

# OCCUPATIONAL BURNOUT, MENTAL HEALTH AND LIFE QUALITY OF NURSING STAFF IN HEALTH STRUCTURES IN GREECE: THE CASE OF IPPOKRATEIO GENERAL HOSPITAL OF THESSALONIKI

Paraskevopoulou S., Siameti M., Tzanakis E.

Hellenic Open University

Paraskevopoulou Stavroula

Hellenic Open University

Siameti Maria

Hellenic Open University

Tzanakis Emmanouel

University of Crete, Hellenic Open University

**Abstract:** Occupational burnout syndrome is particularly common in nurses and is closely related to the quality of healthcare provided. Studying this phenomenon is particularly important, because the knowledge acquired will contribute to its deeper understanding and thus to its timely recognition and response. The purpose of the present study is to examine the occupational burnout of nurses through a qualitative methodology and semi-structured interviews with the nursing staff of Ippokrateio General Hospital of Thessaloniki. Through the analysis of the interviews the following issues were detected in every answer: fatigue (sub-topics: “physical fatigue”, “mental fatigue” and “pathological condition”), working conditions causing dissatisfaction (sub-topics: “salary”, “Excessive workload”, “tasks not related to their work field”, “poor organization”, “poor communication”) and a condition that cannot be changed (sub-topics: “absence of collective action for the prevention of the problems” and “problem management on an individual level”).

**Keywords:** Occupational burnout syndrome, nursing staff, mental health, quality of life.

## **Theoretical frame**

Occupational burnout is particularly common in health professionals and its importance is essential because it is directly related to their efficiency and therefore to the quality of services provided as well as to the promotion of health in the general population. Referring to nursing staff, the impact is even greater, as nurses undertake most of the tasks related to patient care. A large number of studies have been conducted on this subject and reveal the factors related to the occupational burnout. Key features of occupational burnout are the emotional exhaustion (Adali, Priami, Evangelou, Yfanti, & Mougia, 2002) and the inability to control situations and manage stress (Schmitz et al., 1999). It also has serious effects on physical and mental health (Bellali,

Kontodimopoulos, Kalafati, & Niakas, 2007). The problem is more intense in oncology departments because due to high mortality rate, nurses experience dissatisfaction and feel disconnected from their work (Grunfeld, Whelan & Zitzelsberger, 2000; Papadatou & Anagnostopoulos, 1995), as well as in pathological and surgical departments due to increased workload where the pace is fast and demanding (Wu, Zhu, Wang, & Lan, 2007). The problem is equally acute in psychiatric and neurological departments, where nurses experience more severe mental health problems compared to the general population, such as depression and suicide attempts (Jaracz, Gorna, & Konieczna, 2005). The professional environment with its structure often generates high levels of stress (Gavrilă-Ardelean & Moldovan, 2014). Working in health and social welfare fields, differs from other fields in terms of high levels of responsibility in relation to the professional roles (Tsounis & Sarafis, 2015). The study of these factors can lead to an improvement of the current situation, to a limitation of stress factors and therefore to the improvement of nurses' lives as well as of the health services provided (Keleman, Font-Harmant, Gavrilă-Ardelean, Nache, Plus & Stassen, 2016). Occupational burnout can appear in both trained and untrained personnel, albeit in different form and intensity (Gavrilă-Ardelean, 2017). The main source of stress for the trained staff is related to inadequate staffing and lack of organization, while for the untrained staff concerns the difficult and demanding patients (Jenkins & Elliott, 2004). Incomplete training in terms of communication seems to contribute to the appearance of stress, because it leads to poor communication with patients and high levels of stress (Fallowfield & Jenkins, 1999), while good collaboration among employees can effectively address such issues (Kandri, Kalemí, & Moschos, 2004). In-depth study of the subject is essential and particularly important as it will produce useful knowledge that can be used to identify the problem in time and effectively cope with it through proper interventions (Gavrilă-Ardelean, 2009) and effective organization in order to create working conditions that do not increase work burden for the nursing staff (Gavrilă-Ardelean & Moldovan, 2014).

