

A survey to assess job satisfaction among junior doctors in Greece

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ABSTRACT

Introduction: Junior doctors have to learn how to deal with long shifts, lack of sleep, study hours, increased responsibilities, hard competition, and also a personal and social life. This amount of pressure leads to both physical and mental illness. The present study seeks to unveil how Greek junior doctors perceive their residency, focusing on job satisfaction.

Methods: A 36-question survey based on the Job Satisfaction Survey (JSS) translated into the Greek language, was placed online and promoted to junior doctors. Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Procedures, Coworkers, Nature of Work, and Communication facets were studied.

Results: 113 junior doctors replied, 52 (46%) males and 61 (54%) females with a mean age of 33,4 years. They appear dissatisfied within their working environment (JSS score=100,4). This applies more to females (97,1) than males (104,3). They only feel satisfied with the nature of their work (16,5) with females more satisfied (16,7) than males (16,3). Pay facet presented the worst results, independent of sex. Greek junior doctors consider themselves working in far worse environment than that of their American colleagues (JSS score=135,8 compared to 100,4 in Greece).

Conclusion: The serious problems Greek junior doctors face are depicted with truly disappointing figures, with bureaucracy being the major problem leading to less work efficiency. More healthcare investments and fairer salaries must be implemented, especially in times of economic crisis, as good health is paramount for a stable society and public health is the result of the work of the country’s hard-working junior doctors.



Keywords: job satisfaction, junior physician, medical residency, burnout, work satisfaction



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INTRODUCTION

Stress at the workplace is often difficult to define. It is not clear whether it is a feeling felt by the worker, if it is a characteristic of the working environment, or if it is experienced as a result of both [1,2]. More often it is considered as a broader concept, associated with situations that cause it, as well as with the consequences it might have, when present [1,3]. According to the European Agency for Health and Safety at Work (EU-OSHA, 2000), work-related stress occurs when there is an imbalance between the expectations a worker must fulfill and the resources available for him to work. The American National Institute for Occupational Safety and Health (NIOSH, 1999), argues that work-related stress is the harmful physical or psychological response of the worker, when job requirements do not match the capability, available resources, the needs or the personal expectations of the worker and can lead to health problems, even serious trauma [1]. A similar approach is made by the World Health Organisation in its definition for workplace stress as “the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope”. WHO further states that

stress occurs in a wide range of work circumstances but is often made worse when employees feel they have little support from supervisors and colleagues, as well as little control over work processes [4].

Doctors face complex situations and high level of responsibility. This is something inherent to the profession [5,6]. Stress associated with medical profession has been documented for the last 30 years. According to Cooper [7], dentists and doctors are considered as high stress occupations, together with pilots, police, miners and social workers. Factors which make the doctors’ profession so stressful include their responsibility for “people” rather than “objects” [8], and the fact that their actions or omissions have a profound impact on human life [9,10]. Doctors’ competence is under continual evaluation by both patients and colleagues. Their mistakes are highly visible with potentially devastating results for patients as well as the doctors themselves [11].

Doctors often confront emotionally challenging and traumatic situations including patients' suffering, injury and death. This can cause stress especially if doctors are not trained to face these complex environments and to deal with challenging

situations like death. In fact, a high proportion of doctors suffer from stress and burnout, especially in training positions [5,6]. Burnout is more common among physicians than among other workers and physicians in specialties at the front line of care access seem to be at greatest risk [12]. Olkinuora [13] concluded that doctors who worked in hospitals experienced higher levels of professional burnout than those working in other settings (e.g. private practice, research institutions).

Residency is a special period in a doctor's life, as they suddenly have to combine being a learner and a healthcare provider at the same time. A junior doctor, after a long period of student status, has to undertake new roles and major responsibilities, such as being responsible for clinical and ethical decisions, following a vague job description and tolerating sleepless on-call nights [14] and is, therefore, exposed in many stressful factors in their working environment. These stressors could be exacerbated by the pressure placed on doctors to appear calm and controlled but at the same time remain emotionally involved and concerned with their patients' problems [15-17]. Stress can be derived by a temporal, particular situation or constant lack of guidance and feedback by supervisors [18]. Inadequate support from senior staff is described by many junior hospital doctors (JHDs) as an extra stress factor towards them on a daily basis, as it is a common experience when senior physicians often tend to dismiss a stressful situation by just saying: "I went through it in my time; why shouldn't you?"

[19]. It is harder to deal with stressful situations if the system is rigid and not humanized. In "hierarchical systems" still commonly found in medicine, doctors in training may feel powerless to ask for senior input or confront behaviors of harassment and belittling attitudes. Besides, in some countries tutors do not have enough time to provide adequate supervision and feedback as they have too much other work. High levels of responsibility without supervision causes stress and can increase risk to patient safety [5,6]. In 2002, Mc Manus [20] researched emotional factors to increase or decrease occupational stress among young doctors. Ochsmann [18] used a questionnaire to correlate stress among junior doctors with adequate feedback from the supervisors and colleagues.

Junior doctors also have to learn how to deal with long shifts, lack of sleep, study hours, increased responsibilities, hard competition, and also a personal and social life. All this amount of pressure can lead to both physical and mental illness. Maladaptive coping behaviors, such as high levels of alcohol consumption, smoking, substance abuse and even suicide may be manifested by JHDs as a result of high levels of stress [21-24]. Sleep deprivation and workload can lead to both professional and personal dysfunctions, such as errors, misjudgement, job dissatisfaction or quitting, depression, anxiety, divorce and isolation and even suicide ideation. Inability to sleep properly, related to demanding work schedules has also been linked to poorer work performance in JHDs [25]. Moreover,

adverse changes in mood and cognitive performance of House Officers after night duty, have been reported by Orton and Gruzelier [26]. Similarly, recent research illustrated that a sample of British JHDs experienced substantial increases in certain stress symptoms (e.g. anxiety and insomnia) and were more likely to make errors in a medical context, eight weeks after beginning as junior house officers [27]. Depression can affect up to 30% of junior doctors, mainly during the first year of residency. There is a direct link between depression and working hours. It occurs more often in female doctors, as does suicide. As shown in a meta-analysis by Schernhammer and Colditz [28], the aggregate suicide rate ratio for male physicians, compared to the general population, was 1.41, and for female physicians the ratio was 2.27. A Mayo Clinic study published in 2011 showed that as many as one in 16 surgeons reported having suicidal thoughts in the previous year but few sought help from a mental health clinician. Of 7905 surgeons who responded to an anonymous survey with questions about suicidal ideation and the use of mental health resources, 501 reported thoughts of suicide and of them 301 were reluctant to seek help from a psychiatrist or psychologist because they believed it might affect their medical license [29,30].

It should also be noted that job insecurity (British Medical Association, 1992), the very real fear of unemployment, along with the vague job descriptions and the lack of general facilities, are also common sources of stress reported by JHDs [14]. The whole

problem seems to start at medical school but exact causes are still unknown. During their medical studies, competitiveness, the quest for perfection, too much autonomy coupled with responsibility, and the fear of showing vulnerability have all been cited as triggers for mental ill health [30,31].

