

Stress of Family Physicians at Work

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Abstract

The aim of the study was to evaluate the prevalence of occupational stressors and also the prevalence of stress caused emotional and psychosomatic symptoms in the job of family physicians. The study method was an anonymous questionnaire. The research was carried during 2003-2005 years and included 555 of family physicians, working at the primary health care centers in Lithuania. The research results were calculated by the software Epi Info 6.01. The stress causing occupational stressors and their influence on behaviour of family physicians, also of the stress caused by the emotional and psychosomatic symptoms were determined.

Results. The emotional strain mainly caused by negative emotions, which physicians experience significantly more frequently, than positive emotions ($p < 0,001$). We determined, that family physicians during the emotional stress most frequently complained fatigue 54,9% ($p < 0,001$). Family physicians who had shorter work experience (1-20 years) significantly more frequently complained fatigue, changes of mood, excitement and nervousness, than having longer work experience (> 20 years) ($p < 0,001$). Family physicians during the emotional stress, experiencing negative emotions, significantly more frequently behaved was irritably and impatiently, (57,0%), in comparison with other changes of behaviour ($p < 0,001$). The research determined, that family physicians who experience the negative emotions were significantly more frequently dissatisfied with their work, than experienced the positive emotions ($p < 0,001$). The most frequent of occupational stressors it was determined, of family physicians causing psychosocial stress, was patients inability to buy the necessary medicines for treatment ($p < 0,001$). Family physicians who had longer work experience (> 20 years), the significantly more frequently was stressor not adequate salary, than having shorter work experience (1-20 years) ($p < 0,05$). Family physicians of the psychosocial stress at the job, caused by the psychosomatic symptoms, it was determined, that most frequently the family physicians complained of sleep disorders and more frequent heart palpitate ($p < 0,001$). Family physicians having shorter work experience (1-20 years), significantly more frequently of stomach spasms, and among physicians having longer than 20 years – sleep disorders and the elevated blood pressure ($p < 0,001$).

Keywords: general practitioners (family physicians), stress, occupational factors, job satisfaction, work experience.

Introduction

Family physicians are becoming one of the main participant of health care system in Lithuania. Family physicians originated together with the restoration of Independence in Lithuania. Family physicians speciality was introduced taking into account other countries experience – as a “gate keeper” at the entrance to the health care system, like wide clinical competence physician, adviser, health problem manager taking care of patient’s health problem identification and treatment, monitoring the course of chronic illness, preventing exacerbation, providing prevention and health education.

Stress – as a harmful factor of work environment, is especially characteristic of intellectual professions, as well as of the medical profession. Presently nobody doubts, that influence not only chemical, physical, biological, but also psychical factors have a negativity on employees health. No research of

family physicians stress at work, especially making the reform of primary health care system in Lithuania have been carried out a research on fatigue and mental stress of ambulance workers. Most of the ambulance workers experience psychosocial risk factors at work: night shift work, long working hours, mental stress and strain. Mental stress and fatigue is quite common among ambulance employees, half of the workers experience stress often or continuously [1].

The scientists found out, that one of the most frequent occupational stress factors, causing stress at family physician’s work, is emotional strain, dissatisfaction our job and our work conditions [2–14]. According to the research data, stress at work has influence of physicians emotions, job satisfaction and the progress of the reform [3–14]. Family physicians feel satisfaction of their job, it will improve their job quality, and their job will satisfy patients. So the greater the family physicians

dissatisfaction with their job, the worse the primary health care of family physicians quality of work [9]. The aim of the study was to evaluate the prevalence of occupational stressors and also the prevalence of stress caused emotional and psychosomatic symptoms in the job of family physicians.

Materials and Methods

The research was carried out during 2003-2005 years and included 555 family physicians, working in the primary health care centers in Lithuania (28% all country of family physicians), voluntarily agreed to fill in a questionnaire. 477 (85,9%) women and 78 (14,1%) men were surveyed. The average age of the physicians examined was 47,7±9,6 years, (from 25 to 75). Work experience varies from 1 to 54 years (on average 22,4±9,9 years). The greatest part of the surveyed of the family physicians was from 41 to 50 years of age (Table 1).

