Total Quality Management and Hospital Workforce National Cultural Diversity in Saudi Arabia: Help or Hindrance?

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ABSTRACT

Within healthcare in Saudi Arabia, there has been a concerted public policy effort to advance quality management in order to improve efficiency in the face of growing demand and cost reduction pressures. There have been suggestions that over reliance on a non-Saudi workforce in Saudi hospitals bring extra costs and challenges that may impede the development of continuous improvement features associated with Total Quality Management (TQM), however there is a lack of research exploring this contention. The purpose of this paper is to present the findings of an exploratory study investigatingthe current level of TQM maturity within Saudi hospitals and whether workforce national cultural diversity (WNCD) is considered to be influencing its development. A multiple case study research design is deployed to gather the views of managers and employees from three Saudi public sector hospitals. Each case study is compiled using management interviews and employee questionnaires. The findings suggest that, although there are slight variations across the three cases in relation to WNCD, most TQM critical success factors are well established in each hospital. In relation to the influence of workplace national cultural diversity, the conclusion is that the benefits of WNCD are likely to compensate for any limitations in terms of TQM development.

Keywords: *Total quality management, critical success factors, national culture, Saudi Arabia, hospitals.*

INTRODUCTION

A key national priority of the Saudi Arabian government is to provide accessible healthcare for its growing population that efficiently delivers quality excellence while controlling rising costs of delivery (MOP, 2010). The Ministry of Health (MoH) is the main government body responsible providing free healthcare services to all Saudi nationals and foreigners working in the public sector under the compulsory health insurance required by the Council of Cooperative Health Insurance (Khaliq, 2012).

Hospitals operated by the MoH account for approximately 63% of the total in the Kingdom, with others operated by the private sector (13%), Ministry of Defence (8%), National Guard (3%), Ministry of Education (7%) and other government bodies (6%) (ibid). The

private sector is responsible for providing healthcare for foreign and Saudi workers, and their dependents, working in that sector. The MoH regulates healthcare delivery across both sectors, controlling pricing of medicines, medical equipment and private health services (Walston, et al, 2008; Al Yousuf et al, 2002).

The workforce for healthcare is internationally mobile due to shortages of healthcare professionals (Aboshaiqah, 2016; Bieski, 2007; Buchan, 2006). Saudi Arabia, in particular has a very diverse workforce, employing expatriates from India, the Philippines, Pakistan, Egypt and Jordan as well as Western countries.

For example, Albejaidi (2010) reported that King Khaled Eye Specialist Hospital had a workforce comprising of 28 different nationalities. Such a workplace profile has been alleged to cause high staff turnover rates

resulting in lower levels of training and consequent challenges in implementing quality initiatives (see Almalki et al., 2011; Albejaidi, 2010;; Al-Ahmadi & Roland, 2005; Jannadi et al., 2008; Walston et al, 2008). For more than a decade, the Saudi Government has implemented a policy of 'Saudization' requiring organizations to increase the number of Saudi nationals in their workforce (Gulf Research Centre, 2015). This policy has seen some success with the number of Saudi physicians rising from 23% in 2009 to 33% in 2014 (MOH, 2014), a development assisted by expansion in the number of Saudi medicals schools and Saudi government overseas scholarships for educational and professional training in various medical fields particularly in Canada, US and the UK (Khaliq, 2012).

Hence, in the context of this progress in Saudization, there is a need to understand better the extent to which quality in hospitals is influenced and whether TQM is embedded or not. There is also a need to determine whether the development of TQM in Saudi healthcare is linked to the diversity of a multicultural workforce.

The main aim of this paper therefore is to explore the level of TQM development in Saudi public hospitals in light of developments related to workforce national cultural diversity.

The paper begins with a review of the quality management literature on TQM benefits in healthcare and the TQM critical success factors (CSFs) relating to the healthcare context, with a particular focus on research undertaken in the Middle East.

This is followed by a summary of the methodology and conceptual framework used to collect empirical data from Saudi hospitals. The results section presents evidence on the presence of CSFs and the impact of nationality diversity of the workforce on TQM progress.

LITERATURE REVIEW

The study of quality management in healthcare is not a new phenomenon. Work has been undertaken to explore how quality management can improve the performance of hospitals with some very promising and positive results (Xiong et al 2017, Backman et al 2016).

Indeed, work into the Saudi Arabian and Middle East health sector has also yielded some interesting perspectives on quality tools and techniques.

