

## REVIEWS

# The role of culture in quality improvement in the intensive care unit: A literature review

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**Received:** April 29, 2012

**Accepted:** December 30, 2012

**Online Published:** January 21, 2013

**DOI:** 10.5430/jha.v2n2p97

**URL:** <http://dx.doi.org/10.5430/jha.v2n2p97>

## Abstract

Improving the quality of patient care and patient outcomes is a major concern internationally. In a developing health care system, implementing quality improvement is challenging due not only to resource and workforce issues but also cultural factors. Using the method of a focused literature review, this paper discusses the importance of assessing a societal view of culture, social mores and customs, and power relationships in quality improvement activities using the intensive care unit as an exemplar. We conclude that implementing quality improvement strategies in a developing health care system needs to address the broader perspectives of social and cultural systems particularly hierarchical relationships and issues of non-disclosure.

## Key words

Cross cultural, Intensive care unit, Literature review, Quality improvement

## 1 Introduction

Globalization is a worldwide phenomenon and there has been widespread movement of populations, changing the social and cultural framework of many cultures<sup>[1-3]</sup>. In hospitals, quality improvement projects strive to improve patient care. An environment that supports and enables optimal patient outcomes is dependent on achieving a culture of trust, reporting, transparency and commitment to change<sup>[4]</sup>. Many of the quality improvement models are developed in the West and then 'exported' to developing countries with minimal evaluation of cultural competence<sup>[5]</sup>. Failing to consider cultural views such as an emphasis on hierarchy can limit the capacity to implement a range of approaches, particularly those emphasizing empowerment and challenging inappropriate behaviours<sup>[6]</sup>.

The workplace culture term is typically used in quality improvement parlance<sup>[7-9]</sup> and applied to discrete organizational factors<sup>[10, 11]</sup>. Quality improvement is based on empowerment, transparency and accountability<sup>[4, 12]</sup>. The importance of workplace culture<sup>[7]</sup> and identifying the intensive care unit (ICU)<sup>[13]</sup> as a microcosm have been undertaken, yet to date there has been limited discussion of the notion of culture as it relates to specific countries and ethnic groups as a factor in organizational change.

Culture is shaped by multiple influences, such as race, ethnicity, nationality, language and gender, but also extends to socioeconomic status, physical and mental ability, sexual orientation and occupation, among others<sup>[14]</sup>. Collectively, these influences can be described as “sociocultural factors” which shape our values, form our belief systems and motivate our behaviors<sup>[14]</sup>.

Sociocultural differences among patients, health care providers and the health care system are seen by health care experts as potential causes for disparities<sup>[14]</sup>. These differences may possibly also influence the providers’ decision-making<sup>[14]</sup>. A comprehensive understanding of cultural dimensions is needed because the key differences that separate ethnic groups have strong cultural implications for management<sup>[15]</sup>.

An understanding of culture is important in determining how an individual adapts and functions within an organizational context<sup>[16]</sup>. Knowledge, attitudes and beliefs pertaining to culture may influence the roles an individual performs in a given situation<sup>[17]</sup>.

Appreciating cultural values is also important for health care providers to create systems, processes and a workforce capable of delivering the highest quality care to individuals regardless of race, ethnicity, and culture or language proficiency<sup>[18]</sup>. This is particularly important due to cultural diversity caused by high international migration, estimated at 214 million in the world<sup>[19]</sup>. Asia was estimated to host the second largest migrant population (61 million) after Europe in 2010<sup>[19]</sup>. Therefore there is a need to develop coordinated approaches to address the health implications of modern migration<sup>[20]</sup>.

More than 80 percent of the world's population lives in the more than 100 developing countries<sup>[21]</sup>. Developing countries are classified as those with low or middle per capita Gross National Product (GNP) plus five high-income economies - Hong Kong (China), Israel, Kuwait, Singapore and United Arab Emirates, – because of their economic structure or official opinions of their governments<sup>[21]</sup>. Several countries with transitional economies are sometimes considered *developing* based on their low/middle per capita income, and other times *developed* based on their high levels of industrialization<sup>[21]</sup>.

**Table 1.** List of MeSH keywords used for the search strategies

| Set | Mesh keywords   |
|-----|---|
| 1   | Culture/ <b>or</b> culture.mp. or ethnology.mp. or Ethnology/ <b>or</b> Cross-Cultural Comparison/ <b>or</b> cross cultural.mp. <b>or</b> cultural characteristics.mp. or Cultural Characteristics/ <b>or</b> cultural diversity.mp. or Cultural Diversity/ <b>or</b> cultural anthropology.mp. <b>or</b> Anthropology, Cultural/ <b>or</b> ethnic groups.mp. or Ethnic Groups/ cultural factor |
| 2   | "Quality of Health Care"/ <b>or</b> Quality Assurance, Health Care/ or quality improvement.mp. or Total Quality Management/ <b>or</b> "Outcome and Process Assessment (Health Care)"/ <b>or</b> "Outcome Assessment (Health Care)"/ <b>or</b> health care outcome.mp.   |
| 3   | Intensive care.mp. <b>or</b> Intensive Care Units/ <b>or</b> Intensive Care/ <b>or</b> Critical Care/   |

The emphasis on quality improvement initiatives in the developing world is crucial for improving global cooperation<sup>[22]</sup>. Scrutinizing common cross cultural meanings attributed to individuals may vary from culture to culture and must be incorporated into the understanding of the way culture is related to individual differences in behavior<sup>[23]</sup>. A mismatch of socio-cultural factors can result in different approaches in management strategies<sup>[24]</sup> especially when it involves a business organization<sup>[25]</sup>. Studying the impact of different cultures on the practice of health care practitioners will enable the providers to understand and plan their approaches before implementing change in their organizations.

