Burnout syndrome impacts on quality of life in nursing professionals: The contribution of perceived social support

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Abstract

Purpose: To examine the impacts of burnout that has in health-related quality of life (QOL) in nursing staff in Greece. The association of social support with burnout and QOL is also investigated. **Materials and methods:** Individuals working in Mental and General Hospitals in the broader area of Athens participated in this study (N.139). The measurement tools include a) the Maslach Burnout Inventory (MBI), b) the SF-36 Health Survey and c. the Multidimensional Scale of Perceived Social Support. Burnout and QOL are expected to be related to the evaluation of social environment. **Results:** The results indicated the impacts that burnout has on quality of life and the positive effect of social support for nursing professionals in the levels of burnout. **Conclusions:** There is an association between burnout, quality of life and social support. Social support and socio-demographic factors appear to affect the levels of burnout to Psychiatric and General Hospital.
Key words: Burnout; quality of life; social support; nursing staff.

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INTRODUCTION

Burnout may be defined as a state of physical, emotional and mental exhaustion that results from long-term involvement in work situations that are emotionally demanding. A great deal of research has been devoted to the understanding of factors contributing to burnout and to its consequences for individuals and their health. Research indicates that stress, and burnout are significant factors in the development of both physical and psychological illness [1]. Further research findings show that burnout is correlated with numerous self-reported measures of personal distress [2-3].

The first time that the term burnout was used by healthcare provider was back in 1975 by Herbert Freudenberger in his effort to describe the physical and emotional state that he, and his colleagues were experienced. This group of people was working intensively in the free clinic movement of the late 1960s and early 1970s [4]. According to Freudenberger (1975) the term burnout is used in order to define the state of fatigue or frustration brought about by devotion to a way of life, or relationship, that has failed to produce the expected reward [5].

Since then and up to time there have been conducted researches regarding burnout and the effects that can have in a variety of professions as teachers [6], doctors [7], and nurses.

Nursing profession is consider to be one from the harder professions globally and is characterized by great workloads, fast pace and intensity of work. Nurses occupy a central role in the delivery of health care in all countries, though countries may have different health care systems and methods of payment options. Unfortunately, studies of the work experiences and satisfactions of nurses in several countries indicate that the satisfaction of nurses is modest. Many report negative attitudes and diminished psychological and physical well-being, and several would like to leave the profession [8]. According to researches so far burnout does not occur in the short term, but gradually escalating, thereby creating long-term problems, such as feelings of hopelessness, distress and failure to work requirements, which have an impact on all areas of human life [9]. In the process of time, many demographic varieties have been investigated in order to get fully aware about burnout such as age, gender, working experience. Furthermore, the differences between various wards of the hospitals such as psychiatric wards, intensive care units and operating rooms which are considered to be high demanding wards, have been studied in association with burnout several times [10].

Quality of life is considered to be related to attaining a healthy and productive lifestyle and therefore, have been an investigated parameter in many studies [11]. WHO defines quality of life as individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns. It is a broad-ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment [12]. Moreover, in the past years have been related with other's parameters as life satisfaction, happiness and depression in various populations such as healthcare workers, students, and immigrants. Furthermore, specific character-ristics of jobs such as shift and no shift workers had been evaluated to [13-14]. Conrad and Guentgher [15] examined the relationship of compassion fatigue, burnout and satisfaction among Colorado child protection workers. Bryant and Modanna explored the relationship among multiple role balance, job satisfaction and life satisfaction in women school counselors [16].

