ВЛИЈАНИЕТО НА ПРОФЕСИОНАЛНАТА СРЕДИНА ВРЗ МОТИВАЦИЈАТА И ОДНЕСУВАЊЕТО НА ОПШТИТЕ ЛЕКАРИ ВО БУГАРИЈА

INFLUENCE OF THE PROFESSIONAL ENVIRONMENT ON THE MOTIVATION AND BEHAVIOUR OF GENERAL PRACTITIONERS IN BULGARIA

Nevena Ivanova¹ and Lyubomir Kirov²

¹Medical University, Plovdiv Bulgaria, ²Medical Faculty of "St. Kliment Ohridski" University, Sofia, Bulgaria

Abstract

Introduction. This article summarizes the findings of a study about the influence of the factors of external professional environment on the professional motivation and behaviour of Bulgarian general practitioners (GP).

Methods. A representative sample of a total of 4698 GPs in the country was involved in the survey. A special questionnaire was utilized, including 15 factors of external professional environment; these were subdivided into 4 groups on the basis of their nature: financial and economic; legal and regulatory, moral and ethical; and psychological. Their evaluation of the influence of these factors on the professional behaviour and of the factors' weight was "taken" by means of a direct anonymous survey of 243 General Practitioners (5.2 % of the total number).

Results. The findings of the study indicate that the professional environment in which doctors work affects adversely their motivation and conduct. The majority of the factors examined have a predominantly negative effect with the exception of the financial and economic ones.

Conclusion. GPs are of the opinion that most influential for their behaviour are the financial and economic factors (net profit; how much they get paid for their activities).

Keywords: general practitioner; external professional behavioural motivation factoring; influence of the factors of the external professional environment on the behaviour of GPs

Апстракт

Вовед. Сегашната статија ги резимира наодите од студијата за влијанието на факторите на надворешната професионална средина за професионалната мотивација и однесувањето на бугарските лекари по општа медицина.

Методи. На репрезентативен примерок од вкупно 4698 лекари во земјата беа вклучени во истра-

жувањето. Беше користен специјален прашалник, вклучувајќи 15 фактори на надворешната професионална животна средина. Овие беа поделени во 4 групи врз основа на нивната природна финансиска и економска правна и регулаторна, морална и етичка, психолошка. Проценката на влијанието на овие фактори на професионалното однесување и факторите на тежина беше со директна анонимна анкета на 243 општи лекари (5.2% од вкупниот број).

Резултати. Наодите од студијата укажуваат дека професионалната средина во која докторите работат, влијаат негативно на нивната мотивација и однесување. Поголемиот дел од испитуваните фактори имаат претежно преодоминантен негативен ефект со исклучок на финансиските и економските.

Заклучок. Лекарите се на мислење дека највлијателни за нивното однесување се финансиските и економските фактори (нето добивка, колку тие се платени за нивната дејност).

Клучни зборови: општ лекар, надворешно професионално однесување на мотивационите фактори, влијанието на факторите на надворешната средина за однесување на општите лекари.

Introduction

The healthcare system reforms in the Republic of Bulgaria brought about a radical change of the model of primary medical care. It was "founded" on principles of General Medicine and in the format of general medical practice [1-5].

In addition, a new professional environment where primary care doctors work was formed. This environment involved other legal and regulatory, financial and economic, organizational and technological, moral and ethical, and psychological rules and norms. These were meant to form conditions for better professional motivation of the doctors and hence better chances that their professional behaviour meet the rules and medical standards for good general practice [6-9].

Up to now no study has ever been conducted focusing on the influence of the external environmental factors on the motivation and subsequent behaviour of the general practitioners in Bulgaria. This has urged us to organize and perform the current study, which findings are presented here.

The aim of the study was to determine the impact of the key factors of the external professional environment on the professional motivation and behaviour of Bulgarian general practitioners (GP).

Material and methods

The current study was conducted by means of a specially developed tool, a questionnaire, which was pre-tested to ensure its reliability and validity. Using the method of direct anonymous survey, by this questionnaire we "obtained" the GPs' evaluation of the influence of 15 external professional environment factors of varying nature on their motivation and behaviour.