### **Methodology**

For the proper in-depth examination of the subject it is important to use qualitative research because, unlike quantitative, it allows a deeper access to the meaning attributed by those involved, to their roles and way of thinking leading to a better understanding and interpretation of the phenomenon (Creswell, 1994). For this reason, in order to study the occupational burnout of nursing staff regarding health services, the methodology of qualitative research with semi-structured interviews was selected. Studies focusing on occupational burnout must take into consideration the emotional and organizational conditions in order to feedback health policies (Eby & Rothrauff-Laschober, 2012; Knudsen, Ducharme, & Roman, 2006). The way staff perceives the function of each health structure, the psychological climate, and the behavior of health professionals are important factors regarding the good operation for both employees and patients (Garner & Hunter, 2013; Garner, Hunter, Godley & Godley, 2012).

### **Research goals and objectives**

The overall purpose of this research is to study the occupational burnout experience of the nursing staff at Ippokrateio General Hospital of Thessaloniki. Based on the literature review, the study questions were the following:

- Do nurses face the problem of occupational burnout and, if so, how exactly do they experience it?
- In what causes do nurses attribute the problem of burnout?
- Does occupational burnout, according to nurses, affect their mental health and, if so, how?
- Does occupational burnout affect nurses' interpersonal relationships and if so which ones?
- Does occupational burnout has an impact on the quality of life of nurses and if so what?
- How do nurses cope with the problem of occupational burnout?
- What are the needs of nurses in preventing occupational burnout?

### **Research sample**

The research population was the nursing staff of different categories and levels of health units. The participants were initially contacted by telephone and were briefed on the process, purpose and schedule of the research. After participants gave their consent and met the criteria for their participation in the research, a meeting was scheduled at the participants' working space. The sample consisted of 16 nurses from Ippokrateio General Hospital of Thessaloniki, 2 of whom had university education and worked in the field of nursing and urology clinic. 10 of the nurses had technological education (TEI) and worked in operating rooms, intensive care units and emergency rooms, psychiatric and pediatric-oncology clinics. Finally, 4 of the nurses had secondary education and worked in pediatrics, surgery, cardiology and the Mediterranean Anemia unit. 13 of the participants were women and 3 men, which was expected, as the majority of nurses are women. Theoretical sampling was adopted (Davoudi, Nayeri, Raiesifar, Poortaghi, & Ahmadian, 2016) and the main criteria for selecting the sample was the participants to experience the problem of occupational burnout and to strongly and visibly have the relevant symptoms, without suffering from any other illness or facing any other stressful situation besides their work at the present time, because this could lead to inaccurate results. As exclusion criteria were defined the presence of a physical or mental illness such as chronic illness, depression, anxiety disorders etc. as well as aggravating off-the-job factors that could create intense stress and fatigue such as divorce, death, childbirth etc. The study was proposed and approved by the Scientific Council as well as by the General Board of Ippokrateio General Hospital of Thessaloniki. The semi-structured interview was chosen as the most appropriate method because it is characterized by a set of predefined questions and at the same time has a great deal of flexibility in emerging data that was not originally planned (Katerelos, 2008). The interviews were conducted in the personal working space of each interviewee. For ethical reasons, individual participants were kept anonymous and they were given the assurance that the content of the interviews would be confidential.

### **Reliability and validity**

Particular emphasis was also given on ensuring the credibility and validity of the research and in particular the following actions took place:

For reliability

-the participants were selected after careful observation so as to meet the criteria of this study. In addition, participants' previous experience in interview process was taken into account and the nurses who participated had previously participated in similar interviews.

-the whole process from study design to interview planning was examined by a colleague who was familiar with the methodology of qualitative research, but had no connection with the subject of this study in order to identify possible biases and discriminations on behalf of the researcher.

- The results were reviewed by the participants themselves. Specifically, after each question the main points of each participant's answers were summarized separately and then their opinion was asked about the correctness and the full understanding by the researcher.

