Medicina (Kaunas) 2011;47(11):623-8

The Influence of Health Care Reforms on Work-Related Attitudes and Anxieties of Primary Care Physicians

Tolga Günvar[1], Mehtap Kartal[1], Aynur Toksun[2], Beyazıt Yemez[3], Dilek Güldal[1]

[1]Department of Family Medicine, Faculty of Medicine, Dokuz Eylul University, Izmir, [2]Konak 21st Cimentepe Family Health Center, Izmir, [3]Department of Psychiatry, Faculty of Medicine, Dokuz Eylul University, Izmir, Turkey

Key words: *primary care physician; health care reforms; anxiety.*

Summary. *Background and Objective. Reforming primary healthcare services has been the core agenda of health policies of the developing countries in accordance with the recommendations of the World Health Organization. In Turkey, the Transformation in Health Project brings along many changes in all aspects of primary health care services, such as organization and financing of services and employment of healthcare workers. The aim of this study was to determine the effects of health care reforms on primary care physicians working in Izmir.*

Material and Methods. A questionnaire and an anxiety scale were applied to a sample of primary care physicians in Izmir in 2007 and 2009. The questionnaire consisted of questions about demographic characteristics and expressions regarding the effect of reforms on physicians organized on a 7-point Likert scale. The State-Trait Anxiety Inventory was used as an anxiety scale.

Results. The mean scores given by physicians working in family health centers were significantly higher than those of physicians working in public institutions. The score for "My responsibilities are well defined" statement given by physicians working in family health centers decreased significantly in the second survey. The necessity of reforms in the health care system and primary care health services was more significantly favored by physicians working in family health centers. Persistent anxiety of physicians working in community health centers was significantly higher in both surveys.

Conclusions. Our study showed that health reforms had a substantial impact on work-related attitudes and anxieties of primary care physicians, and this effect was maintained over time.

Introduction

During the last few decades, in accordance with the recommendations of the World Health Organization, reforming primary health care services has been the core agenda of health policies of the developed and developing countries (1). Turkey prepared its agenda of health reforms in the second half of the 1990s and started implementing it since 2003 in every aspect of health services under the name of Transformation in Health Project (THP). Although there is some debate on the claimed positive effects of these reforms on productivity and efficiency of health care services (2, 3), there is very little doubt concerning their substantial effect on health care workers in many ways.

The Transformation in Health Project introduced important changes in all aspects of primary health care including funding and organization of services as well as employment of health care workers.

In Turkey, health care services are financed via 3 social security organizations. Families or individuals not covered by these 3 organizations and in lower-income brackets have free health assurance called "green card." With the introduction of the Transformation in Health Project, general health insurance unites these organizations under the name of the Social Security Foundation.

Radical changes have been made in provision of health care services. Primary health care services were previously provided by a single health care unit called the "health house." In health houses, there were health care teams consisting of a physician, nurses, midwives, a secretary, and other necessary personnel depending on the size and needs of the population they served. During his/her admission every time, an individual could have been accepted by a different physician of the health house. These centers delivered most of the primary health care services including preventive care for both individuals and the community and therapeutic health care services. With the implementation of the Transformation in Health Project, the provision of most of the services is shared between family health centers (FHCs) and community health centers (CHCs). FHCs are basically responsible for the therapeutic primary health care services and preventive services for individuals, such as vaccination and PAP smear. These services are provided by a physician called "family doctor" and a nurse called "family health

Correspondence to T. Günvar, Department of Family Medicine, Faculty of Medicine, Dokuz Eylul University, 35340 Inciralti-Izmir, Turkey. E-mail: tolga.gunvar@deu.edu.tr

staff" for the individuals registered with them. CHCs are responsible for the provision of community-oriented preventive services, such as food and water control and health education of the community. CHCs also have administrative assignments, such as superintendence of FHCs in the name of local health authority.

Before health reforms, all health care workers including physicians were salaried employees of the government. After the reforms, family doctors in FHCs started working based on service contracts; they make a contract to provide individual-oriented primary health care services to a given population with given standards. Although, according to these contracts, family doctors are accountable for the unavoidable and operating costs, their remaining income is still much higher compared with the one they earned in the previous system. CHC doctors continue to be government employees, and there is not much change in their incomes. With the health care reforms, all primary care physicians were forced to choose to work either in CHCs or FHCs.

As observed, the Transformation in Health Project has made radical changes in Turkish health care system. Changes in the organization of health care services and new responsibilities within this organization have had a substantial effect on physicians. Bureaucratic burden due to the new referral regulations and workload brought by reorganization of services have affected job satisfaction (4, 5). Similarly, physicians' job satisfaction and attitudes during health care service have been affected by funding of health care services and changes in this area (3, 6). Some financial regulations aimed at reducing health care costs are shown to have a negative effect on physicians' understanding of autonomy, which plays a central role in medical profession (5).