The term **external professional behavioural motivation factoring** of the GPs was used to denote the group of the external environmental factors.

The items in our questionnaire were grouped depending on their nature into 4 categories: financial and economic

(3 items); organizational and technological (5); legal and regulatory (5); moral and ethical (3).

General practitioners were asked to rate the factors' impact by putting them in order of importance in two aspects: "direction" and "effect" on their motivation and conduct.

The study performed is sample-based and representative of the whole community of GPs in Bulgaria. The minimum number of interviewees required was determined to be at least 238. Participants were randomly chosen from two nests: the National Conference of GPs in Bulgaria (with a total of 521 participants) and from 8 of the country's administrative regions (with a total of 1337 GPs). The Questionnaire Answer Sheets of 243 GPs were processed, which is 5.2 % of the total number of 4698.

"Structural" analysis of the sample compared to that of the whole group did not show any statistically significant deviations regarding the major characteristics of sex, type of practice, speciality etc.

Results and discussion

The influence of **external professional behavioural motivation factoring** was presented as a combination of specific profiles of the direction/effect of action and importance of the factors for the professional behaviour of GPs.

Table 1. Profile of the direction/effect of action of external factors on professional behaviour of GPs (collective and divided into groups)

Group of factors	None		Effect on professional behaviour				Strongly positive		Total Number
	N	%	Negative Number	%	Partly positive Number	%	Number	%	
1. Financial and economic	23	9.6	8	3.3	83	34.0	129	53.1	243
2. Organizational and technological	21	8.6	132	54.3	67	27.4	23	9.6	243
3. Legal and regulatory	77	35.7	94	38.7	58	23.9	14	5.7	243
4. Moral, ethical and psychological	23	9.3	82	33.8	71	29.4	67	27.4	243
Collective profile (summary)	144	14.8	316	32.5	279	28.8	233	23.9	972

1. Profile of the direction/effect of action of the external motivational factors for the professional behaviour of GPs.

The collective and group profiles of the direction/effect of action on the behaviour of GPs are shown in Table 1.

GPs vary quite a lot in their evaluation of the direction/effect of action of the examined external factors on their professional behaviour. 52.7% of them judge these factors to have a positive influence on behaviour (of those 28.8% report "strongly positive"). 14.8% consider the factors studied to have no effect on their conduct, while for 32.5% the effect is negative.

The highest percentage for "positive effect" is given to financial and economic factors-87.1% (including 53.1% strong positive). The lowest percentage for "positive

effect" is given to organizational and technological factors-37%, and to the legal and regulatory ones-29.6%.

There is a strikingly high share of "negative effect" evaluations for organizational and technological factors (54.3%), and legal and regulatory (38.7%).

The structure we have established demonstrates that with the exception of factors of financial and economic type, which influence is predominantly positive on the professional behaviour of GPs, all the rest are mainly evaluated as having negative effect.

The conclusion is that GPs are of the opinion that they work in an "organizational and legal-regulatory context" which does not create conditions for their professional behaviour to correspond to the rules for good general medical practice.

1.1. Profile of the direction/effect of action of the financial and economic factors

Over 87.1% of GPs think that the factors in that group positively "affect" their behaviour, including 53.1% that

have evaluated it as "strongly positive" (Table 2).

The highest percentage of "strongly positive" effect of action goes to "net profit", followed by "capitation and NHIF-paid activities".

Table 2. Profile of the direction/effect of action of financial and economic factors on professional behaviour of GPs

Factors	None		Effect on professional behaviour				Strongly positive		Total N
	N	%	Negative N	%	Partly positive N	%	N	%	
How much is the net profit from the GP's activity	18	7.4	3	1.2	38	15.6	184	75.7	243
How much do patients pay to the GP per visit (user fee)	30	12.3	9	3.7	140	57.6	64	26.3	243
How much are doctors paid by the National Health Insurance Fund per patient on their list (capitation) and for the activities paid by NHIF	22	9.1	12	4.9	70	28.8	139	57.2	243
Collective profile (summary)	70	9.6	24	3.3	248	34.0	387	53.1	729

This profile demonstrates that the financial and economic factors most strongly affect GPs' professional behaviour, and are the main drive for achieving bigger correspondence between their behaviour and the rules of good medical practice and standards in general medicine.