Table 1: Distribute into groups of family physicians according to age and work experience

Age (years)	n	%
25-30	26	4,7
31-40	102	18,4
41-50	222	40,0
51-60	153	27,6
>60	52	9,3
Total	555	100
Work experience (years)		
1-20	234	42,2
>20	321	57,8
Total	555	100

The study method was an anonymous questionnaire, using closed-end questionnaire. The stress-causing occupational factors and of the stress caused by the emotional and psychosomatic symptoms were evaluated. Four response categories were provided for each item: never (0), sometimes (1), frequently (2) and always (3). Job satisfaction variants were determined from 1 (very satisfy) to 5 (undecided). Evaluating occupational stress factors: emotional strain, not adequate salary, the patients inability to buy necessary medicines for treatment, haste at work, working overtime, patients not keeping to the prescribed treatment regime, no being prepared for doing new tasks, lack of support of employees and the chief, no knowledge of foreign language, and working with new computer programs. These emotional symptoms were determined: fatigue, anxiety, change of mood, excitement, nervousness, depression, loneliness and psychosomatic symptoms: sleep disorders, more frequent heart palpitate, stomach spasms, the elevated blood pressure, freezing of arms and feets, disorders of appetite and deficiency of air. Has also evaluated

the behaviour at work of family physicians during emotional stress, which is characterized by five features (behaved was irritably and impatiently, needed more talking, became angry, frequent smoking and drinking alcohol, more frequent use of medicines).

The research results were calculated by the software Epi Info 6.01 χ^2 and Goodness of fit methods was used. The results were considered significant for $p < 0,05$.

Results and Discussion

Stress is a perception of certain events which are considered difficult and called stressors and reaction to them. The events cause stress when we assume them as negative and out of control. The level of stress depends on how the majority evaluate some of the facts of their live. Most medical specialist agree with main principle of H. Selye (1976), that long term stress can you ruin physically [15]. In the longer term, chronic stress can lead to somatic complaints or illness, lower morale, and impaired social functioning [5]. Nowadays psychologist research, what can cause stress, what can its consequences be, and how they can be overcome [3].

VII European conference on psychological assessment, Malaga (Spain), 1-4 April, 2004 was analysed occupational stress factors of nurses and family physicians. The scientists was determined, that they the most frequently dissatisfaction our job and work conditions [14].

In the United Kingdom of Great Britain and Northern Ireland since 1987 year during the reform of family physicians have feel lower levels of stress, but since 1990, when the reform was introduced the levels of stress increased, because of increased workload, responsibility, not enough professional knowledge and qualification, financial restraint and particularly in relation with administration [13].

The scientists was determined, that emotional strain cause negative emotions, so emotions which physicians experience at work were researched [2].

Our research showed, that family physicians experience significantly more frequently negative emotions (59,1%) than positive emotions (40,9%); ($p < 0,001$).

Evaluating, the prevalence of emotions according to work experience, we determined, that the family physicians who had shorter work experience (1-20 years) significantly more frequently experience negative emotions (48,8%), than positive emotions (32,6%); ($p < 0,05$).

The ones who have longer than 20 years experience of work – significantly more frequently experience positive (67,4%), than negative emotions (51,2%) ($p<0,01$) (Table 2).

