

# Linking Nursing Unit's Culture To Organizational Effectiveness: A Measurement Tool

## EXECUTIVE SUMMARY

- ▶ Organizational culture consists of the deep underlying assumptions, beliefs, and values that are shared by members of the organization and typically operate unconsciously.
- ▶ The four organizational culture traits of the Denison Organizational Culture Model (DOCM) are characteristics of organizational effectiveness, which include adaptability, involvement, consistency, and mission
- ▶ Effective organizations demonstrate high levels of the four cultural traits which reflect their ability to balance the dynamic tension between the need for stability and the need for flexibility within the organization.
- ▶ The Denison Organizational Culture Survey (DOCS) is a measurement tool that was founded on the theoretical framework of the DOCM, and in the field of business, is one of the most commonly used tools for measuring organizational culture.
- ▶ The DOCS offers a promising approach to operationalizing and measuring the link between organizational culture and organizational effectiveness in the context of nursing units.

**O**RGANIZATIONAL CULTURE (OC) is a significant variable influencing organizational performance (effective or ineffective). It consists of the deep underlying assumptions, beliefs, and values that are shared by members of the organization and typically operate unconsciously. These manifestations are learned responses to a group's problems of survival in its external environment and the problems of internal integration. If a given set of people shared a considerable number of important experiences in the process of solving external problems, one can assume that the group has developed a shared view of the world and its place of work (Schein, 2004).

The study of OC became popular in the 1980s. At the time, business scholars used the concept of OC to explain the phenomena of economic successes of Japanese over American firms. The Japanese "culture" has been described as a highly motivated workforce with a commitment to a common set of core values, beliefs, and assumptions (Lim, 1995) that promote a collective understanding of innovation, entrepreneurship, and competitiveness (Deshpande, Farley, & Webster, 1993). In this context, the OC has been linked to the effective-

ness of an organization (Denison & Mishra, 1995).

The emergence of managed care, the Prospective Payment System, and other financing arrangements in the 1980s generated an interest in the effect of *corporate culture* (Vandenberghe, 1999) on health care organizations (Gershon, Stone, Bakken, & Larson, 2004). The infiltration of managed care companies resulted in unprecedented organizational changes in the health care delivery system. Such changes included organizational restructuring, reduction in patients' hospitalization days, budgetary constraints, and other factors that negatively affected employees' performance and productivity, as well as patient satisfaction (Gershon et al., 2004; Wooten & Crane, 2003). Thus, the interest in investigating the relationship of organizational constructs (for example, OC) and health care services outcomes has increased over the years (Gershon et al., 2004).

Organizational culture includes a complex set of interrelat-

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ed, comprehensive, and ambiguous factors. Furthermore, it is a multidimensional construct that is of interest to many different disciplines including anthropology, sociology, and organizational psychology (Scott, Mannion, Davies, & Marshall, 2003). Each discipline brings its own perspective to the inquiry, so there is no consensus about the best methodologic approaches, and comparison of studies is difficult. An explicit conceptual framework would help to delineate and focus the key dimensions or factors of OC that are being investigated (Cameron & Quinn, 1999) and would assist in synthesizing the research findings. Therefore, the purposes of this article are (a) to propose a framework for studying OC, and (b) to describe a promising tool for measuring a nursing unit's OC and its link to organizational effectiveness.

### The Denison Organizational Culture Model (DOCM)

The DOCM posits four desirable organizational traits grounded on theory and empirical findings. This model is based on the following premise of OC research: The culture of the organization has a strong influence on organizational effectiveness. The four organizational *culture traits* are characteristics of organizational effectiveness, which include adaptability, involvement, consistency, and mission (Denison & Mishra, 1995).

*Adaptability* trait refers to the organization's ability to translate the demands of the business environment into action (Denison, 1997, 2000). This trait also denotes the organization's system of norms and beliefs that support the organization's capacity to receive, interpret, and translate signals from its operational and competitive environment into internal behavioral changes that increase its chances for survival, growth, and development (Rondeau & Wagar, 1999). In nursing, this trait may be used to describe a nursing

unit with staff nurses who are less resistant to change and more flexible and responsive (compliant) to various hospital initiatives (for example, performance improvement efforts) and the dynamics of the overall health care delivery system. Moreover, the staff nurses in this example would understand the implications of their behaviors to the overall life of their organization — viability in the competitive health care market.