Employment security and incomes of physicians are determined by employment policies. Health care workers are generally dissatisfied with the changes in employment, and this certainly has a negative impact on job satisfaction. Besides, in Turkey a study of "burnout syndrome" showed that primary care physicians were at higher risk of burnout when compared with other physicians (7).

Not many studies on the health of community and individuals, satisfaction and expectations of patients, and the attitudes of health care workers have been carried out in Turkey. Neither it has been investigated whether the changes in health care system have affected the mood, view of life, and professional insights of physicians.

Questionnaires are a widely used method for investigating how physicians are affected by health reforms (1, 3, 8). The aim of our study was to determine the effects of health care reforms on primary care physicians working in Izmir.

Material and Methods

The study, designed as a cross-sectional questionnaire survey, was carried out by physicians working in FHCs and CHCs in Izmir. The first survey was conducted from July to September 2007 and the second from July to September 2009. The target size of the sample was determined as 230 physicians (N=1534, P=0.50, ±5% precision, and 90% confidence level). In the selection of the sample, a stratified cluster sampling approach was used. In the sample design, FHCs and CHCs were taken as separate strata. A total of 33 FHCs and 16 CHCs were selected for the study by systematic random sampling. The numbers of the selected centers were determined in accordance with the proportion of the physicians in all CHCs and FHCs. In total, there were 165 FHC and 80 CHC physicians in the first survey and 164 FHC and 53 CHC physicians in the second survey, who completed the questionnaires.

Participants answered a questionnaire consisting of 35 questions with the State-Trait Anxiety Inventory (STAI), which is validated and reliable in Turkish. The first 7 questions of the questionnaire were related to participants' demographic characteristics, professional experiences, and workplaces before and after the Transformation in Health Project. The remaining questions consisted of statements organized under 5 groups using the Likert scale from 1 (strongly agree) to 7 (strongly disagree). These statements were as follows: 1) positional, i.e., concerned with foresight of participants regarding their new assignments in the system (In my new assignment, I will make myself more useful to my patients; I will need more medical information; I will be more efficient; I will be able to give enough time to my patients; I have to continuously improve myself, and there is team work); 2) emotional, i.e., inquiring about emotions related to the new assignment (In my new assignment, I am happy; I am hopeful; I feel more independent; I feel more responsible, and I believe I can overcome my responsibilities); 3) environmental, i.e., related to their opinions about their work environment after THP (My responsibilities are well defined; I have all necessary equipment, team, and medical and technical information); 4) contributory, i.e., exploring their perceptions regarding their contribution directly or via nongovernmental organizations (authorities ask opinions of practicing physicians, family medicine specialists, public health specialists, Turkish Medical Association, and Turkish Association of Family Physicians); and 5) necessity of reforms, i.e., related to their opinions about the last 6 statements (health system needs reforms; I support changes in health system; health system needs different reforms; primary health care services need reforms; I support changes in primary health care services; primary

health care services need different reforms). For the first 4 groups, composite indexes were calculated by summing up all the scores within the group divided by the number of statements in that group. In the fifth group, statements were analyzed separately.

The data were analyzed with the SPSS 11.0. For comparison of scale scores and composite indexes between different groups, the Mann-Whitney *U* and Kruskal-Wallis tests were employed.

Results

Among the 462 participants, 57.6% were men, 63.3% were aged from 35 to 45 years, 93.3% were practicing physicians, and 72.2% were working in the FHCs. There were no significant differences in demographic variables comparing two surveys (Table 1).

In both the surveys, FHC doctors scored significantly higher than CHC physicians in the first 4 statement groups, namely positional, emotional, environmental, and contributory. Between the first and second surveys, the mean scores of CHC physicians did not differ in any of the statement groups; however, FHC physicians differed only in the mean positional scores. In the second survey, FHC physicians reported significantly lower scores regarding their foresight about their new assignments (Table 2).

Although composite indexes of environmental statements were not significantly different between the two surveys, two statements under this topic showed a significant change for FHC physicians. In the first survey, the mean score given for "My responsibilities are well defined" decreased in the second one (3.95 [SD, 1.60] and 3.54 [SD, 1.73], respectively; P=0.021). FHC physicians gave the scores of 3.73 (SD, 1.80) and 4.15 (SD, 1.80) for "I have the team I need" in the first and second surveys, respectively (P=0.041). The mean scores for these two statements given by CHC doctors did not differ significantly between the two surveys.