Starting from entering medical school, and furthermore during their training, doctors tend to believe that they should not get sick, and even if they do, they should continue working. Thus, there is a great percentage of self-treating, and they rarely seek a fellow specialist for help. The same "rule" applies for mental distress as well. Doctors hesitate to ask for help, as they are afraid of lack of confidentiality, being stigmatized among colleagues and being considered incompetent as professionals [32]. It is said that the medical profession often attracts highly driven individuals with a strong sense of duty. Physicians need to complete long and intense educational requirements and are subject to high expectations from patients and the public. But these expectations can contribute to prioritizing the care of others over care of self and feelings of guilt and selfishness for managing their own well-being if they become unwell [5,6]. A systematic review in 2008, revealed that junior doctors do not seek help as they are concerned about confidentiality and embarrassed in case of exposure, but also that physicians fail to treat colleagues as patients [33].

In Greece, residency lasts from four to seven years. It is paid, and considered to be a full time and exclusive occupation. However,

residents are rarely organized enough to achieve changes in their working environment. There is no official agency to report problems at work, educational gaps or violation of working hours, which is often, despite the law. Despite the growing empirical evidence on the levels of stress of the medical professionals, to date only a few systematic studies have been conducted in Greece to investigate the levels of stress and burnout experienced by Greek junior doctors. Case reports and circumstantial evidence from the Ministry of Health of Greece and the Greek Open University have briefly presented the difficult working conditions in five main hospitals of Athens and in all public hospitals of Greece related to equipment, hygiene, levels of noise, outpatients clinics, shortage of nursing staff and the overall provision of facilities to patients. A more thorough study conducted in a sample of 355 male and female JHDs from the greater Athens area in 2003, using an extended version of the occupational stress indicator (OSI) questionnaire revealed that JHDs presented significantly higher levels of sources of pressure than the normative population and other comparative occupational samples. It also showed that the most significant predictors of low levels of job satisfaction of the sample were: demands of the profession, great volume of work and lack of power and influence [14]. In general, residents are generally not satisfied with the educational environment of the Greek hospitals chosen for their specialty training, and the expectations that they had when entering the entered medical school are not

covered to the extent that they would like [34].

However, no study so far has focused specifically on determining how satisfied residents feel in their working environment or how several aspects of their daily practice affect their perception of their residency both as an educational and working experience.

The present study seeks to unveil the present situation of how Greek junior doctors perceive their residency with a special focus on job satisfaction.

MATERIALS AND METHODS

Survey structure

A 36-question survey based on the Job Satisfaction Survey (JSS) developed by Paul E. Spector in 1985 and properly translated into the Greek language, was created and placed online (Table 1) [35]. The JSS is a 36-item, nine-facet scale to assess employee attitudes about the job and aspects of the job. Each facet is assessed with four items, and a total score is computed from all items. A summated rating scale format is used, with six choices per item ranging from "strongly disagree" to "strongly agree". Items are written in both directions, so about half must be reverse scored. The nine facets are: Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards (performance-based rewards), Operating Procedures (required rules and procedures), Coworkers, Nature of Work, and Communication (Table 2). Although the JSS was originally developed

JOB SATISFACTION SURVEY QUESTIONNAIRE Paul E. Spector, Department of Psychology, University of South Florida. Copyright Paul E. Spector 1994, All rights reserved.		Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately
PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT.						
1	I feel I am being paid a fair amount for the work I do.	1	2	3	4	5
2	There is really too little chance for promotion on my job.	1	2	3	4	5
3	My supervisor is quite competent in doing his/her job.	1	2	3	4	5
4	I am not satisfied with the benefits I receive.	1	2	3	4	5
5	When I do a good job, I receive the recognition for it that I should receive.	1	2	3	4	5
6	Many of our rules and procedures make doing a good job difficult.	1	2	3	4	5
7	I like the people I work with.	1	2	3	4	5
8	I sometimes feel my job is meaningless.	1	2	3	4	5
9	Communications seem good within this organization.	1	2	3	4	5
10	Raises are too few and far between.	1	2	3	4	5
11	Those who do well on the job stand a fair chance of being promoted.	1	2	3	4	5
12	My supervisor is unfair to me.	1	2	3	4	5
13	The benefits we receive are as good as most other organizations offer.	1	2	3	4	5
14	I do not feel that the work I do is appreciated.	1	2	3	4	5
15	My efforts to do a good job are seldom blocked by red tape.	1	2	3	4	5
16	I find I have to work harder at my job because of the incompetence of people I work with.	1	2	3	4	5
17	I like doing the things I do at work.	1	2	3	4	5
18	The goals of this organization are not clear to me.	1	2	3	4	5
19	I feel unappreciated by the organization when I think about what they pay me.	1	2	3	4	5
20	People get ahead as fast here as they do in other places.	1	2	3	4	5
21	My supervisor shows too little interest in the feelings of subordinates.	1	2	3	4	5
22	The benefit package we have is equitable.	1	2	3	4	5
23	There are few rewards for those who work here.	1	2	3	4	5
24	I have too much to do at work.	1	2	3	4	5
25	I enjoy my coworkers.	1	2	3	4	5
26	I often feel that I do not know what is going on with the organization.	1	2	3	4	5
27	I feel a sense of pride in doing my job.	1	2	3	4	5
28	I feel satisfied with my chances for salary increases.	1	2	3	4	5
29	There are benefits we do not have which we should have.	1	2	3	4	5
30	I like my supervisor.	1	2	3	4	5
31	I have too much paperwork.	1	2	3	4	5
32	I don't feel my efforts are rewarded the way they should be.	1	2	3	4	5
33	I am satisfied with my chances for promotion.	1	2	3	4	5
34	There is too much bickering and fighting at work.	1	2	3	4	5
35	My job is enjoyable.	1	2	3	4	5
36	Work assignments are not fully explained.	1	2	3	4	5

Table 1. The questionnaire used in the present survey (in English).

Facet	Description	Item numbers
Pay	Pay and remuneration	1, 10, 19, 28
Promotion	Promotion opportunities	2, 11, 20, 33
Supervision	Immediate supervisor	3, 12, 21, 30
Fringe Benefits	Monetary and nonmonetary fringe benefits	4, 13, 22, 29
Contingent Rewards	Appreciation, recognition, and rewards for good work	5, 14, 23, 32
Operating Procedures	Operating policies and procedures	6, 15, 24, 31
Coworkers	People you work with	7, 16, 25, 34
Nature of Work	Job tasks themselves	8, 17, 27, 35
Communication	Communication within the organization	9, 18, 26, 36
Total	Total of all facets	1-36

Table 2. The nine facets of the JSS scale and item (question) distribution according to them

for use in human service organisations, it is applicable to all organisations.

After creating the survey, the link to fill it in was provided to Greek junior doctors, defined as medical graduates up to 15 years after their graduation. This was done by promoting the survey through various channels, including the e-mailing list of communication of the Junior Doctors Network - Hellas (JDN-Hellas) hosted by Google Groups, the e-mailing list of the Alumni of the Hellenic Medical Students' International Committee (HelMSIC) hosted

by Yahoo! Groups (<https://groups.google.com/forum/#!forum/helmsic-alumni>), the official page of JDN-Hellas on Facebook (<https://www.facebook.com/Junior-Doctors-Network-JDN-Hellas-851331098227489>) and the official Twitter account (<http://www.twitter.com/jdnhellas>) of JDN-Hellas, as well as by word of mouth.