Research has been undertaken into key areas such as performance improvements though lean manufacturing (Abdelhadi and Shakoor 2014), six sigma (Al Owad et al 2013, Reddy and Al Shammari 2013) and lean sigma (Albliwi et al 2017, El Falomy and Shaban 2012) and operational flexibility (Alolayyan et al 2011). However, gaps exist. To explore these gaps we examine TQM in healthcare and the perceived critical success factors.

TQM in Healthcare

The application of TQM strategies in the healthcare sector has become increasingly popular (Mosadeghrad, 2014a) as the benefits of TQM have been evidenced (Backman et al 2016; Karasa et al., 2008; Miller et al., 2009). Applying TQM has been shown to help better tailor care to patient's needs, improve processes and decrease medical errors, resulting in improved patient satisfaction and productivity (Alexander et al., 2006; Macinati, 2008; Persona et al., 2008). Indeed, Duggirala et al. (2008) confirm that the application of TQM in hospitals aids the identification of factors key to improving the satisfaction of patients and helps to involve patients effectively in service planning. Evidence of the importance of a TQM approach has led to several studies investigating the factors that are key to successful implementation of TQM in healthcare, with the presence (or otherwise) of these critical success factors (CSFs) used as an indicator of the level of TQM development.

A systematic review of TQM CSFs relative to healthcare undertaken by Mosadeghrad (2014a) identified and classified 52 CSFs into ten categories (see table 1 below). In relation to TQM CSF research in the Middle East, a study of quality programs in five hospitals in Qatar suggested eight inter-related elements as key to hospital quality improvement (Athamneh, 2014). In the Saudi context, Alaraki (2014) identified eight factors critical to improving hospital performance through TQM application from a study of four hospitals. Similar results have been reported from research in Qatar (Salaheldin and Mukhalalati, 2009).

Based on a review of these studies, nine over-arching TQM CSFs were developed for the study that reflects, but does not mirror, the CSFs identified by Mosadeghrad (2014a). As shown

in Table 1, "teamwork and communication" has been included as a distinct CSF.

This has been done in order to reflect communication challenges relating to sub-cultures associated with professional allegiances

between nurses, physicians, paramedics, AHPs and administrators which can negatively affect the development of horizontal collaboration and vertical integration that are important for continuous improvement (Natarajan, 2006).

Table1. *TQM CSFs in hospitals*

CSFs		10 CSFs (Mosadeghrad, (2014a)	Athamneh (2014)	Alaraki (2014)	Salaheldin and Mukhalalati (2009)
			Qatar	Saudi	Qatar
1.	Customer Focus (CF)	Customer Management	√	√	
2.	Continuous Improvement (CI)	Process Management;	√	√	
3.	Commitment of Top Mgt (CTM)	Leadership and Management; Resource Management	√	√	√
4.	Employee involvement & Empowerment (EIE)	Employee Management	√	√	√
5.	Education and Training (ET)	Education and Training	√	√	√
6.	Organisational Culture (OC)	Quality Culture	√		
7.	Quality Measurement (QM)	Planning; Information Management;	√	√	
8.	Teamwork & Communication (TC)	Quality Culture			√
9.	Supplier Management	Supplier Management	√	√	√

As mentioned in the introduction, there have been several Saudi healthcare studies that have focused on the challenges associated with the lack of qualified staff leading to a reliance on overseas workers. This increases direct costs due to a need to pay higher benefits to attract overseas workers and leads to higher indirect cost due to higher turnover levels (Walston et al., 2008).

Jannadi et al. (2008) and Albejaidi (2010) also reported that a focus on training and recruiting skilled medical professionals rather than skilled quality management professionals was leading to a lack of the knowledge required for the efficient application of quality strategies. Indeed, a Saudi study of four private medical organizations reported that high staff turnover rates was the second most significant barrier to TQM implementation, others being resistance to change, poor motivation by managers and poor understanding of TQM concepts (Alsughavir, 2014). These studies do not mention the mix of national cultures or the Saudi culture itself as causing problems. Similarly, this paper will not focus on any assessment of the presence or impact of national cultural traits such as high power-distance and low uncertainty avoidance

that would traditionally be associated with the Saudi context (see Lagrosen, 2003). Instead, it will focus on the extent to which there is evidence of specific challenges relating to quality management arising from a workforce that features workplace national cultural diversity. From the discussion, three key propositions are made which address the gaps identified:

TQM is Embedded in Saudi Public Hospitals

The literature has highlighted the use of TQM and a range of TQM tools and techniques but little is known as to the degree of embeddedness of TQM in the actual organizations themselves. The paper therefore explores embeddedness with the proposition that TQM is embedded in Saudi hospitals showing a degree of maturity, and not merely a passing fad or the latest management buzzword.