With respect to their perception of adaptation to the new system, CHC physicians showed no significant difference comparing the first and second surveys. However, in the second survey, responses of FHC doctors showed that their adaptation was better. When the scores for adaptation given by FHC and CHC physicians were compared, adaptation was rated significantly better by CHC physicians in the first survey and by FHC physicians in the second one (Table 3).

FHC physicians significantly favored the necessity of reforms in health care system and primary care health services with respect to their colleagues in CHCs. FHC physicians also declared their support to the Transformation in Health Project, to which CHC physicians were highly against in both the surveys. CHC physicians strongly agreed that different changes should be made in both health system and primary health care services. In this statement group, there were no significant differences between the surveys for FHC and CHC physicians (Table 4).

Table 5 shows state and trait anxiety scores of primary care physicians measured by the STAI

Table 1. Comparison of Sociodemographic Variables Between the Two Implementations

Variable	First Survey	Second Survey	*P* Value
Sex			0.925
Male	142 (58.0)	124 (57.1)	
Female	103 (42.0)	93 (42.9)	
Age			0.192
Younger than 35 years	26 (10.6)	18 (8.3)	
Between 35 and 45 years	160 (65.3)	131 (60.4)	
46 years and older	59 (24.1)	68 (31.3)	
Specialty			1.000
Specialist	16 (6.5)	15 (6.9)	
Practitioner	229 (93.5)	202 (93.1)	
Workplace after the Transformation in Health Project			0.064
Family health center	165 (67.3)	164 (75.6)	
Community health center	80 (32.7)	53 (24.4)	

Values are number (percentage).

Table 2. Scores Given by Primary Care Physicians Regarding the Effects of the Transformation in Health Project

	First Survey	Second Survey	*P* Value
Positional composite index			
FHC physicians	32.30 (6.67)	30.63 (6.99)	0.031
CHC physicians	15.88 (7.04)	17.32 (7.98)	0.313
P Value	<0.001	<0.001	
Emotional composite index			
FHC physicians	26.44 (5.19)	25.16 (6.29)	0.168
CHC physicians	15.09 (5.52)	15.92 (5.24)	0.277
P Value	<0.001	<0.001	
Environmental composite index			
FHC physicians	22.40 (5.64)	22.66 (6.04)	0.765
CHC physicians	18.91 (7.26)	19.40 (6.60)	0.901
P Value	0.001	0.001	
Contributory composite index			
FHC physicians	16.85 (6.50)	16.38 (7.43)	0.398
CHC physicians	11.08 (5.67)	12.49 (6.47)	0.277
P Value	<0.001	0.001	

Values are mean (standard deviation).

Table 3. Scores Given by Primary Care Physicians Regarding Their Adaptation to the Transformation in Health Project

"I am adapting easily"	First Survey	Second Survey	*P* Value
FHC physicians	3.05 (1.87)	5.08 (1.89)	<0.001
CHC physicians	3.90 (2.07)	4.02 (1.94)	0.657
P Value	0.002	<0.001	

Values are mean (standard deviation).

Table 4. Comparison of Scores Given by FHC and CHC Physicians Regarding Their Attitudes Toward the Necessity of Health System Reforms

Statement	FHC Physicians	CHC Physicians	*P* Value
Changes were necessary in health system			
First implementation	5.57 (1.67)	4.15 (2.18)	<0.001
Second implementation	5.67 (1.50)	4.25 (1.89)	<0.001
I favor changes in health care system			
First implementation	5.24 (1.67)	1.93 (1.36)	<0.001
Second implementation	5.11 (1.65)	2.15 (1.57)	<0.001
Different changes must be made in health system			
First implementation	4.80 (1.83)	5.49 (1.90)	0.001
Second implementation	4.68 (1.82)	5.70 (1.56)	<0.001
Changes were necessary in primary care health services			
First implementation	5.72 (1.56)	4.09 (2.14)	<0.001
Second implementation	5.60 (1.51)	4.57 (1.84)	<0.001
I favor changes in primary care health services			
First implementation	5.15 (1.80)	1.96 (1.40)	<0.001
Second implementation	5.11 (1.59)	2.17 (1.57)	<0.001
Different changes must be made in primary care health services			
First implementation	4.79 (1.93)	5.50 (1.90)	0.002
Second implementation	4.81 (1.83)	5.81 (1.47)	<0.001

Values are mean (standard deviation).