The literature regarding prevalence of burnout in many of the human service professions has been extensive [17]. In the effort to prevent and cope with burnout syndrome, various strategies have been suggested. Social support has been well documented as a highly effective intervention for coping with burnout [18]. Social support is referred to the perception that aid provided by others is adequate, or to the perceived quality of one's support, which may influence adjustment. Research indicates that there are at least two specific aspects to social support: perceived and received social support. Perceived social support refers to the perception that the person is cared for, is valued, and is part of a group. Perceived social support has been found to have a consistently positive impact on well-being, such that perceived social support will protect victims of traumatic events from depression, anxiety, and stress. In contrast, those with lower perceived social support have been found to have higher distress levels [19]. However, perceived social support is very dynamic and fluctuates easily. Overall, perceived social support has been shown to predict positive health outcomes better than received social support in the literature [20]. Since research has found that perceived social support predicts negative life stress and health outcomes, in addition to well-being [19]. It additionally is indicated that health providers by receiving social support outside of work in terms of their family, friends and coworkers can act positively in the prevention of burnout syndrome Maslach has recommended not only informal meetings over lunch and socializing after work but also more formal strategies such as staff meetings, conferences, retreats, and formal support groups led by a trained leader to facilitate the improvement of coworker relations. Similar to Maslach's

suggestions, Cherniss and Dantzig (1986) provide detailed information on the mutual aid group as another strategy for expanding social support. Mutual aid groups can foster social support among coworkers by providing information on how to deal with problems, material assistance, corrective feedback, reassurance and confirmation [21].

Apart from the fact that several studies have been conducted regarding the assessment of burnout, there are limited number of studies in Greece investigating the influence of social support on nurses' burnout and their quality of life (QOL). The purpose of this study is to assess burnout and QOL in nursing staff working in hospitals in the broader area of Athens as well as to examine possible correlations between burnout as well as QOL and social environment. And also to investigate differences with regards to the levels of burnout and QOL in nursing professionals working in General and Mental hospitals respectively. The hypotheses of this research are that burnout levels can be influenced by various parameters such as age, gender and working facilities. There is a negative correlation between burnout and quality of life (higher levels of burnout, lower quality of life). There is a negative correlation between social support and burnout (greater support to social life lower levels of burnout).

MATERIAL AND METHODS

This survey was based on an anonymous self-administered questionnaire, which was distributed to the nurses and was returned anonymously within an envelope in order to assure confidentiality. A cohort of 139 nurses was recruited from General and Mental Hospitals located within the broader area of Athens. The inclusion criteria are a) 18 years of age and older; b) ability to speak and read Greek; and c) being a registered nurse or nurse, working in the public or private sector. Data were collected in the period of time between February of 2013 until September of the same year. Investigators inspected demographic information to determine that the participants met the inclusion criteria. For those who did not, the data was discarded. All valid data was entered into a spreadsheet format, and analyses were performed using Statistical Package for Social Sciences, version 20.0.

Ethics

Written authorization was granted by the ethics and scientific committees of the institutions that this study was conducted. In addition, a written consent statement for their voluntary participation was taken.

Participants

Of the total, 30.2% were male and 69.8% were female. Additionally, 37.4% were single, 51.1% were married; 9.4% were divorced, and 2.2% were widowed. The participants' distribution into groups according to age and educational level is presented in the tables and diagrams below.

Table 1. Educational status of the sample.

	Frequency	Percent
Junior High school	4	2.9
Senior High school	42	30.2
University/College	82	59.0
Postgraduate Degree	11	7.9
Total	**139**	**100.0**

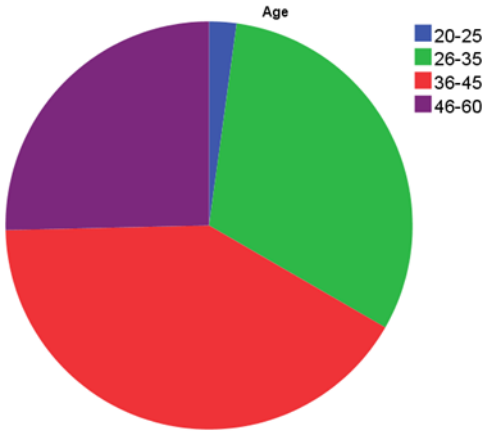

Figure 1. Age groups of the sample.