Table 2: Prevalence of emotions according to work experience (%)

Emotions	Work experience (years)					
	1-20		>20		Total	
	n.	%	n	%	n	%
Negative (n=328)	160	48,8**	168	51,2	328	59,1*
Positive (n=227)	74	32,6	153	67,4***	227	40,9

$\chi^2=17,7$; $df=1$; $*p<0,001$; (among emotions)

$\chi^2=5,5$; $df=1$; $**p<0,05$; (among different groups of work experience)

$\chi^2=8,6$; $df=1$; $***p<0,01$; (among different groups of work experience)

Prevalence of emotional symptoms caused by emotional stress at the work is listed in table 3. We determined, that family physicians most frequently complained fatigue–54,9% ($p<0,001$). Family physicians frequent also experience anxiety (45,9%), change of mood (45,0%), but only occasionally they are depression (25,8%) and lonely (25,2%). The research data confirm, that in the longer term, stress can lead to anxiety [5].

The research determined, that family physicians who had shorter work experience (1-20 years) significantly more frequently experienced fatigue, change of mood, excitement and nervousness (3 table), because having shorter work experience (1-20 years) family physicians at work frequent get negative emotions, than the ones who have longer than 20 years of experience of work ($p<0,05$) (2 table). That can be explained by greater occupation of younger physicians – who work in several treatment institutions to get a bigger salary.

The family physicians who have shorter work experience (1-20 years) significantly more frequently complained fatigue (65,8%; $p<0,001$). The research showed, that family physicians, also who have shorter work experience (1-20 years) frequently feel change of mood (57,7%; $p<0,001$), excitement (54,3%; $p<0,001$), nervousness (50,0%; $p<0,01$) (Table 3).

According a scientific literature during the emotional stress which is caused by negative emotions, people's behaviour changes and alcohol is used frequently suppress stress [5, 10]. That's why it is important to evaluate not only emotional symptoms, caused by stress, but also the behaviour during the emotional stress in the job of family physicians.

According to the results of our research, physicians during the emotional stress, experiencing negative emotions, behaved was irritably and impatiently, significantly more frequently (57,0%), in comparison with other changes of behaviour ($p<0,001$). We also determined, that occasionally prevalence behaviour during the emotional stress experiencing negative emotions is a wish to have smoking and drinking alcohol 9,4%, also wish medicines – 9,1%. This prevalence among physicians, who experience negative emotions often, than positive (4 table), however some sources tell that the use of alcohol to get overcome stress is common among physicians [5,10]. According to our research 85,9% of family physicians are women, who use less alcohol.

Table 3: Prevalence of emotions symptoms (%)

	Work experience (years)					
	1-20 <i>n=234</i>		>20 <i>n=321</i>		Total <i>n=555</i>	
	n	%	n	%	n	%
Fatigue	154	65,8**	151	47,0	305	54,9*
Anxiety	113	48,3	142	44,2	255	45,9
Change of mood	135	57,7***	115	35,8	250	45,0
Excitement	127	54,3****	115	35,8	242	43,6
Nervousness	117	50,0*****	120	37,4	237	42,7
Depression	66	28,2	77	23,9	143	25,8
Loneliness	65	27,8	75	23,4	140	25,2

$\chi^2=312,8$; $df=6$; $*p<0,001$ (among emotions symptoms)

$\chi^2=19,3$; $df=1$; $**p<0,001$ (among different groups of work experience)

$\chi^2=26,1$; $df=1$; $***p<0,001$ (among different groups of work experience)

$\chi^2=18,7$; $df=1$; $****p<0,001$ (among different groups of work experience)

$\chi^2=8,8$; $df=1$; $*****p<0,01$ (among different groups of work experience)

During the research family physicians job satisfaction was also evaluated. The listing in table 5, that most frequently family physicians, experiencing at job positive emotions, are satisfy with job (79,7%), but only 7,9% are very satisfy with their job.

The research determined, that family physicians who experience the negative emotions were significantly more frequently dissatisfy with their work (32,6%) than experienced the positive emotions (7,1%); ($p<0,001$). The results of the research show, that the motivation to work of there who experience negative emotions changes.

Of all 555 surveyed family physicians only 4,6% were very dissatisfy with their work and all of them belonged to the group experiencing negative emotions at work, frequently than positive emotions.

According to the research the emotional state and mood depends on the indication of job satisfaction, on the load of work, the methods of work organization and on ones qualification [11].