Regarding validity, the present study has:

- the validity of production methods, i.e. research questions are in line with the logic of qualitative research which, in this particular occasion, is interested in studying the experience of employees with occupational burnout and their overall way of thinking. All this can only be studied through a qualitative research and not with the standard questionnaire questions.

- validity of data interpretation because the analysis process was also reviewed by another researcher with experience in qualitative research as well as in the subject of the present research, in order to identify any omissions.

### **Analysis and discussion**

A comparative advantage of qualitative methods is that a detailed recording is provided, as interviewees have direct contact with the natural environment that provides information (Guest & MacQueen, 2011). According to the Guidelines of the Interpretative Phenomenological Analysis, which we adopt, the sample consisted of a small number of homogeneous participants (Smith, Flowers & Larkin, 2009). The thorough study of the narratives that emerged from the semi-structured interviews led to the recording of keywords and significant phrases that were then grouped by topic. The analysis of the interviews revealed the following issues that were answered in all the interview questions: fatigue (sub-topics: "physical fatigue" and "mental fatigue" and "pathological condition"), working conditions causing dissatisfaction (sub-topics: "salary", "Excessive workload", "tasks not related to their work field", "poor organization", "poor communication"), and a condition that cannot be changed (sub-topics: "absence of collective action for the prevention of the problems" and "problem management on an individual level").

The results will be presented on the basis of eight research questions: the experience of occupational burnout, the causes of occupational burnout, nurses' perception of the impact of occupational burnout on their mental health, the impact of occupational burnout on interpersonal relationships, the impact of occupational burnout in quality of life, management of occupational burnout, and nurses' needs in preventing occupational burnout.

### *The experience of occupational burnout*

Most participants perceive occupational burnout as a type of physical and mental fatigue that is solely related to their work. The concepts of "fatigue" and "working conditions" were dominant in the participants' responses. Generally the concept of fatigue was given as follows:

MK. *"I imagine it's the physical fatigue caused by your job in combination with mental fatigue."*

And working conditions, including salary:

A.K. *"Working from morning to night for many hours with the minimum wage and in general without any leaves etc..."*

Then, they analyzed more specifically the main features of this condition, as well as the physical and psychological symptoms through which it was perceived. It is noteworthy that most participants use medical terminology extensively to describe what they are experiencing, which means that they view it as a pathological condition that affects their physical and mental health. As a result, many nurses aren't happy at work even though they like their job:

E.N. *"When I was transferred to another hospital, I didn't want to go to work, which is unheard of for me. I love my job, I like the operating room but I didn't want to go to work. That was just a surprise for me, I didn't want to do any other activity and in my personal life I didn't want to do any kind of activity. I was carrying out my tasks because I was required to, always with conscientiousness and professionalism, but because I had to do all of that, which was very depressing to me because I knew myself. I believe that... I really think it was occupational burnout".*

A.V. *"There is a heavy workload beyond the scheduled hours and I feel physical and mental fatigue when I finish my work."*

K.F. *"Yes, I suffer from joint pain in terms of physical exhaustion due to work overload and, lately, I also have bad temper due to workload and lack of staff, and I cannot restrain my anger, especially during the last six months."*

G.G. *"The fact is that I'm feeling quite stressed for quite a long time".*

The concept of dissatisfaction is directly linked to the phenomenon of occupational burnout. This dissatisfaction mainly concerns working conditions within the hospital and not the type of their work.

N.E. *I am not satisfied with the conditions in the hospital. The conditions are also exhausting due to the poor organization of the hospital"*

M.G. *"As a profession it is what I always wanted to do, as working conditions no, I'm not happy at all."*

Some of the nurses would change profession and some would not. Nurses who gave a positive answer would change their profession due to working conditions. Difficult working conditions are also mentioned in the answers of those who would not change their profession because they love their job.

