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Short report

How are organisational climate models and patient satisfaction related? A competing value framework approach☆

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ABSTRACT

Patient satisfaction has become an important indicator of process quality inside hospitals. Even so, the improvement of patient satisfaction cannot simply follow from the implementation of new incentives schemes and organisational arrangements; it also depends on hospitals' cultures and climates. This paper studies the impact of alternative models of organisational climate in hospital wards on patient satisfaction. Data gathered from seven public hospitals in Italy are used to explore this relationship. The theoretical approach adopted is the Competing Value Framework which classifies organisations according to their inward or outward focus and according to the importance assigned to control vs. flexibility. Results show that both a model stressing openness, change and innovation and a model emphasising cohesion and workers' morale are positively related to patient satisfaction, while a model based on managerial control is negatively associated with patient satisfaction.

Introduction

Early contributions (Argyris, 1957; McGregor, 1960) in the managerial literature posited that the way employees experience their work would be reflected in organizational performance. The theoretical underpinnings of the way organizational level variables, employees' perceptions and behaviour, and performance measures are intertwined is provided, among others, by the theory of emotional contagion (Barsade, 2002), and of social exchange (Blau, 1964). This assumed relationship has found empirical support in various service settings (Lanjananda & Patterson, 2009; Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005; Schneider, White, & Paul, 1998).

An important and widely explored construct of the way employees experience their organization is organizational climate. Climate is defined as members' perceptions of organizational policies, practices and procedures. Organizational climate is rooted in the organization's culture. Whereas climate is behaviourally oriented, culture has to do with shared values, assumptions, and beliefs inside an organization which underlie behaviour. Often, the two concepts are used interchangeably, as both describe employees' experiences of their organizations (Schneider, 2000).

The reforms of health care which many countries have undergone since the nineties have focused on new organisational arrangements and incentives schemes as ways to improve performance and service quality. However, these policy tools cannot be considered independently from the culture inside the organizations affected. This is especially true because, unlike other services, health care is based on collective actions (Shortell et al., 2001). Moreover, the fact that culture may be based on professional groups such as nurses or physicians (Gifford, Zammuto, & Goodman, 2002) implies that allowance must be made for the co-existence of multiple and heterogeneous cultures inside health organizations. In spite of these intuitively appealing statements, relatively little attention has been devoted to the exploration of the links between organizational culture/climate and hospital performance (Davies, Mannion, Powell, & Marshall, 2007; Scott, Mannion, Davies, & Marshall, 2003).

Even less attention has been paid to the study of the relations between climate and patient satisfaction, in spite of the fact that patient satisfaction has become an important indicator of process quality inside hospitals. Hospital care is unique since it includes a very intense relationship, involving trust, intimacy, and empathy which may develop between the patient and service providers (Meyer Goldstein, 2003). Patients typically develop expectations about these relationships, which in turn will affect their perception of service quality.

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It is, therefore, of interest to identify which types of organizational climates are germane to high levels of patient satisfaction. Empirical evidence has shown that high patient satisfaction is associated with a hospital climate promoting teamwork and cohesion (Gregory, Harris, Armenakis, & Shook, 2009; Meterko, Mohr, & Young, 2004). The underlying assumption is that causality goes from organizational climate to perceived quality, although allowance has been made for alternative causal models (Schneider et al., 1998). However, very few papers use longitudinal data and are therefore capable of proving the direction of causality (Schneider, Hanges, Smith, & Salvaggio, 2003).

In the present paper the relation between different organizational climate models and patient satisfaction is analysed. This paper adds to the existing literature in several respects. First, allowance is made for the coexistence of competing climates inside each organizational unit by estimating a model in which different climates are simultaneously taken into account. Second, the link between organizational climate and individual patient satisfaction is studied using the ward as the unit of analysis, rather than the hospital. In health organizations, climate has mainly been measured at the hospital level, and only a few studies have measured climate at team/unit level, investigating the impact of the team/unit climate on innovation diffusion (Callen, Braithwaite, & Westbrook, 2007; Gosling, Westbrook, & Braithwaite, 2003). Since, in some institutional settings, such as the Italian one, hospitals exhibit a divisional structure in which wards enjoy great autonomy in the management of resources (Cabiedes & Guillen, 2001), the measurement of climate at the ward level is called for.