Scientists determined, that physicians job satisfaction and stress levels are changes, when higher levels the stress, the lower levels of job satisfaction. Scientists found, that among physicians high levels of stress and low levels of job satisfaction were associated with more frequent health complaints [5, 10].

Table 4: Behaviour during the emotional stress in the job of family physicians

Behaviour during emotional stress	More frequently experiencing negative emotions n=328		More frequently experiencing positive emotions n=227	
	n	%	n	%
Behaved was irritably and impatiently	187	57,0*	63	27,8
Needed more talking	98	29,9	7	3,1
Became angry	53	16,2	46	20,3
Frequent smoking and drinking alcohol	31	9,4	7	3,1
More frequent use of medicines	30	9,1	11	4,8

$\chi^2 = 984,3$; $df=4$; * $p<0,001$ (according to behaviour temper)

The healthcare reform in Lithuania has an undoubted influence on the quality of the physicians work and their emotional state. After new requirements have been introduced, physicians experience stress as they feel having not enough knowledge [6]. According to literature physicians are under stress at work because of disappointment with their work, uncertainty about they position [7]. Lack of communication with colleagues and their support also adds to the physicians stress [8].

Due to the reform they have to adjust to new requirements at work. That is why various occupational stressors which are common at physicians work were investigated.

The most frequently of occupational stress factors, caused psychosocial stress of family physicians at work is the patients inability to buy necessary medicines for treatment (95,7%), ($p<0,001$).

Under the recent economical situation some patients afford buying only the cheapest medicine which is not always the most efficient.

The other most common occupational stressors which were pointed by the family physicians, was haste at work (93,3%), working overtime (92,2%), patients not keeping to the prescribed treatment regime (85,2%), no being prepared for doing new tasks (78,4%), also lack of employees support (69,0%).

Family physicians who had longer than 20 years experience of work, the were significantly more

frequently not adequate salary (28,7%), than having shorter (1 -20 years) work experience ($p<0,05$) (Table 6).

The prevalence of psychosomatic symptoms which are caused by psychosocial stress among family physicians were estimated (7 table). It was determined that family physicians most frequently complained sleep disorders and more frequent heart palpitate (55,3%; $p<0,001$) (7 table). This research data agree also with job stress literature, longer term stress lead to coronary heart disease [5]. Only 22,9% of family physicians complained deficiency of air.

The prevalence of psychosomatic symptoms depending on the work experience it was determined, that family physicians having shorter work complaint (to 20years), significantly more frequently of stomach spasms (50,4%), and who having longer than 20years complained – sleep disorders (61,4%) and the elevated blood pressure (49,8%) ($p<0,001$).

Some sources of literature give a wide analysis and investigation of what can cause stress and what consequences of the stress could be [1–14]. There are fewer sources of literature which analyse how they can be overcome stress at work [3, 11, 12, 16, 17, 18].

New various health care programs are being introduced. In the US when half of the income is received from businesspeople's taxes, 2/3 of organizations with more than 50 employees started promoting healthcare problems themselves. Such programs usually evaluate the state of health, suggest exercising, stop smoking and control stress. The workplace is the best place to introduce health programs because the employees spend there the bigger part of the day [11].

Table 5: Prevalence of emotions (%) according to job satisfaction index

Job satisfaction index	Negative emotions n=328		Positive emotions n=227	
	n	%	n	%
Very satisfy	8	2,4	18	7,9
Satisfy	166	50,6	181	79,7
Dissatisfy	107	32,6*	16	7,1
Very dissatisfy	15	4,6	-	-
Undecided	32	9,8	12	5,3
Total	328	100	227	100

$\chi^2 = 50,9$; $df=1$; * $p<0,001$ (among negative and positive emotions)

Peoples behaviour and their reaction to stress are the most important factors on which one's health depends. Optimistically orientated people don't see dangers to their health. That's why the first obstacle

