health, University of West Attica, Greece

Correspondence: Evangelia Meimeti, RN, MSc, PhD Training Coordinator for the Nursing Specialty "Public Health / Community Nursing" in Central and Western Macedonia, 3rd Regional Health Authority of Macedonia, Mavili 11-Thessaloniki, Greece E-mail address: e.meimeti@gmail.com

Abstract

Background: A cross-sectional study was conducted in four Primary Health Care Centers of the 1st Regional Health Authority of Greece from January 2nd, 2020 to February 29th, 2020. A convenience sample of 200 healthcare workers was invited to participate.

Objective or Aims: The purpose of the current study was to assess the levels of job satisfaction of primary healthcare professionals. The individual goal is to reveal the demographic and job characteristics that can possibly affect job satisfaction.

Methodology: A cross-sectional study using a structured questionnaire was conducted. The sample of the study consisted of healthcare professionals working in primary health care centers.

Results: A total of 169 completed questionnaires was gathered (response rate 84.5%). The overall satisfaction score was 131, which implies medium level of satisfaction. Satisfaction level was high regarding the nature of the job, the supervision, the coworkers, and the communication. Regarding pay, promotions and fringe benefits, satisfaction level was low. According to the multivariate linear regression analysis, physicians compared to nurses and midwives reported higher overall satisfaction from their job (Coefficient beta = 7.4, 95%CI: 0.8-14.1, p = 0.03), from their colleagues (Coefficient beta = 1.9, 95%CI: 0.3-3.6, p = 0.02) and the operating procedures (Coefficient beta = 1.2, 95%CI: 0.1-1.2, p = 0.02).

Conclusion: Human resources are an important asset in a healthcare system and through a series of procedures, can affect the quality of the services provided. Dissatisfaction can result in healthcare professionals leaving their jobs or it can affect their performance.

Keywords: Center, healthcare, job, primary care, professional, satisfaction.

Introduction

The managements of modern primary and secondary healthcare providers are focusing their interest on the quality of the provided services. There has been a significantly high number of errors and problems that demand improvement and undermine the quality of the services provided (Makary & Daniel, 2016; Gaal, Verstappen & Wensing, 2011). Measuring the levels of satisfaction of healthcare professionals is important to healthcare managements' efforts to improve their services. Various studies have underlined the multidimensional role of job satisfaction, which affects healthcare professionals, the quality of the services they provide and patients' satisfaction regarding the services they have received.

More specifically, the levels of job satisfaction of nurses is inversely proportional to their desire to quit their jobs (Rouleau et al, 2012; Hairr et al, 2014). When personnel quits, it is necessary to be replaced, which may have as a result an adverse financial impact on the healthcare provider (Duffield, 2014). Also, the levels of workers' job satisfaction are related to burnout syndrome; healthcare professionals who declare low level of job satisfaction present higher level of burnout (Wang, 2020). Along with the burnout, healthcare professionals who are not satisfied with their job can present anxiety and depression (Yilmaz & Burnout, 2018).

Healthcare professionals' dissatisfaction undermines the quality of the services they provide and the patients' satisfaction from healthcare services. A large number of primary healthcare professionals participated in an extended study which evaluated their job satisfaction and the possible correlation with a series of process and intermediate outcomes. According to this study's findings, the aggregate team member satisfaction was positively correlated with both intermediate and process outcome quality scores (Mohr et al, 2011). The levels of nurses' job satisfaction is positively related to patients' satisfaction, which is correlated with the total score of the quality of nursing care, which the patients assess (Mrayyan, 2006).

Primary Healthcare Centers in Greece, where scheduled and emergency incidents are treated and laboratory examinations are performed, are the most important structures of primary healthcare. A percentage of the healthcare

centers provide services 24 hours a day, throughout the whole year. More specifically, in the four healthcare centers of the 1st Regional Health Authority, where the current study was conducted, a total of 450,000 scheduled and emergency incidents were treated in the year 2019, which consist 15% of the total patients that were treated in all the centers of the 1st Regional Health Authority in that particular year. Also, two out of these four healthcare centers provide services 24/7 and the remaining two treat patients only during the morning and evening shift and never on the weekends. In this current study, we investigated the possible effect of rotational shift in the participants' satisfaction.

