ORIGINAL RESEARCH

Level of satisfaction among primary health care workers in Kosovo

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Abstract

Aim: The objective of this study was to assess the extent and selected corelates of work satisfaction among primary healthcare professionals in Kosovo.

Methods: A cross-sectional study was conducted in selected regions of Kosovo during the period May-June 2022 including a representative sample of 500 primary healthcare workers (209 men and 291 women; overall mean age: 42.0±12.3 years). A structured 9-item questionnaire was administered to all participants aiming at assessing the level of satisfaction among primary healthcare workers (each item ranging from 1 [high] to 5 [low]). A summary score was calculated for all 9 items related to satisfaction level ranging from 9 (the highest satisfaction level) to 45 (the lowest satisfaction level). Binary logistic regression was used to assess the association of satisfaction level (dichotomized into "satisfied" vs. "unsatisfied", based on median value of the summary score) with selected demographic factors and work characteristics of primary healthcare workers.

Results: Mean summary score of the 9 items related to the satisfaction level of primary healthcare workers was about 23±5; median score was 23 (interquartile range: 20-26). In multivariable-adjusted logistic regression models, the level of satisfaction was not significantly related to any demographic factor, but positively associated with the years of working experience of primary healthcare workers [$OR_{\text{(for 1 year increment in the work experience)}} = 1.03$, 95%CI=1.00-1.05]
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Conclusion: The evidence from this study conducted in Kosovo indicates no significant relationships of the level of satisfaction with demographic factors of primary healthcare workers, but a strong association with their working experience. Policymakers in Kosovo and in other countries should be aware of the importance of working conditions and working environment in order to gradually increase the level of satisfaction of the staff, which is a basic prerequisite for quality improvement of service delivery at primary healthcare level.

Keywords: epidemiology, family physicians, Kosovo, nurses, primary health care, satisfaction, staff, work characteristics.

Introduction

The health indicators in Kosovo are worse than most of the European Union countries including, in particular, life expectancy (1). Furthermore, almost 15 years after declaring its independence, Kosovo is still struggling to shifting its formerly Semashko healthcare system toward social health insurance, in line with the trends observed in many former communist countries in Central and Eastern Europe (2).

However, primary health care services in Kosovo are currently well-regulated and standardized in all regions of the country. According to the most recent information, there were registered about 3.2 million visits at primary health care services in 2021 (3). According to an assessment of the World Health Organization, in alignment with the regulatory framework, primary health care in Kosovo provides quality and safe health services, based on the principles of family medicine and led by the needs and requirements of individuals, families and communities with the final aim at promoting, preserving and improving health for all (4). However, primary health care payment schemes need to be revised to encourage higher performance (4).

The available evidence about the level and determinants of satisfaction of primary healthcare workers in Kosovo is scant. Of note, assessment of satisfaction level of primary healthcare workers constitutes an important component of the overall assessment of health care services regarding quality and health care system responsiveness (5,6).

The international literature suggests that the satisfaction of healthcare professionals is related to both patients' satisfaction and the quality of care provided and also to more favourable health outcomes (7-10).

Moreover, the way medical staff communicates with patients seems to have a significant effect on the level of patients' satisfaction, as evidenced by international literature: not applying a dominant position, being caring and committed to patients, and positive attitudes have a favorable influence on the functioning of the relationship between health personnel and patients (11,12). Conversely, the degree to which primary healthcare staff is satisfied is influenced by several factors, including salary, individual characteristics, infrastructure of health care institutions, time pressure, autonomy in making decisions, professional relationships with colleagues, and the like (13-15). Stress at work also affects the reduction of satisfaction of health personnel, while the possibility of having control over the schedule of visits and working hours seems to be related to a greater satisfaction at work (16).

Likewise, job satisfaction or dissatisfaction seems to be related to physicians' plans to leave work (with younger physicians being more likely to plan to leave medical practice in the future), and dissatisfaction with remuneration and with the work environment (17).