Table 6: Prevalence of occupational stressors (%)

Occupational stressors	Work experience (years)					
	1-20 n=234		>20 n=321		Total n=555	
	n	%	n	%	n	%
Patients inability to buy necessary medicines for treatment	222	94,9	309	96,3	531	95,7*
Haste at work	222	94,9	296	92,2	518	93,3
Working overtime	219	93,6	293	91,3	512	92,2
Patients not keeping to the prescribed treatment regime	203	86,7	270	84,1	473	85,2
Not being prepared for doing new tasks	188	80,3	247	76,9	435	78,4
Lack of support of employees	161	68,8	222	69,2	383	69,0
Lack of support of chief	164	70,1	218	67,9	382	68,8
No knowledge of foreign language	127	54,3	190	59,2	317	57,1
No knowledge working with new computer programs	104	44,4	133	41,4	237	42,7
Not adequate salary	49	20,9	92	28,7**	141	25,4

$\chi^2 = 964,5$; $df=9$; $*p<0,001$ (among occupational stress factors)

$\chi^2 = 4,3$; $df=1$; $**p<0,05$ (among different groups of work experiences)

which has to be overcome by the ones creating health programs is to make people understand that their health depends on their own behaviour [3].

You can't avoid stress as a natural phenomenon as no one can protect us from dangers, strain and worries. But negative consequences of stress can be avoided or lessened by increasing resistance to stress. One of the ways is a healthy way of life and also learning how to relax from daily worries and taking easy disappointments or even failures [16].

Summarising the results of the research we think, that stress can be overcome not only by encouraging people to live a healthy life but also psychologist's consultation. According to the results a psychologist's consultation would be favoured very much by 5,6% of family physicians, would be favoured by 24,7% and 13,3% of family physicians would like it but don't dare.

82,2% of family physicians state that their work is mentally stressful, 97,8% it is intensive, because it was estimated that 67,0% of family physicians work overtime. Mostly family physicians 88,3% think that the main reason decreasing quality of work is oversupply of different medical records and other documents. W. Steiner (1997) says, that by lessening of physical and psychical load the health

of the employees is prevented due to which their efficiency and initiative is rising [12].

One of occupational stressors in the employee's relationship with the employees, because in a clash of opinions a conflict between them occurs the employees should improve working conditions also change the strategy of work organization, take into account the employees problems, questions and requests try to sort things out and find the best compromise and solution [17, 18].

Conclusions

1. The most part of the family physicians (59,1%) at job are experiencing more frequently the negative emotions, than positive emotions ($p<0,001$).
2. Family physicians during the emotional stress at the work, most frequently complained fatigue 54,9% ($p<0,001$). The family physicians who had shorter work experience (1-20 years) significantly more frequently complained fatigue -65,8%, changes of mood -57,7%, excitement-54,3% and nervousness-50,0%, than having longer work experience (>20 years) ($p<0,001$).
3. Family physicians, during the emotional stress, frequently experiencing the negative emotions at work, their behaved was irritably and impatiently

Table 7: Prevalence of psychosomatic symptoms (%)

Psychosomatic symptoms	Work experience (years)					
	1–20 n=234		>20 n=321		Total	
	n	%	n	%	n	%
Sleep disorders	110	47,0	197	61,4**	307	55,3*
More frequent heart palpitate	136	58,1	171	53,3	307	55,3*
Stomach spasms	118	50,4***	122	38,0	240	43,2
Elevated blood pressure	79	33,8	160	49,8****	239	43,1
Freezing of arms and feet	91	38,9	107	33,3	198	35,7
Dissorders of appetite	78	33,3	123	38,3	201	36,2
Defficiency of air	56	23,9	71	22,1	127	22,9

$\chi^2=250,4$; $df=5$; * $p<0,001$ (among psychosomatic symptoms)
 $\chi^2=11,3$; $df=1$; ** $p<0,001$ (among different groups of work experience)
 $\chi^2=8,5$; $df=1$; *** $p<0,01$ (among different groups of work experience)
 $\chi^2=14,3$; $df=1$; **** $p<0,001$ (among different groups of work experience)

is most frequently -57,0% to comparison with other changes of behaviour ($p<0,001$).