Table 5. Scores Given by Primary Care Physicians on STAI (n=462)

	First Survey	Second Survey	*P* Value
Stationary anxiety			
FHC physicians	38.88 (11.73)	34.58 (9.62)	0.001
CHC physicians	50.16 (10.31)	41.40 (9.37)	<0.001
P Value	<0.001	<0.001	
Persistent anxiety			
FHC physicians	38.64 (7.77)	38.70 (7.50)	0.688
CHC physicians	42.65 (7.22)	42.49 (7.10)	0.733
P Value	<0.001	0.001	

Values are mean (standard deviation).

form. Although the mean state anxiety scores of all participants decreased significantly in the second survey, there were no significant differences in the mean trait anxiety scores of all participants. CHC physicians had significantly higher trait anxiety scores than FHC physicians in both surveys.

Discussion

In some countries, during implementation of health care reforms, physicians have shown a considerable resistance to involvement in the new system (1). This resistance may be due to the concerns about the changes that may be brought by the new system, such as loss of employee rights, changes in workplace environment, etc. Although the literature is not conclusive, some studies reveal discontentment of physicians regarding health care reforms (9, 11).

Both surveys showed that all primary care physicians believed in the necessity of reforms in health care system although there was a significant difference in favor of FHCs. On the other hand, when it comes to supporting the existing health care reforms, there was a big difference between the two groups of physicians working in primary health care. This difference may be due to two important reasons: firstly, in Turkey, a substantial number of physicians believe that implementation of these reforms will result in privatization of health care services and loss of employment security of health care workers. The Turkish Medical Association claims that this will adversely affect the public health issues, and consequently, health care services will be available only for the individuals who can afford them. Physicians who support these ideas have refused to work in FHCs and stayed in CHCs. Secondly, especially at the beginning of the piloting, the definition of tasks of CHCs as well as personnel rights and futures of physicians working in these institutions were unclear. Health authorities promoted working conditions of FHCs to convince physicians to sign the contract. Meanwhile, staying in CHCs was perceived as relegation. With this strategy, the government also reduced the effect of its opponents on primary care physicians. Possessing a politically opposite view and negative workplace conditions may lead to disagreement of CHC physicians with current reforms. The majority of primary care physicians, predominantly CHC physicians, stated that different reforms should be made in health care services. This also suggests that opposition is quite common. The reasons, which lie underneath the choice of FHCs, seem to be the anticipated benefits including higher salaries, defined tasks, opportunity to keep on clinical practice, increased prestige, and possibility to be a family medicine specialist in the future.

According to our study results, the majority of the participants did not think that their opinions were taken into account before reforms. In this sense, again CHC physicians came forward. This may also be one of the reasons of discontentedness of CHC physicians regarding the Transformation in Health Project. Studies suggest that this dissatisfaction can be avoided by ensuring the participation of physicians in the reform process in advance. Asking for their opinions with pilot surveys before reforms and reflecting these opinions in the reforms seem to facilitate the adaptation of doctors to the new system (1, 9).

Unbalanced distribution of vaguely defined tasks seems to be another reason for dissidence. The new system has brought some advantages to FHC physi-

cians, such as a new title "family doctor," increased fees, more freedom in work environment, and a defined population via registered patients. The increase in job satisfaction due to these advantages may play an important role in their low anxiety levels and more positive approach toward the reform process. Although many factors affect job satisfaction (4, 10), in a study in Norway, general practitioners stated that they were happy with the changes brought by the health reforms because of opportunities to use their abilities, cooperation with colleagues and fellow workers, variation in working conditions, and freedom to choose their own method of working (11).

However, the definition of tasks for CHC physicians was ambiguous in the Transformation in Health Project, and furthermore, they lost many of their functions mostly related to patient care. This ambiguity seems to be an important factor in their high anxiety levels and low acceptance of reforms.

The researchers had some foresight that working conditions in CHCs would change in a positive manner due to the importance of public health issues. Moreover, promoted working conditions in FHCs might also change, though in a negative way, due to a number of factors, such as high number of registered patients, physical inadequacies, insufficient number of nurses, etc. The second survey was carried out to detect such changes.

This prediction became partly true for FHC physicians. In the second survey, FHC doctors expressed that they adapted more easily to the new system; however, their positive positional assessments regarding their new assignments changed significantly. Beliefs of FHC physicians, i.e., being more helpful to their patients, being able to allocate enough time for them, and being more productive, decreased in the second implementation. Physicians may have been overwhelmed by the increase in workload brought about by health care reforms (12). Especially in per capita systems, an increase in workload is strongly associated with a decrease in job satisfaction (13). The inability to allocate enough time to the patients is an important cause of loss of job satisfaction (14).