In this framework, the objective of this study was to assess the level of satisfaction and selected demographic and work characteristics correlates among primary healthcare workers in Kosovo, a country in the Western Balkans which is currently undergoing profound reforms in all sectors including health sector.

Methods

A cross-sectional study was conducted during the period May-June 2022 including a representative sample of primary healthcare workers in selected regions of Kosovo.

The study was carried out in three regions of Kosovo: Gjakova, Peje, and Prizren, which are among the main regions of the Republic of Kosovo. More specifically, this study included a random sample of 500 primary healthcare workers aged 18 years and above in the regions of Gjakova, Peje and Prizren (209 men and 291 women; overall response rate: 97%). The level of satisfaction of primary healthcare workers was based on an adapted version of the Dartmouth-Hitchcock Medical Center instrument (17). This instrument covers nine different aspects (work characteristics) relevant to primary healthcare staff including: respect at the workplace; availability of equipment and instruments; work recognition by colleagues and authorities; stress at workplace; access to information about different aspects of the work; moral and attitudes of the colleagues; continuous improvement of the environment at the workplace; overall perceived quality of healthcare facility; and staff remuneration (18). Potential answers for each question are arranged in a 5-point Likert scale from 1 ("highest satisfaction" level) to 5 ("lowest satisfaction" level). This questionnaire has been already validated in the context of primary healthcare workers in Kosovo (19).

A summary score was calculated for all 9 items related to the level of satisfaction among primary healthcare workers ranging from 9 (highest level of satisfaction) to 45 (lowest level of satisfaction). In the analysis, the summary score was dichotomized into "satisfied" vs. "unsatisfied' based on its median value. Furthermore, information about demographic factors (age, gender, place of residence) and work characteristics (profession, work experience, years in the current job position, and engagement in continuous professional education) were collected for all study participants. Of note, the study was approved by the Ethics

Commission and Council of the Faculty of Medicine, University of Gjakova.

Fisher's exact test was used to compare differences in selected demographic factors and work characteristics (age-group, place of residence, region, profession and continuous professional education) between male and female participants. Similarly, Fisher's exact test was employed to compare differences in demographic factors and work characteristics between satisfied and unsatisfied primary healthcare workers. Conversely, Student's T-test was used to compare gender differences in mean values of work experience and years in current job position. Binary logistic regression was used to assess the association of the summary score of the satisfaction (9-item instrument, dichotomized in the analysis into "satisfied" vs. "unsatisfied" based on median value of the summary score) with demographic factors and work characteristics of study participants. Initially, crude (unadjusted) odds ratios (ORs), their respective 95% confidence intervals (95%CIs) and p-values were calculated. Subsequently, multivariable-adjusted binary logistic regression models were run controlling simultaneously for all demographic factors and work characteristics of study participants (age-group, sex, place of residence, region, profession, continuous professional education and work experience). Multivariable-adjusted ORs, their respective 95%CIs and p-values were calculated. In all cases, a p-value ≤0.05 was considered as statistically significant. Statistical Package for Social Sciences (SPSS, version 19.0) was used for all the statistical analyses.

Results

Mean age (±SD) of primary health care workers included in this study was 42.0±12.3 years; median age was 42 years (interquartile range: 32-53 years); the age range was: 19-64

years (data not shown in the tables). Table 1 presents the distribution of demographic factors and work characteristics of study participants (N=500), separately in men and in women.

Overall, about 23% of individuals were aged ≤30 years, whereas 28% of participants (24% in men vs. 30% in women; P=0.04) were 51 years and above. About 32% of primary healthcare professionals worked in rural areas (38% in men vs. 28% in women; P=0.02). About 33% of individuals were resident in Prizren region (40% in men vs. 28% in women; P=0.01).

Around 17% (25% in men vs. 12% in women) were family physicians, 13% (14% in men vs. 11% in women) were general practitioners, and 67% (57% in men vs. 74% in women) were nurses (overall P<0.01). More than 2/3rd of participants (68%) was actively engaged in continuous professional education (73% in men vs. 65% in women; P=0.07). On average, the staff included in this survey had about 16 years of work experience and about 12 years in the current job position, without evidence of any gender differences (Table 1).