There are three important aspects of adaptability traits that impact an organization's effectiveness. These include the ability of the organization to (a) perceive and respond to the external environment, especially their customers (for example, patients and families) and their competitors (other hospitals); (b) respond to internal customers (for example, co-workers), regardless of level, department or function; and (c) restructure and re-institutionalize a set of behaviors and processes that allow the organization to adapt. Without this ability to implement an adaptive response, an organization cannot be effective (Denison, 1997, 2000). By understanding the adaptability trait of their organization, first-line nursing leaders, such as nurse managers, are better positioned to assess their nursing units' ability to respond to change and ultimately influence organizational performance.

The *mission* trait reflects the organization's ability to identify a meaningful long-term direction that provides employees with a sense of focus and a common vision of the future (Denison, 1997, 2000). It provides purpose and meaning by defining a social role and external goals for the organization. Moreover, it provides a clear direction for goals that serve to define an appropriate course of action for the organization and its members. A sense of mission enables an organization to shape current behavior by envisioning a desired future state.

Being able to internalize and identify with an organization's mission motivates employees to contribute both to short and long-term commitments to the organization. Organizational success, such as productivity, is more likely to be attained when individuals and organizations are goal directed (Denison, 1997, 2000; Rondeau & Wagar, 1999). Of the four organizational cultural traits, Fisher (2000) found *mission* to be the major trait that influenced organizational effectiveness. For nursing units, the primary focus is often the patient and ultimately the satisfaction of that patient with the care delivered. Consequently, patient satisfaction is often a core mission trait in nursing units as it is viewed as a key indicator of organizational effectiveness for a particular acute care hospital.

The *involvement* trait is a characteristic of a "highly involved" culture, in which employee involvement is strongly encouraged and where a sense of ownership and responsibility exists. In such a culture, employees rely on informal, voluntary, and implied control systems, rather than on formal, explicit, bureaucratic control systems. Out of this sense of ownership grows a greater commitment to the organization and an increasing capacity for autonomy. Employees tend to be more involved and dedicated to positive organizational outcomes. Managers' who solicit input from organizational members increase the quality of the management decisions and heighten members' participation in their implementation (Denison, 1997, 2000) because of increased collaboration and leveraging of broader operational knowledge. Thus, this cultural trait focuses on employee participation and empowerment as a response to rapidly changing conditions in the external environment of the organization. Employee satisfaction, commitment, and morale are key aspects of organizations with strong involve-

ment culture (Rondeau & Wagar, 1999). As a result, nurse managers should be focused on motivating staff nurses to be engaged and to contribute collaboratively in decisions that impact organizational effectiveness.

The *consistency* trait defines the values and systems that are the basis of a strong culture. It provides a central source of integration, coordination, and control. Organizations characterized by the consistency trait tend to create internal systems of governance based on consensual support. Such organizations have highly committed employees, key central values, a distinct method of doing business, a tendency to promote from within, and a clear set of appropriate behaviors. Further, this trait creates a “strong” culture based on a shared system of beliefs, values, and symbols (internalized values) that are widely understood by members of an organization. Compared to external-control systems (for example, regulatory reviews or independent audits) that rely on explicit rules and regulations, implicit control systems based on internalized values can be a more effective means of achieving coordination and integration particularly in unfamiliar situations. They enable individuals to react in a predictable way to an unpredictable environment by emphasizing a few general, value-based principles upon which actions can be grounded (Denison, 1997, 2000). A consistency-based culture values stability and predictability through member compliance with organizational rules and regulations. Organizational roles and hierarchy are reinforced and embedded in the cultural values of organizations with strong consistency cultures (Rondeau & Wagar, 1999).