*K.M "Of course I would do something that would be simpler and not so demanding."*

*M.Z "Definitely".*

*A.G "No, although I am under a lot of pressure, I love my job, I would not change it."*

*H.K. "No, no I like it too much."*

### ***The causes of occupational burnout***

The main factors that lead to occupational burnout, according to those interviewed, are working conditions, namely poor organization, lack of staff, increased workload, assigned work without taking into account their specialty and difficulty in communicating with senior executives. Increased workload and undertaking irrelevant tasks are characteristic of the Greek health system, as, unlike other specialties, in Greece the adequacy of nursing staff is limited.

*N.E. "Bad conditions. We not only do the work of the surgical nurses, we have also been assigned a number of other duties in other areas of the hospital, for example sterilization because they don't do it as they were supposed to do, the devastating hours and finally we are all used for many purposes in order to cover every "gap" that currently exists in Ippokrateio. In addition we also cover the Emergency Department, for example, which is the most exhausting for employees. "*

*D.K. "I believe it is due to the workload and the lack of staff is an important factor. I also believe that one important factor is that there are no defined responsibilities, no specified roles. "*

And more specifically the situations that cause dissatisfaction:

*M.G. "Personally, I'm more annoyed by the tensions and the shouting and being questioned by my superiors, than by the job demands".*

*X.D. "What tires me the most is the numerous exhausting night shifts".*

*X.S. "on the one hand it's the major shortage of staff in my department and on the other hand we have to take care of too many patients and work all day without taking a break."*

### ***Nurses' view regarding the impact of occupational burnout on their mental health***

All nurses believe that occupational burnout has an impact on their mental health and have reported symptoms such as dissatisfaction, anxiety, distress, great pressure.

*N.E. "Yes. I feel, anyway... I used to feel it when I was in the building A... when I was at work I was feeling uncomfortable, I had a knot in the throat, a chest tightness. This is intense stress".*

*K.L. "I believe that such symptoms also occur, as I experience insomnia and intense stress during the night that are related to my job and the stress my job causes".*

*K.F "Sometimes when I feel stressed, I have a tightness in my chest and a general sense of discomfort.*

It should be noted that psychological pressure, stress and anxiety that nurses experience in their work, in most cases, cause physical symptoms. This means that the effect of occupational burnout is not just limited in negative emotions, but through stress, which strongly activates the hypothalamic-pituitary-adrenal axis with sudden fluctuations in cortisol and other stress-related hormones, results in numerous unpleasant physical symptoms with psychogenic causes such as fatigue, back pain, headache, dermatological problems, musculoskeletal problems, gastrointestinal disorders, hypertension, sleeping disorders (Gaab, Huster, Peisen, Engert, Heitz, Schad, Schumeyer & Ehlert, 2002; Vgontzas, Bixler, Lin, Prolo, Mastorakos, Vela-Bueno, Kales, & Chrousos, 2001). More specifically:

*N.E. "Yes, it affects me. To begin with, I get tired more easily than I used to... but of course I am not getting any younger. My legs ache more often than they used to, my waist also. I do not sleep well at night, I see nightmares, which means I am psychologically stressed. I suffer from headaches more often than in the past and the last thing that has happened in recent years is that I have increased blood pressure both systolic and diastolic".*

*M.X. "Of course it affects me. The main symptoms such as headaches, drowsiness, weakness are symptoms of physical and mental stress. Tension and nervousness you never had before."*

*A.H. "Sometimes I have a severe headache when I get home and it takes a while to calm down and relax and eliminate the stress of the day. Sometimes I even have tachycardia."*

*M.Z "Yes. Lately I suffer from joint pain, I also have bad temper, stress... I wouldn't describe it as stress but I get more frustrated... there is more stress at work, lately... this semester, this year...".*

*K.F. "Of course due to the intense pressure, I have had eczema on my body"*

*DK "Look, it does affect me. I have physical symptoms, headaches, a tendency to vomit, gastrointestinal disorders which I believe are largely due to the burnout that I experience at work"*

### ***The impact of occupational burnout on interpersonal relationships in the workplace***

Occupational burnout has not only affected the physical and mental health of the respondents but also their relationships with colleagues. A main reason for disagreements is work schedule, poor communication, while some nurses reported frustration and disputes among staff.