The psychometric tools which were used in the study are presented below.

Instruments

The data were obtained with a Greek version of the Maslach Burnout Inventory-Human Services Survey (MBI-HSS) [22]. The questionnaire consists of twenty - two items that provide a measure of perceived burnout. The response format of frequency was used. Items can be answered on a seven point Likert - scale, ranging from 0 (Never) to 6 (Everyday). According to Maslach et al. [22] the instrument is made up of three subscales: Personal Accomplishment (PA) (8 items), Emotional Exhaustion (EE) (9 items), and Depersonalization (DP) (5 items).

The 36-Item Short Form Health Survey (SF-36) [6] is also used. This multi-purpose, short-form health survey is comprised of 36 questions which provide an eight-scale profile of functional health and well-being scores (physical function, role function, bodily pain, general health, vitality, social functioning, emotional well-being and mental health) as well as composite physical and mental

health summary measures, and a preference-based HUI [23-24]. The SF-36 has been used in literally thousands of general and specific population surveys, permitting comparison of the relative burden of diseases, and differentiating the health benefits or harms of diverse treatments.

Recently, there is a surge of interest in the use of the Multidimensional Scale of Perceived Social Support (MSPSS) to measure perceived social support across cultures [25-27]. MSPSS, which consists of 12 items, was developed by Zimet et al. [28] to identify the social support factors perceived by the individuals. The scale is comprised of 3 groups depending on the source of support, each group consisting of 4 items. These are family [3, 4, 8,11], friends [6,7,9,12] and a special person [1,2,5,10]. Each item is rated using a 7 range scale varying between "definitely no" and "definitely yes." The sum of 4 items under each sub-scale gives the sub-scale score, while the sum of all sub-scale scores gives the overall scale score. The lowest score in sub-scales is 4, and the highest is 28. The lowest overall scale score is 12, and the highest is 84. MSPSS has proven to be psychometrically sound in diverse samples and to have good internal reliability and test-retest reliability, and robust factorial validity [28,29]. Specifically, in terms of reliability, the internal consistencies of the total scale and the sub-scales are high, ranging from 0.79 to 0.98 in various samples; furthermore, the test-retest reliability over a 2 to the 3-month period produces correlations ranging from 0.72 to 0.85 [11]. The scale has been translated and validated into Greek indicating satisfactory psychometric properties [30].

Data analysis

A quantitative analysis of the data was conducted. The data were analysed statistically by means of the statistical package IBM SPSS 20.

To investigate the relation between the participants' scores in Quality of Life (QOL) and Burnout (BO) scales and subscales, tests of correlation was conducted throughout the entire sample. First, using Pearson's R, the correlation between all subscales of the Maslach Burnout inventory and all eight subscales of the SF-36 were examined. Subsequently, in a similar manner, the Social support scales were checked for correlation with any of the three subscales measuring Burnout effects. Finally, possible correlations between Burnout effects and perceived quality of life, on one side and variables such as age, years of working experience and years of working on the same spot, on the other, were investigated. The required level of p values (significance) was 0.001 due to the lack of concrete proof that the data was normally distributed.

Moving on to the other assumptions made in the introduction, Student's *t*-tests were carried out between groups of different gender, groups of nurses who either held high responsebility/managerial positions or did not and between nurses working in a general hospital and nurses working in a mental hospital. The above were aimed towards revealing if the difference of scores on the QOL and BO scales, between these groups, observed in our sample, can be hypothesized to exist in the actual population.

Finally, as a by-product of the initial assumptions, one-way ANOVAs and *t*-tests were conducted to explore the differences in QOL and BO between participants of different gender, degree of responsibility linked to their position and educational level.