The assessment of healthcare professionals' satisfaction can reveal the personal and organizational factors that affect satisfaction and can lead the managements' efforts in targeted interventions.

Methodology

The study conducted in four primary healthcare centers in Attica, Greece. Two of these centers have rotational shift and the other two work on morning and evening shifts. Initially, we requested and we were granted permission from the 1st Health Regional Authority, to which these centers belong administratively, to conduct the study. After the permission was granted, the researchers contacted the directors of the healthcare centers and informed them about the study. Next, the questionnaires were sent along with an informed consent with the researchers' contact details, the purpose of the study and the moral issues regarding the voluntary and anonymous participation of the healthcare professionals. A total of 200 questionnaires were handed in a convenience sample; 169 were returned completed (response rate was 84.5%). The study was conducted from January 2nd to February 29th, 2020.

Instrument and Data collection: The data was collected using the Job Satisfaction Survey (JSS) (Spector, 1985). The questionnaire was translated in Greek and its validity and reliability had been assessed (Tsounis & Sarafis, 2018). The questionnaire consisted of 36 questions, which were divided into 9 subscales (4 questions in each subscale) which are: pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, coworkers, nature of work, and communication. Each question could be answered in a six-point Likert scale ranging from

1 (I completely disagree) to 6 (I completely agree). Each subscale score range from 4 to 24 and the total score of the questionnaire may range from 36 to 216. Higher scores indicate higher levels of satisfaction. An average higher than 144 indicates higher levels of satisfaction, an average between 108 and 144 indicates medium levels of satisfaction and an average lower than 108 indicates low levels of satisfaction.

Data Analysis: Continuous variables are presented as mean, standard deviation, median, minimum value, and maximum value, while categorical variables are presented as numbers (percentages). The Kolmogorov-Smirnov test and graphs (histograms and normal Q-Q plots) were used to test the normality of the distribution of the continuous variables. The independent variables were the demographic and work-related characteristics of the participants, while the dependent variables were the job satisfaction score (overall) as well as that of the subscales. Bivariate analyses between demographic and work-related characteristics and the Job Satisfaction Survey and the nine subscales included independent samples t-test, analysis of variance, Spearman and Pearson's correlation coefficient. Variables that were significantly

different ($p < 0.20$) in bivariate analyses were entered into the backward stepwise multivariate linear regression analyses with the Job Satisfaction Survey overall and subscales scores as the dependent variables. In this case, the method of multiple linear regression with the enter method was applied. Regarding multiple linear regression, coefficients b (coefficients beta), the 95% confidence intervals and the p values are presented. Statistical analysis was performed with the Statistical Package for Social Sciences software (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.).

Results

A total of 169 healthcare professionals participated in the study. The mean age of the participants was 48.2, and the majority of them were females (85.8%), graduates of tertiary education (82.8%) and physicians (50.3%). Both university and technological institution graduates study for four years and have the opportunity to attend postgraduate studies. The demographic and work-related characteristics of the participants are presented in Table 1.

Cronbach's alpha for the Job Satisfaction Survey was 0.76, indicating very good reliability.

Table 1. Demographic and work-related characteristics of the participants (n=169)

Characteristic	N	%
Sex		
Male	24	14.2
Female	145	85.8
Age	48.2 ^a	9.8 ^b
Profession		
Physician	85	50.3
Nurse	39	23.1
Midwife	7	4.1
Other	38	22.5
Marital status		
Unmarried	41	24.3
Married	105	62.1
Divorced	23	13.6
Children		
0	50	29.6
1	39	23.1
2	62	36.7
3	15	8.9
4	3	1.8
Educational level		
Diploma (Two years education)	29	17.2
Technological Institution	49	29
University	91	53.8

MSc/PhD			
No		124	73.4
Yes		45	26.6
Responsibility position			
No		158	93.5
Yes		11	6.5
Professional experience	20.8 ^a		11.3 ^b
Years of experience in Health Center		12.3 ^a	10.9 ^b
Work in shifts			
Only morning shift		121	71.6
Only evening shift		17	10.1
Rotating shifts	31		18.3
Number of working weekends per month			
0		117	69.2
1		17	10.1
2		23	13.6
3		9	5.3
4		3	1.8
Number of workshops / conferences in the last 12 months		2.2 ^a	2.5 ^b
Time to move to the Health Center (in minutes)	31.7 ^a		20.6 ^b
Total family monthly income (€)			
<1000		27	16
1001-1500		40	23.7
1501-2000		39	23.1
>2000	63		37.3

^a mean ^b standard deviation

Table2. Descriptive results for the 9 subscales and the overall satisfaction of the Job Satisfaction Survey.