1.2. Profile of the direction/effect of action of the organizational and technological factors

The distribution of evaluations of the direction/effect of action of the organizational and technological factors on the professional behaviour of GPs is presented in Table 3.

Table 3. Profile of the direction/effect of action of organizational and technological factors

Factors	None		Effect on professional behaviour				Strongly positive		Total Number
	Number	%	Negative Number	%	Partly positive Number	%	Number	%	
System of regulative standards concerning limits of number of medical referrals/ limits of number of various medical tests	5	2,1	159	65.4	65	26.7	14	5.8	243
Limitations in sending patients for certain types of tests and prescribing medications	6	2,5	211	86.8	19	7.8	7	2.9	243
Rules for dispensarization of certain types of chronic condition patients, including compulsory number and kind of consultations and medical tests	19	7,8	61	25.1	119	49.0	44	18.1	243
Primary care has to do activities outside the basic "pack" for primary care	28	11.5	177	72.8	27	11.1	11	4.5	243
Manner in which patients seek medical help	47	19.3	52	21.4	103	42.4	41	16.9	243
Collective profile (summary)	105	8,6	660	54.3	333	27.4	117	9.6	1215

This group of factors has a prevailing negative effect on physicians' behaviour.

The percentage of negative effect evaluations is very high, especially for "limitations in sending patients for certain types of tests and prescribing medications" - 86.8%; "system of regulative standards"-65.4%; and "Activities outside the basic pack"-72.8%.

The majority of factors is in a "state" which makes the work of GPs harder, and therefore adversely affect their conduct.

In the opinion of the majority of GPs (54.3%) these factors have a negative effect on their behaviour, with only 9.6% reporting "positive". The general percentage for

"positive" is very low-between 3% and 18% for the individual factors.

1.3. Profile of the direction/effect of action of the legal and regulatory factors

This group comprises factors with versatile "nature" and mechanism of action on the GPs; but in the end it affects their behaviour.

Table 4 illustrates the reported percentages of the direction/effect of action of these factors on the professional behaviour of GPs.

The profile shows the "prevalence" of negative eva-

Table 4. Profile of the direction/effect of action of legal and regulatory factors

Factors	None		Effect on professional behaviour				Strongly positive		Total Number
	Number	%	Negative Number	%	Partly positive Number	%	Number	%	
Volume and content of the basic pack of primary care activities	48	19.8	33	13.6	131	53.9	31	12.8	243
GP's duty to provide 24-hour medical help	21	8.6	152	62.6	55	22.6	15	6.2	243
The rules of the system for getting "General Medicine" speciality	92	37.9	112	46.1	31	12.8	8	3.3	243
Restrictions on extraprofessional activity (second workplace)	145	59.7	83	34.2	13	5.3	2	0.8	243
Collective profile (summary)	306	31.5	380	39.1	230	23.7	56	5.8	972

uation of the effect on professional behavior (39.1%). Only about 30% of Bulgarian GPs consider them to have positive effect, and just as few as 5.8% have given an answer "strongly positive".

With the individual factors the highest percentage of "negative" is given to "GP's duty to provide 24-hour medical help" (62.6%) and "The rules of the system for

getting "General Medicine" specialty" (46.1%).

Both the separate factor profiles and the collective ones confirm the assessment of GPs that the basic regulatory documents (laws, instructions etc.) related to primary medical care contain "rules and norms" making their work more difficult, and thus having a negative effect on their behaviour.

