

Original Research Paper

**GREEK HEALTH PROFESSIONALS' VIEWS ON QUALITY AND SAFETY.** 

| Dreliozi A         | 2 <sup>nd</sup> Regional Health Authority of Piraeus and Aegean Islands, Athens, Greece General hospital of Lamia  |
|--------------------|--|
| Siskou O           | Center for Health Services Management and Evaluation, National and Kapodistrian National)University of Athens, Athens, Greece  |
| Platis Ch          | Centre for Public Administration and Local Government (EKDDA   |
| Tzavela F          | Laboratory of Integrated Health Care, Nursing Department, University of Peloponnese, Sparta, Greece.   |
| Bouchoris P        | IASO GROUP, ATHENS, Greece   |
| Galanis P          | Center for Health Services Management and Evaluation, National and Kapodistrian National)University of Athens, Athens, Greece  |
| Kaitelidou D       | Center for Health Services Management and Evaluation, National and Kapodistrian National)University of Athens, Athens, Greece  |
| Moisoglou I        | General hospital of Lamia  |
| Prezerakos P       | Laboratory of Integrated Health Care, Nursing Department, University of Peloponnese, Sparta, Greece.   |
| Angeliki Dreliozi* | MScN, MScHSM, PhD, 2 <sup>nd</sup> Regional Health Authority of Piraeus and Aegean islands,<br>Athens, Greece, University of Peloponnese, 10 Kerkiras St., 13122. *Corresponding<br>Author |

ABSTRACT The aim of this study was to explore the prevailing organizational climate-in terms of clinical governance factors "Climate of blame and Punishment" and "A planned and integrated QI program and proactive risk management" in Greek hospitals and to compare nurses' perceptions with those of the rest health professionals on the particular factors. It was a cross-sectional study, including a representative sample of all specialties of employees working in a public and a private Greek hospital. The results for the factors "Climate of blame and Punishment" and "A planned and integrated QI program and proactive risk management" demonstrated a slightly positive trend in the total population. Nurses, appear to perceive more negatively the climate related to protected time for Quality Improvement initiatives, systematic assessment of clinical risks, sharing of a common vision, dissemination of Risk prevention policies, proactive risk management, systematic evaluation of Human Resources development needs, equal employee's valuation regardless of professional background. Conclusion: The assessment of climate produces conclusions, if exploited properly, can mark the beginning and support the effort of continuous improvement of patient safety.

KEYWORDS : quality, organizational climate, safety culture.

# Introduction

The last decades, public services gradually are getting aligned with the "new philosophy of public management", which focuses on improving efficiency, customer satisfaction and more effective management in general. Towards this direction, the interest in the role of intangible resources as driving forces for the excellent performance of organizations has been renewed. Health systems often undergo structural changes which do not always bring the desired results in improving quality and efficiency. The diagnosis and transformation of the prevailing culture alongside the engagement of the desired changes is considered as the remedy to the problem of unsuccessful changes. Organizational climate is an alternative to organizational culture term, a quantified aspect of the organizational culture and it is also considered as a prognostic factor for the excellent performance of organizations (lvancevich, Konopaske & Matteson, 2011). Clinical Governance (CG) is a systematic approach ensuring and improving quality and safety in health services. Quality and risk management are essential components of clinical governance and form the basis of healthcare quality management activity.

Quality improvement (QI) and risk management are not considered as separate functions in healthcare organizations rather, they are "rallying together behind patient safety" (ECRI, 2009) in order to reduce the risk and ensure safe and of high quality health care.

# The aim

of the study is to explore the prevailing organizational climate -in terms of clinical governance factors "Climate of blame and Punishment" and "A planned and integrated QI program and proactive risk management" in Greek hospitals and to compare nurses' perceptions with those of the rest health professionals on the particular factors.

### Materials and Methods

Sampling-Data collection

The study population was employees in Nursing, Medical, Administrative and Technical Services of a public and a private hospital in Attica with similar production function.

Proportionate stratified sampling method was used to draw a sample of 459 health professionals ( $N_n$ =261 nurses and  $N_{oth prof}$ =198 other professionals). The questionnaire was administered personally by the principal investigator through liaison people of the study in each hospital. 635 questionnaires were distributed (415 offprints to the public and 220 to the private hospital). Of those

VOLUME-7, ISSUE-5, MAY-2018 • PRINT ISSN No 2277 - 8160

questionnaires, 459 fully completed, were returned. Response rate was 72% (70% for the private, 73% for the public).