*M.G. "Yes I believe that, because there is tension among us and we get caught up in small things, which creates tension".*

*NE "Yes, it has an effect. I have become more tense, more abrupt, while I wasn't. I no longer have the courage to react when I notice injustice. Injustice concerning the work schedule, unfairness in dealing with cases, unfairness towards colleagues. I am now responding with indifference which I often meet in my workplace. "*

In addition, their relationships with medical staff, patient attendants and superiors have also been affected.

Z.M. "Yes, I see that it has also affected my relationship with doctors because we are becoming more and more nervous and more argumentative or demanding, we feel pressured."

M.G. "I experienced this mainly when I wasn't in the surgery room, when I had to deal with the attendants. That is, if I was stressed at that time, I would not calmly talk to an attendant if he had a problem".

*The impact of occupational burnout on personal, social and family life of nursing staff*

*In addition to work, occupational burnout can also affect the overall life quality of nurses, such as personal, social, and family life. This is mainly due to stress, lack of time, physical and mental fatigue, resulting in reduced social contacts, interactions, and failure to meet family obligations.*

NE "Well, of course, it has an impact. I don't feel like going out, I don't have the time for social gatherings. Besides that, our work hours are prohibitive, especially when you have circular working hours, afternoon, night, morning and then the night shift... you understand that it is exhausting"

D.K. "It has have affected my social life as the overwhelming fatigue, the intense stress and the way I feel at workplace, makes me in my personal life, when I return home not being able to meet social obligations such as going out for a walk or socialize with other people. It has influenced me ... .. sometimes I cut off social contacts. "

M.G. "I would say yes, because sometimes I have a sense of resignation and I'm not in the mood to do anything. E.g. my husband suggests "Shall we go out?", "No, I don't feel like it", "Why you don't feel like it?", "Because I had a bad day at work", ... "would you like to meet our friends?" , "No, I am not in a mood to socialize right now, I prefer not talking to anyone". I have this feeling sometimes. "

H.A. "Yeah, it has an impact. Sometimes I feel really tired and I don't have the desire to go out for a walk, or invite some friends to come over."

*Also, occupational burnout has a major impact on family life. Most respondents answered that it has been affected due to the physical and mental fatigue they experience in the workplace. That is evident in their answers:*

K.L. "It has an impact. I feel tired and I'm more nervous at home so I get more frustrated with my family. Of course, being tired also means not being able to meet my family obligations."

Z.A. "it definitely has an impact. You transfer all the tension from work at home, so you don't have the patience to deal with family problems."

### ***Management of occupational burnout***

Most nurses, despite the difficulties, try to deal with the problem and use some strategies to manage the burnout. From their answers we can distinguish a management typology with a range of techniques focusing on working on oneself such as discipline, fun, workplace and home separation. Features that have been highlighted:

L.S. *"I try, I always try to be calmer, because above all this, patient is the final recipient and the psychological healing is as important as the physical healing. The patient shouldn't see the nurse treating him neither with stress nor with bad temper. So, I try to improve myself and, through this process to improve my work as well. "*

N.E. *"Yeah, I'm dealing with it successfully, and that is evident in how effective a nurse I am. My way is discipline, I cannot do otherwise... patients should not be involved in this situation".*

N.E. "Yes, I have found some ways. For example, I go to work listening to music. Before I go to work, I listen to music. Also, I try to be constantly educated, to have other motivations, which is very difficult within the hospital framework, because sometimes there may be in-hospital courses and not being able to leave our department to attend them, to be trained, because no other person can replace us. However, I'm still trying to do some extracurricular activities".

F.S. "I'm trying... I understand the problem, I brought work stress and tension at home, I know that this is wrong. I'm trying when I come home from work not to bring stress and psychological pressure with me in my family.

M.Z. "Yes, in a personal level, I'm trying to be calm, listen to my favourite music, watching my favorite team and I definitely have great support from my wife. Sometimes we may have some discussions about our jobs but as we said I'm trying not to bring work problems with me at home. Trips relax me a lot.