4. Family physicians, who experienced the negative emotions, were significantly more frequently dissatisfied with their work -32,6% , in comparison with those who experienced the positive emotions- 7,1% ($p<0,001$).

5. The most prevalence occupational stressor causing psychosocial stress at work is the patients inability to buy the necessary medicines for treatment- 95,7% ($p<0,001$). Family physicians who had longer than 20 years experience of work, significantly more frequently the was stressor not adequate salary-28,7%, than having shorter work experience (1-20 years) ($p<0,05$).

6. The prevalence of psychosomatic symptoms, it was determined, that family physicians most frequently complained of sleep disorders and more frequent heart palpitate- 55,3% ($p<0,001$). Family physicians who had shorter work experience (to 20years), complaint significantly more frequently of stomach spasms 50,4% ($p<0,001$), and who had longer than 20years complained sleep disorders- 61,4% and the elevated blood pressure- 49,8% ($p<0,001$).

References

1. Raškevičienė R., Buteikienė L., Vasilavičius P. Influence of fatigue and mental stress on health of ambulance workers. Public health, 2005; 2(29):58-64. (in Lithuanian)

- Meška V., Juozulynas A. Suppression of stress. 1996; 175. (in Lithuanian)
- Myers D. G. Psychology. 2000; 730. (in Lithuanian)
- Dilingas H., Reimeris Ch. Psychiatry and psychotherapy. 2000; 271. (in Lithuanian)
- Williams E. S., Konrad T. R., Linzer M., McMurray J., Pathman D. E., Gerrity M., Schwartz M. D., Scheckler W. E., Douglas J. Physician, practice, and patient characteristics related to primary care physician physical and mental health: results from physician worklife study. Health services research, 2002; 37(1): 119–141.
- Rutter H., Herzberg J., Paice E. Stress in doctors and dentists who teach. Medical education, 2002; 36(6): 543–550.
- Winefield H. R., Anstey T. J. Job stress in general practice: practitioner age, sex and attitudes as predictors. Family practice, 1991; 8: 140–144.
- Branthwaite A., Ross A. Satisfaction and job stress in general practice. Family practice, 1988; 5: 83–93.
- Grol R., Mookink H., Smits A., Eijk I., Beek M., Mesker P., Mesker-Niesten J. Work satisfaction of general practitioners and the quality of patient care. Family practice, 1985; 2: 128–135.
- Cooper C. L., Rout U., Faragher B. Mental health, job satisfaction, and job stress among general practitioners. BMJ, 1989; 298(6670): 366–370.
- Gebhart D. I., Crump C. E. Employee fitness and wellness programmes in the workplaces. American Psychologist, 1990; 45, 262–272.
- Steiner W. Management of office.1997; 208.(in Lithuanian)
- Sibbald B., Enzer I., Cooper C., Rout U., Sutherland V. GP job satisfaction in 1987, 1990 and 1998: lessons for the future? Family practice, 2000; 17(5): 364–371.

14. VII European conference on psychological assessment, Malaga (Spain), 1-4 April, 2004; 193–194.
15. Selye H. The stress of life. 1976; 53.
16. Pikūnas J., Palujanskienė A. Development of personality. 2001; 247. (in Lithuanian)
17. Huby G., Gerry M., McKinstry B., Porter M., Shaw J., Wrate R. Morale among general practitioners: qualitative study exploring relations between partnership arrangements, personal style, and workload. *BMJ*, 2002; 325(7356): 140–153.
18. Appleton K., House A., Dowell A. A survey of job satisfaction, sources of stress and psychological symptoms among general practitioners in Leeds. *Br. J. Gen.Pract.*, 1998; 48(428): 1059–1063.