Subscale	Mean	Standard deviation	Median	Minimum value	Maximum value
Pay	11.1	3.8	11	4	22
Promotion	11.5	4	11	4	24
Supervision	19.4	4.1	20	4	24
Fringe Benefits	12.1	4.3	12	4	24
Contingent Rewards	14.2	3.5	14	6	22
Operating Procedures	12.2	2.7	12	4	21
Coworkers	16.9	4.1	17	4	24
Nature of Work	17.1	4.7	18	4	24
Communication	16.4	4.1	16	6	24
Overall satisfaction	131	18.8	130	79	183

Table3. Multivariate linear regression analysis with the overall satisfaction and the subscales score as the dependent variables.

Dependent variable Independent variable	Coefficient beta	95% confidence interval for beta	P-value
Overall satisfaction			
Physicians compared to nurses and midwives	7.4	0.8 to 14.1	0.03
Pay			
Morning and evening shift compared to rotational shift	2.2	0.7 to 3.8	0.004
Professional experience	-0.06	-0.1 to -0.01	0.023
Promotion			
Morning and evening shift compared to rotational shift	1.9	0.3 to 3.4	0.02
Supervision			
Education level	1.7	0.8 to 2.6	<0,001
Non-holders of a MSc/PhD in comparison to holders	1.8	0.3 to 3.2	0.02
Fringe Benefits			
Years of experience in the Health Center	-0.1	-0.2 to -0.01	0.02
Total family monthly income	0.9	0.3 to 1.5	0.007
Contingent Rewards			
Years of experience in the Health Center	-0.05	-0.09 to -0.002	0.04
Operating Procedures			
Number of working weekends per month	0.5	0.1 to 0.9	0.02
Physicians compared to nurses and midwives	1.2	0.1 to 2.2	0.02
Coworkers			
Total family monthly income	0.9	0.1 to 1.6	0.02
Physicians compared to nurses and midwives	1.9	0.3 to 3.6	0.02
Nature of Job			
Professional experience	0.2	0.1 to 0.3	0.003
Communication			
Educational level	1.4	0.4 to 2.4	0.009

In Table 2 we present the descriptive results for the nine subscales on the job satisfaction questionnaire. Mean overall score of satisfaction was 131 indicating medium satisfaction level. Increased level of satisfaction was observed regarding the nature of the job, the supervision, the colleagues, and the communication. Low level of satisfaction was observed regarding salaries and promotions.

According to the results of the multivariate linear regression analysis, physicians, compared to

nurses and midwives reported higher level of satisfaction regarding their overall job satisfaction, their coworkers and the operating procedures. Working shifts were found to affect the subscale of pay and promotion. Professionals who worked morning and evening shift presented higher level of satisfaction compared to professionals who worked rotational shift. Also, the increased number of work weekends was associated with greater satisfaction with operating procedures. More years of work experience in healthcare centers were related to

lower job satisfaction regarding fringe benefits, whereas increased overall family monthly income was related to greater job satisfaction. Work experience in healthcare centers was statistically related to the subscale of contingent rewards, as the increased years of service in the center were associated with lower satisfaction. Higher family monthly income was related to higher level of satisfaction towards colleagues. The level of education was positively associated with communication and supervision. Healthcare workers with higher education level were found to be more satisfied regarding communication and supervision. While the non-holders of MSc/PhD expressed better satisfaction regarding the supervision. The increased years of service in the profession were associated with greater satisfaction in the subscale pay and nature of job. The results of the multivariate linear regression analysis are presented in Table 3.

Discussion

Human resources are an important asset in a healthcare system and, through a series of procedures, can affect the quality of the services provided. Dissatisfaction can result in healthcare professionals leaving their jobs or it can affect their performance. In this current study healthcare professionals were found to experience medium level of satisfaction from their job. Medical personnel exhibited greater level of satisfaction in comparison to other healthcare professionals. Four fields gathered higher scores. Consequently participants were found to be more satisfied in these four fields which were: nature of the job, supervision, colleagues, and communication.