Table 1. Distribution of demographic factors and work characteristics in a sample of primary health care workers in Kosovo in 2022 (N=500)

Demographic factors and work characteristics	Total (N=500)	Men (N=209)	Women (N=291)	P†
Age-group:				
≤30 years	114 (22.8)*	41 (19.6)	73 (25.1)	0.044
31-50 years	247 (49.4)	117 (56.0)	130 (44.7)	
≥51 years	139 (27.8)	51 (24.4)	88 (30.2)	
Place of residence:				
Urban areas	339 (67.8)	129 (61.7)	210 (72.2)	0.015
Rural areas	161 (32.2)	80 (38.3)	81 (27.8)	
Region:				
Gjakove	171 (34.2)	58 (27.8)	113 (38.8)	0.005
Peje	165 (33.0)	67 (32.1)	98 (33.7)	
Prizren	164 (32.8)	84 (40.2)	80 (27.5)	
Profession:				
Family physician	87 (17.4)	53 25.4)	34 (11.7)	
General practitioner	63 (12.6)	30 (14.4)	33 (11.3)	<0.001
Nurse	335 (67.0)	120 (57.4)	215 (73.9)	
Other	15 (3.0)	6 (2.9)	9 (3.1)	
Continuous professional education:				
No	160 (32.0)	57 (27.3)	103 (35.4)	0.065
Yes	340 (68.0)	152 (72.7)	188 (64.6)	
Work experience (years):				
Mean (SD)	15.6±11.7	15.6±10.7	15.6±12.3	0.985
Median (IQR)	14 (4-24)	15 (5-24)	14 (3-24)	
Years in current position:				
Mean (SD)	12.3±10.4	12.2 ±9.5	12.4±11.0	0.798

Median (IQR)	10 (3-20)	10 (4-17)	10 (2-20)

* Absolute numbers and *column* percentages (in parenthesis).

† P-values from Fisher's exact test (for comparison of age-group, place of residence, region, profession and continuous professional education) and Student's T-test (for comparison of work experience and years in current job position).

A summary score was calculated for all 9 items of the satisfaction level of primary healthcare workers ranging from 9 (indicating the highest level of satisfaction of primary healthcare workers) to 45 (indicating the lowest level of satisfaction of primary healthcare workers). Mean summary score of the 9 item-instrument of the level of satisfaction of primary healthcare workers was 22.9±4.6; median score was 23 (interquartile range: 20-26) [data not shown in the tables]. The summary score was subsequently dichotomized into "satisfied" vs. "unsatisfied" staff based on its median value. Table 2 presents the distribution of the level of satisfaction (dichotomized into "satisfied" vs. "unsatisfied") by selected demographic factors and work characteristics of primary healthcare workers. The proportion of men was slightly higher among the satisfied staff as compared with the unsatisfied individuals (about 43% vs. 40%, respectively), but this small gender difference was not statistically significant. Furthermore, the percentage of staff aged 51 years and above was higher among the satisfied workers compared with their unsatisfied counterparts (about 32% vs. 23%, respectively), a difference which was statistically significant (P=0.04). There was a borderline statistically significant association with place of residence (P=0.1), with a higher proportion of urban residents among the satisfied workers than among the unsatisfied ones (about 70% vs. 65%, respectively). In addition, the proportion of family physicians was higher among the satisfied workers compared with the unsatisfied staff (20% vs. 15%, respectively; P=0.05). Conversely, there was no association of the level of satisfaction with region, or engagement in continuous professional education (Table 2).

