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Job satisfaction and quality of life levels of primary care physicians after health reforms in Bursa/Turkey

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Abstract

Health Transformation Programme (HTP) has majorly changed primary health care organization. Family physicians have been deployed in Family Health Centers (FHC) heavily for patient treatment and Community Health Centers (CHC) were constituted for basic health care services with the Pilot Application Law on Family Medicine. 529 (92.16%) primary care physicians who were working at city center of Bursa involved inthis study. Job satisfaction was 2.55 times higher in participants satisfied with their salary; whereas it was 5.70 times lower in participants who find health profession stressful and 3.62time lower in the ones who were exposed to violence by patient/patient's relative in the recent year. Quality of life was 2.80 times higher in the ones who think they have enough time tospend with their family, 1.51 times higher in the ones who were satisfied with their earnings,

and 4.09 times higher in the ones who used three weeks or more annual leave,.Preventing physicians' exposure to violence by patients/patients'relatives, providing increasein pay by saving personal rights and establishing legislative regulations for doctors to usetheir legal leave rights without worrying about pay loss can all positively affect job satisfaction and quality of life of the doctors.

Keywords: Primary Care, Job Satisfaction, Quality of Life, Physicians, Family Health Centers.

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Introduction

Rapid changes have been occurring in the health care sector in Turkey in recent years (1). Privatization policies and public properties have been changed with profit-based and competitive applications, such as productivity and performance evaluations; as a result, there have been alterations in the work environment, working conditions and work relationships (2).

The Health Transformation Programme (HTP), which was started in 2003, has significantly changed the primary health care organization structure. The major dynamics of alteration are associated with the globalization process, which is relevant to the extraction of health care from public services by an incremental transformation of a market condition applicable model (3-5). Of note, 1000-4000 people are linked to a family physician. Primary health care services- which need to be integrative- have been fragmentized, and family physicians were previously widely employed by Family Health Centers (FHCs) for patient treatment since the Pilot Application Law on Family Medicine was introduced in 2004. Community Health Centers (CHCs) were constructed for basic health care services beyond individual services, but coordination between family health centers and community health centers cannot be ensured (6-10).

Studies from various countries demonstrate that health care workers are adversely affected by health care reforms, and it has been shown that their job satisfaction diminishes after health care reforms (11-14). Although more than a decade has passed since the beginning of the HTP, studies that investigated the job satisfaction of physicians who work in primary health care services in Turkey are limited; yet, there is no previously published study about the quality of life. This study has importance in terms of investigating both job satisfaction and the quality of life primary health care physicians after health care reforms.

The aim of this study is to investigate the job satisfaction and quality of life levels as well as the influencing factors, especially following an alteration in the primary health care organization based on health care reforms of primary care physicians working in Bursa city managed by the Bursa Public Health Directorate (PHD).

Materials & Methods

This study was performed to evaluate primary care physicians working at the city center of Bursa, which is Turkey's fourth biggest city. In this cross-sectional study, all 574 primary care physicians who work at the city center were considered for inclusion.

The study was performed at 3 central districts of Bursa (Osmangazi, Yıldırım and Nilüfer) from February – August 2014. All health doctors who work at FHCs, CHCs and PHD were included in the

study. Uludağ University Faculty of Medicine Research Ethics Committee approval was given for the study (decision date 30.09.2013 and decision number 716/14).

The Minnesota Satisfaction Questionnaire (MSQ) was used to evaluate the job satisfaction of primary care physicians, and EUROHIS (WHOQOL-8), which is the briefest version of the World Health Organization quality of life scale, was used to evaluate the quality of life. The MSQ was initially developed by Weiss et al. in 1967, and a reliability-validity analysis for the Turkish version was performed by Baycan in 1985 (15-16). EUROHIS is the briefest quality of life scale, which was developed by the WHO, and evaluates an individual's well-being as well as allows for cross-cultural comparison. A validity-reliability analysis for the Turkish version was performed by Eser et al. in 2010 in Turkey (17-18). Twenty-five percent and below was accepted as a low job satisfaction level, 26-74% was accepted as a moderate job satisfaction level and 75% and above was accepted as a high job satisfaction level in the general job satisfaction scoring. In the WHOQOL-8 scale scoring, a total scale score between 5 and 40 is calculated, and the cut-off value of the average scale score was accepted as 26. The quality of life of doctors who received 27 or more points was accepted as good.

Data were analyzed using SPSS 22.0 software with Student's t test, variance analysis, chi-squared test and logistic regression analysis.