The time provided for participation was limited from 13 May 2014 to 31 December 2017. Participants were asked to participate anonymously in the survey,

Characteristic		Prevalence (%)
Gender	Male	52 (46)
	Female	61 (54)
Age Range according to gender	Male, 20-24 years	2 (1,8)
	Female, 20-24 years	7 (6,2)
	Male, 25-29 years	4 (3,5)
	Female, 25-29 years	18 (15,9)
	Male, 30-34 years	14 (12,4)
	Female, 30-34 years	15 (13,3)
	Male, 34-39 years	23 (20,4)
	Female, 34-39 years	11 (9,7)
	Male, 40-44 years	9 (8)
	Female, 40-44 years	10 (8,9)
Medical specialty	Anesthesiology	15 (13,3)
	General/Family Medicine	15 (13,3)
	General Surgery	34 (30,1)
	Internal Medicine	5 (4,4)
	Neurosurgery	5 (4,4)
	Obstetrics/Gynecology	15 (13,3)
	Pediatrics	5 (4,4)
	Urology	10 (8,9)
	Vascular Surgery	5 (4,4)
Job status	Resident	101 (89,4)
	Young specialist	12 (10,6)

Table 3. Demographics of survey participants.

providing basic demographic information (Table 3), namely their sex and age range, their medical specialty and their job status (resident or young specialist).

Data analysis

Microsoft Excel® was used for data collection and statistical analysis of the responses given.

The JSS assesses job satisfaction on a continuum from low (dissatisfied) to high (satisfied). There are no specific cut scores that determine whether an individual is satisfied or dissatisfied, in other words, one cannot confidently conclude that there is a particular score that is the dividing line between satisfaction and dissatisfaction. Where there is a need to draw conclusions about satisfaction versus dissatisfaction for samples or individuals, two approaches can be used: The normative approach would compare the target person/sample to the norms for the sample. There are norms published in the literature for several different groups. One can reference the norms and describe given individuals/samples as being more satisfied, dissatisfied, or about the same as the norms. The absolute approach picks cut scores to represent dissatisfaction versus satisfaction. Given the JSS uses 6-point agree-disagree response choices, one can assume that agreement with positively worded items and

disagreement with negatively worded items would represent satisfaction, whereas disagreement with positive-worded items, and agreement with negative-worded items represents dissatisfaction. For the 4-item subscales, as well as the 36-item total score, this means that scores with a mean item response (after reverse scoring the negatively-worded items) of 4 or more represents satisfaction, whereas mean responses of 3 or less represents dissatisfaction. Mean scores between 3 and 4 are ambivalent. Translated into the summed scores, for the 4-item subscales with a range from 4 to 24, scores of 4 to 12 are dissatisfied, 16 to 24 are satisfied, and between 12 and 16 are ambivalent. For the 36-item total where possible scores range from 36 to 216, the ranges are 36 to 108 for dissatisfaction, 144 to 216 for satisfaction, and between 108 and 144 for ambivalent [35].

Statistics

JSS Scores mentioned below are means \pm 1 standard deviation (SD). A standard Student's t-test was used to compare JSS facet scores among male and female respondents, among residents and young specialists, as well as results from different countries. Kruskal-Wallis H test was used to compare means among different age ranges and among different medical specialties. Statistical significance was identified for p-values <0.05 .

RESULTS

Survey-derived “raw” results

In total, 113 junior doctors participated in the survey with both sexes almost equally represented in the sample. Mean age was 33,4

years. By using the above-mentioned absolute approach, we determined agreement or disagreement percentages for each individual item (question) of the questionnaire used. These direct survey-derived “raw” results are shown in Table 4.

#	Question	Agree (%)	Disagree (%)
1	I feel I am being paid a fair amount for the work I do.	17	83
2	There is really too little chance for promotion on my job.	57	43
3	My supervisor is quite competent in doing his/her job.	38	62
4	I am not satisfied with the benefits I receive.	75	25
5	When I do a good job, I receive the recognition for it that I should receive.	40	60
6	Many of our rules and procedures make doing a good job difficult.	88	12
7	I like the people I work with.	78	22
8	I sometimes feel my job is meaningless.	44	56
9	Communications seem good within this organization.	57	43
10	Raises are too few and far between.	96	4
11	Those who do well on the job stand a fair chance of being promoted.	21	79
12	My supervisor is unfair to me.	33	67
13	The benefits we receive are as good as most other organizations offer.	23	77
14	I do not feel that the work I do is appreciated.	66	34
15	My efforts to do a good job are seldom blocked by red tape.	18	82
16	I find I have to work harder at my job because of the incompetence of	65	35
17	I like doing the things I do at work.	81	19
18	The goals of this organization are not clear to me.	64	36
19	I feel unappreciated by the organization when I think about what they pay	85	15
20	People get ahead as fast here as they do in other places.	19	81
21	My supervisor shows too little interest in the feelings of subordinates.	73	27

22	The benefit package we have is equitable.	11	89
23	There are few rewards for those who work here.	82	18
24	I have too much to do at work.	89	11
25	I enjoy my coworkers.	70	30
26	I often feel that I do not know what is going on with the organization.	62	38
27	I feel a sense of pride in doing my job.	79	21
28	I feel satisfied with my chances for salary increases.	9	91
29	There are benefits we do not have which we should have.	97	3
30	I like my supervisor.	67	33
31	I have too much paperwork.	85	15
32	I don't feel my efforts are rewarded the way they should be.	85	15
33	I am satisfied with my chances for promotion.	16	84
34	There is too much bickering and fighting at work.	60	40
35	My job is enjoyable.	69	31
36	Work assignments are not fully explained.	76	24

Table 4. Survey derived “raw” results showing participants’ agreement or disagreement for each survey item (question).

Job Satisfaction Scale

By using the absolute approach again, we calculated the JSS score and level of satisfaction - “satisfied”, “ambivalent” and “dissatisfied” for each sub-scale/facet (Figure 1) as well as the overall JSS score and level of satisfaction (100,4 - “dissatisfied”).

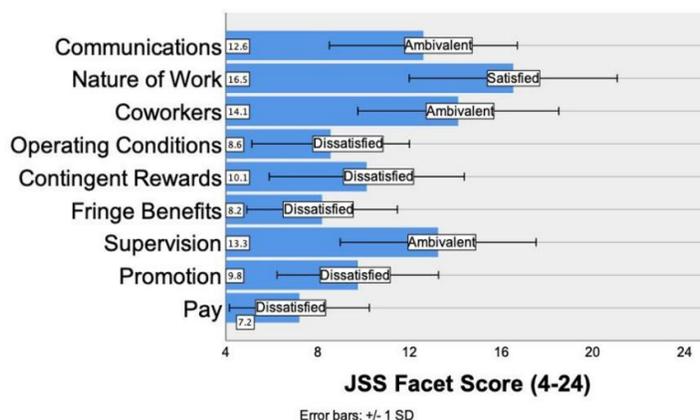


Figure 1. Bar graph showing Job Satisfaction Scale (JSS) scores and level of satisfaction observed for each sub-scale/facet.

JSS scores showed **statistically significant differences according to gender**, only for the Promotion and Supervision facets (Figure 2).

