

Job satisfaction in primary care after the health reform in a province of Turkey

P.G. ERTEN BUCAKTEPE¹, S. BULUT ÇELİK², F. ÇELİK³

¹Department of Family Medicine, Dicle University, Faculty of Medicine, Diyarbakir, Turkey

²GAP Family Health Center, Batman, Turkey

³Batman Provincial Health Directorate Public Health Presidency, Batman, Turkey

Abstract. – OBJECTIVE: Health care reform, which started to be restructured after the Alma Ata Declaration, positively contributed to the development of primary health care administrations around the world. In Turkey, the Ministry of Health launched a “Health Transformation Program” by initiating the “Family Medicine Model” that influenced the working conditions and job satisfaction of primary health care workers (PHCWs). In this cross-sectional study, we evaluated job satisfaction levels of PHCWs and the factors affecting these levels a decade after the introduction of the health care reform in a province of Turkey.

PATIENTS AND METHODS: A total of 223 PHCWs participated in the study and completed a structured questionnaire that probed their views regarding their jobs and working conditions. Additionally, the short version of the Minnesota Satisfaction Questionnaire (MSQ) was administered to each participant. Participants were also asked to indicate whether they had any intention to quit their job, whether they liked their profession and workplace, and whether they were satisfied with their job. Bivariate analysis and binary logistic regression analysis were performed to determine predictors of job satisfaction.

RESULTS: PHCWs were found to be 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 (3.21 ± 0.67 out of 5) and the most important predictor for job satisfaction was found to be “Liking the workplace” (OR=3.07; 95% CI=1.46-6.45).

CONCLUSIONS: The results indicated that environmental factors for job-related issues need to be examined more intensively for future planning and policy making in primary care.

Key Words:

Health reform, Job satisfaction, Primary health care workers, Workplace.

Introduction

The World Health Organization (WHO) Declaration of Alma-Ata has revolutionized public

health by emphasizing that resources in the 21st century must be used primarily for “health for all individuals” and that only a robust primary health-care system can play a fundamental role in this initiative¹. In line with this declaration, worldwide healthcare provision has changed significantly in recent years and community-based primary healthcare delivery has become the primary approach. Since then, Turkey has made significant improvements in the healthcare system in a similar way to many countries. Of note, the healthcare reform initiatives that started in the early 1990s gained momentum with the implementation of the “Health Transformation Program” by the Ministry of Health in 2003 through the sponsorship of the World Bank^{2,3}. The main purpose of this program was to ensure that healthcare is provided equally and effectively to every citizen throughout the country in terms of financing, access, and quality³. These reforms have made a positive contribution to health indicators. The maternal mortality rate, which was 44 per 100,000 live births in 2003, declined to 13.1 and the infant mortality rate decreased from 28.5 to 9.0 per 1,000 live births in 2019^{4,5}.

One of the most important steps taken in accordance with this initiative in Turkey is the strengthening of primary health care services by switching to the family medicine model^{2,3}. This transition was officially launched in 2005 as a pilot scheme and then the system was introduced in the entire country at the end of 2010^{3,6}. During this period, clinical practice guidelines were developed, decision support systems and performance-based financial incentives were introduced, and also the salaries of physicians involved in the system were improved considerably⁶.

In Turkey, primary health care services are provided in family health care centres (FHCs). According to the recent official data, 26,594 family physicians work in a total of 8,015 FHCs and an average of 3,141 people are assigned to each

family physician^{5,7}. Due to the shortage of family medicine specialists, practitioners that have received a certificate after a one-week training course can work as a family physician³. Similarly, no special primary care training is required for other FHC personnel. The rate of family medicine specialists registered in the family medicine system is approximately 8.0%⁵. Although more than 10 years have passed since the introduction of the system, challenges such as absence of a referral chain, out-of-hours patient care, shortage of family medicine specialists in the system, and high number of patients per physicians have not yet been resolved^{3,6}. On the other hand, although there are no regional differences with regard to the implementation of the family medicine system³, the health indicators in the less developed eastern and south-eastern provinces are below the average^{3,8}. Additionally, although the family medicine system has largely closed the gap, this persistent discrepancy between the eastern and western regions has led to an increased workload of eastern primary care services. These two regions differ from each other in terms of social, economic, and cultural characteristics⁸. Additionally, a significant number of healthcare professionals do not prefer to work in the eastern region due to the lower educational level and gross domestic product per capita, heavier economic burden, mixed cultural structure, adverse climatic conditions as well as increased workload and insufficient career development opportunities in the region⁸. In order to prevent the staff shortage in this region, the Ministry of Health assigns health care personnel to this region for a certain period of time through the “compulsory service” method. As a result of all these factors, working in a newly structured job environment and under a heavier workload in a less developed region can cause job satisfaction problems.

Job satisfaction is one of the most complex components of working life and has been handled and evaluated with different concepts for almost a century. However, there is still no consensus on its exact meaning^{9,10}. Job satisfaction represents a sense of contentment as a result of various work-related experiences^{9,11}. This concept has been studied from sociological, psychological, and organizational perspectives over the last decades since it is affected by many factors such as emotional perceptions, environment, and interpersonal relationships^{10,12}.