Finally, in order to keep the cluster nature of the patient satisfaction data into account, a multi-level latent variable approach has been adopted.

Study design, population and data collection

The design of the study is cross-sectional. Between November 2007 and May 2009, organizational climate and patient satisfaction questionnaires were simultaneously and directly administered to inpatients and medical staff (nurses and physicians) in 47 wards belonging to 7 different public hospitals in Italy (four medium size hospitals with around 200 beds and three small hospitals with an average of 80 beds). On average, in each ward a period of 1.5 months was spent for interviewing the employees and the patients. All members of the medical staff and consecutive patients prior to discharge were interviewed. The average response rate was 83% for the employees (ranging from 66% to 100%) and 86% for the patients (with little variation across wards), thus reducing to a minimum the risk of selection bias. The final sample consisted of 625 employees (470 nurses and 155 physicians) and 1018 patients.

The organizational climate questionnaire was based on the Competing Value Framework, the patient satisfaction survey instrument used was the SERVQUAL. The relation between climate and patient satisfaction was investigated by means of Multilevel Structural Equation Modelling.

The study instruments are detailed below. The study received ethical approval from both the University of Catania and the hospitals involved in the study through ad hoc agreements signed by both parties.

Study instruments

The competing value framework

One highly rated model of organizational culture/climate is the Competing Values Framework (CVF) developed by Quinn and Rohrbaugh (1981, 1983). The CVF explicitly recognises that within organizations multiple competing values and cultures may coexist (Patterson et al., 2005; Shortell et al., 2000).

The organizational competing values correspond to well-known dilemmas of organizational life. The first dilemma regards the choice between a focus on the internal environment and inner processes vs. the external environment and relationships with the outside (e.g. suppliers, customers). A second dilemma concerns the emphasis put on control over resources and processes vs. flexibility.

By crossing external/internal focus with control/flexibility, four alternative organizational models can be identified:

- the Human Relations model (internal focus and flexibility) uses cohesion and morale to achieve human resources development;
- the Open System model (flexibility and external focus) pursues resource acquisition and growth by means of learning, adaptability and readiness;
- the Rational Goal model (external focus and control) adopts planning and goal setting as means to achieve productivity and efficiency;
- the Internal Process model (internal focus and control) stresses stability trying to minimise interactions with the external environment by means of vertical communication and formal rules.

The CVF has been widely applied to the study of health organizations (Davies et al., 2007; Gerowitz, 1998; Meterko et al., 2004; Shortell et al., 2000). However, in the empirical applications we are aware of, the operationalization of CVF is very aggregated, that is a low number of propositions is used in order to describe the various culture types. Moreover, problems of internal and construct validity have been highlighted in some studies (Helfrich, Li, Mohr, & Meterko, 2007). Finally, the focus of the above mentioned studies is culture, with little attention being paid to more behaviourally oriented aspects, i.e. climate.

Patterson et al. (2005) developed a 17-factor questionnaire explicitly designed to measure the four CVF organisational climate models. For the purpose of this paper, the above mentioned questionnaire has been adapted to the context under investigation, and validated through a confirmatory factor analysis. Three CVF models were validated, namely, Human Relations, Open System, and Rational Goal. The final structure includes 13 factors (Table 1), measured by 41 items evaluated on a 7-point Likert scale. For each respondent, the scores of the items belonging to a given factor were averaged.

Patient satisfaction and SERVQUAL

Early conceptualizations of customer satisfaction (e.g. Gronroos, 1982, 1984; Parasuraman, Zeithaml, & Berry, 1985) are based on the

Table 1
Dimensions of the Organizational climate.

Organisational models	Factors
Human relations	Autonomy
	Involvement
	Supervisory support
	Training
	Welfare
Open system	Innovation and flexibility
	Outward focus
	Reflexivity
Rational goal	Clarity of organizational goals
	Effort
	Performance feedback
	Pressure to produce
	Quality