Results

Five hundred and twenty-nine people (92.16%) were included in the study; 43.29% (n=229) were female, and 56.71% (n=300) were male. Additionally, 5.86% of the primary care physician participants (31 people) were health specialists. Furthermore, 27.91% of the health doctors (12 people) working at CHCs were specialists, whereas 3.51% of doctors (16 people) working at FHCs and 10.00% (3 people) of doctors working at the PHD were specialists. There is a significant difference in terms of the number of specialists of FHC, CHC and PHD doctors (χ^2=43.39, p<0.001). The average age of doctors was 45.39 (95% G.A: 44.86- 45.90) years, and the average working duration was 244.40 (95% G.A: 238.66-250.13) months. The facilities at which doctors work according to their age groups are presented in Table 1.

Table 1. Facilities where doctors work according to their age groups

Age groups	Primary Care Facility			Total (%)	χ^2	P
	FHC(%)	CHC(%)	PHD(%)			
< 40	44 (9.65)	13 (30.2)	8 (26.7)	65 (12.29)	22.28	<0.001
40-49	330(72.37)	23 (6.2)	16 (53.3)	369 (69.75)		
≥ 50	82 (17.98)	7 (7.4)	6 (20.0)	95 (17.96)		
Total	456(86.20)*	43 (8.13)*	30 (5.67)*	529 (100.0)		

* Line percentage

The average weekly working duration of participant doctors was 41.09 hours (95% G.A: 40.89-41.32). Doctors indicate their weekly working hours are 41.13 (95% CI: 40.91-41.34) for FHCs, 40.12 (95% CI: 39,88-40,35) for CHCs and 41,93 (95% CI: 40.05-43.82) for the PHD. There is a significant difference in terms of the weekly working duration between facilities; this difference is caused by differences between FHC and CHC physicians as well as between CHC and PHD physicians (χ^2=10.12; p=0.006).

Of the primary care physicians, 58.22% (308 people) reported that they had a heavy workload in response to questions about their work rate and work intensity. The physicians' perception of workload and related factors are presented in Table 2.

Table 2: Physicians' perceptions of workload and related factors (%)

Factors affecting workload		Perception of workload			χ^2	p
		Light	Moderate to high	Total		
Working facility	FHC	167 (36.62)	289 (63.38)	456 (100.0)	36.09	<0.001
	CHC PHD	54 (73.97)	19 (26.03)	73 (100.0)		
Weekly working duration	≤40 hours	190 (45.56)	227 (54.44)	417 (100.0)	11.61	0.001
	40 + hours	31 (27.68)	81 (72.32)	112 (100.0)		
Spending enough time with family	Yes	147 (62.29)	89 (37.71)	236 (100.0)	73.70	<0.001
	No	74 (25.26)	219 (74.74)	293 (100.0)		
Satisfaction with earning	Yes	125 (51.44)	118 (48.56)	243 (100.0)	17.26	<0.001
	No	96 (33.57)	190 (66.43)	286 (100.0)		
Exposure to violence by patient/patient's relative	Yes	84 (33.20)	169 (66.80)	253 (100.0)	14.66	<0.001
	No	137 (49.64)	139 (50.36)	276(100.0)		
Total		221 (41.18)	308 (58.22)	529 (100.0)		

Additionally, 92.60% of participant physicians (n=488) stated that occupational prestige for doctors is decreasing. Furthermore, 92.63% of the participant doctors (n=490) find the medical profession to be

stressful, and more than half (54.44%) indicate that they would not choose to become doctors if they had a chance to select their profession again.

In terms of vacation, 42.34% of the doctors (224 people) used less than three weeks of annual leave within the recent year, and 76.21% of them (n=151) indicated that they could not use annual leave for occupational reasons. Occupational reasons included the following: lack of sufficient doctors, loss of pay and high workload. While the most common reason for FHC physicians to not use their annual leave is the lack of sufficient physicians, the most common reason for the doctors working at CHCs/PHD was loss of pay.

With respect to abuse, 25.90% of the doctors who participated to our study (n=137) indicate that they were exposed to abuse from their directors and/or co-workers.

Furthermore, 15.50% of the doctors (n=82) reported they were exposed to verbal abuse, 3.02% (n=16 people) indicated they were exposed to economical abuse, 0.2% (n=1) specified physical violence, 4.73% (n=25) reported both verbal and economical abuse, and 0.95% (n=5) stated that they were exposed to all types of abuse, verbal, physical and economical abuse. The doctors who were not satisfied with their earnings were more likely to be exposed to abuse by their directors/co-worker than the doctors who were satisfied with their earnings (χ^2=17.38; p<0.001).

In terms of violence, 47.83% of the participant doctors (n=253) indicated that they were exposed to violence by patients/patients' relatives within the last year. The details about the doctors who were exposed to violence by a patient/patient's relative within the last year are presented in Table 3.

