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Occupational Burnout of Health Care Professionals in Hospitals

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Abstract

Introduction: The phenomenon of occupational burnout has been the field of substantial research. Initially, the research has been focused on health professionals, for they were considered to be the most prone employees to occupational burnout.

Purpose: The purpose of this research paper is to investigate the health care professionals' feelings and attitudes both during working and after their work. Additionally, their relationships with patients will be investigated.

Material and methods: This research paper has the form of a quantitative research using questionnaires with numerically rated items. The questionnaire is one of the most popular techniques for the quantitative research. The sample of this research paper includes both nurses and doctors chosen from the workforce of various hospital departments of a General Hospital in Thessaloniki. Specifically, 180 nurses and 120 doctors were surveyed.

Results: Initially, starting with the presentation of the results of our research, demographic characteristics were juxtaposed in order to clarify the sample. Firstly, it is observed that a big percentage of the sample consists of women (66.7%), while the remaining 33.3% of men. Regarding the age distribution of the sample, it is shown that 13.3% of the surveyed are aged 26 to 35 years old, 20.0% are aged 36 to 45 years old, 6.0% are aged 46 to 55 years and 6.7% are over 56 years old. With regard to the educational level of respondents, 16.7% are secondary school graduates, 43.3% tertiary education graduates (technological institution graduates), 6.7% tertiary education (university graduates); the 6.7% hold a master's degree and 26.7% hold a doctorate. Simultaneously, it is seen that 60% of the surveyed are nurses and 40% doctors. Finally, regarding the average work experience of the surveyed, it was found that it equals 20 ± 9.6 years.

Conclusion: Occupational Burnout (OB) is a syndrome of physical and psychological exhaustion regarding health care professionals. It has three dimensions relating to emotional exhaustion, depersonalization and lack of personal achievements.

Keywords: Burnout; Healthcare professional; Hospital; Ethics; Occupational

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Introduction

The etymology and hallmark of the occupational burnout syndrome is "the distancing that goes on in response to the professional overload" [1]. The initial bibliographic reference of the syndrome appeared in the 1970s, with the launch of investigating employees' feelings; and it was the milestone for its recording and description. Pioneers in the study of the syndrome were the American psychiatrist Herbert Freudenberger and the social psychologist Christina Maslach whose name was linked to the Burnout Syndrome from the start [2,3].

The phenomenon of occupational burnout has been the field of substantial research. Initially, the research has been focused on health professionals, for they were considered to be the most prone employees to occupational burnout [4]. Since then, the research of the occupational burnout syndrome turned to people practicing different health and care professions such as doctors, nurses, teachers, social workers, police officers, lawyers, employees in psychiatric hospitals, people who deal with small children, prison staff etc. [5,6].

Occupational burnout is one of the four reported problems

related to the work supply in Europe in recent years [7]. Studies internationally carried out demonstrated that the problem was particularly intense in medical and nursing staff [8,9]. Occupational burnout is a process whereby working reality seems to be deglamorized [10]. The degree of occupational burnout varies with age, sex, marital or family status. Important factors appear to be the way that professionals handle stress, the motives that led them to choose that specific profession and their expectations and their aspirations through that profession [11,12].

The most common prevention and treatment methods of occupational burnout pertain to better designing of hospital premises, better planning, job-enrichment, collective decision-making, clarification of health care professionals' roles and duties, prospects for continual education, as well as supervision for organizational consultancy regarding employees facing difficulties [13,14].

Although the interdisciplinary cooperation among health care professionals is complex and sophisticated in the way it requires recognizing the roles, responsibilities and limits of every scientist in the particular case, it configures and enhances better relationships between health care professionals and patients [15,16].

Health care professionals must focus on actions that concern themselves individually, such as the following ones [17]:

- Early recognition of occupational burnout symptoms – in other words, the indications – is essential.
- If health professionals sought support from friends, colleagues or mental health specialists, this would lead to the avoidance of occupational burnout.
- Creation of an organized supportive network in the workplace for each employee, in which he would have the possibility of free expression of his concerns and fears with simultaneous support from other people and employment in relaxation activities and calming strategies.
- The health care professional would be most decisive and confident if he personally chooses the particular job [18].