The questionnaire was accompanied by a description of the purpose of research and additional clarifications in some cases were provided. The completed questionnaires were collected on a weekly basis. The collection of survey data held within a period of four months (May to August 2012).

### Measures

For the purpose of the study Clinical Governance Climate Questionnaire (Clinical Governance Climate Questionnaire, CGCQ) was used. CGCQ was developed by Freeman (2003) specifically to explore the connection between organizational culture, climate and performance in clinical governance. Permission was granted by the author to use the tool in our research.

The CGCQ consists of 60 items, which are grouped into six dimensions of clinical governance: i) planned and integrated quality improvement, ii) pro-active risk management, iii) absence of unjust blame and punishment, iv) positive working relationships with colleagues, v) training and Continuing Education and Development Opportunities and vi) organizational learning. The answers to the questionnaire's statements were scored by the participants in a five-point - Likert scale. A lower score signifies greater satisfaction in a particular concept reflecting ideal clinical governance climate. Some of the statements are negatively stated.

# **Reliability and validity**

The CGCQ was translated and adapted in to Greek culture by a health professional with excellent knowledge of the English language. Reverse translation of the questionnaire from the Greek into English was conducted by an independent health professional with excellent knowledge of the English language. Since the translated from Greek to English questionnaire was not far from the original, the questionnaire was considered ready to be distributed to participants. In order to assess face validity the questionnaire was administered to a convenience sample of health professionals (N=18). After completing the questionnaire, the principal investigator conducted personal interviews with the respondents who were encouraged to make comments about clarity or difficulties in completion. The few comments made were embedded in the final version of the questionnaire. A pilot study was conducted (N=40) in order to measure the questionnaires' reliability and face validity. Reliability was measured by the coefficient Cronbach's alpha, which was equal to 8.69.

The assessment of the internal consistency of the questionnaire was performed by calculating the Cronbach's alpha coefficient with acceptable values over 0.6. The Cronbach's alpha coefficient for the factors "a planned and integrated QI program and proactive risk management" and "climate of blame and punishment" was 0.92 and 0.74 respectively which indicates high and acceptable level of internal consistency.

# **Data Analysis**

This study is quantitative cross-sectional study.

The analysis of the participants' responses initially was carried out using descriptive statistics. The degree of participants' agreement with each statement under the factors «a planned and integrated QI program and proactive risk management» and "climate of blame and punishment" presented as mean (standard deviation), minimum value and maximum value. The lowest mean price reflects more supportive climate.

In order to identify the main factors (distinct groups consisting of questions related to each other), which influences the climate of clinical governance in the hospitals under study, Factor Analysis (FA) was conducted. Varimax rotation was applied and the loadings of the questionnaire data were> 0.30 considered as acceptable, as well as the eigenvalues of the scales which was> 1.

In order to investigate the presence of relation between the factors "a planned and integrated QI program and proactive risk management" and "climate of blame and punishment" (dependent variable) with each of the demographic and job characteristics of participants (independent variables) bivariate analyses were performed.

Furthermore, a multivariate linear regression was carried out including in the model, many of the independent variables found in the bivariate analyses that correlated significantly with the dependent variable, the factors "a planned and integrated QI program and proactive risk management" and "climate of blame and punishment"

The two-tailed significance level was set equal to 0.05. Data analysis was performed with the SPSS 19.0 (Statistical Package for Social Sciences).

## Results

The average age of employees was approximately 40 years (SD: 8.9) and the average number of years of employment was 13 years (SD: 8.4). Two thirds of the study population was working in a public hospital. Women predominated and exceeded 60% of the studied population, the proportion of university and college graduates were about 80% and about 24% of them had completed postgraduate studies. Employees in Nursing Services exceeded the 55% of the study population. The majority of participants, about 85% were employees and 15% were managers and 92% of them had permanent or long term working relationship with the organization. The overall mean of employees' answers tended to the negative side (Av.M.: 2,98) which means ambiguity to slightly negative attitude. Almost all the items of the questionnaire were scored lower by private hospital's employees. Factor analysis revealed three factors. While factors "Climate of blame and Punishment" (mean: 2.28, SD:1.09) and "A planned and integrated QI programme and proactive risk management" (mean: 2.73, SD: 1.21), demonstrated a slightly more positive trend the factor "Training and development opportunities" showed a slightly negative trend (Mean: 3,30, SD: 1.23).