Table 3: Doctors who were exposed to violence by patient/patient's relative in the recent year

Characteristics		Being exposed to violence by patient/patient's relative (%)				
		Exposed to violence	Not exposed to violence	Total	χ^2	p
Gender	Female	126(55.02)	103 (44.98)	229(100.0)	8.38	0.004
	Male	127(42.33)	173 (57.67)	300(100.0)		
Workload perception	Heavy	169(54.87)	139 (45.13)	308(100.0)	14.69	<0.001
	Light	84 (38.01)	137 (61.99)	221(100.0)		
Working facility	FHC	236(51.75)	220 (48.25)	456(100.0)	20.44	<0.001
	CHC/PHD	17 (23.29)	56 (76.71)	73 (100.0)		

Being abused by superiors/co-worker	Yes	108(78.83)	29 (21.17)	137(100.0)	71.23	<0.001
	No	145(36.99)	247 (63.01)	392(100.0)		
Total		253(47.83)	276 (52.17)	529 00.0)		

The future plans of the participant primary care physicians are as follows:

- 32.20% (n=170) change job,
- 25.19% (n=133) continue working in the same place (same place, same place with other people, or same place with better conditions),
- 21.21% (n=112) retire before the age limit,
- 19.13% (n=101) work in a different place,
- 2.27% (n=12) become a specialist physician. Details about the future plans of the doctors are presented in Table 4.

Table 4: The future plans of primary care physicians

Characteristics		Future plan (%)			χ^2	p
		Job chance	Other choices*	Total		
Satisfaction with the working facility	Satisfied**	61 (22.76)	207 (77.24)	268 (100.0)	22.20	<0.001
	Not satisfied	109 (41.92)	151 (58.08)	260 (100.0)		
Using leave	< 3 weeks	88 (39.46)	135 (60.54)	223 (100.0)	9.33	0.002
	≥ 3 weeks	82 (26.89)	223 (73.11)	305 (100.0)		
Satisfaction with the earning	Yes	65 (26.75)	178 (73.25)	243 (100.0)	6.12	0.013
	No	105 (36.84)	180 (63.16)	285 (100.0)		
Being abused by superiors/co-worker	Yes	55 (40.44)	81 (59.56)	136 (100.0)	5.70	0.017
	No	115 (29.34)	277 (70.66)	392 (100.0)		
Total****		170 (32.20)	358 (67.80)	528 (100.0)		

**: Going on working in the same place/different place, early retirement, being specialist etc.*

***: The oneswho selected 'very satisfied' and 'satisfied' choice*

***: The ones who selected 'very unsatisfied', 'not satisfied' and 'neither satisfied nor unsatisfied' choice*

***** : 1 person was excluded from analysis because not answered this question.*

The MSQ mean score of the participant doctors was 59.98% (95% CI:58.99-61.07). The job satisfaction of 10.02% of the doctors (n=53) was high; it was moderate for 89.41% (473 people) and low for 0.57% (n=3). The MSQ mean score of doctors working at FHCs is significantly lower than the mean MSQ score of CHC/PHD doctors (t=-2.69; p=0.007). Details about the MSQ mean scores of the doctors and the affecting factors are presented in Table 5.

Table 5: The MSQ mean scores of the doctors and affecting factors

Characteristics		MSQ mean score (95% G.A)	t	p
Working facility	FHC	59.41 (58.30-60.47)	-2.69	0.007
	CHC/PHD	63.56 (60.44-66.62)		
Workload	Heavy	57.61 (56.11-58.99)	-5.35	<0.001
	Light	63.28 (61.89-64.71)		
Satisfaction with the working facility	Satisfied*	66.26 (65.08-67.38)	13.82	<0.001
	Not satisfied**	53.54 (52.08-54.99)		
Spending enogh time with family	Yes	63.37 (61.86-64.78)	5.85	<0.001
	No	57.25 (55.84-58.68)		
Finding the job stressful	Yes	59.34 (58.23-60.42)	-4,28	<0,001
	No	67,97 (63,65-71,93)		
Wishing to be a doctor again	Yes	64,93 (63,69-66,20)	9,23	<0,001
	No	55,84 (54,39-57,23)		
Satisfaction with earning	Yes	64,33 (62,87-65,64)	7,90	<0,001
	No	56,29 (54,75-57,64)		
Exposure to violence by patient/patient's relative	Exposed	56,21 (54,66-57,72)	-7,05	<0,001
	Not exposed	63,44 (62,13-64,70)		
Being abused by superiors/co-worker	Abused	56,28 (54,28-58,25)	-4,14	<0,001

	Not abused	61,27 (60,02-62,48)		

*: The ones who selected 'very satisfied' and 'satisfied' choice

**: The ones who selected 'very unsatisfied', 'not satisfied' and 'neither satisfied nor unsatisfied' choice

The MSQ mean score of the doctors who want to change their job (55.19; 95% CI:53.50-57.04) was significantly lower than the MSQ mean score of the doctors who selected the other choice (62.8; 95% G.A: 61.07-63.46) (t=6.40; p<0.001).