This article argues the importance of addressing broader cultural and social factors when implementing a quality improvement methodology, particularly in emerging economies. Although this is critically important in all areas of hospitals, the high rates of preventable conditions in the intensive care unit (ICU), such as catheter related blood stream

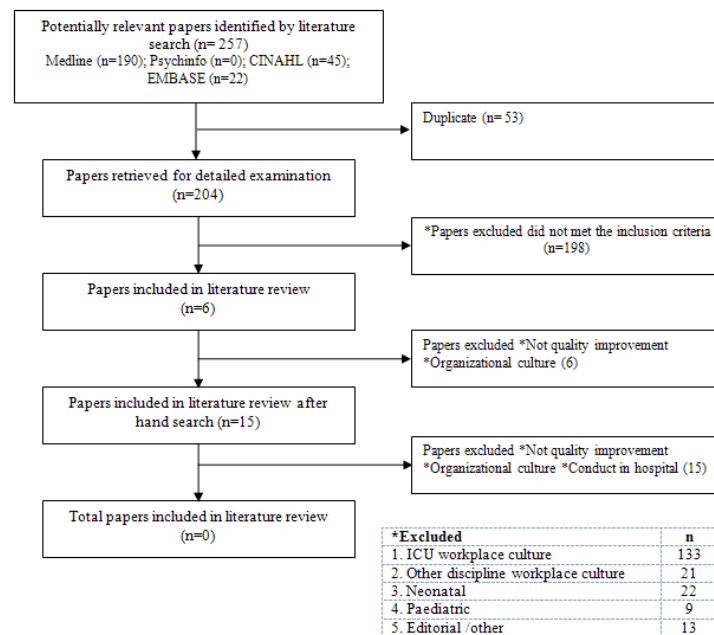
infections and ventilator associated pneumonia, emphasize the importance of reflecting and modifying clinical practices to improve outcomes<sup>[26]</sup>. In order to address these factors, a focused literature review was undertaken.

## 2 Methods

A search was undertaken of electronic databases to identify relevant literature. *Cumulative Index of Nursing and Allied Health Literature* (CINAHL) 1982 - August 2010; *Medline* 1950 - August 2010; *Embase* 1988 - August 2010; *PsycINFO* 1806 - August 2010 were searched using MeSH key words for culture, quality improvement and intensive care unit (Table 1). Assistance in designing the literature search strategies for all databases was provided by a health librarian. Articles were considered relevant if they reported a societal culture perspective on quality improvement projects in adult ICUs. To reduce gaps in the automated search caused by indexing lags in the electronic databases, a manual search was undertaken by the authors. This search included reviewing references from the retrieved articles and also searching from other databases, such as *Google Scholar*, *Mednar* and *Scopus*. The reference list from each retrieved article was in turn scanned for additional articles.

## 3 Results

After a detailed search and examination, no articles were identified discussing this issue as shown in Figure 1. In spite of the limited data retrieved, the key issues contributing to incorporating issues of culture in quality improvement initiatives are discussed below.



**Figure 1.** Flowchart of study selection process

## 4 Discussion

### 4.1 Importance of assessing a societal view of culture

The limited information on the influence of societal culture on acceptance of quality improvement processes in the ICU indicates that there is a gap in the current knowledge. This is particularly the case due to the rapid technological innovation

and introduction of ICUs in the developing world [27, 28]. The majority of retrieved articles focused on organizational culture [12, 29-39]. The others were conducted either in the general hospital and not ICU, or were not quality improvement reports [40-44].

The complexity of health care systems and the interdependence among clinicians and systems are well documented [45, 46]. The ICU is a complicated and multifaceted organizational structure, involving evaluation of complex and multilevel interventions; hence, an interdisciplinary approach is required to optimize the effectiveness of interventions [47]. Understanding cross-culture influences in this setting is useful for patient management and collaboration among the health care workers.

The increased diversity of patients and health care providers around the world due to international migration has increased the need to gain far greater understanding of cross-cultural influences [48]. Health care workers have a broad range of perspectives on health which are often influenced by their social or cultural backgrounds. Moreover, current workplaces demand a workforce that is culturally competent to improve the quality of care provided and eliminate racial/ethnic disparities in the care [18, 48].

