

Burnout in the intensive care units in Western Greece

M. LAGADINO¹, A. NOTI², M. ADAMOPOULOU², M. MARANGOS¹, D. GKENTZI³

¹Department of Internal Medicine, University General Hospital of Patras, Patras, Greece

²Department of Nursing, University of Patras, Patras, Greece

³Department of Paediatrics, University General Hospital of Patras, Patras, Greece

Maria Lagadinou and Aggeliki Noti are co-authors

Abstract. – OBJECTIVE: Prevention of burnout is a national imperative, and blame-free investigations of clinical events are advocated. Reflective inquiry techniques are helpful in processing adverse events while minimizing blame. The purpose of the present study was to investigate the factors inducing occupational exhaustion, staff perceptions through their interdisciplinary collaboration and communication, as well as the possibility of any conflicts in the Intensive Care Units of Western Greece. Moreover, we also aimed at developing an inter-professional peer-review program to process emotions and improve teamwork, which will also lead to the improvement of the care provided to patients.

PATIENTS AND METHODS: Healthcare workers of four Intensive Care Units from three (3) Hospitals in Western Greece participated in the present study. Our manuscript included all items according to STROBE statement.

RESULTS: We found a moderate to high choice in the collaboration scale and showed that one of the major reasons for conflict was the lack of mutual understanding between coworkers. It was also shown that all participants were characterized by moderate to high levels of occupational exhaustion.

CONCLUSIONS: Effective relationships to establish constructive communication, require the development of skills aiming at building mutual understanding. Possible proposals for future directions in this area of research are discussed. Aiming at improving clinical practice it would be helpful the design of staff support services for better management of exhaustion.

Key Words:

Intensive care unit, Communication, Conflicts, Cooperation, Burnout.

Maslach et al² described burnout as three distinct aspects: emotional exhaustion, depersonalization, and lack of personal and professional fulfillment. Burnout has been identified in a variety of human-centered occupations, including healthcare workers². To build a “sturdy” health system, it is important to address the exhaustion of healthcare workers which can affect their well-being and the quality of healthcare services provided^{3,4}.

Workload and time pressure have been cited as the main causes of exhaustion, contributing to emotional exhaustion too⁵. Patient-related stress and work-related behaviors have also been identified as factors associated with exhaustion⁶.

Especially for intensive care units, their composition is unique in the area of health services provided. For healthcare professionals, working in the intensive care unit (ICU), differences in work requirements, overload of responsibilities, end-of-life issues and interpersonal conflicts are extremely stressful⁷. For that reason, healthcare workers are particularly susceptible to burnout⁸, something that has been observed at a high rate in our department⁷.

The aim of the present study was to investigate the factors inducing occupational exhaustion, staff perceptions through their interdisciplinary collaboration and communication, as well as the possibility of any conflicts in the Intensive Care Units of Western Greece. Moreover, this project aimed to assist in the development an inter-professional peer-review program to process emotions, improve teamwork and patients’ outcome.

Patients and Methods

This study was conducted between July and September 2019 in the three (3) main hospitals in Western Greece: Adult Intensive Care Unit of University General Hospital of Patras (PGNP-1)

Introduction

Burnout was first described in 1974 by Freudenberg¹, thus inspiring the investigation of the characteristics and prevalence of this phenomenon.

and Pediatric Intensive Care Unit of University General Hospital of Patras (PGNP-2), General Hospital of Patras (GNP) "Agios Andreas" and General Hospital of Pyrgos "Andreas Papandreou" (GHP). The study was approved by each Institutional Ethics Committee of the above-mentioned hospitals.

This study was carried out using a written questionnaire. A total of 100 questionnaires were distributed and 67 were completed and returned by the ICUs staff. Participants were randomly selected. The research was carried out anonymously. The questionnaire was designed based on results of already published studies. It consisted of 25 multiple-choice questions and divided in four parts: the first part consisted of questions related to demographic characteristics of the participants (e.g., gender, age, marital status, level of education, duration of working in ICU, number of nurses per patient), the second part consisted of questions referring to the cooperation-communication of the employees in ICU, the third one was investigating conflicts between employees, while the last part consisted of questions which were related to the burnout of employees in ICU (e.g., do you feel exhausted from your job or have you found a state of burnout).

Statistical analysis of data was performed using the SPSS-25 statistical software (IBS Corp., Armonk, NY, USA). The minimum value of the level of statistical significance (*p*-value) was set at 0.05. Descriptive statistics were used to define variables.

Results

Eighty-six-point six percent (86.6%) of doctors and nurses working in the ICU, answered that they have a satisfactory cooperation. Their total satisfaction regarding cooperation was 46.3%. The feeling of trust between nurses and doctors was reported in 53.7% of cases, while in 15.9% of cases reported bad relationships.