The WHOQOL-8 quality of life mean score of the doctors was 26.47 (95% G.A:26.06-26.88). The WHOQOL-8 quality of life mean score of doctors working at FHCs was lower than the score of doctors working at CHCs/PHD, and this difference was from doctors working at FHCs and CHCs (F=5.98; p=0.003). The variation in the doctors' mean quality of life (WHOQOL-8) scores according to various features is presented in Table 6.

Table 6: The mean quality of life (WHOQOL-8) scores of the doctors

Characteristics		Mean score (95% G.A)	t, F	p
Working facility	FHC	26.20 (25.76-26.64)	5.98*	0.003
	CHC	28.79 (27.17-30.41)		
	PHD	27.13 (25.36-28.91)		
Workload	Heavy	25.55 (25.05-26.09)	-5.28	<0.001
	Light	27.75 (27.13-28.34)		
Using leave	< 3 weeks	25.75 (25.12-26.43)	-2.95	0.003
	≥ 3 weeks	27.00 (26.47-27.55)		
Facility satisfaction	Satisfied**	28.03 (27.46-28.60)	7.94	<0.001
	Not satisfied***	24.86 (24.35-25.43)		
Spending enogh time with family	Yes	28.58 (28.04-29.09)	9.72	<0.001
	No	24.77 (24.27-25.33)		
Satisfaction with earning	Yes	28.07 (27.54-28.66)	7.36	<0.001
	No	25.10 (24.59-25.63)		
Exposure to violence by patient/patient's relative	Exposed	25,30 (24.72-25.85	-5.41	<0.001
	Not exposed	27.53 (26,98-28,08)		

Future plan	Job change	25.19 (24.50-25.86)	4.23	p<0.001
	Other	27.07 (26.56-27.59)		

*: Variance analysis F value

**: The ones who selected 'very satisfied' and 'satisfied' choice

***: The ones who selected 'very unsatisfied', 'not satisfied' and 'neither satisfied nor unsatisfied' choice

The mean WHOQOL-8 scores of doctors with high job satisfaction (31.55; 95% G.A:30.20-32.90) were significantly higher than the mean scores of doctors with moderate (25.98; 95% G.A:25.58-26.38) and low (13.67 95% G.A:9.87-17.46) job satisfaction (F=49.43; p<0.001).

A high job satisfaction level was accepted as the reference value, and logistic regression analysis was performed on different models. In the first model, future plans, emotional stress, respectability and being exposed to violence from patients, as well as in the second model, pay satisfaction, leave duration, satisfaction regarding the facility and wishing to be a doctor again if given a second chance were accepted as independent variables. Logistic regression analysis in which job satisfaction was accepted as a dependent variable is presented in Table 7.

Table 7: Logistic regression analysis results for job satisfaction

	Job satisfaction				
MODEL 1 :* (526 People)		B	p	O.R.	95% G.A
	Future plan	1.42	0.004	4.16	1.59-10.85
	Emotional stress	1.74	<0.001	5.70	2.56-12.71
	Respectability	0.28	0.574	1.32	0.50-3.44
	Violence from patient	1.29	<0.001	3.62	1.76-7.44
	Age&gender& Marital status	-0.01	0.172	0.99	0.96-1.01
	Minnesota job satisfaction (fix)	-0.22	0.679	0.81	
	* Model chi-square=52.28 SD=5 P<0.001				
MODEL 2 :* (529 People)	Pay satisfaction	0.938	0.007	2.55	1.29-5.24
	Use leave	- 0.297	0.346	0.74	0.40-1.38
	Facility satisfaction	2.25	<0.001	9.46	3.29-27.18
	Wishing to be a doctor again	0.97	0.006	2.63	1.33-5.27
	Age&gender& Marital status	-0.01	0.55	0.10	0.97-1.02
	Minnesota job satisfaction (fix)	1.03	<0.001	2.79	
	* Model chi-square= 67.61 SD=5 P<0.001				

The cut-off point for the WHOQOL-8 scale was accepted as 26. Accordingly, participants who

received 27 points or more from the WHOQOL-8 scale were assigned as the reference group, and logistic regression analysis for different models was performed. In the first model, the specialty field, spending enough time with family, pay satisfaction, satisfaction with the facility where they work and wishing to be a doctor again and, in the second model, being exposed to violence by patient/patient's relative within the last year, future plans and leave duration were accepted as independent variables. Logistic regression analysis indicated the quality of life was accepted as a dependent variable, which is presented in Table 8.