#### ***Nurses' needs in preventing occupational burnout***

Concerning the needs of nurses, in preventing occupational burnout, most of the responses focused on improving equipment and working conditions, better planning and task assignment, reduction of shifts and in general improving working conditions.

A.G. "of course I would like more staff to be available, so as not to feel so tired"

M.Z. "To have enough staff and fewer shifts especially night shifts which are too wearing both physically and psychologically".

N.E. "To have the proper equipment and above all to have enough staff, so as to be able to take breaks between surgeries. This doesn't happen, it is impossible to happen.

T.S. I would prefer more staff to be available, I insist on that, fewer shifts and better communication among colleagues and cooperation.

K.L. "I believe the same thing, meaning working conditions to be more humane and reasonable with better assignment of tasks and enough staff, so correspondingly I should be less physically affected and my family less affected by my tiredness, my stress and anger.

Particular emphasis was also given to organization and communication issues, i.e. good consultation and cooperation among employees and better organization and coordination by their superiors.

M.K. "To know that my superiors understand me, to achieve better cooperation and try to communicate better with my colleagues so as to improve the working conditions.

N.E. “First of all everyone to work in an efficient way and to have the same responsibilities and the same rights. Because, unfortunately, some people have only rights and no obligations. In other words, workload is not equal for everyone.

It is particularly noteworthy that although nurses' needs focus on the working framework and working conditions, that is, organization and communication issues at a collective level, they deal with the problem of occupational burnout at a strictly individual level. From their answers they seem to perceive the working conditions that cause them dissatisfaction and associated with the phenomenon of occupational burnout as a condition that cannot be changed. The absence of collective action to overcome difficulties in their work, which is the source of the problem, and its management at a purely individual level when it has already occurred, is notable. Meaning that occupational burnout is perceived as a state that cannot be changed but can only become more manageable and more easily tolerable by nurses.

It would be particularly useful to consider seriously the way nurses experience the phenomenon of occupational burnout, as well as the way they perceive the conditions and the causes that led them to this situation, in order to implement interventions specifically tailored to their particular needs, so as to effectively deal with the problem.

## References

- Adali, E., Priami, E., Evangelou, E., Yfanti, M. & Mougia, B. (2002). Burnout and working environment of psychiatric nursing personnel. *Nosileftiki*, 41(1), 105-114(in Greek).
- Bellali, T., Kontodimpoulos, N., Kalafati, M. & Niakas, D. (2007). Exploring the effect of professional burnout on health-related quality of life in Greek nurses. *Archives of Hellenic Medicine*, 24(1), 75-84(in Greek).
- Creswell, J.W. (1994). *Research design: qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Davoudi, N., Nayeri, N., Raiesifar, A., Poortaghi, S., & Ahmadian, A. (2016). Theoretical Sampling: A narrative review. *Nurs Midwifery Stud.* 6(2): e 38284.
- Eby, L., & Rothrauff-Laschober, T. (2012). The relationship between perceptions of organizational functioning and voluntary counselor turnover: a four-wave longitudinal study. *Journal of Substance Abuse Treatment*, 42(2), 151-158.
- Fallowfield, L., & Jenkins, V. (1999). Effective Communication Skills are the Key to Good Cancer Care. *European Journal of Cancer*, 35(11), 1592-1597.
- Gaab, J., Huster, D., Peisen, R., Engert, V., Heitz, V., Schad, T., Schumeyer, T. & Ehlert, U. (2002). Hypothalamic-pituitary-adrenal axis reactivity in chronic fatigue syndrome and health under psychological, physiological and pharmacological situation. *Psychosomatic Medicine*, 64(6), 951-962.
- Garner, B., Hunter, B., Godley, S., & Godley, M. (2012). Training and retaining staff to competently deliver an evidence-based practice: The role of staff attributes and perceptions of organizational functioning. *Journal of Substance Abuse Treatment*, 42(2), 191-200.
- Garner, B., & Hunter, B. (2013). Examining the temporal relationship between psychological climate, work attitude and staff turnover, *Journal of Substance Abuse Treatment*, 44(2), 193-200.
- Gavrilă-Ardelean, M. (2009). The best management of health services to cardiovascular diseases in Arad country, *Agora Psychopragmatica*, 3(1), 47-52.

