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FACTORS OF WORKING ENVIRONMENT INFLUENCING OCCUPATIONAL STRESS AMONG PRIMARY HEALTH CARE DOCTORS IN UKRAINE

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ABSTRACT

Introduction: Stress is considered to be a very common pathology among primary care doctors, since practically any professional activity requires significant emotional, mental and practical efforts.

The aim has determined the factors associated with occupational stress and compare the difference of behavior patterns which is used to reduce stress among primary care doctors in Ukraine.

Materials and methods: The authors used medical-statistical methods as well as analyzed questionnaires of the sociological survey conducted among general practitioners and family doctors of the primary care level from various regions of Ukraine.

Results: Occupational stress is a common symptom among primary care physicians of different ages and genders in Ukraine. For primary care doctors the most common symptoms related to occupational stress were found to be burnout (n=93), poor night's sleep (n=84) and tiredness (n=84). Female doctors experience more often symptoms such as frequent headaches tiredness, burnout, whilst for male doctors feelings of irritation and anxiety are more common indicators of occupational stress.

Work experience also has a strong association with experiencing stress related to "unrealistic expectations from their patients with complex medical and social problems" (s.d.f=.082). Young doctors with work experience of less than 5 years and those who have worked for more than 20 years in the industry similarly find it stressful to deal with such "complex patients".

Conclusions: Primary care doctors in Ukraine, from many different demographic backgrounds, experience high levels of occupational stress; this is a common health condition, which can have devastating personal and professional consequences.

KEY WORDS: primary care doctor, occupational stress, professional consequences

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INTRODUCTION

Physical health is impossible without emotional stability and it has a great importance at the workplace where people spend a big part of their professional life. As such, the challenging task of every person is to maintain mental and psychological balance, to be ready to face and overcome stressful situations, not be afraid to seek help, and not allow symptoms of overload, depression, or emotional instability to take place [1,2].

If a person's psychological wellbeing is harmed it can create potentially harmful physical conditions and increase the risks of stress-related psychological morbidity and developing emotional burnout syndrome which is known as a specific professional deformation. Interestingly, over the last decade the topic of professional burnout syndrome has become increasingly interesting to medical researchers since it cannot be easily evaluated as a differentiated type of pathology.

According to H. Freudenberger's [3] definition of "burn-out syndrome" who was one of the first to study this phenomenon in 1974 defined burnout as a physical, emotional or motivational exhaustion characterized by a disruption

of performance in work and fatigue, insomnia, increased susceptibility to somatic diseases, and the use of alcohol or other psychoactive substances in order to obtain temporal relief that has a tendency to the development of physiological dependence and (in many cases) suicidal behaviors.

Causes of professional burnout syndrome are different, but as usual they are a complex of unmanageable long-lasting stresses at the workplace, disturbances of work-life balance and reduction of professional achievements [4].

In any case, professional burnout syndrome can have a very large effect on overall psychological wellbeing, which is, first and foremost, the most crucial aspect of life for each individual.

It is particularly important for primary care physicians, who care for the most of illnesses in society, to avoid stress. All around the world people trust doctors to care for them when they are ill so it is extremely important that doctors are healthy and have good emotional stability and do not suffer from emotional or professional burnout. Without good mental health, doctors are at risk of providing poor healthcare to other people – this is especially true when doctors have a lot of long lasting contact with patients on

a daily basis. As such it is clear that one of the groups of doctors for whom the lack of suffering from emotional burnout is particularly important is the group of primary healthcare doctors (family doctors).

THE AIM

The objective of the study aimed to determine the factors associated with occupational stress and compare the difference of behavior patterns which is used to reduce stress among primary care doctors in Ukraine.

RESEARCH HYPOTHESIS

Stress is one of the main factors that significantly influences the development of professional-emotional burnout. Primary care professionals (doctors) are those who have a very stressful and difficult environment to work in, and they are at risk of many mental health problems because of various patterns that are related to stress in the workplace and can finally lead to the development of professional-emotional burnout. Doctors need dedicated support to deal with this stress and make sure that they maintain good mental health, which reduces their risk of professional burnout and allows them to perform their duties to the public effectively.