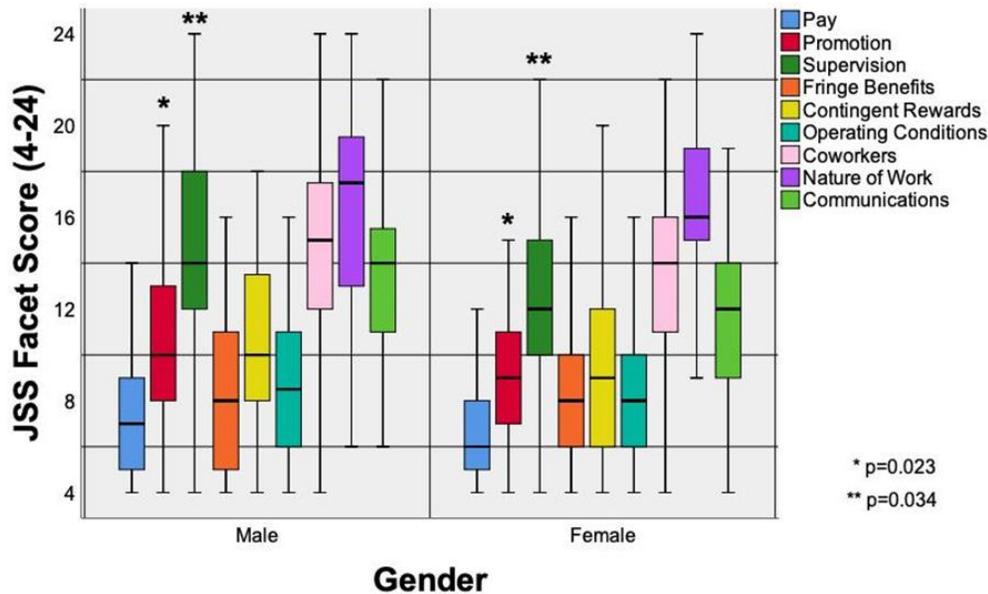


Figure 2. Box-plot graph showing comparison of Job Satisfaction Scale (JSS) scores for each sub-scale/facet between genders (males and females). The bold flat bars within each column represent medians. Statistical significance is marked with asterisks ($p=0.023$) and double asterisks ($p=0.034$).

No difference was found between males and females for Overall Satisfaction (Figure 3).

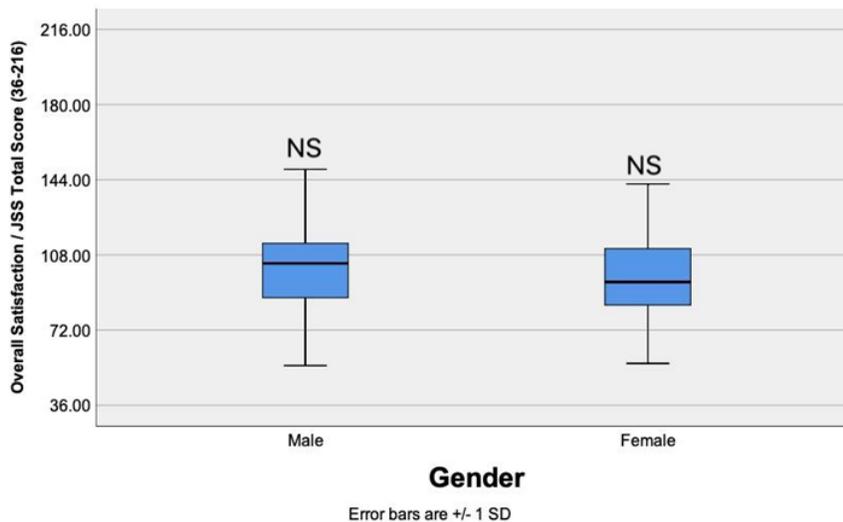


Figure 3. Box-plot graph showing comparison of Total Job Satisfaction Scale (JSS) scores for overall satisfaction between genders (males and females). The bold flat bars within each column represent medians. Absence of statistical significance is marked with NS.

All facets and Overall Satisfaction showed **no statistically significant differences ($p > 0.05$) in JSS scores among different age ranges** (Figures 4 and 5), **job status and medical specialties**. Greek junior doctors present extremely dissatisfied with their payment, the fringe benefits in their working environment, the operating procedures in their workplace, as well as their chances for promotion. Satisfaction only comes from the nature of their work, with women, expressing themselves as more satisfied than men, although without statistical significance ($p = 0.665$).

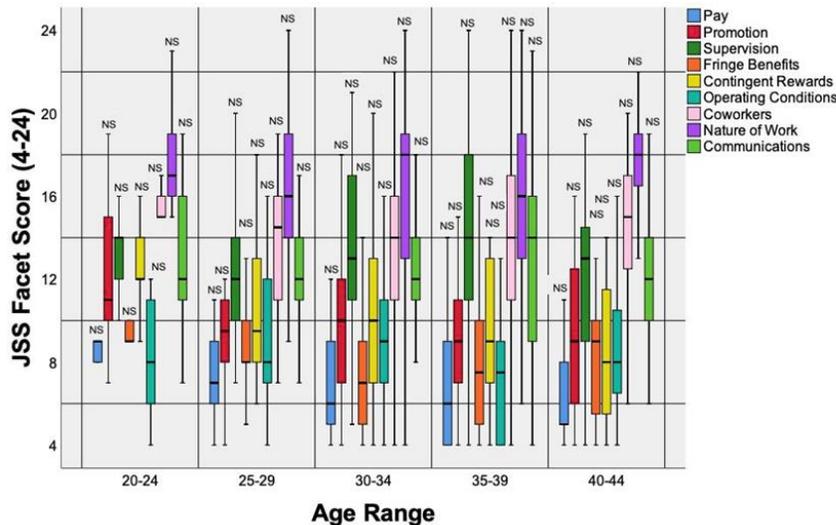


Figure 4. Box-plot graph showing comparison of Job Satisfaction Scale (JSS) scores for each sub-scale/facet between age groups. The bold flat bars within each column represent medians. Absence of statistical significance is marked with NS.

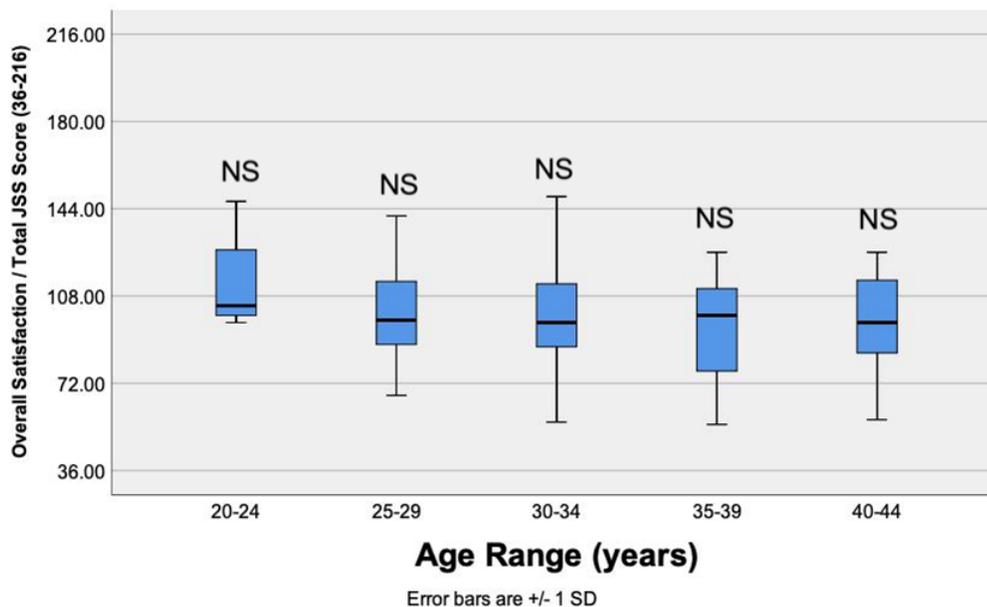


Figure 5. Box-plot graph showing comparison of Total Job Satisfaction Scale (JSS) scores for overall satisfaction between age groups. The bold flat bars within each column represent medians. Absence of statistical significance is marked with NS.