The importance of job satisfaction arises from its positive contributions to productivi-

ty, retention, performance, recruitment, loyalty, and organizational commitment^{9,10}. Therefore, enhanced job satisfaction in primary health care can result in more qualified health care delivery and more satisfied patients¹³. However, similar studies conducted worldwide have revealed that job satisfaction among primary health care workers (PHCWs) is not sufficiently high. A study showed that Indonesian primary care physicians (PCPs) had a moderate level of satisfaction after the health care reform¹⁴. In a study conducted in Saudi Arabia, slightly less than half of the PCPs were found to be satisfied with their jobs¹⁵. Likewise, the results from rural China indicated the PCPs were slightly satisfied¹⁶. In Turkey, studies from Eastern, Middle, and Southern Anatolian regions reported moderate levels of job satisfaction among PHCWs¹⁷⁻²⁰. In all these studies, the most commonly noted reasons for low job satisfaction include excessive workload, low income, unfavourable working environment, and lack of organizational management^{16,20}.

A considerable number of publications have emphasized the importance and key role of job satisfaction for effective and sustainable primary care^{14,15,21}. The most crucial and challenging points addressed by these studies include the conditions required for higher job satisfaction, how to ensure the continuity of job satisfaction, components and predictors of job satisfaction, and the role of job satisfaction for the management and development of primary health care facilities. The aim of this study was to evaluate the views of PHCWs regarding their working conditions and the functioning of FHCs and to assess their job satisfaction levels and the factors affecting these levels a decade after the introduction of the family medicine system in Batman province, which is in the South-eastern Anatolian region of Turkey.

Patients and Methods

The study population consisted of 319 health-care professionals working in 44 FHCs in the city centre, districts, and villages across Batman province. No specific sampling method was utilized since the study aimed to reach all employees. The study was conducted in February 2019 after receiving approval from Batman Regional State Hospital Non-Interventional Clinical Research Ethics Committee (Approval date: January 28, 2019; No: 132). Individuals participated in the study during their in-service training activi-

ties and an informed consent was obtained from each participant. Subsequently, the participants were asked to independently complete a structured questionnaire that consisted of a three-point Likert-type scale (agree, uncertain, and disagree) and probed their socio-demographic characteristics (age, gender, education, work experiences, and workplace) and views regarding their working conditions and practices. The participants were also asked to indicate whether they had any intention to quit their job and whether they were satisfied with their profession, workplace, and job. Following the implementation of the questionnaire, the short version of the Minnesota Satisfaction Questionnaire (MSQ) was administered. MSQ is a 5-point Likert-type scale developed by Weiss et al²² consisting of 20 items probing participants' internal, external, and general satisfaction levels. The validity and reliability study of the Turkish version of the MSQ was conducted by Baycan²³, in which the internal consistency coefficient (Cronbach's α) of the scale was found to be 0.770. In MSQ, each item is scored from 1 (very dissatisfied) to 5 (very satisfied) and a weighted score is determined for each question and then a raw score is obtained. The overall satisfaction score is calculated by summing and averaging the scores of 20 items. The internal satisfaction score is calculated by summing and averaging the scores of 12 items including #1, #2, #3, #4, #7, #8, #9, #10, #11, #15, #16, and #20, which consist of elements related to the internal quality of the job, such as achievement, recognition or appreciation, work itself, responsibilities of the job, advancement, and changes of duty. The external satisfaction score is obtained by summing and averaging the scores of 8 items including #5, #6, #12, #7, #13, #14, #17, and #18, which consist of elements related to the work environment, such as company policy and administration, supervision, relations with managers, co-workers and subordinates, working conditions, and salary. In MSQ, a score of ≤ 3 indicates low job satisfaction and a score of > 3 indicates high job satisfaction.

Satisfaction scores of the participants (≤ 3 vs. > 3) were compared with regard to the participants' demographic characteristics including age (< 35 vs. ≥ 35 years), years of experience in primary care (≤ 5 vs. > 5 years), and work experience (< 10 vs. ≥ 10 years).

Statistical Analysis

Data were analyzed using SPSS for Windows version 24.0 (IBM Corp., Armonk, NY, USA).

Continuous variables were expressed as mean \pm standard deviation (SD) and categorical variables were expressed as frequencies (n) and percentages (%). Univariate and multivariate analyses were conducted to calculate unadjusted and adjusted satisfaction scores, respectively. Sociodemographic characteristics, job-related statements, and MSQ scores were compared using Chi-square test. Predictors of internal, external, and overall job satisfaction were determined using binary logistic regression analysis. Sociodemographic characteristics were included in the multivariate models in order to prevent potential bias. Correlations were analysed using Spearman's Correlation Coefficient. Reliability of MSQ was calculated using Cronbach's α . Results were evaluated with a 95% confidence interval and a two-sided significance level of < 0.05 .