Specific Critical Success Factors (CSFs) underpin and Reflect the Level of TQM Development

While some work has explored the elements required to support TQM and evidence suggest TQM has a positive impact on performance, little work is done to understand why or under

what conditions TQM is developed. This proposition therefore explores the specific CSFs which underpin TQM and suggest these are reflected in the level of TQM development displayed.

Workplace National Cultural Diversity (WNCD) Poses Challenges to Embedding TQM in Saudi Public Hospitals

The final proposition is based on the impacts of diversity and the parallel issue of Saudi localization policies. While benefits of a diverse workforce are well recognized this proposition is that such a workforce poses particular challenges to the embedding of TQM in the hospital setting.

RESEARCH METHODOLOGY

A multiple case study research design was adopted to provide insight into the range of organizational context and explore the three research propositions. Multiple case design was preferable to single case as there was a need to compare the different context to draw out similarities and contrasts across different situations. This allowed analysis within each situation and across different situations and was aligned to the purpose of the research. The case strategy was selected as it allowed an indepth analysis of each proposition and exposed differences in workforce attitudes across the different context and perspectives towards embeddedness of TQM, identified the CSFs of TQM and the key challenges. The study applied literal replication logic (Yin, 2009) to select three Saudi public sector hospitals, all located within the Riyadh region, known to be implementing TQM.

The hospital characteristics are shown in Table 2.

Table2. *Characteristics of case studies and research participants*

	Hospital A	Hospital B	Hospital C
No. of Beds	845	460	228
No. of Employees	8401 (57% Saudi)	2886 (38% Saudi)	1228 (58% Saudi)
Research Sample:			
Management Interviews	15 (3 non-Saudi; 12 Saudi)	12 (2 non-Saudi, 10 Saudi)	10 (2 non-Saudi, 8 Saudi)
Surveys sent out	500 (285 Saudi, 215 non-Saudi)	678 (256 Saudi, 422 non-Saudi)	586 (338 Saudi, 248 non-Saudi)
No. of survey respondents	377 (75%)	256 (38%)	307 (52%)
% of Saudi respondents	63%	35%	59%
Respondents: No. of nationalities	16	16	10
Respondents: top 10 non Saudi nationalities	Philippines (28%) USA (16%) Canada (9%) UK (9%) Egypt (9%) Ireland (7%) Sudan (4%) Lebanon (4%) Pakistan (4%) Portugal/Sri Lanka (2%)	Philippines (25%) Indian (12%) Pakistan (11%) Sudan (10%) Egypt (9%) Sri Lanka (7%) UK (6%) Ireland (5%) Canada (5%) Malaysia (4%)	Philippines (38%) India (24%) Egypt (12%) Sudan (9%) Pakistan (7%) USA (4%) Lebanon (3%) Sri Lanka (1.5%) South Africa (1.5%) Jordan (0.7%)
Respondents job classification	Clinical (43%) Non-clinical (28%) Management (14%) Admin/Clerical (15%)	Clinical (63%) Non-clinical (27%) Management (3%) Admin/Clerical (7%)	Clinical (43%) Non-clinical (28%) Management (14%) Admin/Clerical (15%)

As can be seen from Table 2, the sample of hospitals reflects varying size from 8401 staff (Hospital A) to 1228 staff (Hospital C).

It can be seen that each hospital has a significant reliance on non-Saudi employees, with Hospital

B having just over one-third of workers of Saudi nationality.

This allows for the three cases to dear on different profiles and allows for a more meaningful comparison of each case context.

Methods

A mixed method composing of staff survey questionnaires and management interviews was employed.

Staff Survey Questionnaires

The staff survey explored propositions 1 and 2 and sought to determine the level of TQM embeddedness by measuring whether there was widespread recognition at each hospital of the TQM CSFs.

Table3. *TQM critical success factors*

Critical Success Factor
CF - Customer Focus
CI - Continuous Improvement
CTM - Commitment of Top Management
EIE - Employee Involvement and Empowerment
ET - Education and Training
OC - Organisation Culture
QM - Quality Measurement
TC - Teamwork and Communication

The responses to the statements under each CSF category were then consolidated for the discussion. The average level of agreement across the various statements was used as an overall indicator to gage the presence of the CSFs. At this stage, it was only necessary to know if respondents agreed or disagreed with the statements.