MATERIALS AND METHODS

Primary care doctors, who play an important part in the healthcare process, are at the frontline of their professions and at risk of rapid changes, which could potentially have a negative impact on their psychological wellbeing in the case that they suffer from stress and/or develop professional burnout syndrome. This is particularly true in the Ukrainian healthcare system which, in recent years, has placed a lot of emphasis on strengthening the provision of primary medical care – an area which is considered to be the most challenging and stressful (and therefore most likely to suffer from burnout due to stress) of the three levels of care in the Ukrainian health care system.

The complex range of current economic problems in the Ukrainian health care system as well as socio-economic factors associated with the decline of the prestige of primary care doctors is one of the key factors that leads to this situation. However, there are also many other factors, which make the work of primary care doctors in Ukraine extremely psychologically challenging and emotionally tense. Also, the vertical hierarchical organization of work in the Ukrainian healthcare system has an effect on the level of stress experienced by PHC doctors and the deterioration of their mental health.

Furthermore, primary care doctors in Ukraine often suffer from professional dissatisfaction with their jobs due to the negative public perception of their work [5]. Specifically, in Ukraine primary care doctors are often regarded as “unimportant” in comparison with other medical specialists like surgeons and consultant physicians who work in the higher levels of the healthcare system (secondary and tertiary levels).

For this research, the quantitative method of research was used in order to determine the workplace factors (independent variable) that affect the mental health of primary care doctors (a dependent/outcome variable). The data was gathered through a questionnaire which was then transformed into a statistical and numerical measurement.

In order to achieve the desired goals and tasks of this study a quantitative, descriptive study design methodology has been used for the field stage. A structured questionnaire has been prepared to enable the researcher to identify the main factors which increase doctor's level of stress the most, and damage the psychological wellbeing of these primary care doctors, how doctors evaluate their own emotional health and the level of stress they experience at work.

The field stage of the research was conducted between November, 30th and December 15th in 2017 in Kyiv.

The survey results of this research make it possible to enable dissemination not only within participants of the study but also expand this to the whole population of primary care doctors within Ukraine.

The main criteria of selection for the participants for this research focused on the aspects of professional work activity. Respondents had to be practicing medicine on the primary level of care in Ukraine. All of the potential candidates who met the criteria of the research were chosen randomly and asked to fill a questionnaire provided to them in a paper form.

The procedure for calculating the sample size was based on compromises between the accuracy of the achieved results and the limited financial and human resources available in order to conduct this research as well as lack of time and difficulties of reaching primary care doctors to take part in this study. In accordance with all the considerations of this research it was decided that the structured paper based questionnaire should be printed on one side of a single paper and distributed as a paper form to no less than 200 primary care doctors from the various regions of Ukraine the exception of Zaporizhia oblast, Sevastopol city (Municipality) and Crimea.

The main selection of indicators included in the questionnaire were focused on demographics (age, sex, place of living, number of years worked), self-evaluation (symptoms and the level of depression or any other mental disease, satisfaction with work-life balance, ways of dealing with such symptoms, and other main factors which have the greatest influence on psychological well being).

The last question in the questionnaire required an open-ended answer so respondents had an option to add anything he or she wanted in order to more precisely indicate the main causes of their stress at work

RESULTS

Respondents who were selected for this study and took a part in the quantitative research were general physicians, family doctors who work specifically in the primary care level of medicine in the public sector of health care in Ukraine. Also, the research made sure that respondents

came from work a variety of geographical locations such as big cities as well as towns, villages and rural settlements with low population density.