Results

Of the 319 PHCWs, 223 (69.9% response rate) of them participated in the study. Most of the participants ($n=104$; 46.6%) were family physicians and the mean age of all participants was 32.3 ± 5.7 (range, 19-48) years. Mean duration of work experience in primary care was 4.9 ± 2.9 (range, 1-14) years and overall experience was 9.4 ± 5.1 (range, 1-24) years. Mean overall MSQ score was 3.21 ± 0.67 , mean external satisfaction subscale score was 2.96 ± 0.73 , and mean internal satisfaction subscale score was 3.38 ± 0.71 . In total, 89 (39.9%) had an intention to quit their job, 99 (48.9%) had more than five years of experience in primary care, and the participants had a moderate satisfaction level (61.9%; $n=138$). Sociodemographic characteristics are shown in Table I.

Figure 1 illustrates the participants' views regarding their working conditions and practices. Three of them did not answer these questions so 220 responses were evaluated. Accordingly, participants were found to be generally dissatisfied with their working conditions and considered that they were not sufficiently qualified to work in primary care.

No significant difference was found between participants' satisfaction scores (≤ 3 vs. > 3) regarding age, gender, marital status, and being a family physician or family health personnel ($p > 0.05$ for all). However, both the overall and subscale satisfaction scores were significantly associated with the intention to quit job and liking the profession and workplace (for overall score $p=0.011$,

Table I. Characteristics of healthcare professionals.

		Number	Percent
Sex	Male	101	45.3
	Female	122	54.7
Age (years)	<35	134	60.1
	≥35	89	39.9
Hometown	Batman	124	55.6
	Other	99	44.4
Marital status	Married	166	74.4
	Not Married	57	25.6
Workplace	Urban	161	72.2
	Rural	62	27.8
Profession	Physician	104	46.6
	Nurse-Midwife	100	44.9
	Other	19	8.5
Education	Health high school	41	18.4
	Associate	18	8.1
	Licence	54	24.2
	Master's degree	110	49.3
Primary care experience (years)	≤5	114	51.1
	>5	99	48.9
Work experience (years)	<10	112	50.2
	≥10	111	49.8
Turnover intention	Yes	89	39.9
	No	134	60.1
Liking profession	Yes	205	91.9
	No	18	8.1
Liking workplace	Yes	179	80.3
	No	44	19.7
Job contentment (stated)	Yes	167	74.9
	No	56	25.1
Job satisfaction (Internal MJSS)	Satisfied	159	71.3
	Unsatisfied	64	28.7
Job satisfaction (External MJSS)	Satisfied	109	48.9
	Unsatisfied	114	51.1
Job satisfaction (General MJSS)	Satisfied	138	61.9
	Unsatisfied	85	38.1

$p=0.001$, and $p=0.015$, respectively). Additionally, external satisfaction was significantly associated with working in hometown ($p=0.011$) and internal satisfaction was associated with being satisfied with the profession and the duration of primary care experience ($p=0.009$ and $p=0.031$, respectively) (Table II).

Table III presents the adjusted satisfaction scores of the participants. The models for internal, external, and overall satisfaction were statistically significant ($\chi^2(11)=37.606$, $p<0.001$, $\chi^2(11)=42.718$, $p<0.001$ and $\chi^2(11)=24.394$, $p=0.011$, respectively) and explained 22.2%, 23.2%, and 14.1% of the variances, respectively. Among the parameters, only liking the workplace had an effect on the internal, external, and overall satisfaction, which implicates that the participants that were satisfied with their workplace were three times more satisfied with their job compared to other participants ($p=0.003$). In addition, working in hometown and

having ten years or longer work experience were significant predictors of external job satisfaction ($p=0.024$ and $p=0.026$, respectively).

No significant correlation was found between job satisfaction scores and age ($r=-0.014$, $p=0.838$), duration of work experience ($r=-0.027$, $p=0.695$), and duration of experience in primary care ($r=0.042$, $p=0.544$). The internal consistency coefficient (Cronbach's α) of MSQ was found to be 0.901 (very good) and the internal consistency coefficients of internal and external satisfaction were 0.868 and 0.767, respectively.

Discussion

This present study evaluated the views of PHCWs regarding their working conditions and their job satisfaction in a province located in the southeast of Turkey. The results indicated that