Cultural competence is seen as a method to increase access to quality of care for all patient populations aiming to change a *one-size-fits-all* system to one more responsive to the needs of diverse patients [18, 49]. The health care workforce needs to understand the relationship between cultural beliefs and behavior, and develop the skills to improve the quality of care they provide to these diverse populations [18]. The essential component in culturally competent care includes diversity among staff and providers [18]. Understanding individual cultural values will help to improve the care provided and collaboration among the health care workers in the ICU where the importance of team work is important in achieving optimal patient outcomes [50].

## 4.2 Social mores and customs

The ideal organization is based on good interpersonal relationships, rather than individual rights, with leadership as part of a natural hierarchy [24]. In many cultures where hierarchy and social desirability predominate [51, 52], implementing quality improvement may be more challenging [5]. In some cultures the capacity of a manager to work with a team is more important than individual expertise and the commitment and loyalty to the group carries more weight than the ability to perform tasks as an individual [15].

Understanding cultural values in this situation is important because sensitivities surface in many guises [15]. Showing mutual respect is important in all Asian cultures, and there is a carefully calibrated scale of social rank [15]. An outsider would need to be sensitized to these cultural dynamics to read the social situation correctly, because sometimes an insensitive technocrat will not be accepted, regardless of how clever she/he may be [15].

Many Asian cultures share the concept of maintaining balance. When this balance is impeded by the leader or staff, it creates conflict which is seen as a negative [51]. In a collectivist culture, conflict situations are primarily concerned with maintaining relationships with others, whereas individualists are mainly related to achieving justice [53]. Collectivism with an emphasis on culture sees the environment as more or less fixed or a stable norm, but obligations, duties and themselves as changeable to "fit in" [23].

In the collectivist culture, lying is an acceptable behavior if it saves face or helps the in-group [23]. Conflict usually occurs when someone does not understand the clash between cultures caused by the differences between individualist values, collective values, power relationships, and feelings of certainty/uncertainty [51]. Therefore, in collectivist cultures, such as Thailand, Malaysia, Singapore, Indonesia, Taiwan, Korea and Hong Kong [54], there is a need to consider the social perspectives before implementing quality improvement strategies in the ICU.

### 4.3 Power relationships impacting the workplace

Power distance is the degree to which unequal distribution of power and wealth is tolerated, determined by the hierarchy in workplaces and distance between social strata. Communications are likely to be through the command chain than direct [22, 51]. The responsibility for making decisions is given to management and is not team-oriented [55]. The leader accepts responsibility for the development and well-being of the employees, and in return expects their obedience and personal loyalty [24]. Therefore, workers in highly collective and hierarchical models are group oriented, respect elders and hierarchy, emphasize loyalty and consensus and are concerned with harmony in relationships [56]. Disagreement, if expressed, will be done indirectly to avoid overt confrontation and arouse discomfort in other people [56]. This explains why in a very hierarchical structure workplace people are more inclined to state what should be said rather than what they really feel. This is in contrast to the Western preference of open disclosure [57].

The disadvantage of working in a society with a marked power differential is that the workers are very cautious to express their thoughts. Therefore, for them to keep balance, work in harmony and also keep their jobs, the majority choose silence instead of unveiling their latent talents or creativity. As a result, the workers in these countries are less empowered *vis-à-vis* their Western compatriots. Empowerment will create more confidence for people to act and foster a sense of job ownership [25].

A study on attitudes towards working situations among managers from Australia and Japan found respondent bias and attributed it to social desirability [58]. The authors also discovered that response styles among managers from Asian cultures tended to be modest and that they responded cautiously [59]. This reflects Asian cultures, which tend to be very careful about commenting or opposing others' views in order to maintain the balanced feeling as discussed above. This indicates that an individual with a different cultural background may not express his thoughts in order to keep the balance and his social desirability.

### 4.4 Recommendations for quality improvement in Asian ICU

The ICU is a complicated and multifaceted organizational structure involving evaluation of complex and multilevel interventions; therefore, an interdisciplinary approach is essential to optimize the effectiveness of interventions [47]. A culture of collaboration and teamwork is important prior to implementing any quality improvement measure. Establishing a quality system in any organization addressing culture is critical in achieving and sustaining improvement [25, 60]. The final result will benefit the organization and patients through improving and sustaining the health care provided.

This paper acknowledges that the fact that no articles were identified which met the inclusion criteria is a potential limitation. However this identifies that there has been very little work in this area, and that the subject should be better explored in the future. The failure to identify appropriate articles does not dismiss the importance of investigating this issue. In the field of business, culture is noted as moderating the success of particular initiatives [61].

The paper proposes that cultural ethnicity is an important consideration before implementing quality improvement initiatives in non-Western countries. Incompatible cultural values may harm constructive group processes, and then negatively affect the well-being of the team members as well as their performance [62] in implementing quality improvement initiatives [23].

## 5 Conclusion

Addressing cultural influences in quality improvement projects is crucial for improving patient management, promoting effective collaboration and teamwork among the health care providers in the complex milieu of the ICU. Issues of hierarchical relationships and non-disclosure can hinder Western models of quality improvement. Considering the influence of social cultural aspects as well as organizational factors are likely to be important factors when implementing

quality improvement initiatives, particularly in areas such as ICU where teamwork and accountability are of high importance.

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