Those participants who met the criteria based on their profession were randomly chosen without gender considerations. But in general, the proportion of women working in the primary care level of medicine in Ukraine is greater than the proportion of men. Considering such gender inequality in the primary level of care and in the Ukrainian medical profession as a whole, the number of female respondents was predominant in this research. Male respondents formed a minority group however this was expected. In total, the number of female respondents in this research consisted of 141 individuals which is 79.7% of the total 177 sorted questionnaires received back to the interviewer. Male respondents numbered just 36 in the age distribution of the respondents varied between 25 and 55 and older. The purpose of establishing a respondents age is to determine if there are any differences in responses between age groups. For example, an outcome may be different between the youngest group and its respondents (who are just on the starting point of their professional careers) to those who are several decades older and have many years of experience. Also, the reason for dividing respondents was to form an understanding of which age group was most happy to complete the questionnaire and participate in this research.

Participants of the research sample in this this came from all the 23 regions of Ukraine except with the exception of Zaporizhia oblast, Sevastopol city (Municipality) and Crimea. In order to generalize the presentation of some of the main results of this research, the regions of Ukraine were subdivided into the regional groups: Eastern, Western, Northern and Southern, depending on their location within Ukraine. Only particularly insightful and outlier findings gained from the research questionnaire are highlighted individually, all other findings are included in the main results which are reported by regional group. Individuals which equals to 20.3%.

A significant difference has been found in the gender differences of the respondents; significantly more female physicians participated in this study (with the participation rate 79.1%) than males (20.9%). The age of the respondents ranged from 25 years to >55 years and can be divided into four different age groups. The vast majority of subjects in this research are young primary care professionals (43.5%) who fit into the age group 25-34 years. The age distribution by gender is rather proportional in each age category and seems to be representative for both genders. Most of the respondents (70.1%) live in cities, whilst a minority lives in villages (29.9%). Also, the largest number of respondents came from the western part of Ukraine (34.5%) and the least from the South (6.2%). The survey was conducted to cover all 23 oblasts (regions) of Ukraine with the exception of Zaporizhia oblast, Sevastopol city (Municipality) and Crimea.

Occupational stress is widespread among primary care doctors. The results of this study show that a significant number of doctors (84.6%) were found to often suffer from

stress at work. In order to investigate further, the scores on the stress scale have been classified in three categories namely, "low stress group (incl. scores 0-3), medium stress group (incl. scores 4-7), and high stress group (incl. scores 8-10). From the Table 1.2 it can be pointed out that most doctors (62%) experience a medium level of stress; the group of doctors who experience a high level of stress (29%) then follow this group. Only 27% of doctors fall into the category of 'low level of stress' group. (Mean=5.5/ Median=6.0).

According to the analysis of the level of stress, female doctors are more stressed at work than male doctors. The mean value (of the total scores) on the stress scale for female doctors is 5.75 whilst for male doctors it is 4.70.

When we compared the Mean score of the level of stress in different age groups, it can be pointed out that the lowest stress level was found in doctors aged 55 and older (n=27, Mean=5.22). This was followed by the youngest age group 25-34 (n=77, Mean=5.36), then 45-54 (n=31, Mean=5.94). The stress level in the age group 35-44 (n=42, Mean=7.74) is significantly higher, so we can consider that doctors of this age experience more stress at work than the other age groups.

The most commonly encountered symptoms of stress related to psychological and emotional changes were found to be: "burnout" (n=93), "poor night's sleep" (n=84) followed by "tiredness" (n=84), "irritation" (n=78) and behavioural changes such as "frequent headaches" (n=78). On the other hand, the least commonly encountered ones are "eating disorder" (n=20), "depression" (n=28) and "anxiety" (n=40). Meanwhile, female doctors more often experience symptoms such as frequent headaches, tiredness and/or emotional burnout, whilst male doctors more commonly feel irritated or suffer from anxiety. Stress coping strategies among doctors are mostly associated with emotion-focused coping. This involves attempts to reduce the negative emotional responses (such as anxiety, depression, irritation) associated with stress. Such methods include distraction and suppressing negative emotions or dealing with them through talking about how they feel. An absolute majority of male and female respondents prefer to shift their attitudes to positive beliefs, to be an "optimist" or to devote their free time to a hobby or something they really enjoy. Also, respondents often feel better when they try to share their feelings and problems with their family members in order to seek support. The results also show that regular physical exercise is not a very common coping mechanism among respondents. Similarly, regular use of drugs/food supplements are considered necessary by just 4% of family doctors and 4.5% of interns.