Between the first and second surveys, expectations of FHC physicians exceeded their task definitions and led to a significant decrease in the score for "My responsibilities are well defined" statement. The second survey also showed a significant decrease in beliefs of FHC physicians regarding the necessity of continuous professional development. This can be attributed to their heavy workload in daily practice. Interestingly, in the second survey, CHC physicians embraced this idea. This needs to be investigated.

In fact, things went worse for CHC physicians. Although they were supposed to deal with community health care, they were obliged to act as a buffer in every kind of personnel shortage, such as annual leaves, vacant positions, etc. This situation often caused them to leave their homes for a month. Their prescriptions were not reimbursed in the new system. Loss of authority may also contribute to the continuation of their dissatisfaction and higher anxiety scores. Over time, many CHC physicians preferred to work in FHCs. These factors led to a permanent decrease in the number of physicians working in CHCs.

Although a cohort study is a more appropriate type of study design to achieve the aim of the study, the implementation of this study was precluded especially by the continuous changes in workplaces of physicians. Moreover, anonymous questionnaires encouraged physicians to answer without fear of being recognized. Analyses were carried out based on the averages of two groups so that more reliable results could be obtained.

While trying to determine the effects of health care reforms on primary care physicians, not knowing the anxiety levels of physicians before reforms seems to be one of the important limitations to this study. CHC physicians had significantly higher anxiety scores in both surveys. Anxious physicians may prefer to stay in public institutions. Another explanation could be that the first implementation of the study was 6 months after the piloting of the Transformation in Health Project in Izmir. This time span could have influenced anxiety levels of CHC doctors.

The number of participants is considered sufficient to represent all primary care physicians in Izmir in both surveys, and it is believed that this study is strong enough to show differences between the two groups of primary care physicians.

As mentioned before, the rationale behind this two-year interval between the surveys is to investigate short- and long-term effects of the new health care system being implemented. However, there was no significant difference in the results after 2 years. This raises the question of whether this time span is sufficient to see the changes.

Conclusion

Our study showed that health reforms had a substantial effect on work-related attitudes and anxieties of primary care physicians. This effect was maintained over time. The overall effect of the reforms in our country seemed to be positive for FHC physicians and negative for CHC physicians.

Statement of Conflict of Interest

The authors state no conflict of interest.

References

1. Hunter DJW, Shortt SED, Walker PM, Godwin M. Family physician views about primary care reform in Ontario: a postal questionnaire. BMC Fam Pract 2004;5:2.
2. Aile Hekimliği Türkiye Modeli. (Family medicine model in Turkey.) Aydin S, editor. Sağlık Bakanlığı (Ministry of Health); 2004. p. 50.
3. Whynes DK, Baines DL. Primary care physicians' attitudes to health care reform in England. Health Policy 2002;60(2): 111-32.
4. 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;12:174-80.
5. Sturm R. Effect of managed care and financing on practice constraints and career satisfaction in primary care. J Am Board Fam Pract 2002;15(5):367-77.
6. Lewis JM, Marjoribanks T. The impact of financial constraints and incentives on professional autonomy. Int J Health Plann Mgmt 2003;18:49-61.
7. Ozyurt A, Hayran O, Sur H. Predictors of burnout and job satisfaction among Turkish physicians. Q J Med 2006;99: 161-9.
8. Bučiūnienė I, Blaževičienė A, Bliudžiūtė E. Health care reform and job satisfaction of primary health care physicians in Lithuania. BMC Fam Pract 2005;6:10.
9. Cohen M, Ferrier B, Woodward CA, Brown J. Health care system reform. Ontario family physicians' reactions. Can Fam Physician 2001;47:1777-84.
10. Grossa R, Tabenkinc H, Brammli-Greenberga S. Factors affecting primary care physicians' perceptions of health system reform in Israel: professional autonomy versus organizational affiliation. Soc Sci Med 2007;64(7):1450-62.
11. Nylenna M, Gulbrandsen P, Forde R, Aasland OG. Job satisfaction among Norwegian general practitioners. Scand J Prim Health Care 2005;23(4):198-202.
12. Aseltine RH Jr, Katz MC, Geragosian AH. Connecticut 2009 Primary Care Survey: physician satisfaction, physician supply and patient access to medical care. Conn Med 2010; 74(5):281-91.
13. Groenewegen PP, Hutten JB. Workload and job satisfaction among general practitioners: a review of the literature. Soc Sci Med 1991;32(10):1111-9.
14. Geneau R, Lehoux P, Pineault R, Lamarche PA. Primary care practice a la carte among GPs: using organizational diversity to increase job satisfaction. Fam Pract 2007;24:138-44.

Received 6 January 2011, accepted 29 November 2011