Purpose

The purpose of this research paper is to investigate the health care professionals' feelings and attitudes both during working and after their work. Additionally, their relationships with patients will be investigated.

Data collection

This research paper has the form of a quantitative research using questionnaires with numerically rated items. The questionnaire is one of the most popular techniques for the quantitative research. The sample of this research paper includes both nurses and doctors chosen from the workforce one of the various tertiary hospital of Thessaloniki, both in dynamic beds and specialists as well as in dynamic workers. Specifically, 180 nurses and 120 doctors were surveyed. This very much helps the investigation

because the whole sample was found in the same area. Thus, it facilitates the collection of data without mistakes and great deviation in drawing conclusions.

Research tool

Maslach Burnout Inventory (MBI) for occupational burnout is used to gather the data (Maslach & Jackson). MBI was translated and adapted into Greek by Kokkinos in 2006. The specific Inventory was adapted in the subject with small changes in certain questions and avoiding some due to the subject being studied. Moreover, demographics of the surveyed were added.

The specification of occupational burnout syndrome is given through 3 (three) subcategories following the process of grouping variables:

- Emotional exhaustion
- Depersonalization
- Personal achievements

The following 9 (nine) parameters are used in order to measure emotional exhaustion:

- I feel emotionally empty due to my job
- I feel mentally exhausted at the end of a working day
- I feel tired when I wake up in the morning and I have to face another day at work
- It is very tedious for me to work with people all day
- I feel exhausted owing to my work
- I feel disappointed about my work
- I feel that I am working very hard at work
- I experience great tension when I am in direct contact with other people
- I feel that I am beyond my endurance

Five parameters are used in order the factor "Depersonalization" to be measured:

- I feel that I behave impersonally to some of my patients as if they were objects
- I feel less sensitive to people since I have started this job
- I am worried about being made emotionally tough by my work
- In fact, I don't care about what happens to some patients
- I feel that my patients blame me for some of their problems

Last but not least, 8 (eight) parameters are used so as the factor of "Personal achievements" to be measured:

- I can easily understand how my patients feel about what is happening to them
- I deal with my patients' problems most effectively
- I feel that I affect positively my patients' lives through my work

- I feel full of power and energy
- I feel that I can create a homely and relaxed atmosphere to the recipients of my services
- I feel refreshed when I work in close contact with my patients
- I feel that I have accomplished a lot of remarkable things in this job
- I feel that I deal very calmly with problems resulting from my work

The total scores of the various factors are calculated to write down the degree of symptomatology of occupational burnout. The degree of experiencing symptoms of occupational burnout that follows is based on those total scores (Table 1). The necessary condition for the employees to accept the symptomatology of occupational burnout is to experience high levels of emotional exhaustion and depersonalization and low levels of personal achievements.

The procedure of the research paper

After studying and processing carefully the questionnaire, it was printed, and then, it was handed out to the staff of the hospital. It was distributed randomly to nurses and doctors to various hospital departments. The study and processing of the questionnaire followed after the employees filled it out.

Research paper timeline

The questionnaire was adapted early in November according to

Table 1 Classification of occupational burnout symptoms.

Level of experiencing symptoms of occupational burnout			
Factor	Low	Medium	High
Emotional exhaustion	≤ 16	17-26	≥ 27
Depersonalization	≤ 6	7-12	≥ 13
Personal achievements	≥ 39	38-32	≤ 31

Table 2 Demographic characteristics.

	N	%	Mean	Standard Deviation
Gender	Male	100	33.3%	
	Woman	200	66.7%	
Age	18-25	0	0.0%	
	26-35	40	13.3%	
	36-45	60	20.0%	
	46-55	180	60.0%	
	Over 56	20	6.7%	
	Degree level	Tertiary Education (university)	20	6.7%
Tertiary Education (Technological Institution)		130	43.3%	
Upper Secondary Education		50	16.7%	
Master		20	6.7%	
Ph.D.		80	26.7%	
Specialty	Nurse	180	60.0%	
	Doctor	120	40.0%	
Years of work experience			19.97	9.59

the needs of the work; the distribution of it followed and was completed in the middle of the same month. At the end of the month, the study of the questionnaires was completed, and at the beginning of December the conclusions were drawn.