RESULTS

Correlations between quality of life and burnout effects

Upon examination, the "Emotional Exhaustion" subscale of the BO scale appears to be strongly and negatively correlated with the "Energy Fatigue" (R = -0.658, p=0.000), "Emotional Well-Being" (R=-0.675, p=0.000) and "Social Functioning" (R=-0.582, p=0.000). A less pronounced correlation is observed with the values of "Pain" (R=-0.491, p=0.000), "Physical Functioning" (R=-0.315, p=0.000) and "General health" (R= -0.387, p= 0.000).

Similarly, a somewhat strong negative correlation between the scale of "Depersonalization", "Emotional Well-being" (R= -0.543, p=0.000) and "Social Functioning" (R= -0.535, p=0.000) and a less strong one between "Depersonalization", "Energy Fatigue" (R= -0.462, p=0.000), "Pain" (R= -0.434, p= 0.000), "General health" (R=-0.387, p=0.000), and "Physical Functioning" (R= -0.329, p=0.000).

The "Personal Accomplishment" subscale of the BO scale, exhibits, as expected, quite the opposite behavior. It is positively correlated with "Energy Fatigue" (R= 0.487, p= 0.000), "Emotional Well-Being" (R=0.442, p=0.000), "Social Functioning" (R=0.397, p=0.000), "Pain" (R=0.385, p=0.000) and "General Health" (R= 0.381, p= 0.000).

Finally, no time related variables (age, years of experience on the same field, years of working on the same job/tasks) were found to be related to Burnout levels in any way.

Correlations between quality of life and social support

Most social support, scores are positively yet, weakly correlated to QOL items, with "Significant Others" correlating to "Physical Functioning" (R=0.302, p=0.000), "Energy Fatigue" (R= 0.376, p=0.000), "Emotional Well-Being" (R= 0.407, p= 0.000), "Social Functioning"

(R=0.304, p=0.000), "Pain" (R=0.331, p= 0.000) and "General Health" (R=0.403, p=0.000).

Amongst other social support scores, "Friends" is correlated with "Physical Functioning" (R=0.377, p=0.000), "Energy Fatigue" (R=0.430, p=0.000), "Emotional Well-Being" (R=0.413, p= 0.000) and "Social Functioning" (R=0.385, p= 0.000). "ToT" is similarly correlated with "Physical Functioning" (R=0.304, p=0.000), "Energy Fatigue" (R=0.381, p=0.000), "Emotional Well-Being" (R=0.378, p=0.000) and "Social Functioning" (R= 0.331, p= 0.000).

Correlations between burnout levels and social support

Upon examination, the "Emotional Exhaustion" subscale of the BO scale appears to be negatively correlated with the "Significant Others" (R = -0.329, p=0.000) scale. Similarly, an equal in magnitude correlation exists between the scale of "Depersonalization" and "Significant others" (R= -0.301, p=0.000). The "Personal Accomplishment" subscale of the BO scale, exhibits, as expected, quite the opposite behavior. It is positively correlated with "Significant others" (R=0.377, p= 0.000), "Family" (R=0.313, p=0.000), "Friends" (R=0.411, p=0.000).

Differences in the levels of burnout between nurses working in Mental and General Hospitals

The means of each subscale depicting Burnout levels have been compared using Student's t-test, between two groups: nurses working in general hospitals and nurses working in mental hospitals. It should be noted that, as depicted in the following table, the differences in the mean values of Bo effects were not considerably large.

Differences in the levels of burnout and quality of life between nurses of different gender, educational level and degree of responsibility

Burnout

Controlling for gender, mean differences in Burnout levels were small and T-test results were not found to be statistically significant (p values range from 0.966 to 0.199). Similarly, no conclusion could be drawn when controlling for the amount of responsibility that was linked with each participants work post, except for the "Depersonalization" sub-scale (t= -2.249, p=0.026) with nurses who did not hold a position of responsibility having a larger score on the sub-scale (13.63 versus 9.74).

Table 2. Comparison of burnout levels between Psychiatrics and General Hospital.