When the financial recession hit Greece in 2009 and the memorandums were signed, the healthcare system suffered great pressure. More particularly, when the total expenditure for health decreased, demand in services of public primary and secondary healthcare centers increased. At the same time, the wages of the personnel were cut and the appointing of contract and permanent staff stopped (Kaitelidou & Kouli, 2012). Healthcare professionals, under the pressure of the increased demand for healthcare services, understaffing, and a decrease in supplies were asked to increase their efficiency. Several studies regarding healthcare professionals' satisfaction in Greece after 2012 have revealed low level of job satisfaction (Papoutsis et al, 2014; Ioannou et al, 2015; Antoniou et al, 2016; Andrioti et al,

2017). Also, according to the findings of these studies, leadership, cooperation, and communication with colleagues were found to be important factors that affect the level of healthcare professionals' satisfaction in a positive manner. Those findings are in accordance with the findings of the current study. The type of leadership and good work relations, which are based on communication and cooperation, play a multi-dimensional part. They are fundamental prerequisites for providing safe healthcare services of quality. Transformational leadership and good cooperation between physicians and nurses are fundamentals in the formation of a healthy work environment that promotes high-quality patient care. They are also related to reduced incidence of errors and adverse events in the hospitalized patients (Kramer, Maguire & Brewer, 2011; Boamah et al, 2018; Boev & Xia, 2015).

Regarding the participants' work environment, working rotating shifts were associated with lower level of satisfaction. Understaffing combined with high demand for healthcare services can impede health organizations from providing services 24 hours a day. An extended study in nursing staff in Norway revealed that shift work results in symptoms of insomnia, extended periods of somnolence and exhaustion (Fagerbakke et al, 2013). Paramedic staff in Australia who work in rotate shifts exhibited insomnia, narcolepsy and poor sleep quality in comparison to the general population of Australia and western countries (Khan et al, 2020). Relevant studies on the effects of shift work on healthcare professionals have been conducted in Greece. A study in a sample of 365 nurses and nursing assistants revealed that females and chronic disease sufferers were more affected by rotational shifts and presented symptoms of sleep disorders, cardiac and gastrointestinal problems, and dissatisfaction from their job (Korompeli et al, 2014). Also, a study regarding musculoskeletal disorders pointed out that rotational shift is a risk factor for the development of such disorders (Passali et al, 2018). Targeted interventions, aiming to improve staffing, and transferring employees in positions with fewer night shifts (rotation) could help improve work environment.

A potentially "paradox" finding is that the increased number of work weekends was associated with greater satisfaction. We would expect the opposite result, that the weekend rest

near the family would positively affect the satisfaction. This finding can have three possible interpretations. The first may be related to workload. That is, the Health Center may have a lower workload at the weekend and the work shifts may be more relaxed. Because most cases are scheduled, patients may be cared for on a daily basis and the patients' attendance may be reduced at the weekends. Another possible interpretation is given by the fact that the manager of the Health Center is absent at the weekend. So in case of non-existence of good relations between the staff and the manager, managers' absence may be associated with increased satisfaction during weekends' shifts. We, also, do not know if working on the weekends is a wish of the employees, who choose to work on the weekends due to family planning or a desired increase in income from work on weekends. All three possible interpretations cannot be demonstrated by the results, because the data that could support them have not been recorded (employee desire for weekend job, workload effect, employee-manager relationship).

Conclusions: The findings of this study have revealed moderate level of satisfaction in healthcare professionals of primary care centers. Also, some important work factors which can affect workers' satisfaction have been revealed. Undoubtedly, no matter how well organized the work environment is, the satisfaction of the employees depends to a large extent on the remuneration provided and the recognition of their work. The managements of healthcare centers should focus on these factors in order to create a healthy and productive work environment, which will enhance workers' satisfaction and will result in more efficient and productive healthcare services.

