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Organizational culture among levels of health care services in Crete (Greece)

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1. Introduction

As a concept, organizational culture is multifaceted and it has been studied in fields ranging from social anthropology to industrial-organizational psychology (Schein, 2010) defined as the set of beliefs, values, behavioral patterns, and assumptions shared by members of an organization (Cooke & Rousseau, 1998; Jacobs & Roodt, 2008; Scott, Mannion, Huw, & Marshall, 2003).

Researchers in a variety of academic and professional disciplines have studied organizational culture and its possible impact on performance within organizations' services (Brian, Stanley, Armenakis, & Shook, 2009; Davies, Mannion, Jacobs, Powell, & Marshall, 2007; Freund & Drach-Zahavy, 2007; Xenikou & Simosi, 2006; Zheng, Baiyin, & McLean, 2010).

In health care, organizational culture has been found to play an important part in ensuring the provision of quality services in sectors including nursing, patient and staff safety, job satisfaction and staff turnover, and in the systematic improvement of management procedures (Boan & Funderburk, 2003; Seyda & Ulku, 2007; Jacobs & Roodt, 2008; Randsley de Moura, Dominic, Retter, Sigridur, & Kaori, 2009; Singer et al., 2009). Furthermore, relationships have also been demonstrated between financial performance and organizational culture (Pelletier, 2005; Sanders & Cooke, 2005).

However, establishing the precise relationship between organizational culture type, staff performance and achievement of organization aims was known to be a complex issue and difficult to establish (Marcoulides & Heck, 1993). In addition, it is reasonable to suggest that complex organizations might present multiple cultures, and the interdependent aspects of each subculture within a large organization might not favour planned changes (Cooke & Rousseau, 1998; Viitanen, Willi-Peltola, Tampsi-Jarvala, & Lehto, 2007; Xenikou & Simosi, 2006). This is most likely to happen in hospital settings, since the subdivision into different departments and wards provides a perfect setting for the development of multiple subcultures (Xenikou & Simosi, 2006). While some cultural attributes may be shared across different subgroups, others may not (Mannion et al., 2008).

Adopting Cooke & Rousseau's approach (Cooke & Rousseau, 1998), this paper examines an organizational culture as a set of specific behaviors, rules or norms (i.e. behavioral norms), which members believe they should adopt to survive and work within such organization. These behavioral patterns can be productive or not and can lead to behaviors and attitudes that determine how the members approach their work and interact with each other. The theoretical model argues that the operating cultures of organizations are not directly determined by their values (or ideal culture), nor are they directly influenced by their missions and philosophies. Rather, the norms and expectations that emerge are directly influenced by the organization's structures, and systems, as well as, by the skills of employees. Detailed analysis of the organizational culture within a specific organization or health care system is necessary in order to identify the dominant type of culture, its impact on objectives and performance, and to highlight possible improvements. Knowing the culture and associated behaviors allow us to assess the capacity, receptiveness and readiness for (cultural) change at an organization, or division, or at team level leading to changes in behavioral norms and the possibility of restructuring a health care service (Mannion et al., 2008).

The aim of the current study was to identify the organizational operating culture in total and within levels of health care organizations (HCO) in Crete as experienced by health care professionals, and compare this with the Ideal Culture (IC) as provided by Human Synergistics International (HSI, 2012). More specifically the objectives of the study were to delineate: i) the dominant culture that best describes Cretan HCO in total and by health care level; ii) the primary and secondary culture styles which best describe HCO in Crete in total and by health care level; iii) the difference between the current operating culture and IC as provided by Human Synergistic International.

2. Methods

2.1. Study design and setting

The current cross-sectional study was conducted in Crete (Greece) in 2008/9. Crete is located at the southern edge of the Aegean Sea

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with a population of 621,340 (Greek population census, 2011). The island has fourteen health centers (HC) (providing primary care), four general hospitals (GH) and one tertiary university hospital (UH), operating within the Greek National Health System (NHS), which is characterized as a mixed system of health care provision financed through salary based NHS providers, prepaid administered payments based on the social and private insurance funds and fee-for-service private practitioners. The total population was estimated to be 3609 health care employees (1420 physicians, 1670 nurses and 519 other healthcare professionals).

In order to achieve a representative sample of professionals regarding the health care coverage of urban and rural populations, the study was conducted at seven of the fourteen public Health Centers, which were randomly selected, four GH and one tertiary hospital (i.e., UH) on the island.

A multistage random sampling strata method was applied based on the professional status of each participant in the study (physicians, nurses and other health care professionals). Power analysis was conducted to estimate the sample size.

Ethical approval was obtained from the Research and Bioethics Committees of the University Hospital of Crete, Greece.

All participants provided written informed consent after complete description of the study. Two-hundred and fifty (250) anonymous questionnaires were distributed to health care services employees (doctors, nurses, allied health care professionals), while two hundred thirty one (231) were returned completed, resulting in a satisfactory response rate (92.4%). The self-completed questionnaire (i.e., the Organizational Culture Inventory® Greek Ed.) was administered in the workplace following their written consent.