Results

Initially, starting with the presentation of the results of our research, demographic characteristics were juxtaposed in order to clarify the sample. Firstly, it is observed that a big percentage of the sample consists of women (66.7%), while the remaining 33.3% of men. Regarding the age distribution of the sample, it is shown that 13.3% of the surveyed are aged 26 to 35 years old, 20.0% are aged 36 to 45 years old, 6.0% are aged 46 to 55 years and 6.7% are over 56 years old. With regard to the educational level of respondents, 16.7% are secondary school graduates, 43.3% tertiary education graduates (technological institution graduates), 6.7% tertiary education (university graduates); the 6.7% hold a master's degree and 26.7% hold a doctorate. Simultaneously, it is seen that 60% of the surveyed are nurses and 40% doctors. Finally, regarding the average work experience of the surveyed, it was found that it equals 20 ± 9.6 years, as follows in Table 2.

Then, the degree of symptom intensity that indicates occupational burnout is outlined as the citation of the results of the statistical study continues; it is listed on the second section of the questionnaire. Simple descriptive statistical methods were used to export the statistics in this case. Initially, it is observed that in the whole sample, the factor "Emotional exhaustion" presents average scores equal to 28.93 (SD=11.06). That indicates a high degree of occupational burnout because the level of experiencing emotional exhaustion regarding the surveyed is very high, (Table 3).

Similar results are observed regarding the factor depersonalisation as the mean of the overall rating equals to 6.50 (SD=5.12). Thus, it specifies borderline moderate levels of occupational burnout (Table 4).

Finally, the degree that the sample of health care professionals who experience personal achievements at work is high since the following results outline that the mean of overall rating of this factor equal to 38.07 (SD=5.21). This fact means there are low levels of occupational burnout (Table 5).

Seeing the results above, we attempt to categorize the level that health care professionals experience emotional exhaustion, depersonalization and fulfillment of their personal feelings in the sample so as to ascertain the presence or absence of occupational burnout syndrome in them. It is observed that 26.7% of the respondents in the survey show low level of emotional exhaustion, 26.6% moderate and 46.7% high. Additionally, 50.0% of respondents show low level of depersonalization, 26.3% moderate and 23.3% high. Finally, 26.7% of health care professionals show high level of feeling fulfilled due to personal achievements, 43.3% moderate and the 30.0% high. The combination of the levels of the factors experiencing high emotional exhaustion, high depersonalization and little feeling of fulfilling personal achievements leads to the result that only one

of the surveyed (3.3%) presents symptoms of the occupational burnout syndrome (Tables 6 and 7).

Originally positive and statistically significant relationship ($p < 0.001$) between "emotional exhaustion" and "Depersonalization" was recorded with Pearson correlation coefficient equaled 0.619 as regards the correlation in pairs of individual factors determining occupational burnout using the Pearson correlation coefficient (r). The above demonstrates quite a high correlation between the two factors. Therefore, we can conclude that the more the degree of emotional exhaustion increases, the more the degree of depersonalization of health care professionals increases. Antithetically, it is not shown a statistically significant correlation between "Emotional exhaustion" and of "personal achievements" ($p = 0,848$) and between the factors of "depersonalization" and "personal achievements" ($p = 0,591$). Those results are reflected as follows in Table 8.

The differentiation based on the demographic and occupational characteristics of health care professionals to the extent they experience factors determining the occupational burnout is

Table 3 Data analysis of the emotional exhaustion factor.

	MEAN	Standard Deviation
I feel mentally exhausted due to my work	3,67	1,95
I feel empty, like I have nothing left emotionally the time I finish working	3,07	1,86
I feel tired when I wake up in the morning and I have to face another day at work	3,70	2,02
It is very tiring for me to work with people all day	2,60	1,89
I feel exhausted owing to my job	3,97	1,87
I feel disappointed about my work	3,07	1,84
I think I work very hard in my work	4,30	1,70
The direct contact with other people makes me extremely worried	1,67	1,30
I feel that I can't stand anything anymore ... I feel beyond my endurance	2,90	2,01

Table 4 Data analysis of the factor of depersonalization.

