Preparation of the primary health care physicians for the management of the private health care offices in Croatia

Rudika Gmajnić1,2, Sandra Pribić1, Ines Drenjančević-Perić2, Vesna Ilakovac2
1Dom zdravlja Osijek, 2School of Medicine University Josip Juraj Strossmayer Osijek

ABSTRACT

Aim Health care system in the Croatia is undergoing major reforms, including re-organization of primary healthcare offices from being a part of state-governed primary healthcare units into private practices. To be successful, private practitioner’s teams have to acquire new skills and knowledge from the fields of legal provisions, financial management, and capital management of human resources.

Methods 48 teams underwent education in management conducted by a licensed health care manager and a lawyer and an economist specialist for health care systems, while 54 teams did not undergo any kind of education to prepare them for the market.

Results The results of sanitary, financial, tax, health insurance inspection and audition were satisfactory after three years of follow up. Proportion of positive inspection results was stable during the follow-up period in both groups, but was significantly higher in the group with training comparing to the group without training for each year. Participants in the group with training paid less income taxes in each year and on average during the 3-year follow-up period, amounts of income tax paid in the second and third year did not differ, but were significantly less than in the first year. Amounts of income tax significantly changed during the follow-up period in both groups. There is no significant difference in the number of work disputes between the groups.

Conclusion Good preparation of future private entrepreneurship doctors gave positive long-term results in functioning of private medical offices, and should be recommended as a standard.

Key words: management, primary health care, financials
INTRODUCTION

Until 1997 primary healthcare system in the Republic of Croatia had been organized in form of primary health centers (“Dom zdravlja”) that consisted of health care offices in family medicine, pediatrics, dental medicine and gynecology and those units provided primary health care to all residents of Croatia. Secondary health care was also organized in the frame of primary health care centers (“Dom zdravlja”), in the form of polyclinic services – mainly with cardiologists, oculists, specialist for pulmonary diseases, dermatologists, psychologists and psychiatrists, who served as consultants, who directed patients to further treatments, because these special services were mainly provided in hospitals (1).

Although there was a wide range of legal possibilities, only small numbers of primary healthcare teams were private practitioners, and private initiative was not well accepted (1).

The reform of healthcare system in the Republic of Croatia set a task that teams of primary healthcare system undergo from health centers as government institutions in the system of private practice in the way that they have to lease the equipment and space where they had done their practice until now. Transition from one party system to pluralistic democracy and introduction of the free market economy, and transition from social to private and state ownership of health care facilities) was an additional burden to private practitioners (1). Doctors had to become private entrepreneurs – employers. Every team is supposed to function as a small enterprise with at least two employees: a doctor and a nurse. It is necessary to adopt new knowledge and skills like labor law and legislation, finance, accounting, capital management and human resource management.

Healthcare system privatization is challenging both to medical professionals involved in the transition as well as to economists and business scholars. Medical professionals lack the entrepreneurial and managerial skills to successfully maintain finances of their private practice. On the other hand, economists need to provide higher effectiveness of the private practitioners through business education. In today’s environment, professional development and training have become an essential tool for success. Since the education is an ongoing process it is important to examine the success of the law and management skills transfers to these newly privatized health care offices.

We hypothesized that training in financial management, law regulation and management of human resources would ease adjustment of physicians to new social work environment. The aim of the study was to evaluate the potential benefits of preparation of physicians and teams by training, and to check possibilities and values of targeted marketing and management education of doctors. Fully aware of the fact that doctors will have to deal with entrepreneurship, we have organized a team of experts who will be able to prepare them for transition from the governmental system to private entrepreneurship.

METHODS

Two groups of primary health care medical teams were followed up, first underwent training (N=48), and second group had no training (N=54). Training (30 h) was provided by the team formed of a physician-family doctor specialist with health care management license, teamed with a lawyer and an economist with more than 20 years of working experience in healthcare systems. The teams provided training in health care management, marketing in health care system, management of human resources, conflict resolution, communication skills, work law, contracts, financing of primary health care offices, accounting, tax law and regulations and insurance systems.

Business activities of the participants (48 teams who have finished education) and the control group (54 teams without education) were compared and analyzed according to three most important elements: inspection findings (sanitary, financial, tax, health insurance, Ministry of Health), labor dispute, income tax payment at the end of the fiscal year.

Compared analysis included first three years of doctors’ private practice.
Statistical methods

The data are presented as absolute and relative frequencies, and mean and standard deviation where appropriate. Difference in distribution of inspection findings and work disputes in followed groups were tested with Fisher’s exact test. Cochrane-Armitage trend test was used to test trend in proportion of positive inspection results during the follow-up period. Income tax for each year and average income tax in follow-up period between groups were tested with Mann-Whitney U test due to significant differences in variances. For the same reason the Friedman test was used for testing changes in income tax amounts during the follow-up period. Wilcoxon signed ranks test with Bonferroni correction was used for post hoc comparisons. Confidence intervals (CI) were estimated at the 95% level using recommended methods (2) and calculated using the statistical package Confidence Interval Analysis (CIA) (ver. 2.0.0, Trevor Bryant, University of Southampton, UK). All P-values were two tailed. Analyses were conducted using the SAS software (version 8.02, Cary, NC, USA), with significance level set at P<0.05.

RESULTS

The total number of doctors who finished education was 48 and they were the first ones to start the system of private practice. After first mass transition of doctors in the private practice system, during the next two years 54 more did the same, but signing individual contracts and without finished pre-education.