2.2. Instrument and procedures

The Organizational Culture Inventory® (OCI®) (Cooke & Rousseau, 1998; Cooke & Szumal, 1993) is an integral component of Human Synergistics' multi-level diagnostic system for individual, group, and organizational development. The OCI® measures "what is expected" of members of an organization or, more technically, behavioral norms and expectations which may reflect the more abstract aspects of culture such as shared values and beliefs. The Organizational Culture Inventory® Greek Ed. (OCI®) (Cooke & Szumal, 1993) was used for the measurement of current operating organizational culture in the specific health care organizations. The OCI® is recognized as one of the most widely used and thoroughly researched organizational surveys in the world. It measures 12 types of culture styles (behavioral norms) which are organized into three general clusters (Constructive, Passive/Defensive and Aggressive/Defensive). The Constructive styles are highly effective and promote individual, group, and organizational performance. In contrast, the Aggressive/Defensive styles have an inconsistent and potentially negative impact on performance and the Passive/Defensive styles consistently detract from overall effectiveness (i.e., Author's Note: The Organizational Culture Inventory and all associated terms (Passive/Defensive, Aggressive/Defensive, Constructive culture) are trademarked by Human Synergistics International).

In the Constructive cluster, members are encouraged to interact with people and approach their tasks in ways that will help them to meet their higher-order satisfaction needs. The Constructive cluster includes the Achievement culture style, in which members are expected to set challenging but realistic goals; Self Actualizing style, in which members are expected to enjoy their work, develop themselves and take new and interesting activities; Humanistic style, in which members are expected to be supportive and constructive); and the Affiliative culture style, in which members of organizations are expected to be friendly, cooperative and sensitive to the satisfaction of their work group.

In a Passive/Defensive cluster, members believe they must interact with people in ways that will not threaten their own security. The Passive/Defensive cluster includes: the Approval culture style, in which members are expected to agree with and be liked by others; Conventional culture style, in which members are expected to follow the rules and make good impression, Dependent (members are expected to do what they are told and clear all decisions with superiors) and Avoidance culture style in which members are expected to shift responsibilities to others and avoid for being blamed for a mistake. In the Aggressive/Defensive cluster, members are expected to approach tasks in forceful ways to protect their status and security. It includes the Oppositional culture style, in which members are expected to be critical, oppose others ideas and undertake low risk decisions, Power culture style, in which members are expected to take charge and control subordinates, Competitive culture style (members are expected to compete and work against their colleagues) and the Perfectionist culture style, in which members are expected to avoid mistakes but also to work long hours engaged in narrowly defined objectives. All OCI® terminology, style names and descriptions have been described previously in detail.

The OCI® contains 120 items instructing respondents to rate: "To what extent are people expected or implicitly required to …" (for example "think ahead" or "plan"), with the response options on a Likert 5-scale rating (1 = not at all; 2 = to a slight extent; 3 = to a moderate extent; 4 = to a great extent; 5 = to a very great extent).

The OCI® instrument has been tested for reliability and validity and appears to be a dependable means of assessing the normative aspects of culture (HSI, 2012; Xenikou & Furnham, 1996). It has also been found to have satisfactory levels of internal consistency, as well as convergent and discriminant validity (Scott et al., 2003).The Greek modified version has also been found to have satisfactory internal consistency (Cronbach's α) of the 12 culture styles of OCI® ranging from 0.665 to 0.914 while the overall of OCI was $\alpha = 0.900$ (Rovithis, 2005).

Additionally, Human Synergistics International provides an IC and associated scores for comparison purposes. The IC is based on the responses of 560 individuals associated with various organizations who completed the OCI-ideal®. The 560 respondents answered in terms of how people should be expected to behave to maximize the effectiveness of their organization.

2.3. Statistical analysis

The data obtained with the OCI® tool, when analyzed, help us to identify the areas within the organization which present the greatest opportunity for improvement. This is achieved by identifying gaps between current and ideal percentile scores (current percentile minus ideal percentile). Negative gaps for the Constructive styles and positive gaps for the Passive/Defensive and Aggressive/Defensive styles indicate areas in which the organization is performing better than ideal, and thus areas for cultural change and improvement.

Comparisons between current and typical ideal scores will reveal targets for change within health care organizations. The organizations can then move towards this ideal culture by establishing targets and goals for cultural change (Szumal, 2003).

The OCI® was used to assess health care organizations' current operating culture based on the average (mean) responses of all members who completed the OCI. Unadjusted (or "raw") mean scores for each of the twelve cultural styles from the OCI were converted to percentile scores and were analyzed by Human Synergistics, the copyright holder of the survey instrument.

The cluster that best describes the operating culture of the organizations is the one that has the highest average percentile score (i.e. the highest score when the percentile scores of the four styles within the cluster are averaged together). The results for the total group and for each level of HCO are plotted on a circular diagram or circumplex, which is used to describe operating cultures.

The style that is most extended from the center of the circumplex is the primary style encouraged by Crete health organizations' current operating culture. The style that is the second extended from the center of