This approach was adopted as it provided greater depth of insight into the level of overall understanding across each category than providing average scores for each dimension. This allowed proposition 1 and 2 to be explored.

In-Depth Semi Structured Management Interviews

To explore proposition 3 and the challenges relating to WNCD and TQM embeddedness, 37 in depth expert semi-structured interviews were undertaken with managers across each of the three hospitals (see Table 2). This allowed the WNCD perspective to be explored but also provided management views on policy relating to TQM development at the public hospitals, their perceptions of the degree to which TQM

The survey was conducted in all three hospitals with a total of 939 respondents across all three hospitals (see Table 2). A self-administered questionnaire, was distributed by email, resulting in a response rate ranging from 38% to 75% depending on the hospital.

The questionnaire collected characteristics of survey respondents (job type, length of service and nationality) to gage the representativeness of the survey respondents, and used a five-point Likert scale to measure views in relation to 29 statements relating to components of TQM in a public hospital.

The 29 statements were each designed to align with the CSFs (see Table 3).

had been successfully deployed and any specific workforce challenges encountered in relation to quality management. This paper presents a cross case comparison of the case study results. The next section first presents a summary of the views of the employees as reported in the survey relating to the eight CSF categories and consequently provides an overall impression of the degree of TQM embeddedness at each case study.

This is followed by a discussion under each of the eight CSFs pointing out similarities and differences between the cases across the eight categories, and connecting this to any evidence from the management interviews relating to each category. The subsequent section is an analysis of management views on any quality management implications relating to workforce national cultural diversity. This discussion also draws out similarities and differences between the three hospitals.

FINDINGS AND DISCUSSION

The findings from the staff survey question allowed for an understanding of the CSFs and

the relative importance of each CSF. Table 4 shows the range of statements made by respondents relating to the CSFs.

Table4. *TQM critical success factor statements*

Critical Success Factor	Statements
CF - Customer Focus	• The hospital has procedures to monitor patients' complaints. • The hospital regularly incorporates patient feedback in its review of services. • There are regular service reviews to determine the most significant processes that add value to patient satisfaction.
CI - Continuous Improvement	• The hospital ensures continuous improvement for all operations and processes in the hospital. • The hospital gives emphasis to regular service review audit to help develop services delivered to patients.
CTM - Commitment of Top Management	• Senior managers show clear commitment to quality policies and practices in the hospital. • Senior managers set clear strategic vision for quality improvement in the hospital. • Senior managers allocate sufficient resources for quality improvement strategies.
EIE - Employee Involvement and Empowerment	• I have the opportunity to participate in projects to improve work practice. • I feel able to give suggestions relating to improving work practices. • I am generally involved in decisions taken to improve work practices. • I feel that I must not always follow procedures and should take decisions by myself. • I am fully committed to the quality improvement plans in the hospital.
ET - Education and Training	• I have been given the opportunity to receive training and education to enhance job-related skills. • I have been generally given education and training on quality improvement techniques.
OC - Organisation Culture	• The hospital has a clear vision of total quality management strategies. • The hospital routinely spreads information about quality issues to all the staff. • The hospital is flexible in making any structural or procedural change if needed for quality strategies and improvements. • Employees can talk about their mistakes without fear or blame. • The culture in the hospital is overall supportive of quality improvement.
QM - Quality Measurement	• There is an effective system to gather information and data inside the hospital to facilitate making decisions concerning quality dimensions. • Regular evaluation is conducted to measure the consistency of the procedures followed in the hospital. • There is an auditing system in the hospital. • The management information system provides useful information for performance monitoring of processes.
TC - Teamwork and Communication	• The hospital encourages teamwork rather than individualism. • There is clear communication system concerning quality strategies and goals. • Employees in different professional roles communicate well with each other. • Employees from different departments communicate smoothly with each other. • There are no communication problems between employees from different nationalities.

It can be seen from Table 4 that respondents recognised all of the CSFs identified in literature and had clear examples and comments relating to each. Of particular note was the reference to

the qualitative dimensions of leadership, empowerment, culture and teamwork. All elements that have a significant representation in the open-ended responses. This is not surprising given the requirements for socialisation in the hospital setting and the emphasis on human resources and professional networks. However, what is interesting is the perceived ranking of the CSFs.