	MEAN	Standard Deviation
I feel that I behave impersonally to some of my patients as if they were objects	1,07	1,51
I feel less sensitive to people since I have started this job	2,00	1,97
I am worried about being made emotionally tough by my work	2,03	1,94
In fact, I don't care about what happens to some of my patients	0,80	0,85
I feel that my patients blame me for some of their problems	0,60	0,77
Depersonalization	6,50	5,12

Table 5 Data analysis of the personal achievements factor.

	MEAN	STANDARD DEVIATION
I can easily understand how my patients feel about what is happening to them	4,60	1,25
I can deal with my patients' problems most effectively	5,10	1,49
I feel that I affect positively my patients' lives through my work	4,80	1,16
I feel full of power and energy	4,60	1,19
I feel that I can create a homely and relaxed atmosphere to the recipients of my services	4,93	1,28
At the end of the day I am in a good mood because I worked in close contact with my patients	4,37	93
I feel that I have accomplished a lot of remarkable things in this job	4,77	1,19
I feel that I deal very calmly with problems resulting from my work	4,90	1,16
Personal achievements	38,07	5,21

scrutinized afterwards. Initially, according to the results of the Independent Samples t Test appear to be no statistically significant differences in the levels of emotional exhaustion ($p=0,437$), depersonalization ($p=0.133$) and the sense of fulfilling personal achievements ($p=0,753$) between men and women health care professionals, as it follows in **Table 9**.

Simultaneously, using One-way analysis of variance (One-way ANOVA), the existence or absence of statistically significant differences in the averages scores of factors determining the occupational burnout is checked. The results show that these variations of overall mean scores are not statistically significant ($p>0.05$ in all cases), as it follows in **Table 10**.

Furthermore, there are not any statistically significant differences regarding the level of experiencing emotional exhaustion ($p=0.619$) and depersonalization ($p=0.188$) based on the level of education of health care professionals. Antithetically, there are statistically significant variations regarding the total mean scores of the factor of experiencing personal achievements based on health care professionals' education level ($p=0.002$), as it follows in **Table 11**.

Table 6 Occupation burnout levels of health care professionals.

	Emotional exhaustion		Depersonalization		Personal achievements	
	N	%	N	%	N	%
Low	8	26,7%	15	50,0%	8	26,7%
Moderate	8	26,7%	8	26,7%	13	43,3%
High	14	46,7%	7	23,3%	9	30,0%

Table 7 Assessment of health care professionals' occupational burnout levels.

Occupational burnout			
No		Yes	
N	%	N	%
29	96,7%	1	3,3%

Table 8 Correlation coefficient of the occupational burnout factors.

	Emotional exhaustion		Depersonalization	Personal achievements
	r	p		
Emotional exhaustion	1			
Depersonalization	0,619	0,000	1	
Personal achievements	-0,036	0,848	-0,102	1

Table 10 Check statistically important differentiation of the mean scores based on the age factor.

	Age										
	18-25		26-35		36-45		46-55		over 56		p
	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	
Emotional exhaustion	.	.	29,75	9,84	30,33	9,65	30,11	11,37	12,50	3,54	0,193
Depersonalization	.	.	11,75	7,54	6,50	5,13	6,00	4,00	0,50	0,71	0,059
Personal achievements	.	.	37,75	2,63	37,33	5,20	38,78	4,92	34,50	13,44	0,725

Moreover, it is noted that the mean scores of factors determining the occupational burnout do not vary statistically significantly when based on the specialties of the respondents. Finally, the more the years of work experience, the less the level of depersonalization the health care professionals experience based on the Pearson correlation coefficient ($r=-0.397$, $p=0.030$), as it follows in **Tables 12 and 13**.