The factor "Large amount of paper documentation has to be filled, no electronic system" was considered as one of the most important work factors associated with stress; it affects most primary care doctors and had a mean score of 2.5. This work stressor was on average reported as "very important" by 68.4% of the primary care doctors who responded to the survey. Moreover, 50.3% of the respondents reported that they feel stressed a lot when they have a clear work-life imbalance or experience impossibility of development and/or training opportunities.

The lack of public and professional understanding of the importance of primary care was also considered to be a major stress factor, with a mean score of 2.1. Furthermore, the results revealed that the role of “conflict with colleagues in the workplace” (with a mean of 1.5) and of “recognition of own weakness in competitive work environment” (with a mean score of 1.4) can be considered to be the least important of all the work stressors affecting primary care doctor’s emotional stability.

Male doctors ($n=37$, mean “level of stress” =4.70) are overall less stressed than female doctors ($n=140$, mean “level of stress” =5.75) (sig df=.024). Also, the table showed that the highest mean level of stress can be found in the South of Ukraine (mean=6.73) whilst the lowest mean level is in the West of Ukraine (mean=4.67).

The results of a Chi-Square Test that was used to check whether there is any association between specific demographic determinants of factors that affect the emotional stability of doctors. The results showed that age, work experience and location of work of doctors are statistically significantly ($p<0.05$) associated with their adaptation to the recent changes in the reform of the primary level of health care in Ukraine. Doctors with work experience of more than 20 years, who are in the age group 45-55 years, or who live in the eastern or central parts of Ukraine are more likely to feel stressed during the period of reforms in the primary health care sector.

Moreover, doctors from the eastern and central parts of Ukraine were found to be experiencing more stress than doctors from any other region of Ukraine because of the “large amount of paper documentation which has to be filled by hand” (s.df=.082).

Interestingly, some results showed that doctors’ work experience also has a strong association with stresses related to “unrealistic expectations from their patients with complex medical and social problems”. Young doctors with work experience of less than 5 years and those who have worked for more than 20 years in the industry similarly found it stressful to deal with such “complex patients”.

Also result shows that there is not a big difference between whether the reforms were considered important or not depending on whether a doctor’s region already had the reforms implemented or not (‘not important’ was chosen by 43.1% in ‘no’ regions and by 46.7% in ‘yes’ regions).

However, there is a difference in the level of importance that doctor’s ascribed to the need to adapt between ‘yes’ (reforms implemented already) and ‘no’ (reforms not yet implemented) regions. In the case of ‘yes’ regions more respondents chose the top level ‘very important’ (33.3%) than in ‘no’ regions (24.5%). On the other hand, more respondents chose the middle option ‘important’ in ‘no’ regions (32.4%) than in ‘yes’ regions (20.0%).

DISCUSSION

Occupational stress is a common symptom among primary care physicians of different ages and genders in Ukraine. Eighty six percent of respondents experience “medium”

and “high” level of stress. When considering gender, female doctors (mean = 5.75) in this study indicated they are more stressed at work than male doctors (mean = 4.7). On age, doctors who fall into the age group “35 to 44 years” experience significantly more stress at work than the other age groups (mean = 7.74). By region, the highest mean level of stress was found in the South of Ukraine (mean=6.73) whilst the lowest mean level is in the West of Ukraine (mean=4.67).

For primary care doctors the most common symptoms related to occupational stress were found to be burnout ($n=93$), poor night’s sleep ($n=84$) and tiredness ($n=84$). Female doctors experience more often symptoms such as frequent headaches tiredness, burnout, whilst for male doctors feelings of irritation and anxiety are more common indicators of occupational stress.