Inspection results

Proportion of positive inspection results was stable during the follow-up period in both groups (Cochrane-Armitage test for trend; group with training: p=0.315; group without training: p=0.226). A proportion of positive inspection results was higher in the group with training as compared with the group without training for each year (Table 1).

In total, the proportion of positive inspection results in the group with training was 92% versus 52% in the group without training (difference 40%, 95% CI 30%-49%, Fisher’s exact p<0.001).

Income taxes paid

The participants in the group with training paid less income taxes in each year and on average during the follow-up period (Table 2).

Table 1. Inspection results broken down by years of the follow-up period

<table>
<thead>
<tr>
<th>Year of inspection</th>
<th>Positive results / total number of inspections</th>
<th>P-values*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teams with training</td>
<td>Teams without training</td>
</tr>
<tr>
<td>1st</td>
<td>26/27</td>
<td>20/30</td>
</tr>
<tr>
<td>2nd</td>
<td>32/36</td>
<td>22/49</td>
</tr>
<tr>
<td>3rd</td>
<td>47/53</td>
<td>31/62</td>
</tr>
<tr>
<td>P†</td>
<td>0.315</td>
<td>0.226</td>
</tr>
</tbody>
</table>

* Fisher’s exact test; † Cochrane-Armitage test for trend

Table 2. Income tax payment in the three-year periods

<table>
<thead>
<tr>
<th>Period</th>
<th>Value added tax (VAT) paid in Croatian kunas (HRK)*</th>
<th>P-values†</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teams with training (n=48) (SD)</td>
<td>Teams without training (n=54) (SD)</td>
</tr>
<tr>
<td>1st year, mean</td>
<td>2652 (1122)</td>
<td>14255 (6112)</td>
</tr>
<tr>
<td>2nd year, mean</td>
<td>1346 (598)</td>
<td>9110 (4138)</td>
</tr>
<tr>
<td>3rd year, mean</td>
<td>1474 (701)</td>
<td>11000 (4767)</td>
</tr>
<tr>
<td>Average for 3 years, mean</td>
<td>1815 (719)</td>
<td>11783 (5447)</td>
</tr>
</tbody>
</table>

* official currency in Croatia (1 E=7.31 HRK); † Mann-Whitney U test

Amounts of income tax significantly changed during the follow-up period in both groups (Friedmann test, p<0.001 for both groups). In the group with training, amounts of income tax paid in the second and third year did not differ (Wilcoxon signed ranks test with Bonferroni correction, p>0.950), but were significantly less than in the first year (Wilcoxon signed ranks test with Bonferroni correction, p<0.001 for both second and third year as compared to the first).

Work disputes

There is no significant difference in the number of work disputes between the groups that underwent training as compared to the groups that had no training. The trained groups had only one work dispute which was positively resolved, while the groups that did not undergo any training had 6 work disputes, three of which were positively and three were negatively resolved.
DISSCUSION

As a part of Europe, Croatia has been facing many problems in organization of health care system, such as control of expenditure, balancing the development of different segments of health care services, and necessity to increase effectiveness and quality of care (1). Additionally, there is a transition from state-governed to privately owned medical practice, which is especially vulnerable at the level of primary healthcare, available and necessary for the whole population. New demands on physicians to become entrepreneurs in medicine brought many strains and required additional education of physicians and team workers to sustain the private offices in new social and economical circumstances.

The results of our study have shown that doctors who were pre-educated have done less errors according to all three measured parameters. They had higher proportion of positive inspection results compared to the group of teams that had no training.

Trained teams acquired exceptional knowledge of fiscal policy and succeeded that on average they had to pay significantly less income tax at the end of the year as compared to untrained teams. These data show that participants have done good bookkeeping and that they have regularly adjusted income and expenditures. Financial outcomes of the work are not the only measure of the performance and success of the private practitioners although they are very interesting and indicative. The most common weakness asserted in the literature is that salaried general practitioners have lower productivity and are less interested in their customers (3). For high quality care this is not exclusively relevant. Management of private health care offices can streamline the credentialing process, improve policy and procedure management and facilitate the employee appraisal process. Management systems for medical practice of private health care offices can simplify financial scheduling, patient scheduling and improve medical records creation. Medical health care education can speed claims processing and payments. And importantly, financial stability of the private practice office is essential for practitioners to perform their day-to-day work and could not be excluded as a measure of successful work.

We concluded that adequate education of the future entrepreneurs-employers in the healthcare system gave positive long-term results in all monitored elements. It would be of great interest to all future doctors-entrepreneurs to implement this educational system on the national level. There are several advantages achieved by the management and financial training; the trained physicians made less mistakes that would lead to inspection penalties and the training reduced the amount of paid income tax, showing good results with training in tax policy. There are more ways to provide that type of education in form of conventional in-house management training and the pursuit of postgraduate management qualifications, or in the “third way” of an in-house accredited management development program (4). In Croatia, there are now several study programs in the management in health care from undergraduate to postgraduate levels offered by different academic institutions, trying to fulfill the former lack of formal education in management (5).

The results of this work show that targeted education is an important modulator of work success for physicians in a new environment of private practice.

REFERENCES

5. Studij organizacije, planiranja i upravljanja u zdravstvu [http://www.medri.hr/studiji/organizacija/o%20studiju.htm]