The major role of nurses as a part of the working team was recognized in 52.2% of cases. Nurses' opinion regarding patients' therapeutic approach was taken into account by the medical staff in a proportion of 53.7%. In a high proportion (92.5%), patients' treatment depends on the good cooperation between doctors and nurses. Communication between doctors and nurses regarding therapeutic protocols was also overall high (80.6%). Moreover, 73.1% of respondents agreed

that doctors get informed about the patient's daily condition by the nursing staff. Almost half of the participants (49.3%) answered that mutual respect exists between doctors and nurses.

Good cooperation with superiors was reported at a rate of 97.02%. The belief that in any difficult situation there will be protection and support between colleagues was reported at a rate of 85.1%. Thus, 82.1% of relationships outside the work environment have been formed between the employees in the ICU and the communication with the ICU staff is ranged from good to excellent in 98.1%.

Employees estimate that their work was positively or negatively recognized at a rate of 46.3% and 53.7% respectively. They, themselves estimate that 68.6% do not behave impersonally to their colleagues. Fifty-point seven percent (50.7%) of healthcare workers believe that they have to work harder to cover the incompetence of their colleagues. Surprisingly, 67.2% answered that there are too many conflicts at work. All results are presented in Table I.

Discussion

The Intensive Care Unit (ICU) where healthcare professionals collaborate to treat severe ill patients functions as an independent department, with specialized medical staff and advanced types of equipment. Healthcare professionals know that interdisciplinary collaboration is vital for both themselves and patients⁹. It seems that in the ICUs in Western Greece, where the research was conducted, there are lower rates of burnout compared to the corresponding surveys conducted in other countries.

Occupational exhaustion has serious socio-economic effects. A significant number of employees are reported to be resigning early due to wear and tear. Burnout is more common in doctors than in nurses where rates are less than a half. The prevalence of health care workers' exhaustion is among the highest of the professions researched⁸ (occupational physicians 11%, psychiatrists 9%, general practitioners 8%, community nurses 8%, and midwives 7%)⁵.

An increasing number of doctors are experiencing burnout, with disappointing results. They lose enthusiasm for their work, develop fatigue and depression. This may lead to more frequent medical errors, early retirement, or a career change¹⁰. Forty-one-point seven percent (41.7%) of hospital

Table I. Summarized results. PGNP-1: Intensive Care Unit (ICU) of University General Hospital of Patras, PGNP-2: Pediatric Intensive Care Unit of University General Hospital of Patras, GNP: ICU of General Hospital of Patras "Agios Andreas" and GHP: ICU of General Hospital of Pyrgos "Andreas Papandreou".

| | PGNP-1 | PGNP-2 | GNP | GHP |
|--|--------|--------|-----|-------|
| Gender | | | | |
| Male | 33% | 14% | 28% | 20% |
| Female | 67% | 86% | 72% | 80% |
| Age of participants | | | | |
| 31-45 | 73% | 64% | 80% | 67% |
| 46-60 | 27% | 36% | | 22% |
| > 61 | | | | 11% |
| Marital status | | | | |
| Married | 70% | 86% | 40% | 83% |
| Unmarried | 7% | 14% | 40% | 11% |
| Divorced | 23% | | 20% | 6% |
| Specialty | | | | |
| Doctor | 13% | 14% | 20% | 33% |
| Nurse | 87% | 86% | 80% | 67% |
| Educational Level | | | | |
| Diploma | 67% | 43% | | 78% |
| Master | 23% | 57% | | 17% |
| PhD | 10% | | | 5% |
| Work Experience in ICU | | | | |
| < 1 year | | 7% | 20% | |
| 1-5 years | 30% | 7% | 20% | 22% |
| 6-10 years | 23% | 29% | 40% | 22% |
| 10-15 years | 20% | 30% | 20% | 28% |
| > 15 years | 27% | 7% | | 28% |
| Work Experience outside the ICU | | | | |
| < 1 year | 20% | 22% | 20% | 28% |
| 1-5 years | 33% | 43% | 40% | 56% |
| 6-10 years | 17% | 14% | | 11% |
| 10-15 years | 17% | 6% | | 0.00% |
| > 15 years | 13% | 15% | 40% | 5% |
| Nurses per Patients Ratio | | | | |
| 1 | | | | 33% |
| 1/2 | 53% | 14% | 20% | 33% |

doctors suffers from burnout, which is directly related to medical errors, poor performance and unhealthy habits. Surprisingly, the burnout rates are very high in the specialized doctors (49.1%).