	Type of Hospital	N	Mean	Std. Deviation	Std. Error Mean
Emotional Exhaustion	Mental/Psychiatric	62	17.8871	9.22595	1.17170
	General	72	18.7222	9.38117	1.10558
Depersonalization	Mental/Psychiatric	62	12.7903	9.57479	1.21600
	General	74	12.7027	7.71714	0.89710
Personal Accomplishment	Mental/Psychiatric	62	32.0161	8.95250	1.13697
	General	76	32.2895	10.31480	1.18319

As a study of the two groups' data, Levene's test for equality of variances was carried out in order to determine if one of the required conditions for us to be confident of the t-tests' results, is violated. The p-values obtained through this preliminary testing procedure proved to be too high by any alpha level (p=0.053–0.857). Thus, the assumption of homoscedasticity is not violated for these two groups. Moving on to the t-test results, the significance levels of all the t-tests conducted for the mean score of BO subscales between the two groups were not even remotely close to an alpha level of 0.1. Most notably, the p-value for the score of "Depersonalization" subscale was equal to 0.953 (95.3%) and the one for "Personal Accomplishment" is equal to 0.87 (87%). In conclusion, no assumption that workers in Psychiatric hospitals suffer from higher levels of burnout, compared to General Hospitals, can be supported by statistical evidence, at least not within the scope of this research.

Differences in the levels of Burnout and Quality of Life between nurses of different gender, educational level and degree of responsibility

Finally, the significance levels of the one-way ANOVA analysis were not adequately low (p<0.263) to allow for a solid conclusion to be inferred, regarding the assumption of mean Burnout levels being different between groups of nurses with varying educational backgrounds.

Quality of life

Once more, the mean v alues of the QOL

scores of the men and women who participated in this study, did not come out as being categorically different based on the statistical evidence available (p-values for values for all QOL subscales range from 0.79 up to 0.96). Controlling for the amount of responsibility associated with each group's tasks, no significant differences between QOL means were observed. Finally, the same behavior is observed when controlling for educational level, and no conclusions can be drawn.

DISCUSSION

The aim of the present study was to examine the association of social support with burnout and QOL. The results came to prove the two of the three original assumptions. Although there were not any correlations between burnout, age, gender and working facilities, there is strong evidence proving that increased levels of burnout have negative effects in quality of life in nursing professionals.

The concept of burnout has been under investigation frequently especially from the social sciences who are dealing with the structure society; moreover, experts in administration and organization came fully aware of the importance of the syndrome and the effects which has to the individual, the economy and general production as well. Through years, burnout syndrome has been in the center of research among health care professionals due to the impacts that have on their lives. Various factors seem to be related to burnout such as gender, educational level, age and years of work. It is necessary to point out that nurses often have to care patients with severe health problems or with emotional specific requirements all this add up with the excessive workload and the stress of death may increase the occurrence of burnout [1]. In a research conducted by Dovenas and associates in 2011 among nursing personnel in Greece had indicated the above factors to be related to burnout [33]. The same demographic factors had been indicated and in other research in Greece in 2007 [34]. The results of our research are compatible as the above and demonstrated that specific demographic factors such age and years of work are increasing the levels of burnout in nursing personnel in the other hand those who are employed on administrative duties are indicating lower levels of Depersonalization. In our research gender seem to not influence the levels of burnout despite the fact that it does in others [35]. Years of working in nursing profession is one common factor in many researches. [7,31,33-35]. One of the main finding of this study that came to break the stereotypes that have been created through years on research of burnout in nursing personnel in the fact that there are no differences of the levels in all of MBI between nurses that are working in psychiatric facilities and nurses working in general hospital fact that comes in contrast with various researches few of them mentioned above [10,31].