References

- Makary MA, Daniel M. (2016). Medical error-the third leading cause of death in the US. *BMJ*. (Online);353.
- Gaal S, Verstappen W, Wensing M. (2011). What do primary care physicians and researchers consider the most important patient safety improvement strategies? *BMC Health Services Research*. 11(1):1-6.
- Rouleau D, Fournier P, Philibert A, Mbengue B, Dumont A. (2012). The effects of midwives' job satisfaction on burnout, intention to quit and turnover: a longitudinal study in Senegal. *Human Resources for Health*. 10(1):9.
- Hairr DC, Salisbury H, Johannsson M, Redfern-Vance N. (2014). Nurse staffing and the relationship to job satisfaction and retention. *Nursing Economics*. 32(3):142-147.
- Duffield CM, Roche MA, Homer C, Buchan J, Dimitrelis S. (2014). A comparative review of nurse turnover rates and costs across countries. *J Advanced Nursing*. 70(12):2703-12.
- Wang H, Jin Y, Wang D, Zhao S, Sang X, Yuan B. (2020). Job satisfaction, burnout, and turnover intention among primary care providers in rural China: Results from structural equation modeling. *BMC Fam Pract*. 21(1):1-10.
- Yilmaz A. Burnout (2018). Job satisfaction, and anxiety-depression among family physicians: A cross-sectional study. *J Fam Med Prim care*. 7(5):952-6.
- Mohr DC, Young GJ, Meterko M, Stolzmann KL, White B. (2011). Job Satisfaction of Primary Care Team Members and Quality of Care. *Am J Med Qual*. 26(1):18-25.
- Mrayyan MT. (2006). Jordanian nurses' job satisfaction, patients' satisfaction and quality of nursing care. *Int Nurs Rev*. 53(3):224-30.
- Spector PE. (1985). Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. *Am J Community Psychol*. 13(6):693-713.
- Tsounis A, Sarafis P. (2018). Validity and reliability of the Greek translation of the Job Satisfaction Survey (JSS). *BMC Psychol*. 6(1):27.
- Kaitelidou D, Kouli E. (2012). Greece: The health system in a time of crisis. *Eurohealth (Lond)*. 18(1):12-4.
- Papoutsis D, Labiris G, Niakas D. (2014). Midwives' job satisfaction and its main determinants: A survey of midwifery practice in Greece. *Br J Midwifery*. 22(7):480-6.
- Ioannou P, Katsikavali V, Galanis P, Velonakis E, Papadatou D, Sourtzi P. (2015). Impact of job satisfaction on Greek nurses' health-related quality of life. *Saf Health Work*. 6(4):324-8.
- Antoniou A-S, Cooper CL, Davidson MJ. (2016). Levels of job dissatisfaction and work-related stressors experienced by medical doctors in Greek hospitals. *J Compassionate Heal Care*. 3(1):1-9.
- Andrioti D, Skitsou A, Karlsson LE, Pandouris C, Krassias A, Charalambous G. (2017). Job Satisfaction of Nurses in Various Clinical Practices. *Int J Caring Sci*. 10(1):76-87.
- Kramer M, Maguire P, Brewer BB. (2011). Clinical nurses in Magnet hospitals confirm productive, healthy unit work environments. *J Nurs Manag*. 19(1):5-17.
- Boamah SA, Spence Laschinger HK, Wong C, Clarke S. (2018). Effect of transformational leadership on job satisfaction and patient safety outcomes. *Nurs Outlook*. 66(2):180-9.
- Boev C, Xia Y. (2015). Nurse-physician collaboration and hospital-acquired infections in critical care. *Crit Care Nurse*. 35(2):66-72.

- Fagerbakke Eldevik M, Flo E, Elisabeth Moen B, Pallesen S, Bjorvatn B. (2013). Insomnia, Excessive Sleepiness, Excessive Fatigue, Anxiety, Depression and Shift Work Disorder in Nurses Having Less than 11 Hours in-Between Shifts. *PLoS One*. 8(8):70882.
- Khan WAA, Conduit R, Kennedy GA, Jackson ML. (2020). The relationship between shift-work, sleep, and mental health among paramedics in Australia. *Sleep Heal*. In Press.
- Korompeli A, Muurlink O, Tzavara C, Velonakis E, Lemonidou C, Sourtzi P. (2014). Influence of Shiftwork on Greek nursing personnel. *Saf Health Work*. 5(2):73–9.
- Passali C, Maniopoulou D, Apostolakis I, Varlamis I. (2018). Work-related musculoskeletal disorders among Greek hospital nursing professionals: A cross-sectional observational study. *Work*. 61(3):489–98.