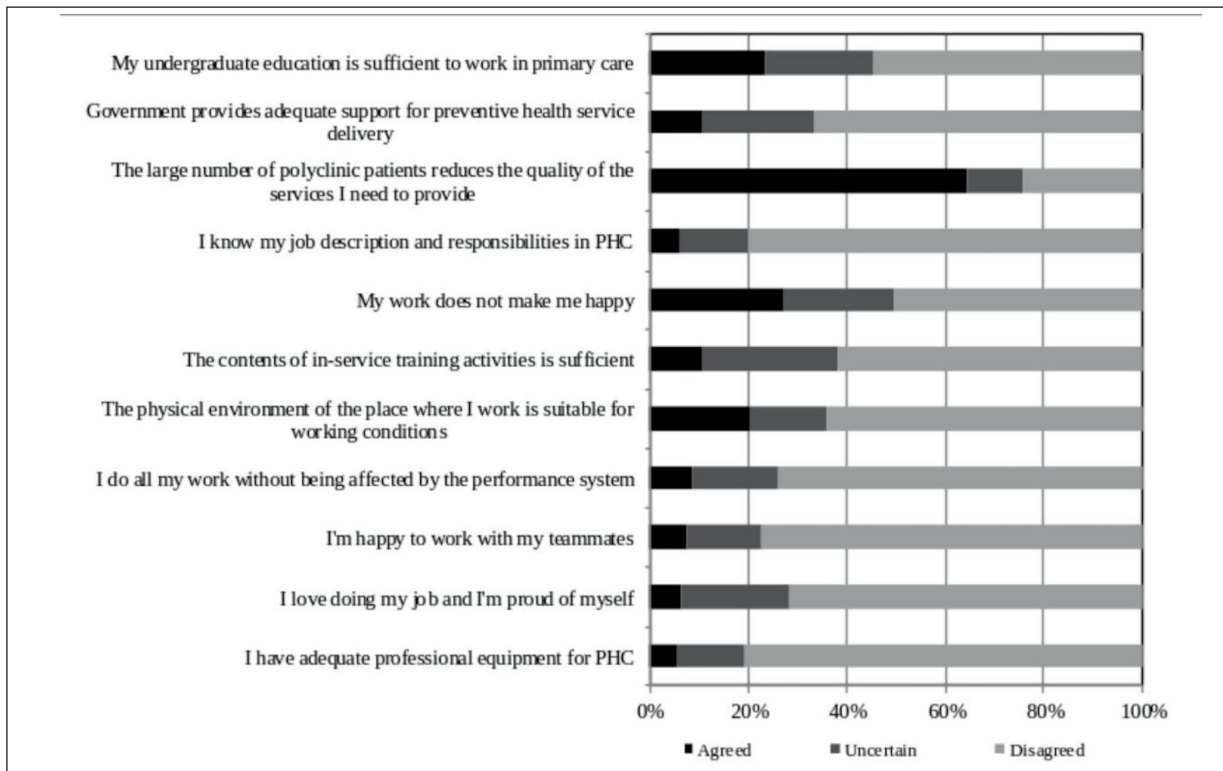


Figure 1. Self Evaluation of Primary Health Workers on Some Work-Related Issues (Only 220 PHCWs have responded the questions).

the participants had a moderate satisfaction level (61.9%). As consistent with our findings, other primary care studies conducted in the South, East and Southeast regions of Turkey also reported moderate job satisfaction levels^{20,24,25}. However, higher levels of satisfaction were reported from the North-western region, which further confirms the difference between the eastern and western parts of Turkey²⁶. Additionally, another study, in a similar way to our study, reported on low external satisfaction levels among PHCWs working in various regions of Turkey and the authors attributed this finding to patient load and working conditions¹⁹.

Studies from various parts of the world have reported similar findings. For instance, after the health reform of China, job satisfaction levels of PHCWs were reported to not be remarkably high and the participants were found to be neutral in this regard^{21,27}. Moreover, in a study evaluating two different regions in Saudi Arabia, overall job satisfaction level was reported to be 62.0%, which was similar to the satisfaction level in our study²⁸. In a study reporting on post-reform Indonesia, PHCWs were found to have a moderate job satisfaction level¹⁴. On the other hand, a survey conducted in eleven different countries examining job satisfaction in primary care reported that

Germany and England had the lowest satisfaction levels (62.6% and 65.1%, respectively), whereas Norway (91.9%) and Australia (88.1%) had the highest satisfaction levels²⁹.

The views of our participants regarding their working conditions and practices indicated that workload is an important obstacle for the quality of the service delivered by PHCWs. As a matter of fact, the number of patients per family physician in our country is higher than those in many European countries³⁰. This workload is further increased by obligatory patient follow-up and registration, preventive medicine, and health promoting practices as well as intensive outpatient services. However, we consider that since outpatient service facilitates the development of patient-physician relations, it will both enable the recognition of the patient's clinical condition by the physician in the long term and will also contribute to the improvement of patient and job satisfaction by establishing a bond between the patient and the PHCW. Moreover, the PHCWs in our study also declared that they were affected by the performance-based payment system while performing their jobs. Additionally, although the essential equipment that should be available in every FHC (e.g., medical equipment needed in

Table II. Bivariate analysis of job satisfaction.