Table 2. Distribution of the level of satisfaction by selected demographic factors and work characteristics of primary healthcare workers

Demographic factors and work characteristics	Unsatisfied (N=226)	Satisfied (N=274)	P†
Gender:			
Men	90 (39.8)*	119 (43.4)	0.466
Women	136 (60.2)	155 (56.6)	
Age-group:			
≤30 years	61 (27.0)	53 (19.3)	0.037
31-50 years	113 (50.0)	134 (48.9)	
≥51 years	52 (23.0)	87 (31.8)	
Place of residence:			
Urban areas	146 (64.6)	193 (70.4)	0.098
Rural areas	80 (35.4)	81 (29.6)	
Region:			
Gjakove	69 (30.5)	102 (37.2)	0.291
Peje	79 (35.0)	86 (31.4)	
Prizren	78 (34.5)	86 (31.4)	

Profession:		
Family physician	33 (14.6)	54 (19.7)	
General practitioner	37 (16.4)	26 (9.5)	0.045
Nurse	147 (65.0)	188 (68.6)	
Other	9 (4.0)	6 (2.2)	
Continuous professional education:		
No	72 (31.9)	88 (32.1)	0.998
Yes	154 (68.1)	186 (67.9)	

* Absolute numbers and *column* percentages (in parenthesis).

† P-values from Fisher's exact test.

Table 3 presents crude (unadjusted) and multivariable-adjusted association of the level of satisfaction (dichotomized into "satisfied" vs. "unsatisfied") with demographic factors and work characteristics of primary healthcare workers, according to results obtained from binary logistic regression. In crude models, there was evidence of a positive association of the level of satisfaction with age of primary healthcare workers (overall P=0.04). There was no signification association with gender, or place of residence, albeit higher odds of males and especially urban residents among the satisfied staff compared with their unsatisfied counterparts. On the other hand, there was a graded positive relationship with age-group: the odds of satisfaction were significantly lower among younger participants compared with their older counterparts (OR=0.5, 95%CI=0.3-0.9). In addition, the odds of family physicians were considerably higher (about 2.5 times) among satisfied vs. unsatisfied workers, a finding which was, overall, statistically significant (P=0.05). Notably, the odds of satisfaction increased by 3% for an increment of one year in the work experience of study participants (P<0.01).

In multivariable-adjusted logistic regression models controlling simultaneously for all demographic factors and work characteristics presented in Table 3, the association with profession was no longer statistically significant, whereas the positive relationship with work experience persisted [OR(for 1 year increment in the work experience)=1.03, 95%CI=1.00-1.05], albeit borderline significant (P=0.08).

Table 3. Association of the level of satisfaction with demographic factors and work characteristics of primary healthcare workers – results from binary logistic regression

Socio-demographic factors	Unadjusted models			Multivariable-adjusted models		
	OR*	95%CI*	P*	OR	95%CI	P
Gender:						
Men	1.16	0.81-1.66	0.416	1.24	0.84-1.81	0.281
Women	1.00	Reference		1.00	Reference	
Age-group:			0.038 (2)†			0.855 (2)
≤30 years	0.52	0.31-0.86	0.011	1.30	0.52-3.24	0.578
31-50 years	0.71	0.46-1.08	0.112	1.17	0.62-2.18	0.628
≥51 years	1.00	Reference	-	1.00	Reference	-
Place of residence:						

Urban areas	1.31	0.90-1.90	0.165	1.26	0.85-1.87	0.245
Rural areas	1.00	Reference		1.00	Reference	
Region:			**0.292 (2)**			**0.241 (2)**
Gjakove	1.34	0.87-2.07	0.184	1.40	0.89-2.21	0.150
Peje	0.99	0.64-1.52	0.954	0.99	0.63-1.54	0.955
Prizren	1.00	Reference	-	1.00	Reference	-
Profession:			**0.048 (3)**			**0.222 (3)**
Family physician	2.46	0.80-7.52	0.116	1.76	0.55-5.68	0.341
General practitioner	1.06	0.33-3.32	0.928	0.90	0.28-2.89	0.856
Nurse	1.92	0.67-5.51	0.226	1.55	0.53-4.55	0.427
Other	1.00	Reference	-	1.00	Reference	-
CPE:						
No	1.01	0.69-1.48	0.951	1.03	0.70-1.53	0.874
Yes	1.00	Reference		1.00	Reference	
Work experience (years)	1.03	1.01-1.04	0.001	1.03	1.00-1.05	0.078

[*] Odds ratios (OR: "satisfied" vs. "unsatisfied"), 95%CI and p-values from binary logistic regression. Range of the summary score (dichotomized into satisfied vs. unsatisfied based on its median value) was from 9 (the highest level of satisfaction) to 45 (the lowest level of satisfaction among primary healthcare workers).