As a result of the models on job satisfaction, job satisfaction was 9.46-fold higher in participants who were pleased with the facility where they work, 2.55-fold higher in participants who were satisfied with their earnings and 2.63-fold higher in participants who wished to be a doctor again if given a second chance. By contrast, job satisfaction was 5.70 times lower in participants who find the health profession stressful, 4.16 times lower in the ones who want to change jobs and 3.62 times lower in the ones who were exposed to violence by a patient/patient's relative in the last year.

Quality of life was 3.03 times higher in specialists, 2.80 times higher in participants who think they have enough time to spend with their family, 1.51 times higher in participants who were satisfied with their earnings, 2.11 times higher in participants who wanted to be a doctor again if they had a second chance, 2.16 times higher in participants who were pleased with the institution where they work, and 4.09 times higher in participants who used three weeks or more of annual leave. By contrast, job satisfaction was 1.66 times lower for doctors who were exposed to violence by a patient/patient's relative in the last year and 1.49 times lower for doctors who wanted to change jobs.

Discussion

The average duration of work of the participant doctors in their occupation was approximately twenty years. According to this, primary care physicians working in Bursa city center are the most experienced doctors in their occupation. A great majority of the doctors (92.6%) think that the respectability of the doctor profession has been declining in the last decade. This percentage is terrifying and thought-provoking. One-third of the participant doctors stated that they want to change jobs. This deterioration in their perception can be related to health reforms that were applied in primary health care. Some studies have revealed that the HTP and Family Medicine System increases competition between doctors, workload, emotional stress and ethical degeneration, whereas it reduces the vacation time, leave duration, time spent on social life and professional development. Also, it was demonstrated that the system causes anxiety about job security and the future (19-21).

Family physicians can take 30 days of annual leave, while CHC/PHD doctors, according to their duty years, can take 20-30 days of annual leave in Turkey. In this study, almost half of the doctors providing primary health care services indicated that they take less than three weeks of annual leave, although they have legal rights for more vacation time. Doctors cannot enjoy their full annual leave rights because of the loss of their personnel rights and occupational reasons. The most common reason for

FHC physicians to not to take leave is the lack of an adequate number of doctors, whereas pay loss during annual leave is a larger factor in CHCs/PHD.

Increased workload, long weekly working time periods, shift work patterns, shortening of rest periods and inability to acquire permission for leave diminishes the time that doctors spend on their social life and increases frustration, depression and exhaustion. Some studies have presented the relationship between job satisfaction and using annual leave, but no study has focused on the use of leave for a holiday or going on vacation (12,19,22). In our study, is was determined that the opportunity to take leave for three weeks or more enhances both the job satisfaction and quality of life.

Almost half of primary care physicians are not satisfied with their earnings (Table 2). Job satisfaction is 2.5 times lower in doctors who were not satisfied with their earnings. There are many studies demonstrating that job satisfaction is lower in doctors who are not satisfied with their earnings, as we found in our study (23-29).

More than half of doctors define their workload as heavy. According to the Ministry of Health statistics, the number of annual admissions to physicians per individual was increased approximately 3 times in 2013 compared to 2002; however, the number of physicians was increased only 1.4 times. While the average number of patients per doctor working at primary health care centers (community clinics or small health centers) was 4708 in 2002, the average population linked to a family physician was 3621 according to 2013 data (30-31). Within the eleven years that the average population per doctor decreased, the number of admissions to doctors increased three times, but the increase in the number of doctors was inadequate. This finding made us think that the community is sicker/inadequately treated or health reforms increase patient admission demands.

After health reforms, doctors fulfill all requirements of the FHCs, as well as continue handling billing, cleaning, repairing and secretarial business. Family physicians' workload can increase when they have to serve as renters in FHCs, which can also decrease job satisfaction after the health reforms. In a study that was performed in Germany, excessive workload and long daily working hours of the doctors were shown to cause family conflict and negatively affect occupational life as well as quality of life (32). In our study, it was found that doctors who specified their workload as heavy also spend significantly less time with their families and have a lower quality of life than doctors who specified their workload was light-moderate. In a study performed on primary health care in Turkey, it was demonstrated that workload and the working duration of doctors are increased. For this reason, they spend less time on both their social life and professional development (33).

In our study, the job satisfaction of doctors working at FHCs was found to be lower than the job satisfaction of doctors working at CHCs/PHD. This finding seems related with FHC doctors' defining their workload and work rates as higher than CHC/PHD doctors. Many studies that were performed after the health reform in primary health care have noted that family health centers are managed like a

business corporation, increasing the workload and work stress of the doctors in the study (19,34).