Factors	Satisfaction Ratio (95% CI)†					
	Internal	<i>p</i>	External	<i>p</i>	General	<i>p</i>
Male Sex	1.00 (0.56-1.79)	0.997	1.51 (0.89-2.56)	0.130	1.21 (0.70-2.10)	0.489
≥35 years of age	1.15 (0.64-2.09)	0.641	1.12 (0.65-1.91)	0.682	1.26 (0.72-2.20)	0.410
Married	1.67 (0.88-3.17)	0.115	1.19 (0.65-2.18)	0.568	1.38 (0.75-2.54)	0.301
Working in hometown	1.37 (0.77-2.46)	0.285	1.99 (1.17-3.41)	0.011	1.50 (0.87-2.58)	0.144
Being family physician	0.99 (0.55-1.77)	0.964	1.56 (0.92-2.65)	0.098	1.13 (0.66-1.95)	0.650
≥10 years of work experience	1.68 (0.93-3.02)	0.083	1.51 (0.89-2.57)	0.124	1.50 (0.87-2.58)	0.143
> 5 years of primary care experience	1.91 (1.06-3.47)	0.031	1.22 (0.72-2.06)	0.466	1.65 (0.96-2.85)	0.071
Working in rural area	1.37 (0.70-2.68)	0.356	1.06 (0.59-1.91)	0.835	1.29 (0.70-2.38)	0.418
No turnover intention	2.82 (1.55-5.12)	0.001	1.76 (1.02-3.03)	0.040	2.05 (1.18-3.56)	0.011
Liking profession	3.50 (1.31-9.32)	0.009	1.21 (0.46-3.20)	0.695	2.17 (0.82-5.73)	0.112
Liking work place	3.26 (1.65-6.45)	<0.001	5.83 (2.56-13.24)	<0.001	2.94 (1.49-5.78)	0.001
Job contentment	3.64 (1.92-6.91)	<0.001	2.53 (1.34-4.79)	0.004	2.13 (1.15-3.94)	0.015

† χ^2 test used. CI: Confidence Interval.

examination rooms and waiting room requirements) was designated by law and improved after the reform, some participants declared that they were dissatisfied with the equipment available in their workplace. Similarly, some studies showed that the healthcare staff working countries in eastern Europe are less satisfied with their workplaces compared to those in western Europe³¹.

In our study, most of the participants indicated that they did not consider themselves sufficiently qualified to work in primary care, which could be due to the non-inclusion of primary care training in the medical undergraduate curriculum, except for a one-month family medicine internship program in the final year. In addition, the certification program for primary health care system, which is provided to non-specialist physicians, includes a one-week face-to-face instruction and is followed by an online second stage lasting for two years; however, there is no practical training in this program. We suggest that these training activities should be enhanced so as to contain practicum and should be provided to all the current FHC personnel who previously did not receive any training.

In a similar way to the findings of some Turkish studies, our findings indicated no significant difference between the satisfaction scores with regard to age, gender, marital status, occupation, and work experience^{18-20,24}. Literature indicates that age is an important factor for job satisfaction and that often it shows a U-shaped pattern^{29,31,32} and is closely related to professional experience^{14,21}. Although gender does not generally play a decisive role in job satisfaction, there are some studies showing that women are more satisfied with their jobs compared to men³²⁻³⁴. Contrary to our study, it is generally reported that individuals working in rural areas are not satisfied

with their job³⁵. However, in our study, no significant difference was observed between the PHCWs working in urban and rural areas with regard to satisfaction levels despite the fact that PHCWs in rural areas receive higher wages and can easily be transferred to a better location after working in rural areas for a certain period of time and the fact that rural and eastern people are more respectful to PHCWs. On the other hand, in our study, the PHCWs working in their hometown had higher external satisfaction levels, which could be due to the fact that working in the hometown is a favorable opportunity. Of note, PHCWs working in their hometown may feel more comfortable and peaceful, can receive family support while working (regarding child and home care), may have the opportunity to work with people they knew before, and do not have to cope with the pressure of adapting to a new place and a new culture. In bivariate analyses, a significant difference was found between PHCWs with more than five years of primary care experience and those with less experience with regard to internal satisfaction, which suggests that PHCWs have well-adopted their work after working for more than five years. However, the same difference was not observed in terms of external satisfaction, which may indicate some problems in operational and managerial issues. This finding was also consistent with the answers provided to the questionnaire items related to working conditions and practices. Similarly, post-reform problems have been shown to affect job satisfaction in other countries as well^{14,16,35}. In our study, although there was no difference in bivariate analyses, it was determined that more than 10 years of professional experience was a predictor of job satisfaction. This finding could be explained by the fact that PHCWs with a certain professional experience have priori-

Table III. Multivariate analysis of job satisfaction.

Factors [‡]	Adjusted Satisfaction Ratio (95% CI) [†]					
	Internal	<i>p</i>	External	<i>p</i>	General	<i>p</i>
Male Sex	1.10 (0.40-3.01)	0.849	1.39 (0.56-3.47)	0.482	1.37 (0.55-3.42)	0.501
≥35 years of age	0.50 (0.20-1.26)	0.142	0.45 (0.20-1.02)	0.055	0.73 (0.33-1.62)	0.431
Working in hometown	1.32 (0.69-2.53)	0.402	1.99 (1.10-3.62)	0.024	1.48 (0.82-2.65)	0.193
Being family physician	1.13 (0.41-3.15)	0.811	1.66 (0.66-4.22)	0.284	0.95 (0.38-2.42)	0.920
≥10 years of work experience	1.73 (0.63-4.71)	0.285	2.73 (1.13-6.62)	0.026	1.44 (0.60-3.44)	0.417
> 5 years of primary care experience	2.10 (0.90-4.92)	0.087	1.04 (0.48-2.23)	0.923	1.63 (0.77-3.46)	0.201
Working in rural area	1.47 (0.68-3.20)	0.326	1.24 (0.63-2.43)	0.533	1.34 (0.68-2.63)	0.398
No turnover intention	1.83 (0.89-3.77)	0.103	1.31 (0.66-2.62)	0.444	1.57 (0.81-3.04)	0.184
Liking profession	1.72 (0.53-5.58)	0.365	0.86 (0.26-2.86)	0.810	1.53 (0.49-4.81)	0.466
Liking workplace	3.52 (1.61-7.73)	0.002	5.40 (2.23-13.06)	<0.001	3.07 (1.46-6.45)	0.003
Job contentment	2.14 (0.97-4.70)	0.059	1.89 (0.83-4.35)	0.132	1.29 (0.60-2.74)	0.516
Model ($\chi^2(11)$, <i>p</i>)	37.606, <i>p</i> <0.001		42.718, <i>p</i> <0.001		24.394, <i>p</i> =0.011	
Hosmer-Lemeshow test <i>p</i>	0.286		0.117		0.843	
Nagelkerke R ²	22.2%		23.2%		14.1%	
Classified cases (%)	73.5		70.0		68.2	