Comparison with other countries

Given the fact that JSS scores from the health sector in USA have already been published and can be found in the literature [36], we compared our results with the American results. Comparison for each satisfaction facet as well as overall satisfaction is shown in Figures 6 and 7.

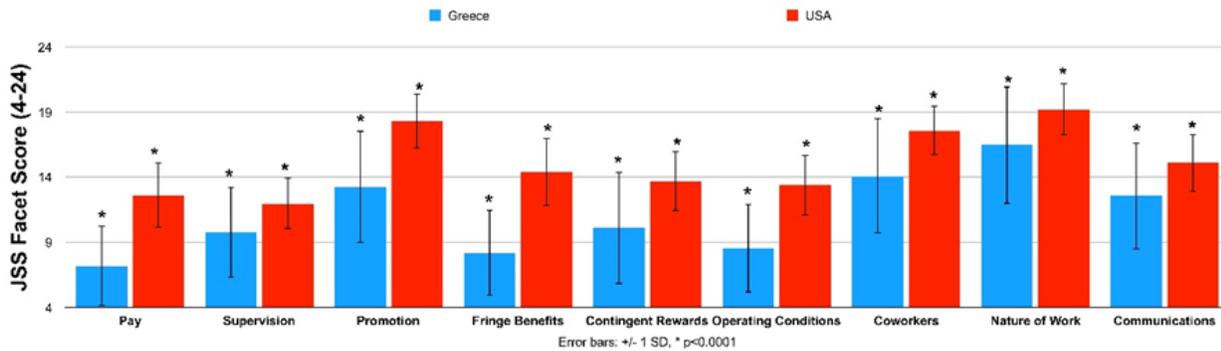


Figure 6. Bar graph showing comparison of Job Satisfaction Scale (JSS) scores for each sub-scale/facet between different countries (Greece and USA). Statistical significance is marked with asterisks ($p < 0.0001$).

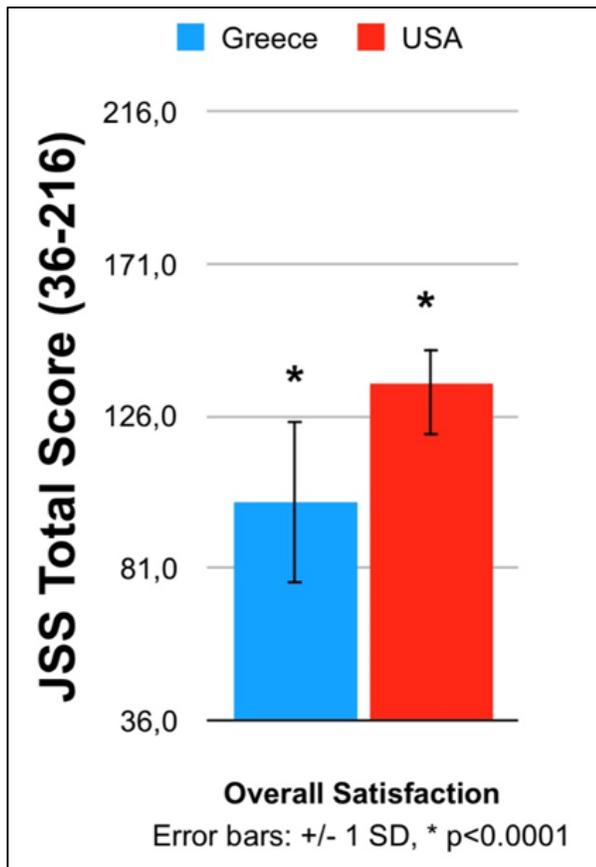


Figure 7. Bar graph showing comparison of Total Job Satisfaction Scale (JSS) scores for overall satisfaction between different countries (Greece and USA). Statistical significance is marked with asterisks ($p < 0.0001$).

DISCUSSION

Modern work environment is characterized by new forms of employment, such as part-time work, the establishment of non-permanent staff, e-commerce or e-work, all those forms have been created alongside traditional forms of work. At the same time, the global economic crisis of the last decade has increased unemployment rates, wages are decreasing while cost of living is rising. In addition, the continuous development of technology intensifies workers' anxiety, since on the one hand machines in many cases tend to replace human hands and on the other hand modern employers are constantly looking for workers with adaptability and advanced technological skills. This has introduced an intense competition in the labor market, thus increased insecurity felt by workers, mental and physical illness and intense levels of anxiety which they develop to meet the above-mentioned requirements [37].

Medical practice has always been a difficult task in Greece, even after the country entered the European Union (EU) in 1981, when European legislation was incorporated into national legislation. Greek JHDs bare most of the daily volume of medical services the country offers its citizens. They are truly among the hospital doctors who suffer mostly from the adverse working conditions in the hospitals where they spend more hours than doctors of any other rank [38]. Furthermore, the shortage of nursing staff and especially of specialized nurses aggravates the whole problem for JHDs and creates additional workload [39]. For a short

time, this difficult situation of daily medical practice seemed to change for the better, after the country implemented all relevant European directives like the European Working Time Directive (EWTD), which although at first excluded residents from its protection [40], it included them at a later point [41], now setting certain working time limits for all physicians, including junior trainees. Greek law now directs that junior doctors have to work for 58 hours/week, while a day off from work after a 24-hour shift is considered obligatory and the overtime compensation framework has also improved. According to Law 2071/92 No. 60, responsibility for the training of JHDs lies not only with the supervisors and consultants of clinics but also with the scientific committees of hospitals. However, in many cases, these committees are not able to design a complete training program for JHDs since their members have little communication with JHDs and are unaware of their real difficulties and needs [14].

The economic crisis that has struck Greece since 2010 has led to an unprecedented social crisis, and the Greek State has proven incompetent to oversee the implementation of certain legislation. Furthermore, the lack of technical support mechanisms and organizational failure in most public hospitals, as well as the fact that, junior doctors have fled from the country in big numbers seeking to start their medical careers in a foreign country with a better healthcare system and higher chances of professional promotion and development and better salaries, has devastated the

country's public healthcare structure and has led junior doctors - who are considered to be its backbone - to poverty.