In our study, more than half of the doctors working at FHCs were exposed to violence. In recent years, violence against doctors and health care staff has been increasing, and this increase is alarming in many countries (35). Violence against health care personnel has also increased in Turkey (36). This increase in violence against primary health care personnel could be because of the increased workload of the doctors or increased social violence. Additionally, as Farrel and Bobrowski found in their study, it could be because patients are being accepted as consumers in the health system, causing physician-patient confrontation (37).

In the logistic regression analyses in this study, being exposed to violence by a patient/patient's relative had a 4-fold negative influence on job satisfaction and a 2-fold negative influence on the quality of life. Preventing violence in primary care will increase both job satisfaction and the quality of life of doctors.

In our study, the job satisfaction of the majority (89%) of primary care physicians was moderate. Additionally, many studies that were performed in Turkey and other countries revealed moderate job satisfaction in the majority of the doctors, which is similar to our study (24,26,29, 36, 38-40).Birinci's study, performed in 1999 in Bursa, revealed the proportion of doctors who have high job satisfaction is 25%; however, this ratio was as low as 10% in our study (28). Although the study performed by Birinci evaluates all doctors, including those who do not work in primary care, changes in the health care system could also play a role in this decrease. After health reforms, there can be a decrease in job satisfaction from increasing violence against the doctors in response to the inability to address patients' increased admission demands, low earnings and high workload.

Working under high stress can emotionally affect health care workers, and this situation can negatively affect quality of life. The quality of life of the doctors can largely affect the quality of their duty (22, 35, 41-42). In this study, the quality of life average score of the doctors who define their jobs as stressful and their workload as high was significantly lower than the doctors who do not find their job stressful or workload high. In our study, the quality of life of the doctors working in primary care who were exposed to violence by a patient/patient's relative was lower than for those who did not. The WHOQOL-8 quality of life scale average scores of the doctors working at FHCs are lower than the doctors working at CHCs/PHD. Many studies have been performed on job and pay satisfaction, and the results have indicated that pay satisfaction affects both job satisfaction and the quality of life, which is in agreement with our study (41-44).

The studies performed among the health care personnel in the USA and Canada revealed that the quality of life was better for the doctors who have a good relationship with their superiors and co-workers and who get positive support (32, 44). Lower average quality of life scores of the doctors working at FHCs than the doctors working at CHCs/PHD can be explained by the loss of the team mentality and creation of a competitive environment between family physicians (33).

A safe work environment is a fundamental right for all health care personnel who provide health care service for community. As mentioned in Maslow's hierarchy of needs theory, it is not possible to increase job satisfaction without guaranteeing basic requirements and safety. In our study, more than half of the primary care physicians stated that they were exposed to violence by patients and/or patients' relatives. Preventing physician exposure to violence by patients/patients' relatives, increasing pay according to personal rights and establishing legislative regulations for doctors to use their legal leave rights without worrying about pay loss can all positively affect job satisfaction and the quality of life of doctors.

Consequently, job satisfaction and quality of life mutually interact. In this study, it is shown that with increased job satisfaction of primary care physicians working in Bursa city center, their quality of life levels also increase.

Restrictions

We used the WHOQOL-8, and it is a relatively new scale such that similar studies in the literature were very limited. For this reason, it was not possible to directly compare the research findings from this study and prior studies.

References

1. Demiral, Y., Akvardar, Y., Ergör, A., & Ergör, G. (2006). Üniversite Hastanesinde Çalışan Hekimlerde İş Doyumunun Anksiyete ve Depresyon Düzeylerine Etkisi. *DEÜ Tıp Fakültesi Dergisi*, 20(3), 157-164..
2. Demiral, Y., Ergör, A., & Şemin, S. (1999) Küreselleşme ve Sağlık İş Kolunda Yeni Çalışma Yaşamı Sorunları. *Toplum ve Hekim*, 14(6), 415-419.
3. Sağlık Hizmetlerinin Sosyalleştirilmesi Hakkında Kanun. Kanun No: 224. Kabul Tarihi: 05.01.1961. Resmi Gazete'de Yayımlandığı Tarih: 12.01.1961, Sayı: 10705
4. Aile Hekimliği Pilot Uygulaması Hakkında Kanun. Kanun No: 5258, Kabul Tarihi: 24.11.2004. Resmi Gazete'de Yayımlandığı Tarih: 09.12.2004, Sayı: 25665.
5. Öztek, Z. (2006). Sağlıkta Dönüşüm ve Aile Hekimliği. *Toplum Hekimliği Bülteni*, 25, 1-6.
6. Aile Hekimliği Uygulama Yönetmeliği. Resmi Gazete'de Yayımlanma Tarihi: 25.01.2013, Sayı: 28539.
7. 663 Sayılı Sağlık Bakanlığı ve Bağlı Kuruluşlarının Teşkilat ve Görevleri Hakkında Kanun

Hükmünde Kararname (2011), T.C. Resmi Gazete, 28103, 02.11.2011.