[†]Binary Logistic Regression used. [‡]All factors were adjusted for all other factors presented in each model. CI: Confidence Interval.

ty in appointments and are also allowed to choose the FHC they would like to work in. Moreover, an experienced PHCW is more likely to have solved some of his/her familial (e.g., child raising) and financial problems over time, to have adapted to their working environment, and to have improved his/her communication skills, all of which have a positive contribution to their job satisfaction levels²¹.

Job dissatisfaction and the intention to quit job are often linked to each other^{21,36}. In our study, the intention to quit job was found to be lower in participants with higher job satisfaction, whereas this factor was not determined as a meaningful predictor of job satisfaction in multivariate analyses. This may be due to the multidimensional aspects of the intention to quit job, such as personality, private life, working principles, and autonomy as well as characteristics of the administration and working conditions³². As it is commonly known, the profession of an individual is like his/her lifestyle, particularly for medical doctors. In our country, almost all healthcare workers choose their profession willingly as in other countries³⁵. Since these professions are highly respected in the society and offer a wide range of job opportunities after graduation as well as satisfactory salaries paid by the government. On the other hand, although being satisfied with one's profession is an important factor for internal satisfaction, it was not determined as an important predictor in our study. This finding could be due to the fact that satisfaction with one's profession is associated with numerous sociological and psychological factors and involves different dimensions.

Moreover, although our findings confirmed that more satisfied health care workers have higher satisfaction scores, multivariate analysis showed that satisfaction alone is not sufficient since it mostly involves emotional as well as administrative, economic, and environmental dimensions³⁷.

In our study, being satisfied with one's workplace was determined to be the most important predictor of job satisfaction. For an employee, the workplace includes not only the physical conditions of the job but also involves social, security, and financial dimensions of the workplace³⁸. Literature indicates that a better work environment increases job satisfaction and that a positive work atmosphere is one of the essential components of this satisfaction^{31,37,39}. The present study showed that work-related factors were the most relevant variables for job satisfaction. Meaningfully, employees work more efficiently when they feel happy, valued, and safe at work, when they have good relations with their teammates, and when they think that their work is rewarded financially^{38,40,41}. In a similar way to our findings, a study conducted in China found that working environment was the most important predictor of job satisfaction among PHCWs, while working conditions were the third most important predictor¹⁶. In a review article investigating different aspects of job satisfaction in a total of 440 studies, it was found that physical working conditions had the highest rate with 32.5%⁴². Similarly, a Turkish study examining job satisfaction among primary care nurses in South-eastern Anatolia found that the nurses that

were satisfied with their working conditions were also satisfied with their jobs²⁵.

Our study had several limitations. First, it was a cross-sectional study and covered only a certain period of time; therefore, the causal link could not be evaluated. Second, due to the use of a self-reported questionnaire, there may be recall bias. Third, since the study focused on some limiting factors, the other aspects of job satisfaction such as income, career planning, and patient recognition could not be examined. Fourth, participation was on a voluntary basis and thus only those who wanted to express their opinions might have participated in the study. Finally, since the study was conducted in only one region, its findings may not be generalized to the whole country. Nonetheless, we consider that the study represents the region due to its high response rate. Given that the subject matter analysed in the present study had never been examined in the Southeast Region in Turkey, the present study could be a guide for future planning and policy making in primary care.

Conclusions

The results indicated that the job satisfaction levels of PHCWs were not high after the health care reform. Although working conditions have been improved with the reform, there are still dissatisfactions regarding training, support and overwork. The government should reorganize the outpatient services and improve the content and quality of both undergraduate and in-service training programs by focusing on family medicine and practice. Additionally, special attention should be paid to PHCWs having less work experience or working far from hometown. Moreover, the current study reveals the importance of being satisfied with the workplace for job satisfaction. Therefore, environmental factors for job-related issues need to be examined more intensively by policy makers and there is a need for multicentre, longitudinal, and qualitative studies particularly in Turkey.