Effective organizations demonstrate high levels of the four cultural traits which reflect their ability to balance the dynamic tension between the need for stability and the need for flexibility within the

organization. The DOCM postulates that dyad of culture traits denote certain organizational attributes. For example, a dyad of *involvement* and *consistency* traits represents internal operational aspects of OC while a dyad of *mission* and *adaptability* describes the externally driven aspects of an OC. Moreover, a dyad of *involvement* and *adaptability* traits represents the organizations’ capacity for flexibility and change, while a dyad of *consistency* and *mission traits* is oriented toward stability. Thus, the ability of the organization to reconcile such dynamic tensions within the organization is the essence of an effective organization (Denison, 1997).

To date, the use of the DOCM as conceptual framework for nursing unit’s OC research is limited in the literature. However, this model offers a practical approach to describing or explaining the OC of nursing units that have shown organizational effectiveness such as a consistent achievement of high levels of patient satisfaction and high-quality care (Casida, 2007). At the nursing unit level, the nurse manager plays a pivotal role in achieving these tangible outcomes, which have significant impact on the hospital’s bottom-line. It is imperative for nurse managers to have the knowledge and understanding of the four culture traits described by the DOCM in order to adapt their leadership styles to influence specific changes that drive improved nursing unit performance.

### **The Denison Organizational Culture Survey (DOCS)**

The DOCS is a measurement tool that was founded on the theoretical framework of the DOCM. In the field of business, the DOCS is one of the most commonly used tools for measuring OC. The DOCS purportedly links OC to tangible bottom-line performance measures, such as profitability, quality, innovation, market share, sales growth, and employee satisfaction

(Denison, 2000). In nursing, the DOCS has been used to link the leadership styles of nurse managers and the OC of high-performing nursing units in acute care hospitals (Casida, 2008). When the DOCS was compared to other measurement tools, the following advantages were found (Denison, 2000):

- It measures group behaviors rather than their personality.
- It is designed and created within the business environment rather than within the academic environment.
- The items are written in “business language” and therefore are suited for exploring and interpreting business-level data.
- It measures the link between group behaviors and bottom-line business results.
- It is fast and easy to implement.
- It is applicable to all levels of an organization.

The DOCS is a 60-item questionnaire that asks respondents (for example, staff nurses) to describe their OC using a 5-point Likert scale. The anchors used to evaluate the DOCS items are: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = somewhat agree, and 5 = strongly agree. Each cultural trait (involvement, consistency, adaptability, and mission) is measured by three scales or indices, and each scale contains five items (Cho, 2000). Combined responses to items on the three indices compose each cultural *trait* score and the mean item scores generate *trait* scores (Block, 2003). Table 1 provides a summary of the component of DOCS. Overall, the DOCS items were written to address those aspects of culture that had demonstrated links to organizational effectiveness, such as having a shared sense of responsibility, possessing consistent systems and procedures, being responsive to the market, and having a clear purpose and direction for the organization (Lawry, 2002).

**Table 1.**  
**Component of Denison's Organizational Culture Survey**

Cultural Trait Scales	Indices
Involvement	Empowerment Team orientation Capability development
Consistency	Core values Agreement Coordination and integration
Adaptability	Creating change Customer focus Organizational learning
Mission	Strategic direction and intent Goals and objectives Vision

### Psychometric Property of the DOCS

The DOCS is a valid and a reliable tool that has been used extensively to measure the culture of various organizations for nearly 2 decades. Extensive psychometric testing conducted by Cho (2000) using a sample of 36,542 raters from diverse organizations showed coefficient alphas ranging from 0.70 to 0.86 for the 12 indices (scales) and from 0.87 to 0.92 for the four culture traits, indicating acceptable levels of consistency within scales. In 2005, Denison, Janovics, and Young reported on the psychometric properties of the DOCS with similar conclusions. They used data from a large and diverse sample of 35,474 raters who had voluntarily completed the DOCS between 1997 and 2001. These data were obtained from an archive consisting of both public and private sector organizations including large *Fortune* 100 companies, schools, and private small companies. Findings from this study demonstrated coefficient alphas of 0.70 to 0.85 for all scales/indices. Recently, Casida (2007) reported a coefficient alpha of 0.96 on a study involving a sample of 278 acute and critical care staff nurses.