The main problems that junior doctors face in Greece are described in the present study with disappointing figures. According to the results, professional burnout seems to be quite prominent in JHDs working in Greek public hospitals. Physician professional burnout is an under-recognized and under-reported problem. Characterized by a state of mental exhaustion, depersonalization, and a decreased sense of personal accomplishment, burnout may affect more than 60% of family practice providers and at least 30% of gastroenterologists. Some studies have shown that younger physicians, physicians performing high-risk procedures, and physicians experiencing work-life conflicts are at greatest risk. If unrecognized, the costs to the physician and to the health care system can be enormous because physician burnout is associated with increased rates of depression, alcohol and drug abuse, divorce, suicide, medical errors, difficult relationships with coworkers, and patient dissatisfaction, as well as physician attrition [42-44]. As already presented by other investigators, burnout in medical specialists and residents is linked to different characteristics of their working environment including perceived job demands in terms of time pressure, mental effort and emotional labor. Burnout measured using the Maslach Burnout Inventory [45] presented in the form of emotional exhaustion and depersonalization, with different factors predicting each form of burnout when referring to specialists and to

residents, respectively [46]. Several strategies have been proposed to combat burnout. There seems to be a consensus in determining five key principles: a) Learn to balance personal and professional goals, b) Shape your career and identify stressors, c) Nurture wellness strategies, d) Become engaged and/or re-engage and e) Build resilience [42]. A recent meta-analysis evaluated controlled interventions to reduce physician burnout both on the organizational level (such as rescheduling shifts, reducing workload, structural changes, or meetings to enhance teamwork) as well as on the physician/individual level (such as mindfulness, stress reduction, education targeting communication skills, exercise, or some combination). The majority of the studies evaluated physician-directed interventions. Interventions overall were associated with small but significant reductions in burnout. The treatment effects of organization-directed interventions were significantly larger than the effects of physician-directed interventions. These findings underscore the argument that "burnout is rooted in the organization coherence of the health care system" and that the scope of the overall burnout problem is unlikely to be addressed completely on an individual physician level [42,47].

High workload presents as a common nuisance for Greek JHDs. Total working time reaches up to 100 hours/week and day(s) off from work after 24-hour shifts are completely off the table, in contrast with existing legislation. This particular stressor represents the most widely quoted stressful situation for

JHDs, having been defined in the literature as the “pre-residency syndrome” or the “house officer syndrome” [14,48]. Furthermore, consequences of medical errors and high workload were reported as sources of stress in a more recent study with a general sample of Greek hospital doctors [14,49].

Problematic working environment and poor working conditions are other pressing issues, especially the common presence of disorganization combined with poor working conditions.

Junior doctors in Greece consider bureaucracy as a major factor causing loss of working hours thus leading to less productivity and efficiency. Inadequately defined roles are considerably stressful for Greek JHDs. For years, JHDs attempted to determine and legislate a clear job description. The existing informal job description is frequently the cause of conflicts, not only between doctors from different ranks, but also between doctors and the nursing staff. Overall, the lack of a clear job description has a negative impact on the scientific orientation of JHDs, most of whom spend a lot of time in jobs irrelevant to their job description.

Another common belief is that senior attending physicians do not appreciate their work even after them trying really hard and they rather seem untouched by the problems they face in their daily practice of medicine. Many trainees think that their supervisors often prove incompetent both scientifically and educationally and appear doubtful about their teaching ability. Relationships with

superiors are considered a “sensitive” area for JHDs. Lack of acknowledgement and praise from superiors have been mentioned in the literature to be among the top three stressful situations for young doctors. Moreover, several JHDs of both genders have reported that receiving feedback from supervisors is particularly important for them giving them strength to continue their work more effectively [14]. It has been found that personality characteristics of JHDs’ supervisors affect their decision regarding the selection of a specialty [50]. Quite often, junior doctors have to deal with serious behavioral issues at work, including constant bickering and fighting with their supervisors, but also among themselves. Several JHDs have admitted that, not infrequently, they had to come into conflict with their colleagues in order to participate in certain medical procedures (e.g. a difficult diagnosis or a surgery). This situation has consequences for the relationships between JHDs which, particularly in certain specialties, which are usually considered as quite competitive [14] and usually leads, according to them, to less motivated work and emotional distress.

Junior doctors also believe that disorganization within their working environment causes a lack of benefits they could enjoy. All issues mentioned above conclude that chances for promotion and professional development of junior doctors in Greece seem rather unlikely.

Last but not least, unjust payments and very low salaries of junior doctors and trainees also pose as a threat, mainly because this does not seem to be the case in other

professional sectors, often considered as “inferior” or “of less value” and acknowledgement by society. Even if the economic crisis is to blame, salary levels in other EU countries and the USA seem rather unreachable. This problem is closely in interaction with the inadequate training of junior doctors as their salaries do not correspond to their increased educational needs. It is worth pointing out that the earnings of Greek hospital doctors have remained almost frozen for over a decade. When the Greek National Health System was founded 30 years ago, a specific rate of payments for hospital doctors was laid down, but this has been ignored for many years and great cuts have been implemented during the recent economic crisis. It has been admitted that doctors’ salaries cannot cover expenses of continuous professional development (participation in medical conferences, subscription to professional journals, etc.). This has caused consequences for the self-respect of doctors since they often rely on pharmaceutical companies for these expenses [14,38].

When researchers compare overall job satisfaction among JHDs from different countries, there are many methodological limitations and obstacles. So far, and to our knowledge, there has not been any comparative study performed specifically on job satisfaction among JHDs from different countries. Only the results of the international cross-sectional quantitative ORCAB (Improving quality and safety in the hospital: The link between organizational culture, burnout, and quality of care) project

are worth to mention. It explored the associations between burnout and fast food consumption, exercise, alcohol consumption and painkiller use in a multinational sample of 2623 doctors, nurses and residents from Greece, Portugal, Bulgaria, Romania, Turkey, Croatia and the Former Yugoslav Republic of Macedonia, adopting a cross-national approach. The study concluded that burnout and risk health behaviors among health professionals are important both in the context of health professionals’ health and well-being and as factors contributing to medical errors and inadequate patient safety. Organizational interventions should incorporate early identification of such behaviors together with programs promoting health and aimed at the reduction of burnout and work-related stress [51]. The comparison made between total JSS scores in Greece, as presented in our study, and in the USA, as published some years ago [36], seems alarmingly in favor of our American colleagues.

In conclusion, most of the above-mentioned problems and difficulties seem to be caused by continuous limited funding and rudimentary organizational reforms conducted by the Greek State. Useful legislation is already in place, but it must be righteously applied and all stakeholders involved must ensure its smooth implementation.

As far as Greek JHDs are concerned, a number of organizational changes can be suggested in order to reduce levels of stress and facilitate their hospital duties. An updated code of ethics, according to

internationally respected standards of medical ethics [14,52] can be planned in order to respond to the real needs of health professionals and patients. There is also a need to determine the specific training curriculum for JHDs in each medical specialty. To date, there is no such unified educational policy for each specialty in Greece, although the present government is planning a thorough reform, led by the Central Health Council (KESY) that appears promising, however it might prove insufficient in the end, as JHDs and their national representative bodies have been completely excluded from any relevant discussions and negotiations [14]. Additionally, the existence of systematic training curricula would provide JHDs with complete information about educational targets and the practical skills and tasks which they have to carry out in each specific

year of their training [53]. A nationwide plan in this area could also include the possibility for JHDs to participate in a rotation system in different clinics or even hospitals, currently almost impossible, which would enable them to obtain more experience in a greater spectrum of skills. Following this approach, a balance between theoretical and practical training could be achieved [14]. Finally, more investment is needed by the Greek State and the EU with an emphasis in better fund management and fairer salaries, especially in times of economic crisis, as good health is paramount for a stable society and public health is the result of the work of the country's hard-working junior doctors. Furthermore, giving emphasis on increasing the general mental health status and well-being of junior doctors is paramount, since it has a direct impact on the effective treatment of patients.