Discussion

In the present study, firstly, occupational burnout in the health field was scrutinized through studying international and Greek literature, and secondly, an attempt was made to investigate the degree of occupational burnout in a sample of health care professionals in a General Hospital in Thessaloniki by implementing a corresponding questionnaire. The sample of this research paper consists of mostly female while regarding the medical staff, the percentage is equal between men and women because both genders choose this specific occupation. Indeed, this was proved both in the relevant research paper conducted by Karaniadoy A et al. and the study conducted by Adali et al. [19,20].

The major determinants of occupational burnout are the high working requirements, extended working hours, excessive task assignments and low salary. These variables do not change over time as it is recorded in previous studies, such as, for example, in the study of Papadatou et al. [21,22]. This means that although the issue of occupation burnout has troubled the international scientific community and it has been studied in many ways is present. Even though a lot of measures to tackle that issue have been proposed, it continues to exist and affect health care professionals intensely. This fact is mainly due to the human factor, which is often unpredictable regarding employees' reactions to various events and situations occurring at work; and, as a result, the problem of occupational burnout is constantly

Table 9 Check statistically important differentiation of the mean scores based on the factor gender.

	Gender				
	Man		Woman		p
	MEAN	SD	MEAN	SD	
Emotional exhaustion	31,20	8,66	27,80	12,12	0,437
Depersonalization	8,50	5,93	5,50	4,50	0,133
Personal achievements	38,50	5,28	37,85	5,29	0,753

Table 11 Check statistically important differentiation of the mean scores based on the factor education level.

	Degree level										p
	Tertiary Education (university)		Tertiary Education (Technological Institution)		Upper Secondary Education		Master		Ph.D		
	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	
Emotional exhaustion	31,50	13,44	29,23	12,02	33,00	12,98	18,00	11,31	28,00	8,33	0,619
Depersonalization	14,50	3,54	5,08	3,57	6,00	3,67	8,00	9,90	6,75	6,36	0,188
Personal achievements	40,00	0,00	39,23	3,75	35,20	5,12	26,50	2,12	40,38	4,34	0,002

Table 12 Check statistically important differentiation of the mean scores based on the factor speciality.

	Specialty				p
	Nurse		Doctor		
	MEAN	SD	MEAN	SD	
Emotional exhaustion	30,28	12,03	26,92	9,56	0,424
Depersonalization	5,33	3,51	8,25	6,68	0,129
Personal achievements	38,11	4,42	38,00	6,42	0,956

Table 13 Correlation between age and mean scores of the occupational burnout factors.

Years of work experience		Emotional exhaustion	Depersonalization	Personal achievements
	r	-0,080	-0,397	0,084
p	0,676	0,030	0,658	

increasing. For this reason, the educational intervention must be continuous so as occupational burnout regarding health care professionals to be prevented [23,24].

Also, the alteration rate of the situations in the work environment, staff mobility, the alteration of roles and the changing working hours are important factors of causing occupational burnout, whereas resource deficiency plays a trivial role in increasing the symptomatology of occupational burnout [25,26].

All in all, it turned out that the most important factor influencing the level of occupational burnout is the emotional exhaustion as it is highlighted by Papastilianou et al. study [27]. Lastly, this study proves that the factors of occupational burnout are not associated with occupational and demographic characteristics of health care professionals as Antoniou et al. highlight [28].

Finally, particular reference should be made to the effects of this economic environment on the results, as the reduction in health expenditure and restriction on the available financial resources for the health care units so as the budgetary targets to be achieved, have led to dramatic reductions in employees' wages and economic earnings [29,30].

Conclusion

Occupational Burnout is a syndrome of physical and psychological

exhaustion regarding health care professionals. It has three dimensions relating to emotional exhaustion, depersonalization and lack of personal achievements. There are a lot of causes whereas its implications are related to the supply level of health services; for this reason, it is necessary and imperative that measures to tackle not only individually, but also at organizational/administrative level be taken. Intervention programs play an important role in reducing occupational burnout. It is internationally a major issue and is a risk for mental and physical health of health professionals while it affects the quality of health services. Therefore, research is needed to improve the supplied health services against work-related stress.

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