Employee's responses regarding the factors "Climate of blame and Punishment" and "A planned and integrated QI programme and proactive risk management"

In Table 1 the responses of participants regarding the degree of their agreement on the factors "Climate of blame and Punishment" and "A planned and integrated QI programme and proactive risk management" of clinical governance climate in their workplace are reported. Specifically, Table 1 presents the means for nurses' key responses (P value<0.1) with the means for the rest health professionals' (medical, administrative, technical) responses. The item with the smallest mean reflects a more supportive climate. All issues related to the above items are received more positively by nurses in comparison to the rest health professionals.

### **Correlation analysis**

Correlation analysis revealed statistically significant relationships (p<0.001) between gender, age, hospital, educational level, years of employment, the post held and the type of employment for the factor "A planned and integrated QI programme and proactive risk management". Statistically significant relationships (p<0.001) were also found between the factor "Climate of blame and Punishment" and gender, hospital's legal personality, the post held and the type of employment. In particular, it seemed that men compared to women and Private hospital's compared to Public hospital's employees showed lower average prices which reflect a more positive attitude towards the three factors. Also, University graduates and Medical Doctors –for the first factor- showed lower average prices which reflect as the three factors.

## VOLUME-7, ISSUE-5, MAY-2018 • PRINT ISSN No 2277 - 8160

#### Multivariate analysis

Multivariate analysis showed that men had a higher mean score of 0.34 points in the factor "Climate of blame and Punishment" compared to women (p <0,001), while women had a higher mean score of 0.24 and 0.29 and points to the factors "A planned and integrated QI programme and proactive risk management" and "Training and development opportunities" respectively (p <0,001). Public hospital's employees had higher mean scores by (0.27 to 0.77 ) units in all three factors in relation to in a Private hospital's employees (p <0,001). Finally, the reduction of the age and the increase in working experience were associated with increases of the score of all factors (p <0,001). In Table 1 the responses of participants regarding the degree of their agreement on the factors "Climate of blame and Punishment" and "A planned and integrated QI programme and proactive risk management" of clinical governance climate in their workplace are reported. Specifically, Table 1 compares the means for nurses' key responses (P value<0.1) with the means for the rest health professionals' (medical, administrative, technical) responses on the factors: "Climate of blame and Punishment" and "A planned and integrated QI program and proactive risk management" of clinical governance climate in their workplace. The item with the smallest mean reflects a more supportive climate.

## Table 1.

Comparison of the means for nurses' key responses (P value<0.1) with the means for the rest health professionals' (Medical, Administrative, Technical) responses on the factors: "Climate of blame and Punishment" and "A planned and integrated QI program and proactive risk management" of clinical governance climate in their workplace.