Acknowledgements

We thank all PHCWs that volunteered to participate in our study. This research was presented as oral presentation in 19th International Eastern Mediterranean Family Medicine Congress, 2020 Adana, Turkey.

Funding

The study was not supported by any funding resources.

Authors' Contributions

We certify that all individuals listed as authors of this manuscript: 1) have made substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; 2) have been involved in drafting the manuscript or revising it critically for important intellectual content; 3) have given final approval of the version to be published; and 4) agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Erten Bucaktepe P. G, designed the study, made the statistical analysis of the data, and wrote most of the manuscript. Bulut Çelik S, contributed design of the study and interpretation of the data, assisted writing and editing of the manuscript. Çelik F, helped conceptualization and design of the study by preparing the Likert-type statements regarding the views of PHCWs' working conditions and practices, collected the data and contributed to the writing of this manuscript.

Ethical Approval

The study was conducted in February 2019 after receiving an approval from Batman Regional State Hospital Non-Interventional Clinical Research Ethics Committee (Approval date: January 28, 2019; No: 132).

Informed Consent

Individuals participated in the study during their in-service training activities and an informed consent was obtained from each participant.

ORCID ID

P. Gamze Erten Bucaktepe: 0000-0003-0544-4906
Sercan Bulut Çelik: 0000-0001-7580-1687
Fatima Çelik: 0000-0002-6259-7311

Conflict of Interest

The authors report there are no competing interests to declare.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

References

- 1) Declaration of Alma-Ata. World Health Organization. International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978. https://who.int/publications/almaata_declaration_en.pdf. Accessed 2021 Feb 25.
- 2) Tatar M, Mollahaliloğlu S, Şahin B, Aydın S, Maresso A, Hernández-Quevedo C. Turkey: Health system review. *Health Syst Transit* 2011; 13: 1-186.