The findings from the questionnaire related to each CSF ranking are displayed in Table 5 and indicate that all hospitals identified CI

(continuous improvement) as the key CSF. This was followed by CTM (commitment of top management) and ET (education and training) interchangeably (except in Hospital B). Therefore, to make more sense of these findings we explore each CSF in more detail and also provide Figure 1 below. The results of the questionnaire conducted with staff and any comments or explanations of observed phenomena found from the management interviews are discussed in detail below.

Table5. *Ranking of CSFs by % Agree/Strongly Agree*

Hospital A	Hospital B	Hospital C
1. CI (92%) 2. CTM (90%) 3. ET (85%) 4. OC (85%) 5. CF (82%) 6. QM (77%) 7. TC (76%) 8. EIE (68%)	1. CI (76%) 2. ET (72%) 3. QM (69%) 4. TC + OC (66%) 5. CTM (65%) 6. CF (63%) 7. EIE (61%)	1. CI (87%) 2. ET (87%) 3. CTM (81%) 4. TC (80%) 5. QM (78%) 6. OC (77%) 7. CF (73%) 8. EIE (62%)
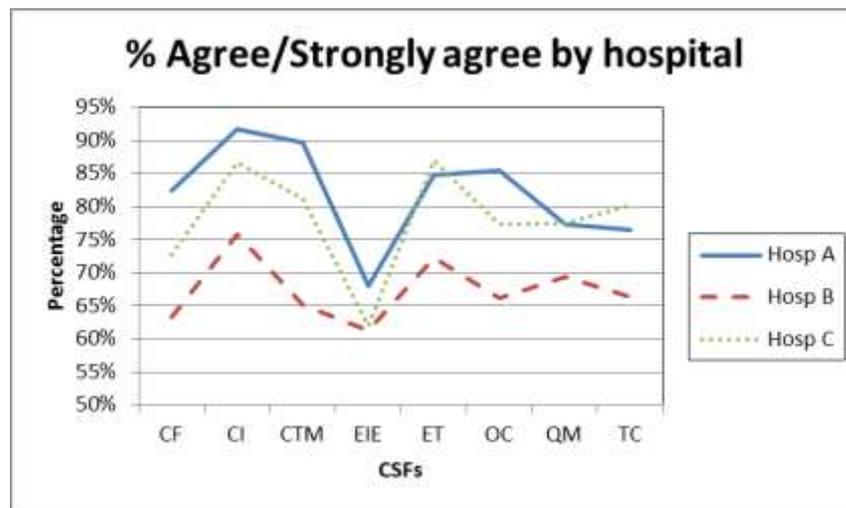
Figure1. *Percentage of respondents who agree/strongly agree across each CSF*

As Table 5 shows, the overall findings indicate that, while all three hospitals are progressing well with their TQM culture, there are differences between the hospitals in relation to recognition of the presence of factors that are associated with TQM, with Hospitals A and C showing signs of greater TQM embeddedness than Hospital B. This coincides with differences in the levels of Saudi employees in the workforce, with Hospitals A and B having workforces of 57% and 58% Saudi, compared with Hospital B where 38% of the workforce is Saudi (see table 2). Despite the variations between the three cases, the survey results in

each hospital show a similar pattern in relation to the particular CSFs that are perceived to be more or less prevalent (Figure 1). One factor – employee involvement and empowerment - stands out across all three case studies as scoring the lowest in each organization. The findings in relation to each of the CSFs are discussed further below, highlighting similarities and differences between the three case studies.

Customer Focus (CF)

Statements about customer focus related to the monitoring of patient complaints, use of patient

feedback in service review and use of service review to determine how best to add value for the patient. Hospital A showed the highest average levels of agreement across statements in this category, with 82% of respondents agreeing/strongly agreeing with statements, falling to 73% in hospital C and 63% in hospital B. Hospital B respondents also showed the highest disagreement with the statements. The manager interviews did not provide any explanation for this variation as all reported the regular use of customer/patient satisfaction surveys in all departments, the review of complaints and the use of customer care programmes for all hospital staff.