|   |                        |      |       | Std.  | Р              |  |  |  |  |  |
|---|------------------------|------|-------|-------|----------------|--|--|--|--|--|
| Issue   | Service                |      | Mean  | Devi  | value          |  |  |  |  |  |
|   |                        | Ν    | *     | ation |                |  |  |  |  |  |
| FACTOR: A PLANNED   | and INTEGRAT           | ED Q | I PRO | GRAM  | and            |  |  |  |  |  |
| PROACTIVE RISK MANAGEMENT   |                        |      |       |       |                |  |  |  |  |  |
| We have protected time  | Nursing                | 261  | 2.72  | 1.24  | 0.018          |  |  |  |  |  |
| for quality improvement<br>activity                                 | Med./Admin./<br>Techn. | 198  | 3.00  |       |                |  |  |  |  |  |
|   | Total                  | 459  |       |       | 0.001          |  |  |  |  |  |
| Clinical risks are  | Nursing                | 261  | 2.42  | 1.17  |                |  |  |  |  |  |
| examined systematically   | Med./Admin./<br>Techn. | 198  | 2.79  |       |                |  |  |  |  |  |
|   | Total                  | 459  |       |       | 0.001          |  |  |  |  |  |
| We systematically assess  | Nursing                | 261  | 2.59  | 1.23  |                |  |  |  |  |  |
| clinical risks  | Med./Admin./<br>Techn. | 198  | 2.96  |       |                |  |  |  |  |  |
|   | Total                  | 459  |       |       | 0.011          |  |  |  |  |  |
| People share a common   | Nursing                | 261  | 2.66  | 1.19  |                |  |  |  |  |  |
| vision of service delivery  | Med./Admin./<br>Techn. | 198  | 2.94  |       |                |  |  |  |  |  |
|   | Total                  | 459  |       |       | 0.022          |  |  |  |  |  |
| We don't address the accidents waiting to                           | Nursing                | 261  | 2.23  | 1.17  | 0.022<br>0.001 |  |  |  |  |  |
| happen  | Med./Admin./<br>Techn. | 198  | 2.49  |       |                |  |  |  |  |  |
|   | Total                  | 459  |       |       |                |  |  |  |  |  |
| Clinical risk policies are<br>shared throughout the<br>organisation | Nursing                | 261  | 2.46  | 1.05  |                |  |  |  |  |  |
|   | Med./Admin./<br>Techn. | 198  | 2.79  |       |                |  |  |  |  |  |
| <br> <br> <br>  | Total                  | 459  |       |       | 0.042          |  |  |  |  |  |
| Clinical risk information   | Nursing                | 261  | 2.42  | 1.13  |                |  |  |  |  |  |
| is used routinely to<br>inform decisions                            | Med./Admin./<br>Techn. | 198  | 2.63  |       |                |  |  |  |  |  |
| ;<br>;<br>;<br>;  | Total                  | 459  |       |       | 0.000          |  |  |  |  |  |

| Development needs are                   | Nursing      | 261 | 2.73 | 1.21 |       |  |  |  |
|---|--------------|-----|------|------|-------|--|--|--|
| regularly assessed                      | Med./Admin./ | 198 | 3.20 |      |       |  |  |  |
|   | Techn.       | ļ   |      |      |       |  |  |  |
|   | Total        | 459 |      |      | 0.016 |  |  |  |
| Everyone has the same                   | Nursing      | 261 | 2.82 | 1.40 |       |  |  |  |
| standing, regardless of                 | Med./Admin./ | 198 | 3.11 |      |       |  |  |  |
| professional background                 | Techn.       |     |      |      |       |  |  |  |
|   | Total        | 459 |      |      | 0.082 |  |  |  |
| People are motivated to                 | Nursing      | 261 | 2.96 | 1.41 |       |  |  |  |
| improve quality                         | Med./Admin./ | 198 | 3.18 |      |       |  |  |  |
|   | Techn.       |     |      |      |       |  |  |  |
|   | Total        | 459 |      |      |       |  |  |  |
| FACTOR: CLIMATE of BLAME and PUNISHMENT |              |     |      |      |       |  |  |  |
| Error reporting systems                 | Nursing      | 261 | 2.22 | 1.07 | 0.078 |  |  |  |
| are basically a stick to                | Med./Admin./ | 198 | 2.41 |      |       |  |  |  |
| beat clinicians with.                   | Techn.       |     |      |      |       |  |  |  |
|   | Total        | 459 |      |      |       |  |  |  |

\*The highest mean corresponds to a lower satisfaction in a particular concept

#### Discussion

The findings of our study reflect an ambivalent to slightly negative clinical governance climate in the hospitals under study. This is consistent to the finding of corresponding studies (Karassavidou, Glaveli & Zafiropoulos, 2011; Burca, Williams, Armstrong, 2008; Williams, Burca, O'Hara & Murphy, 2011; Gibson, 2013; Spurgeon, Barwell, Freeman, Mazelan, 2006). The climate in the studied hospitals was found to be not supportive to the second factor "A planned and integrated QI programme and proactive risk management". However, certain aspects of climate relating to proactive risk management are slightly positive, in contrast to the aspects of climate related to quality management and in particular those relating to the mobilization and equal treatment of workers in order to participate in quality improvement practices in health services. These findings are in accordance with the study of Karassavidou et al (2011).