- 3) Kringos DS, Akman M, Boerma WGW. Turkey. Building primary care in a changing Europe: case studies. United Kingdom (UK): World Health Organization 2015; pp. 285-294.
- 4) Health Statistics Yearbook. 2009. The Ministry of Health of Turkey. <https://sbu.saglik.gov.tr/Ekut-uphane/kitaplar/siy2009.pdf> Accessed 2021 Mar 02.
- 5) Health Statistics Yearbook. 2019. The Ministry of Health of Turkey. <https://sbsgm.saglik.gov.tr/Eklen-ti/40566/0/health-statistics-yearbook-2019pdf.pdf> Accessed 2021 Dec 13.
- 6) Sumer S, Shear J, Yener AL. 2019. Building an Improved Primary Health Care in Turkey Through Care Integration. © World Bank. <https://openknowledge.worldbank.org/bitstream/handle/10986/33098/Building-an-Improved-Primary-Health-Care-System-in-Turkey-through-Care-Integration.pdf;jsessionid=D396AD476D7E3C2DB18435C81A84A784?sequence=1> Accessed 2021 Feb 25.
- 7) Health statistics yearbook news bulletin. 2020. The Ministry of Health of Turkey. <https://sbsgm.saglik.gov.tr/Eklen-ti/41611/0/haber-bulteni-2020pdf.pdf> Accessed 2021 Dec 13.
- 8) Turkey health indicators. 2021. Turkish Statistical Institute. <https://biruni.tuik.gov.tr/ilgosterge/?lo-cale=tr> Accessed 2021 Mar 02.
- 9) Aziri B. Job satisfaction: a literature review. *Manag Res Pract* 2011; 3: 77-86.
- 10) Liu Y, Aunguroch Y, Yunibhand J. Job satisfaction in nursing: a concept analysis study. *Int Nurs Rev* 2016; 63: 84-91.
- 11) Thiagaraj D, Thangaswamy A. Theoretical concept of job satisfaction-a study. *Int J Res Granthaalayah* 2017; 5: 464-470.
- 12) Van Ham I, Verhoeven AAH, Groenier KH, Groothoff JW, De Haan J. Job satisfaction among general practitioners: A systematic literature review. *Eur J Gen Pract* 2006; 12: 174-180.
- 13) Mohr DC, Young GJ, Meterko M, Stolzmann KL, White B. Job satisfaction of primary care team members and quality of care. *Am J Med Qual* 2010; 26: 18-25.
- 14) Maharani C, Afief DF, Weber D, Marx M, Loukanova S. Primary care physicians' satisfaction after health care reform: a cross-sectional study from two cities in Central Java, Indonesia. *BMC Health Serv Res* 2019; 19: 290.
- 15) Allebdi AA, Ibrahim HM. Level and determinants of job satisfaction among Saudi physicians working in primary health-care facilities in Western Region, KSA. *J Family Med Prim Care* 2020; 9: 4656-4561.
- 16) Gu J, Zhen T, Song Y, Xu L. Job satisfaction of certified primary care physicians in rural Shandong Province, China: a cross-sectional study. *BMC Health Serv Res* 2019; 19: 75.
- 17) Aras A, Guraksın A, Koşan Z, Çalikoğlu EO, Yerli EB. Burnout syndrome, job satisfaction and associated factors among primary health care doctors in Erzurum, Turkey. *J Surg Med* 2018; 2: 105-110.
- 18) Tekin Ç, Bozkır Ç, Sazak Y, Özer A. The views of family physicians and family healthcare personnel, who work in the city centre of Malatya, on the family medicine practices, job satisfactions and effecting factors. *Firat Med J* 2014; 19: 135-139.
- 19) Arslan Ç, Aynaoglu Hakverdi Ö, Bulut S. Assessment of the job satisfaction levels of family physicians. *Ankara Med J* 2018; 18: 155-163.
- 20) Efeoğlu İE, Özcan E. Job satisfaction family physicians: a study from the centre of Adana province. *Cukurova Med J* 2013; 38: 567-573.
- 21) Zhang Z, Shi G, Li L, Bian Y. Job satisfaction among primary care physicians in Western China. *BMC Fam Pract* 2020; 21: 219.
- 22) Weiss DJ, Dawis RV, England GW, Lofquist LH. Manual for the Minnesota Satisfaction Questionnaire. Minnesota Studies in Vocational Rehabilitation: xxii. Industrial Relations Center, University of Minnesota. 1967. [accessed 2021 Nov 21]. Available at: https://vpr.psych.umn.edu/sites/vpr.umn.edu/files/files/monograph_xxii_-_manual_for_the_mn_satisfaction_questionnaire.pdf.
- 23) Baycan A. 1985. Analysis of several aspects of job satisfaction between different occupational groups. [Unpublished PhD Thesis]. Institute of Social Sciences, Bogazici University, Istanbul, Turkey.
- 24) Cagan O, Gunay O. The job satisfaction and burnout levels of primary care health workers in the province of Malatya in Turkey. *Pak J Med Sci* 2015; 31: 543-547.
- 25) Gökler ME, Durmuş H. Job satisfaction and the effecting factors among family health nurses in Şanlıurfa. *Turk J Public Health* 2019; 17: 79-87.
- 26) Turgu S, Öztora S, Çaylan A, Dağdeviren HN. Patient satisfaction in primary care and the relationship with physicians' job satisfaction. *Turk J Fam Pract* 2018; 22: 78-91.
- 27) Zhang M, Yang R, Wang W, Gillespie J, Clarke S, Yan F. Job satisfaction of urban community health workers after the 2009 healthcare reform in China: a systematic review. *Int J Qual Health Care* 2016; 28: 14-21.
- 28) Bawakid K, Rashid OA, Mandoura N, Shah HB, Mugharbel K. Professional satisfaction of family physicians working in primary healthcare centers: A comparison of two Saudi regions. *J Family Med Prim Care* 2018; 7: 1019-1025.
- 29) Cohidon C, Wild P, Senn N. Practice organization characteristics related to job satisfaction among general practitioners in 11 countries. *Ann Fam Med* 2019; 17: 510-517.
- 30) Akman M. Strength of primary care in Turkey. *Turk J Fam Pract* 2014; 18: 70-79.
- 31) Erro-Garcés A, Ferreira S. Do better workplace environmental conditions improve job satisfaction? *J Clean Prod* 2019; 219: 936-948.
- 32) Simoens S, Scott A, Sibbald B. Job satisfaction, work-related stress and intentions to quit of Scottish GPs. *Scott Med J* 2002; 47: 80-86.
- 33) Kaya F, Oğuzöncül AF. Job satisfaction and affecting factors in primary health care providers. *Dicle Med J* 2016; 43: 248-255.
- 34) Oh Y-I, Kim H, Kim K. Factors affecting Korean physician job satisfaction. *Int J Environ Res Public Health* 2019; 16: 2714.
- 35) Shi L, Song K, Rane S, Sun X, Li H, Meng Q. Factors associated with job satisfaction by Chinese primary care providers. *Prim Health Care Res Dev* 2013; 15: 46-57.
- 36) Nguyen QA, Tran AD. Job satisfaction and turnover intention of preventive medicine workers in northern Vietnam: Is there any relationship? *Health Serv Insights* 2021; 14: 117863292199517.
- 37) Sypniewska BA. Evaluation of factors influencing job satisfaction. *Contemporary Economics* 2014; 8: 57-72.

- 38) Taheri RH, Miah MdS, Kamaruzzaman Md. Impact of working environment on job satisfaction. *EJBMR* 2020; 5.
- 39) Roelen CAM, Koopmans PC, Groothoff JW. Which work factors determine job satisfaction? *Work* 2008; 30: 433-439.
- 40) Syptak JM, Marsland DW, Ulmer D. Job satisfaction: putting theory into practice. *Fam Pract Manag* 1999; 6: 26-30.
- 41) Vitali MM, Pires DEP, Forte ECN, Farias JM, Soratto J. Job satisfaction and dissatisfaction in primary health care: an integrative review. *Texto Contexto Enferm* 2020; 29: e20180181.
- 42) Maharani C, Djasri H, Meliala A, Dramé ML, Marx M, Loukanova S. A scoping analysis of the aspects of primary healthcare physician job satisfaction: facets relevant to the Indonesian system. *Human Resour Health* 2019; 17: 38.