8. Toplum Sağlığı Merkezi ve Bağlı Birimler Yönetmeliği (2015). T.C. Resmi Gazete, 29258, 05.02.2015.
9. Akgün, D., & Eser, E. (2014). Birinci Basamak Sağlık Örgütlenmesi. In M. Ertem & G. Çan (Eds). Türkiye Sağlık Raporu (pp. 734-747). Edirne: *Trakya Üniversitesi Matbaası*,
10. Akman, M. (2014). Türkiye'de birinci basamağın gücü. *Türkiye Aile Hekimliği Dergisi,* 18 (2), 70-78.
11. Kaarna, M., Põlluste, K., Lepnurm, R., & Thetloff, M. (2004). The Progress of Reforms: Job Satisfaction in a Typical Hospital in Estonia. *International Journal for Quality in Health Care,* 16(3), 253-261
12. Whalley, D., Bojke, C., Gravelle, H., & Sibbald, B. (2006). GP Job Satisfaction in View of Contract Reform: A National Survey. *British Journal of General Practice*, 56, 87–92.
13. Buciuniene, I., Blazeviciene, A., & Bliudziute, E. (2005) Health Care Reform and Job Satisfaction of Primary Health Care Physicians in Lithuania. *BMC Family Practice*, 6(1), 10-16.
14. Petterson, I. L., Hertting, A., Hagberg, .L, & Theorell, T. (2005). Are Trends in Work and Health Conditions Interrelated? A Study of Swedish Hospital Employees in the 1990s. *Journal of occupational health psychology*, 10 (2), 110-20.
15. Weiss, D. J , Dawis, R. V., England, G. W., & Lofquist, L. H. (1967). Manual for the Minnesota Satisfaction Questionnaire. Minneapolis, MN: University of Minnesota Industrial Relations Center
16. Baycan, A. (1985). An Analysis Of Several Aspects Of Job Satisfaction on Between Different Occupational Groups (Yayımlanmamış Yüksek Lisans Tezi). Boğaziçi Üniversitesi/ Sosyal Bilimler Enstitüsü, İstanbulAkpınar, E. (2014). Hekimlerin Yaşam Kalitesi. *Türkiye Klinikleri Journal Medicine Special Topics*, 5(3), 131-134.
17. EUROHIS: Developing Common Instruments for Health Surveys. Amsterdam: IOS Press; 2003.
18. Eser, E, Lağarlı T, Baydur H , Akkurt V., Akkuş H., Arslan E., Cegiz E., Çiftçioğlu G., Işık H., Karabacak H., Özkapu T., Özyıldırım E., Soybaş H. Vural O. (2010). EUROHIS (WHOQOL-8.TR) Türkçe Sürümünün Türk Toplumundaki Psikometrik Özellikleri. *Türkiye Halk Sağlığı Dergisi*, 8(3).Özkal Sayan, İ. (2007).
19. Çiçeklioglu, M., Öcek, ZA., Turk, M., & Taner, S. (2014). The Influence of a Market-Oriented Primary Care Reform on Family Physicians Working Conditions: A Qualitative Study In Turkey. *European Journal of General Practice, 21(2),* 1-6.
20. Baykan, Z., Çetinkaya, F., Naçar, M., Kaya, A., & Işıldak, M. Ü. (2014) Aile Hekimlerinin Tükenmişlik Durumları ve İlişkili Faktörler. *Türkiye Aile Hekimliği Dergisi,* 18(3), 121- 132.
21. Türk Tabipleri Birliği Etik Kurulu. (2009). *Hekimlerin Değerlendirilmesi İle Performansa Dayalı Ödeme,* TTB Yayınları, Ankara.
22. Wallace, J. E., Lemaire, J. B., & Ghali, W. A. (2009). Physician Wellness: A Missing Quality Indicator. *Lancet*, 374, 1714-1721.