The burnout is due either to the difficult working conditions (insufficient psychological condition, incorrect division of labor, insufficient staff, lack of autonomy, etc.) or due to the nature of the work (daily contact with human suffering and death, increased responsibilities, etc.). The emotional burdens that the workers find from time to time and consequently the work stress itself are aggravated by the economic crisis that has characterized the country in recent years. Global research has shown a strong correlation between the financial crisis and work stress¹¹⁻¹⁴.

Even more, in the Intensive Care Unit, there may be conflicts between staff. The most common disagreements usually arise between medi-

cal and nursing staff and the majority of cases are related to the type of treatment followed, as the common goal of treatment by doctors and nurses is not often achieved. In addition, disagreements may arise when the patient's treatment regimen changes (each time the attending physician changes) and the appropriate nurse is not informed of these changes¹⁵.

Respect usually is necessary to achieve successful communication and teamwork. Communication improves clinical outcomes and helps reduce costs in human and material resources. In the ICU, the effective cooperation with the common goal of the effectiveness of the treatment is ensured through effective communication. High-quality care is ensured by good communication. Lack of patience, negative answers to questions or repeated invitations from nurses, negative criticism, and negative malicious com-

ments are behaviors that indicate a lack of respect between doctors and nurses, causing stress and conflicts in the workplace.

The present study has two strong limitations. First the study period was short. As result, few patients were ultimately enrolled, leading to diminished statistical power. This research is planned to be extended to a much larger sample of participants and several ICUs. For this purpose, the questionnaire is developed in a web-based format, however, ensuring the same terms of participation.

Conclusions

We found overall moderate to high levels of occupational exhaustion. Effective relationships to establish constructive communication, require the development of skills aiming to build mutual understanding.

Conflict of Interests

The authors declare that they have no conflict of interest.

Funding

No funding was received for this work

Acknowledgments

The research team would like to thank all the students for their participation on the study as well as the faculty and the department of the University of Applied Science of Western Greece.

References

- 1) Freudenberger HJ. Staff burn-out. *Journal of Social Issues* 1974; 30: 159-165.
- 2) Maslach C, Jackson SE. The measurement of experienced burnout. *Journal of Occup Behav* 1981; 2: 99-113.
- 3) Reader TW, Cuthbertson BH, Decruyenaere J. Burnout in the ICU: potential consequences for staff and patient well-being. *Intensive Care Med* 2018; 34: 4-6.
- 4) Laschinger HKS, Leiter MP. The impact of nursing work environments on patient safety outcomes: the mediating role of burnout engagement. *J Nurs Adm* 2006; 36: 259-267.
- 5) Schaufeli WB. Burnout in health care. *Handbook of Human Factors and Ergonomics in Health Care and Patient Safety* Rockville (MD): Agency for Healthcare Research and Quality (US) 2007; 217-232.
- 6) Tunc T, Kutunis RO. Role conflict, role ambiguity, and burnout in nurses and physicians at a university hospital in Turkey. *Nors Health Sci* 2009; 11: 410-416.
- 7) Guntupalli KK, Fromm Jr RE. Burnout in the internist-intensivist. *Intensive Care Med* 1996; 22: 625-630.
- 8) Embriaco N, Papazian L, Kentish-Barnes N, Pochard F, Azoulay E. Burnout syndrome among critical care healthcare workers. *Curr Opin Crit Care* 2007; 13: 482-488.
- 9) Ervin JN, Kahn JM, Cohen TR, Weingart LR. Teamwork in the Intensive Care Unit. *Am Psychol* 2018; 73: 468-477.
- 10) Patel RS, Bachu R, Adikey A, Malik M, Shah M. Factors Related to Physician Burnout and Its Consequences: A Review. *Behav Sci* 2018; 8: 98.
- 11) Bakker AB, Le Blanc PM, Schaufeli WB. Burnout contagion among intensive care nurses. *J Adv Nur* 2005; 51: 276-287.
- 12) Casanova J, Day K, Dorpat D, Hendricks B, Theis L, Wiesman S. Nurse-physician work relations and role expectations. *J Nurs Adm* 2007; 37: 68-70.
- 13) Demerouti E, Bakker AB, Nachreiner F, Schaufeli WB. A model of burnout and life satisfaction among nurses. *J Adv Nurs* 2000; 32: 454-464.
- 14) Meltzer LS, Huckabay LM. Critical care nurses' perceptions of futile care and its effect on burnout. *Am J Crit Care* 2004; 13: 202-208.
- 15) Molina-Mula J, Gallo-Estrada J. Impact of Nurse-Patient Relationship on Quality of Care and Patient Autonomy in Decision-Making. *Int J Environ Res Public Health* 2020; 17: 835.