An absolute majority of male and female respondents preferred to shift their attitudes to positive beliefs in order to reduce stress; to be an “optimist” (79%) or to devote their free time to a hobby or something they really enjoy (75%) were common answers. One respondent noted that he likes to spend time doing and this helps to calm his emotions down. Also, respondents often feel better when they try to share their feelings and problems with their family members (57%) in order to seek support.

In addition to this, it seems that the most factors which cause stress can be attributed to the large amount of desk work doctors have and activities like filling documentation and medical records by hand, imbalance between the daily amount of work with doctors’ capabilities, and feeling their profession is not respected by the public. The experience of stress is more common in the eastern and central parts of Ukraine, where doctors feel more stressed because of large amount of paper documentation which has to be filled by hand (s.df=.082). Similarly, doctors whose work experience is more than 20 years, who are in the age group 45-55 years ($N=31$), or who live in the eastern or central parts of Ukraine are more likely to feel stressed during the period of reforms in the Ukrainian primary care sector.

Work experience also has a strong association with experiencing stress related to “unrealistic expectations from their patients with complex medical and social problems” (s.df=.082). Young doctors with work experience of less than 5 years and those who have worked for more than 20 years in the industry similarly find it stressful to deal with such “complex patients”.

It was also found that, the older a primary care doctor becomes, the more stress he/she experiences due to feeling undervalued compared to other medical professionals from the other levels of care (sig. df=.081). However, this seems to be less important for doctors aged 55 years and above, who saw a decrease in the importance of this factor.

Finally, whether a doctor’s region already had the primary care reforms implemented or not did not play a big role in doctors’ responses on whether the health care reforms were important or not (‘not important’ was chosen by 43.1% in ‘no’ regions and by 46.7% in ‘yes’ regions).

CONCLUSIONS

1. Primary care doctors in Ukraine, from many different demographic backgrounds, experience high levels of occupational stress; this is a common health condition, which can have devastating personal and professional consequences. What is more, aside from primary care doctors' own health, there is also a serious risk that such conditions could reduce the quality and safety of care provided to patients and also lead to serious medical errors. For this reason, addressing the poor psychosocial and working conditions that doctors experience is very important to ensuring that they remain healthy and can provide effective medical services.
2. In addition to this, it seems that the most factors which cause stress can be attributed to the large amount of desk work doctors have and activities like filling documentation and medical records by hand, imbalance between the daily amount of work with doctors' capabilities, and feeling their profession is not respected by the public.
3. Understanding the influence of working conditions on the health of doctors is an important step in developing strategies to optimize the overall wellbeing of workers in the medical profession. This study identified that Ukrainian primary care doctors develop occupational stress through a number of work related factors related, amongst others, to factors like: patients' care, work flow, service provision, organization of primary care doctors' work and work schedule, employee benefit package and low income, relations with leadership and management teams, impossibility of qualitative continuous education and development, and access to world leading academic sources. In each case, this research identified the relative importance of the factor and explained the relevance of its impact on doctors and their levels of occupational stress.
4. Combatting occupational stress and reducing the effect of these factors will come down to a combination of multidisciplinary actions that various parties will have to implement. These include changes in the workplace environmental factors that lead to occupational stress as

well as the development of stress management programs that teach people how to cope better with stressful events and solutions to help manage doctors' stress levels. More interventional research targeting medical doctors is needed in order to identify the specific actions required to improve the psychological wellbeing of doctors, increase their professional career satisfaction and ensure continued high quality of care. Creation of such conditions should undoubtedly help increase levels of job satisfaction amongst medical personnel and therefore help prevent the development of professional burnout syndrome.

5. Finally, whilst this research has provided insight into the situation faced by primary health care doctors currently working in Ukraine, it should not be seen as a final, conclusive report, but instead as a starting point for future research.

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