In a similar study conducted in a hospital in Ireland (Burca et al., 2008) the participants' answers to the corresponding factor issues, expressed: a) stronger negative attitude with respect to the presence of design and implementation of a comprehensive framework of quality improvement (mean: 3.34) and b) similarly to the findings of this study slightly positive attitude to proactive risk management. The particular aspects, that can be seen as problematic issues at hospitals' climate, are related to: i) ensuring protected time for Quality Improvement initiatives, ii) systematic assessment of clinical risks, ii) sharing of a common vision, iii) dissemination of Risk prevention policies, iv) proactive risk management, v) systematic evaluation of Human Resources development needs, vi) equal employee's valuation regardless of professional background and vi) motivation for quality improvement initiatives. Those are important points at which managers of Greek hospitals should focus. The statistically significant relationships found between type of service and the factors of our study denote that nurses' perceptions on the above areas are slightly more positive compared to the other health professionals' perceptions.

Quality and safety of care is strongly influenced by the work environment in which nurses provide care to patients (Institute of Medicine, 2004) as they are the largest health care workforce, a significant part of the demands of patient care depend on the work of nurses. Taking in to account the complexity of the work environment and planning to improve it's impact is crucial to quality improvement and safer care. High-reliability organizations that have nurtured cultures of safety and invest on evidence-based practice ensure beneficial working conditions to nurses and are dedicated to improving the safety and quality of care (Hughes, 2008).

## Conclusion

Health professionals' perceptions of the existing organizational climate in terms of safety and quality depend on the legal personality of the hospital, gender, age and working experience of the workers. Health policy should strengthen planning for Quality and Risk management, by performing regular diagnostic assessments of organizational climate using focused, valid and reliable tools. These estimates will initially orient and regularly evaluate the implementation of specific strategies to improve quality of care. The views of health professionals are essential, as they are the main and direct factors of care provision. The assessment of climate brings to light conclusions which if exploited properly, can mark the beginning and support the effort of continuous improvement of patient safety.

#### References

- Burca, S., Williams, S., Armstrong, C. (2008) The Pursuit of Quality: A Clinical Directorate's Progress in Clinical Governance: A Case Study of the Women and Children's Directorate, GUH (HSE) Strategic Health Management Group, KBS, University of Limerick UL.
- Emergency Care Research Institute (2009). Risk Management, Quality Improvement, and Patient Safety. Risk and quality management strategies 4. vol. 2 July 2009. Retrieved from: https:// www.ecri.org/ Documents/ Secure/ Risk Quality Patient Safety.pdf
- Freeman, T., (2003) Measuring progress in clinical governance: assessing the reliability and validity of the Clinical Governance Climate Questionnaire, Health Services Management Research, vol. 16, pp. 234-250.
- Gibson, N. (2013) Clinical Governance Climate in WA Mental Health Services, Chief Psychiatrist's Review, Department of Health, Government of Western Australia.
- Hughes, R.G. (2008) Nurses at the "Sharp End" of Patient Care. In: Hughes, R.G., editor. Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Rockville (MD): Agency for Healthcare Research and Quality (US); Apr. Chapter 2.
- Institute of Medicine. (2004) Keeping patients safe: transforming the work environment of nurses. Washington, DC: National Academy Press.
- Ivancevich, J.M., Konopaske, R. & Matteson, M.T. (2011), Organizational behavior and management, 9th ed, McGraw-Hill Irwin, New York.
- Karassavidou, E., Glaveli, N., Zafiropoulos, K. (2011) "Assessing hospitals' readiness for clinical governance quality initiatives through organizational climate", Journal of Health Organization and Management, vol. 25, no. 2, 2011, pp.214-240.
- Williams, P., Burca S., O'Hara, S., & Murphy, C. (2011) Service Quality Improvement in a Clinical Directorate: leveraging opportunities for latitude in a multiplicity of constraints, perspectives, objectives under system reform, Report, University of Limerick (UL).
- Spurgeon, P., Barwell, F., Freeman, T, Mazelan, P. (2006) Improving Quality and Safety: Progress in implementing Clinical Governance in Primary Care Trusts. Health Services Management Centre Applied Research Ltd, University of Manchester, Final Report: November.