REFERENCES

1. Pantazopoulou-Foteinea A. Working environment and mental consequences (organizational - industrial psychology). An approach from the field of Occupational Medicine. 1st ed. Athens, Greece: Hellenic Institute for Occupational Health and Safety; 2003.
2. Schuler RS, Jackson SE. Managing stress through PHRM practices: An uncertainty interpretation. *Res Person Hum Resour Manag.* 1986;4:183-224.
3. Jex SM, Beehr TA, Roberts CK. The meaning of occupational stress items to survey respondents. *J Appl Psychol.* 1992;77(5):623-628.
4. World Health Organisation. Occupational health. Stress at the workplace [Internet]. Available from: https://www.who.int/occupational_health/topics/stressatwp/en/ [26 December 2018].
5. World Medical Association, Inc. WMA Statement on Physicians' Well-being. Adopted by the 66th WMA General Assembly, Moscow, Russia, October 2015. Available from:

<https://www.wma.net/policies-post/wma-statement-on-physicians-well-being/> [26 December 2018].

6. European Junior Doctors Association. EJD statement on junior doctors' wellbeing, stress and burnout. Adopted by the EJD General Assembly, Porto, Portugal, October 2016. Available from: <https://www.juniordoctors.eu/policy-statement/statement-junior-doctors-wellbeing> [26 December 2018].

7. Cooper CL, Sloan SL, Williams SL. Occupational Stress Indicator Manual: Management Guide. 1st ed. Windsor, UK; ASE (NFER-Nelson); 1988.

8. Caplan RD, Cobb S, French JRP, Harrison RV, Pinneau SR. Job Demands and Worker Health: Main Effects and Occupational Difference. Washington, DC, USA: HEW Publication No (NIOSH), US Department of Health, Education and Welfare; 1975.

9. Rees DW. Work-related stress in health service employees. *J Manage Psychol.* 1995;10(3):4-11.

10. Antoniou AS. Occupational stress: acute and chronic stress factors. Special issue on "Occupational stress: the secret enemy". *Eleftherotypia*, 2001;100:3-5 (in Greek).

11. Payne RL, Firth-Cozens J. (Eds). *Stress in Health Professionals*. Chichester, UK: John Wiley & Sons; 1987.

12. Shanafelt TD, Boone S, Tan L. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med.* 2012;172(18):1377-1385.

13. Olkinuora M, Asp S, Juntunen J, Kauttu K, Strid L, Aarimaa M. Stress symptoms, burnout and suicidal thoughts in Finnish physicians. *Soc Psychiatry Psychiatr Epidemiol.* 1990;25(2):81-86.

14. Antoniou AS, Davidson MJ, Cooper CL. Occupational stress, job satisfaction and health state in male and female junior hospital doctors in Greece. *J Manag Psychol.* 2003;18(6): 592-621.

15. Sutherland VJ, Cooper CL. *Understanding Stress: A Psychological Perspective for Health Professionals*. London, UK: Chapman and Hall; 1990.

16. Kash KM, Holland JC, Breitbart W, Berenson S, Dougherty J, Ouellett-Kobasa S, et al. Stress and burnout in oncology. *Oncology.* 2000;14:1621-1633.

17. Botseas DS. The occupational stress of hospital surgeons. Special issue on "Occupational stress: the secret enemy". *Eleftherotypia.* 2001;100:3-5 (in Greek).

18. Ochsmann E, Lang J, Drexler H, Schmid K. Stress and recovery in junior doctors. *Postgrad Med J.* 2011;87(1031):579-584.

19. Dudley HA. Stress in junior doctors. 1 – Stress and support. *BMJ.* 1990;301:75-76.

20. McManus IC, Winder BC, Gordon D. The causal links between stress and burnout in a longitudinal study of UK doctors. *Lancet*. 2002;359(9323):2089-2090.
21. McKeivitt C, Morgan M, Simpson J, Holland WW. *Doctors' Health and Needs for Services*, London, UK: Nuffield Provincial Hospitals Trust; 1995.
22. Kumar P, Basu D. Substance abuse by medical students and doctors. *J Indian Med Assoc*. 2000;98:447-452.
23. Pickard M, Bates L, Dorian M, Greig H, Saint D. Alcohol and drug use in second year medical students at the University of Leeds. *Med Educ*. 2000;34(2):14-150.
24. Newbury-Birch D, Walshaw D, Kamali F. Drink and rugs: from medical students to doctors. *Drug Alcohol Depend*. 2001;64(3):265-270.
25. Spurgeon A, Harrington JM. Work performance and health of junior hospital doctors - a review of the literature. *Work and Stress*. 1989;3:117-128.
26. Orton DI, Gruzelier JH. Adverse changes in mood and cognitive performance of house officers after a night on duty. *BMJ*. 1989;298:21-23.
27. Houson DM, Alit SK. Psychological distress and error making among junior house officers. *Br J Health Psychol*. 1997;2:141-151.
28. Schernhammer ES, Colditz GA. Suicide rates among physicians: a quantitative and gender assessment (meta-analysis). *Am J Psychiatry*. 2004;161(12):2295-2302.
29. Shanafelt TD, Balch CM, Dyrbye L, Bechamps G, Russell T, Satele D, et al. Special report: suicidal ideation among American surgeons. *Arch Surg*. 2011;146(1):54-62.
30. Dyrbye LN, Massie FS, Eacker A, Harper W, Power D, Durning SJ, et al. Relationship Between Burnout and Professional Conduct and Attitudes Among US Medical Students. *JAMA*. 2010;304(11):1173-1180.
31. Devi S. Doctors in distress. *Lancet*. 2011;377(9764):454-455.
32. Schwenk TL, Davis L, Wimsatt LA. Depression, stigma, and suicidal ideation in medical students. *JAMA*. 2010;304(11):1181-1190.
33. Kay M, Mitchell G, Clavarino A, Doust J. Doctors as patients: a systematic review of doctors' health access and the barriers they experience. *Br J Gen Pract*. 2008;58(552):501-508.
34. Karathanos V, Koutsogiannou P, Bellos S, Kiosses V, Gelastopoulou E, Dimoliatis G. How 731 residents in all specialties throughout Greece rated the quality of their education: Evaluation of

the educational environment of Greek hospitals by PHEEM (postgraduate hospital education environment measure). *Arch Hellen Med.* 2015;32(6):743-757.

35. Spector P. Measurement of human service staff satisfaction: development of the Job Satisfaction Survey. *Am J Community Psychol.* 1985;13(6):693-713.

36. Spector P. Job Satisfaction Survey Norms / Medical [Internet]. San Francisco (CA), USA: [updated 14 July 2011]. Available from: <http://shell.cas.usf.edu/~pspector/scales/jssnormsmedical.doc> [26 December 2018].