Table 5. Profile of the direction/effect of action of moral, ethical and psychological factors

Factors	None		Effect on professional behaviour				Strongly positive		Total Number
	Number	%	Negative Number	%	Partly positive Number	%	Number	%	
Attitude of the staff at Regional NHIF offices towards GPs	37	15.2	65	26.7	124	51.0	17	7.0	243
Fear of being sanctioned by NHIF, Revenue Agency etc.	19	7.8	93	38.3	21	8.6	110	45.3	243
Constantly growing demands and requirements of the patients	12	4.9	89	36.6	69	28.4	73	30.0	243
Collective profile (summary)	68	9.3	247	33.9	214	29.4	200	27.4	729

1.4. Profile of the direction/effect of action of the moral, ethical and psychological factors

The current study surveyed the direction/effect of only

3 factors from this group on the behaviour of GPs, as they are specific for primary medical care (Table 5).

Roughly 1/3 (33.9%) of the GPs interviewed respond that these factors adversely affect their conduct.

Larger number of them (56.8%) thinks that they have a positive effect; and 27.4% of these choose the answer "strongly positive".

The profiles for individual factors are highly varied, and their structure reveals big fluctuations.

Thus, the evaluation for "Fear of NHIF financial sanctions" is rather controversial: "strongly positive effect" for 45.3%, but then "negative effect" for 38.3%. The evaluation profiles for the rest of the factors are similar.

This can be attributed in part to the personal characteristics and system of values of the individual GPs.

1.5. Profile of the importance of external motivational factors for the professional behaviour of GP

Each general practitioner rates the weight of external factors for his/her behaviour differently, as the starting point is the personal interests, values etc.

The individual "importance profile" is a continuous line (sequence) of factors arranged in descending order, that is, from the most to the least important.

Figure 6 represents the collective (summary) profile of importance for the four categories.

Fig. 1. Profile of importance of the external factors for professional behaviour of Bulgarian General Practitioners (percentages by type and grouping)

The sum of frequency distributions gives the top 3 positions (from a total of 15) to:

"Net profit" with 79.4%; "Capitation and NHIF-covered

activities payment" with 58%; and "Regulations limiting referrals and medical tests" with 30%.

Depending on the number of rankings of each factor

Table 6. Mean score and rating in descending order of the importance of the external motivational factors for the professional behaviour of General Practitioners in Bulgaria

Factors	Mean and standard error (Mean±SE)	Ranking position
How much is the net profit from the GP's activity	3.02±0.24	1
How much are doctors paid by the National Health Insurance	4.49±0.23	2
Fund per patient on their list (capitation) and for the activities paid by NHIF	4.94±0.17	3
System of regulation standards concerning limits of number of medical referrals/limits of number of various medical tests	6.09±0.22	4
How much do patients pay to the GP per visit (user fee)	6.16±0.16	5
Limitations in sending patients for certain types of tests and prescribing medications	6.56±0.26	6
Volume and content of the basic pack of primary care activities	7.00±0.23	7
GP's duty to provide 24-hour medical help	7.07±0.16	8
Rules for dispenserisation (follow-up) of certain types of chronic condition patients, including compulsory number and type of consultations and medical tests	8.45±0.22	9
Fear of being sanctioned by NHIF, Revenue Agency etc.	9.75±0.18	10
Attitude of the staff at Regional NHIF offices towards GPs	9.91±0.21	11
Constantly growing demands and requirements of the patients	10.86±0.23	12
The rules of the system for getting "General Medicine" specialty	11.33±0.17	13
Primary care has to do activities outside the basic "pack" for primary care	11.59±0.21	14
Manner in which patients seek medical help	12.66±0.22	15
Restrictions on extraprofessional activity (second workplace)		

studied in a specific place in the "importance chain" the mean for importance was defined (as shown in Table 6).

This ranking again shows that for GPs most important for their behaviour are the financial and economic group of factors, and the moral, ethical and psychological ones are of the least importance.

Conclusion

General Practitioners in the Republic of Bulgaria consider the external professional environment to exercise a negative effect on their professional motivation and conduct. Only the financial and economic factors have predominantly favourable influence, while all the others, especially the organizational and technological ones have negative effect.

The financial and economic groups of factors are considered to be of highest importance for the professional motivation and behaviour, and also occupy the first places in the importance ranking.

The results of this study of the influence of the factors of the external professional environment on the General

Practitioners have provided scientific evidence-based data that can be used by decision-making bodies in making adequate decisions of different nature.

Conflict of interest statement. None declared.

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