23. Aytaç, S. (2006). Çalışanların İşlerine İlişkin Duygularının Stres Tepkileri Üzerindeki İlişkisi. *İstanbul Üniversitesi İktisat Fakültesi Mecmuası,* 55, 833-852.
24. Topçu, M. Ü. (2009). Malatya İl Merkezinde Çalışan Sağlık Personelinin İş Doyumu ve Etkileyen Faktörler (Doktora Tezi). Malatya Üniversitesi, Malatya.
25. Ünal, S., Karlıdağ, R., & Yoloğlu, S. (2001). Hekimlerde Tükenmişlik ve İş Doyum Düzeylerinin Yaşam Doyumu Düzeyleri İle İlşkisi. *Klinik Psikiyatri Dergisi,* 4, 113-118.
26. Havle, N., İlnem, M.C., Yener, F., & Gümüş, H. (2008). İstanbul'da Çalışan Psikiyatristelerde Tükenmişlik, İş Doyumu ve Bunların Çeşitli Değişkenlerle İİlşkisi. *Düşünen Adam,* 21, 4-13.
27. Sunter, A. T., Canbaz, S., Dabak, Ş., Öz, H., Pekşen, Y. (2006). Pratisyen Hekimlerde Tükenmişlik, İşe Bağlı Gerginlik ve İş Doyum Düzeyleri. *Genel Tıp Dergisi,* 16(1), 9-14.
28. Birinci, N. (1999). Bursa'da Görev Yapan Hekimlerde İş Doyumu ve Etkileyen Etmenler (Doktora Tezi). Uludağ Üniversitesi/Tıp Fakültesi, Bursa.
29. Musal, B., & Ergin, S. (1993). Pratisyen Hekimlerde Mesleki Doyum ve Etkileyen Faktörlerin Belirlenmesi. *Toplum ve Hekim,* 22-25.
30. Yataklı Tedavi Kurumları İstatistik Yıllığı (2002), https://www.saglik.gov.tr/istatistikler/ytkiy2002/elektronikkitap/icindekiler.htm
31. Sağlık Bakanlığı Sağlık İstatistikleri Yıllığı 2013 http://www.saglik.gov.tr/TR/dosya/1-97020/h/saglik-istatistik-yilligi-2013.pdf
32. Dyrbye, L. N., Shanafelt, T. D., Balch, C. M. et al. (2012). Work-home Conflicts Have a Substantial Impact on Career Decisions That Affect the Adequacy of the Surgical Workforce. *Archives of Surgery,* 147(10), 933-939.
33. Öcek Z, Çiçeklioğlu M. Aile Hekimliği Birinci Basamak Sağlık Ortamını Nasıl Dönüştürdü. Ankara: TTB Yayınları; 2013.
34. Hickson, C. & Oshagbemi, T. (1999) The Effect of Age on the Satisfaction of Academics with Teaching and Research. *International Journal of Social Economics*, 26(4), 537–544.
35. Klein, J., Frie, K. G., Blum, K., Siergrist, J., dem Knesebeck O.V. (2009). Effort-reward Imbalance, Job Strain and Burnout among Clinicians in Surgery. *Psychother Psychosom Medizinische Psychologie*, 60(9-10), 374-379.
36. Balcı, E., Gün, İ., Şenol, V., Yağmur, F., & Öksüzkaya, A. (2011). Bir Grup Başkanlığı Bölgesi'nde Sağlık Personelinin Şiddete Maruziyetleri ve İş Memnuniyetleri. *TAF Preventive Medicine Bulletin,* 1 (10), 13-18.
37. Farrell, G. A., & Bobrowski, P. (2006). Scoping Workplace Aggression in Nursing: Fndings from an Australian Study. J*ournal of advanced nursing*, 55(6), 778-787. Aile Hekimliği ve Genel Sağlık Sigortası. *Memleket-Mevzuat Dergisi*, 2(21-22), 45-51.
38. . Musal, B., Elçi, Ö. Ç., & Ergin, S. (1995). Uzman hekimlerde Mesleki Doyum. *Toplum ve Hekim,* 10, 2-7.
39. Yıldız, N., Yolsal, N., Ay, P., & Kıyan, A. (2003). İstanbul Tıp Fakültesinde Çalışan Hekimlerde İş Doyumu. *İstanbul Tıp Fakültesi Mecmuası,* 66, 34-41.

40. Abugre, J.B. (2014). Job Satisfaction of Public Sector Employees in Sub-Saharan Africa: Testing the Minnesota Satisfaction Questionnaire in Ghana. *International Journal of Public Administration,* 37, 655-665.
41. Lerner, D. J., Levine, S., Malspeis, S., & Dagostino, R. B. (1994). Job Strain and Health Related Quality of Life in a National Sample. *American Journal of Public Health,* 84(10), 1580-1585.
42. Firth-Cozens, J. (2001). Interventions to Improve Physicians' Well-being and Patient Care. *Social science & medicine*, *52*(2), 215-222
43. Musaoğlu, Z. (2008). Trakya Üniversitesi Öğretim Elemanlarının Sağlıkla İlişkili Yaşam Kalitesi (Uzmanlık Tezi). Trakya Üniversitesi, Edirne.
44. Fortune, D. (2006). An Examination of Work Life and Quality of Care within a Health Care Setting. (A Thesis For The Degree of Master of Arts). University of Waterloo, Canada