37. Tountas G. Working environment and health [Internet]. Eleftherotypia, 30 July 2011. Available from: <http://www.enet.gr/?i=news.el.article&id=297851> [26 December 2018] (in Greek).

38. Pipili L. The lost honour of the Greek doctor. *To Vima (The Pace)*. 1996;Mar 17:84-85 (in Greek).

39. Niakas D. Confidence in the nursing staff. *To Vima (The Pace)*. 2003;Mar 9:44 (in Greek).

40. Council Directive 93/104/EC. *Off J Eur Community* 1993;L307:18-24.

41. Directive 2000/34/EC of the European Parliament and Council. *Off J Eur Community* 2000;L195:41 - 5.

42. Lacy BE, Chan JL. Physician Burnout: the hidden health care crisis. *Clin Gastroenterol Hepatol.* 2018;16(3):311-317.

43. Palaska E, Sarantaki A, Nanou C. Professional burnout and health care professionals. *Epitheoresi Klinikis Farmakologias kai Farmakokinetikis - Greek Edition.* 2008;26(3);237-246.

44. Styliidou D. Stress factors in the workplace: an empirical approach [master's thesis]. Thessaloniki, Greece: University of Macedonia; 2017.

45. Maslach C, Jackson SE, Leiter MP. Maslach burnout inventory manual. 3rd ed. Palo Alto, CA, USA: Consulting Psychologists Pr; 1996.

46. Panagopoulou E, Montgomery A, Benos A. Burnout in internal medicine physicians: differences between residents and specialists. *Eur J Intern Med.* 2007;17(3):195-200.

47. Panagioti M, Panagopoulou E, Bower P, et al. Controlled interventions to reduce burnout in physicians: a systematic re- view and meta-analysis. *JAMA Intern Med* 2017;177:195-205.

48. Small GW. House officer stress syndrome. *Psychosomatics.* 1981;22:860-869.

49. Antoniou AS, Antonodimitrakis P. Levels of job satisfaction and coping strategies of occupational stress used by Greek hospital doctors. Alexandroupolis, Greece: Proceedings of the 8th Greek Conference of Psychological Research, Greek Society of Psychology; 2003.

50. Thomaides T, Koutsoukou-Bibou A, Matsaniotis N. Medical education: the views and positions of trainers and trainees of the University of Athens. *Ippokratis (Hippocrates)*. 1982;10(3): 195-200 (in Greek).
51. Alexandrova-Karamanova A, Todorova I, Montgomery A, Panagopoulou E, Costa P, Baban A, et al. Burnout and health behaviors in health professionals from seven European countries. *Int Arch Occup Environ Health*. 2016;89(7):1059-1075.
52. World Medical Association. WMA International Code of Medical Ethics. Adopted by the 3rd General Assembly of the World Medical Association, London, England, October 1949 and amended by the 22nd World Medical Assembly, Sydney, Australia, August 1968 and the 35th World Medical Assembly, Venice, Italy, October 1983 and the 57th WMA General Assembly, Pilanesberg, South Africa, October 2006 [Internet]. Available from: <https://www.wma.net/policies-post/wma-international-code-of-medical-ethics/> [26 December 2018].
53. Athanassiades S. The training of junior doctors in surgery: suggestions for improvement. *Elliniki Heirourgiki (Greek Surgery)*. 1985;57(4): 209-222 (in Greek).

Αξιολόγηση της εργασιακής ικανοποίησης των νέων ιατρών στην Ελλάδα

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ΠΕΡΙΛΗΨΗ

Εισαγωγή: Η υγεία και η ευεξία των ιατρών περιλαμβάνει εξίσου σημαντικούς βιολογικούς, ψυχολογικούς και κοινωνικούς παράγοντες υγείας. Για την διατήρηση ιδανικής ευεξίας και ικανοποίησης από την εργασία, οι ιατροί πρέπει να επιτυγχάνουν μια ισορροπία ανάμεσα στις επαγγελματικές ιατρικές τους υποχρεώσεις και στην προσωπική τους ζωή. Έχουν δικαίωμα να εργάζονται σε υγιείς χώρους εργασίας, απελευθερωμένους από κάθε μορφή βίας και παρενόχλησης και με ασφαλείς συνθήκες εργασίας. Σκοπός της παρούσας εργασίας είναι η αποτύπωση της εργασιακής ικανοποίησης των νέων ιατρών στην Ελλάδα.

Υλικό/Μέθοδος: Ένα ερωτηματολόγιο 36 ερωτήσεων, βασισμένο στην κλίμακα εργασιακής ικανοποίησης Job Satisfaction Survey (JSS) που ανέπτυξε ο Paul E. Spector το 1985 στις ΗΠΑ δημιουργήθηκε και τέθηκε προς συμπλήρωση στο Διαδίκτυο. Εννέα παράμετροι μελετήθηκαν: Αμοιβές, Εξέλιξη, Επίβλεψη, Πρόσθετες Παροχές, Ενδεχόμενες Ανταμοιβές, Εργασιακή Διαδικασία, Συνεργάτες, Φύση Εργασίας και Επικοινωνία.

Αποτελέσματα: Συμμετείχαν 113 νέοι ιατροί, 52 (46%) άνδρες και 61 (54%) γυναίκες, μέσης ηλικίας 33,4 ετών. Το συνολικό JSS Score ήταν 100,4/216 (δυσανεστημένοι) με τις γυναίκες (97,1/216) να εκφράζουν περισσότερη δυσαρέσκεια από τους άνδρες (104,3/216). Ικανοποιημένοι αισθάνονται μόνο με τη φύση της εργασίας τους (16,5/24) με τις γυναίκες περισσότερο ικανοποιημένες (16,7/24) από τους άνδρες (16,3/24). Οι αμοιβές εμφανίζουν τη μικρότερη ικανοποίηση, ανεξαρτήτως φύλου. Οι Έλληνες νέοι ιατροί θεωρούν εαυτούς εργαζόμενους σε πολύ χειρότερο εργασιακό περιβάλλον σε σχέση με τους Αμερικανούς συναδέλφους τους (συνολικό JSS Score στις ΗΠΑ=135,8/216 σε σχέση με 100,4/216 στην Ελλάδα).

Συμπεράσματα: Τα σοβαρά προβλήματα που αντιμετωπίζουν οι νέοι Έλληνες ιατροί σήμερα στην Ελλάδα περιγράφονται στην παρούσα έρευνα με ιδιαίτερα μελανά χρώματα. Πλήττονται από τη γραφειοκρατία, που οδηγεί σε μικρότερη αποδοτικότητα, ενώ προβληματικές εμφανίζονται οι σχέσεις τους με συναδέλφους και προϊσταμένους. Απαιτούνται περισσότερες επενδύσεις στον τομέα της υγείας και δικαιότεροι μισθοί, ιδιαίτερα σε καιρούς οικονομικής κρίσης, καθώς η υγεία είναι ζωτικής σημασίας για μια σταθερή κοινωνία και η δημόσια υγεία του πληθυσμού είναι υο αποτέλεσμα των σκληρά εργαζομένων, νέων ιατρών της χώρας..



Λέξεις ευρετηρίου: εργασιακή ικανοποίηση, νέος ιατρός, ιατρική ειδικότητα, εργασιακή εξουθένωση



Παραπομπή

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