[†] Overall p-values and degrees of freedom (in parentheses).

Discussion

This study provides valuable evidence about the level of satisfaction of primary healthcare workers in Kosovo, a country which is presently emerged into deep political and socioeconomic reforms including also the health sector.

In our study, upon multivariable-adjustment for a range of characteristics, there was no evidence of independent associations of satisfaction level with demographic factors of primary healthcare workers. On the other hand, there was evidence of a strong and significant relationship with working experience of the primary healthcare staff. Our finding on a positive association of satisfaction level with working experience of primary healthcare staff is compatible with a previous report from Kosovo (19). A study among health personnel in rural areas of Iran reported that only 17% were satisfied with their work (20), whereas a study among public primary healthcare physicians in

Delhi, India, reported that all personnel were dissatisfied with training policies and

practices, with the level of wages and opportunities to make a career in the system (21), findings which are not in line with the results of our study, where the personnel was generally satisfied with the working environment and working "spirit" in primary healthcare services and the dimensions where dissatisfaction was relatively high included wages (remuneration) and stress at work. A recent study conducted in Saudi Arabia reported that none of the sociodemographic variables had significant association with job satisfaction (22). According to this report, about two thirds of the primary health care workers were not satisfied with their job (22).

On the other hand, a job satisfaction survey with NHS employees reported that, despite the evident limitations placed by the environment, a significant degree of job satisfaction was evidenced among primary health care workers, with 58% of respondents

expressing they looked forward to going to work and 65% saying they enjoyed being at work (23). Also, a majority of 62% had no plans to change employers (23).

A fairly recent study conducted in Turkey reported that primary health care workers were generally dissatisfied with their working conditions and they declared that they were not sufficiently qualified to work in primary care. Their overall satisfaction was found to be moderate and the most important predictor for job satisfaction was found to be "Liking the workplace" (24).

Conversely, a study on the satisfaction of public healthcare (hospital) staff in 2011 in Serbia used some questions similar to those used in our questionnaire (for example, satisfaction with available medical equipment, personal relationships with colleagues, satisfaction with salary, availability of available protocols) (25).

The most important factors related to health staff satisfaction in this study (ranked from the most important factor) included: receiving clear instructions regarding the objectives to be achieved in the workplace, the opportunity for professional development in the workplace, good relations with colleagues, satisfactory salary, adequate clinical tools, adequate time to carry out tasks, opportunity for continuing education in the workplace, and the like (25). Of note, some of these factors were also affirmed by the health personnel in our study conducted in Kosovo. Nonetheless, there may be several limitations of the current study conducted in Kosovo. Our study included only three regions of Kosovo and, notwithstanding the fact that the regions included are fairly representative of the whole country, findings may not be generalizable to all the primary healthcare workforce in Kosovo. In addition, although the sample size included in this study was sufficient to assess the satisfaction

level among primary healthcare workers, it may have not allowed to detect small differences in the satisfaction level between different demographic groupings. The instrument used in our study for assessment of satisfaction level has been previously validated in primary healthcare workers in Kosovo (18) but, nevertheless, the possibility of information bias cannot be entirely excluded. Also, associations observed in this type of study (cross-sectional survey) are not assumed to be causal.

Regardless of these potential limitations, this study provides useful evidence about the level of satisfaction among primary healthcare workers operating in three regions of Kosovo. This study indicates no significant relationships of the level of satisfaction with demographic factors of primary healthcare workers, but a strong association with their working experience. In all cases, policymakers in Kosovo and in other countries should be aware of the importance of working conditions and working environment in order to gradually increase the level of satisfaction of the staff, which is a basic prerequisite for quality improvement of service delivery at primary healthcare level.

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