Research over the years indicated that burnout can create feelings of anger, awkwardness, fear and hopelessness in nurses, especially when the solutions to the problems of patients are not always visible, predictable and easy, so that the situation becomes more complicated, frustrating. According to Firth-Cozens et al 1999, one-third of nurses around the world have symptoms of burnout even in the early stages of their career. Thus, the risk of developing serious mental disorders in this occupational group is very high. In addition, nurses and psychiatrists seem to have the highest suicide rates.(1,7) It is clear that the effects that burnout syndrome can have in mental health, and health in general are enormous. Moreover, results of these study that are indicating high levels of burnout can be decreasing the levels in many of the subscales of health-related QoL. Suñer-Soler et al in Spain in their research compared the level's burnout, quality of life and mental health among nursing and healthcare personnel and had the same associations between the levels of burnout and QoL [31]. In many research that are relating burnout to QoL, the subscale of general health seem to have the most frequent influence of burnout in its negative related to our research as long with another research. For sure, burnout, stress and specially work-related stress had negative influence to many of the subscales of QoL [31,34,36]. In contrast with other studies in our sample working department such as psychiatric does not seem to differentiate levels of quality of life [10,31]. In addition in our research gender and marital status does not seem to differentiate quality of life as well. According to our results, men seem to have higher scores on the energy fatigue subscale of the SF – 36. A fact that contradicts findings from similar research in nursing personnel [34].

Numerous studies have demonstrated that having a network of supportive relationships contributes to psychological well-being. A social support network can give a Sense of belonging and ward off loneliness. Increased sense of self-worth and can offer a feeling of security. Your social network gives you access to information, advice, guidance and other types of assistance should you need them. It's comforting to know that you have people you can turn to in a time of need [20,21]. Furthermore, many finding of this research this research about the contribution of social support is consistent with the results of other researches on the same topic. More specific as other researchers before [19,20], demonstrated the benefits that perceived social support can have so in our finding SS seem to reduce levels of burnout. Forms of support that coming from significant others in our research seem to have a significant contribution on

reducing all levels of MBI in contrast previous studies regarding social support indicated that marital status, and parenting is increasing work and home-related stress and burnout levels [37]. The difficulties of the profession as well as the positive results that social environment has on nursing personnel been known and studied. Results of our research that are indicating the beneficial effects of social environment in reducing emotional exhaustion and depersonalization levels in nurses are similar to Jenkins and Elliott's findings back in the 2004 [38]. Our results are similar to other researchers about the positive results that social support can have in promoting mental health [20] and health in general [32].

CONCLUSIONS

Burnout is related to the work environment, but its effects extend into the personal lives of nursing professionals. The physical, psychological, and interpersonal/social effects of stress and burnout among nursing professionals can vary from those felt in the general workforce. Professional consequences of burnout among nurses have serious implications not only for the health and well-being of nurses but also for the health and safety of patients. Therefore a well supportive social network can effect positively in the work life of nurses and those positive effects can expand to health and quality of life in general. A commonly used question among health care personnel is who's taking care of the care provider in other words when it comes to nurses who is looking after them while they looking after everybody. Studies such us can contribute in the development of health care services and health professionals' management. Quality of life and social support may play an important role and could therefore be identified as a new area for psychological intervention among nurses.

Limitations of the research

Limitations of the research should be noted to put the findings into a broader context. The sample of nurses in this study was small (n=139). It was impossible to determine the representativeness of those nurses that participated. All data were collected using self-report questionnaires raising the possibility of response set tendencies. The data were collected at one point in time making it difficult to determine causality. In this point, we have to mention that Greece's county and Greek citizens are under stressful situation regarding the financial status of the country fact that may contribute in a negative way in burnout syndrome as well as the quality of life of nursing professionals.

Future research directions

Future research needs to involve a larger and representative sample of nurses drawn from several different hospitals. And including except MBI, MSPSS and QoL SF-36 and other instruments measuring job satisfaction, work outcomes in an effort to understand better the causes of burnout and evaluate the workplace interventions in an ultimate target of reducing levels of burnout, promote health in health providers in order to gain better work outcomes and patients satisfaction.

Conflicts of interest

None to declare.

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