- Gavrilă-Ardelean, M. & Moldovan, O. (2014). The occupational stress to the young workers come from institutionalized environment. *Procedia-Social and Behavioral Sciences*, 159, 589-592.
- Gavrilă-Ardelean, M. & Moldovan, O. (2014). The reducing of the temporary working capacity in Professions with Neuro-psychic overloading by psychological methods and the significance of the economic impact, 10<sup>th</sup> International Academic Conference, Vienna, Austria, published by International Institute of Social and Economic Science, IISES, ISBN 978-80-87927-02-1 ISSN 2336-5617, pp 243-251.
- Gavrilă-Ardelean, M. (2017). Competencies and experiences in the Training Program of “Tu Toring” Project at “Aurel Vlaicu” University of Arad, Romania, in “Emploi, Formation et Tutorat en santé mentale: des innovations nécessaires en Europe”, coordinators: Laurence Fond-Hermant et Jocelyn Deloyer, collection Logiques Sociales, Editor L’Harmattan, Paris.
- Grunfeld, E., Whelan, T.J., Zitzelsberger, L. (2000). Cancer Care Workers in Ontario: Prevalence of Burnout, Job Stress and Job Satisfaction. *Canadian Medical Association Journal*, 163(2), 166-169.
- Guest, G. & MacQueen, N. (2011). “Introduction of thematic analysis”. In: *Applied Thematic Analysis*, London, UK: Sage.
- Jaracz, K. Gorna, K. & Konieczna J. (2005). Burnout, stress and style of coping among hospital nurses. *Annales Academiae Medicae Biostatocensis*, 50(1), 216-219.
- Jenkins, R., & Elliott, P. (2004). Stressors, burnout and social support: nurses in acute mental health settings. *Journal of Advanced Nursing*, 48(6), 622-31.
- Kandri, T., Kalemi, G. & Moschos, N. (2004). Phenomenon of “burnout syndrome” in doctor and nursing personnel in Trauma Unit in General Hospital of Nikaia. *Nosileftiki*, 43(1), 116-125.
- Katerelos, I. (2008). Interview and questionnaire in *Introduction to Social Psychology*, vol. A, Pedio Publications.
- Keleman G., Font-Harmant L., Gavrilă-Ardelean M., Nache K., Plus M. & Stassen J. (2016). Education for mental health. *Plus Education*, 14(1), 48-58.
- Knudsen, H., Durcharme, L., & Roman, P. (2006). *Journal of Substance Abuse Treatment*, 31(2), 173-180.
- Papadatou, D. & Anagnostopoulos, F. (1995). “Occupational burnout” in D. Papadatou & F. Anagnostopoulos (Ed) *Psychology in health area*, Ellinika Grammata.
- Schmitz, N., Kruse, J., & Tress, W. (1999). Psychometric Properties of the General Health Questionnaire (GHQ-12) in a German Primary Care Sample, *Acta Psychiatrica Scandinavica*, 100, 462-468.
- Smith, J.A., Flower, P., & Larkin, M. (2009). Interpretative Phenomenological Analysis: Theory, Method and Research. London: Sage Publications Ltd.
- Tsounis, A. & Sarafis, P. (2016). Job satisfaction among substance abuse treatment employees. *Archives of Hellenic Medicine*, 33(2), 180-188(in Greek).
- Vgontzas, A., Bixler, E., Lin, M., Prolo, P., Mastorakos, G., Vela-Bueno, A., Kales, A. & Chrousos, G. (2001). Chronic insomnia is associated with nyctohemeral activation of the hypothalamic-pituitary-adrenal axis: Clinical implications. *The Journal of Endocrinology & Metabolism*, 86(8), 3787-3794.

- Wu, S., Zhu, W., Wang, Z., Lan, Y. (2007). Relationship between burnout and occupational stress among nurses in China. *Journal of Advanced Nursing*, 59(3), 233-239.