Validity of the DOCS has also been supported. In Cho's (2000) work, exploratory and confirmatory factor analytic results such as a confirmatory factor index (CFI) of 0.99, suggest a robust construct validity of DOCS scales and items. Denison and colleagues' (2005) study also demonstrated validity of the DOCS. Confirmatory factor analysis showed a root mean square of approximation of 0.048 and CFI of 0.98. Their data support the theoretical structure implied by the DOCS. Consequently, a strong link between organizational culture and performance (effectiveness) is supported, and these studies together suggest the DOCS has robust psychometric properties.

### Implications

The DOCS offers potential applications in nursing practice and research. The majority of nursing literature that addressed the assessment of a nursing unit's OC considered before and after implementation of (a) performance improvement efforts (Baker, King, MacDonald, & Horbar, 2003), patient care delivery models (Jones, DeBaca, & Yarbrough, 1997) and innovations in nursing units (Coeling & Simms, 1993); (b) organizational change such as

intradepartmental restructuring of nursing roles and functions (Forsythe, 2005); and (c) acute care hospitals' merging into one health care system (Jones & Redman, 2000). The DOCS is a useful tool that could better quantify organizational performance before and after organizational change. The DOCS scores would provide stakeholders (for example, nursing leaders) with specific *culture trait(s)* of nursing units that require attention or support from their leaders with the purpose of achieving tangible organizational outcomes. For example, the DOCS was used to explore the OC characteristics of 37 "high-performing" acute and critical care nursing units (N = 278 staff nurses) that consistently met the benchmark on patient satisfaction and quality care ratings in one health care system in New Jersey (Casida, 2007, 2008). Findings from this study included a mean global DOCS score of 3.6 (out of 5), and mean culture trait scores of 3.5 (adaptability), 3.6 (consistency), 3.5 (mission), and 3.7 (involvement). These results are within the "higher agreement" dimensions in the measurement scale, which are consistent with the DOCS scores of high-performing business organizations (Block, 2003; Fisher, 2000).

Future studies should examine nursing units' OC regardless of group performances: excellent, average, or poor. This would provide stakeholders with variability in DOCS scores, and thus, enable them to identify areas that require interventions. For example, mean scores of less than 3.0 in *mission* and *adaptability* suggest that the nursing staff may not have a clear understanding of the competitive nature of the current health care market or may be unaware of the hospital's mission, vision, and goals. Mean scores less than 3.0 in the *consistency* and *involvement* components suggest that nursing staff may not have the right "team spirit" or sense of belonging in

their group. Each staff nurse may be focused on his/her own individual agenda rather than being "involved" in the group, a characteristic that may result in a less-stable work group. To achieve organizational effectiveness, nurse leaders must be cognizant about the powerful forces of these *culture traits* and accordingly learn how to implement strategies to reshape the culture of nursing units and influence organizational outcomes. For a nursing unit to be effective, the manager must understand how these culture traits can alter organizational performance. The manager must also understand how to adapt his/her leadership style to ensure that the nursing unit achieves high levels of the four culture traits indicating organizational effectiveness.

It is imperative for nurses who are interested in this type of inquiry to know that there are several OC instruments that have been used in nursing. These instruments, however, primarily provide the general *behavior* of the work group (for example, constructive, passive-aggressive, hierarchical, etc.) rather than a tangible measure such as organizational performance. The strengths of the DOCS include its capability of linking the characteristics of the OC (cultural traits) to organizational effectiveness, and its ease of use is paramount to successful implementations of organizational change, performance improvement initiatives, and other programs aligned with the hospital's strategic plan.

Organizational culture as a construct is generally complex and multidimensional. Investigators who are interested in understanding the OC of nursing units and the links between that culture and organizational effectiveness will find the DOCS particularly well-suited to their needs. Moreover, they can use the DOCS to identify the OC characteristics of nursing units that have achieved other tangible organiza-

tional outcomes including cost-effective patient care, service excellence, and Magnet® nursing designation. Finally, a comprehensive psychometric testing of the DOCS involving a large, diverse sample of nurses is warranted to achieve generalizability of the findings.

The DOCS offers a promising approach to operationalizing and measuring the link between OC and organizational effectiveness in the context of nursing units, where tangible organizational outcomes (for example, patient safety, quality, and satisfaction) are paramount in the viability and competitiveness of acute care hospitals today.

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