Continuous Improvement (CI)

Continuous improvement (CI) scored highest (or highest equal) in all three hospitals. Respondents in hospital A signalled most agreement with statements in this category, with on average 92% agreeing or strongly agreeing with the two statements relating to continuous improvement of processes and service review audits. The managers interviewed in all three hospitals spoke about various projects directed at quality improvement, such as a 100 day challenge for rapid process improvement (Hospital A), an integration of risk management and patient safety project (Hospital B), and a CI project to reduce long waiting times (Hospital C). All the CI projects were reported by managers to have led to positive outcomes in relation to improved patient satisfaction and clinical outcomes and seemed to be longitudinal in nature i.e. "The hospital ensures continuous improvement for all operations and process in the hospital" and "The hospital give emphasis to regular service review audit to help develop services delivered to patients".

Commitment of Top Management (CTM)

Perceptions that senior management demonstrated clear commitment to quality policies, set a clear vision for quality improvement and allocated sufficient resources for advancing quality improvement was particularly high at hospital A and C (90% and 81% respectively) but considerably lower at hospital B (65%). At hospital B, the lower score was mainly due to lower agreement in relation to sufficient resources for quality improvement strategies and clear vision for quality improvement. However, in all three hospitals resourcing was the issue that scored the lowest in terms of its sufficiency. From the management interviewees it appears that senior managers in all three hospitals had regular reports and meetings with the quality management department to discuss, review, and solve quality problems and seemed committed to TQM.

Employee Involvement and Empowerment (EIE)

The management interviewees in all cases believed that there was strong employee involvement, citing departmental meetings as forums for providing suggestions and engaging in discussions about problems. In addition, dedicated meetings with the quality department (Hospital C) and the use of e-portals to provide suggestions (Hospital B) were given as examples of employee involvement. However, as previously highlighted, although around two-thirds of respondents in each hospital did respond positively to statements about their level of empowerment and involvement, this was the CSF that scored the lowest in all three hospitals. In hospitals A and C, there was a clear gap between average levels of agreement with this factor and other CSFs.

In exploring the reasons for this pattern, it should be noted that there were five statements in this category and responses did vary across the statements. In particular, levels of agreement with the statement about taking decisions oneself rather than always following procedures scored lower across the three hospitals (53% in A, 24% in B, 23% in C). Levels of agreement relating to involvement in decisions taken to improve working practices was significantly lower in Hospital A (45%). These results may be driven in part by the size of organization i.e. Hospital A was significantly larger than C and B. This may imply a degree of bureaucracy influencing the decision making process.

Education and Training (ET)

Education and training (ET) opportunities relating to quality improvement techniques and job-related skills scored consistently high in all hospitals (scoring the highest equal in Hospital C (87%), second highest in Hospital B (72%) and third in Hospital A (85%)). The management interviewees also reported their respective hospitals had a strong focus on education and training, with all reporting training for job-related skills, and the use of quality tools and quality-related practices. However, interviewees in hospitals B and C indicated that more training was needed for the

efficient use of quality tools. Overall, the hospitals appeared to have a well-developed educational environment with library facilities to promote education and learning. Hospitals A and B also have their own journals, while Hospitals A and C have research departments which facilitate and oversee the research process and collaborate with other institutions to provide high quality research into new techniques and operations.

Organization Culture (OC)

Views on the extent to which various aspects of the organizational culture are supportive of TQM varied across the hospitals, with 85% of respondents in Hospital A agreeing/strongly agreeing with statements that would indicate a supportive TQM culture compared with 66% of respondents in Hospital B. There was variation between the specific statements within this category, for example, 80% of respondents in Hospital A indicated they felt comfortable to talk about their mistakes without fear or blame, whereas in Hospital B, only 55% of respondents agreed/strongly agreed that they could talk openly about mistakes. In contrast, the management interviewees all reported that their hospital had an open culture that encouraged employees "to talk about problems, solutions and challenges" (Hospital A). While such perception gaps are not uncommon, it is interesting to note that Hospital C managers were aware that while employees were encouraged to speak up about problems in order to find solutions, "some employees may be discouraged from opening up as fearing an indirect impact on their assessment, rewards or evaluations". In elaborating on this, some managers expressed the view that concerns about their employment contract prevented overseas workers from talking about problems or challenges. This is discussed further later in the paper.

Quality Measurement (QM)

The majority of respondents in all three hospitals agreed that quality measurement practices were prevalent in their hospitals. The managers mainly referred to the monitoring of indicators such as mortality/morbidity, medical errors, infection rates, patient flow and discharge, waiting times, bed occupancy rates, work cycle times and patient satisfaction. There was a belief that the systems were effective and that regular evaluation was undertaken. In addition, the use of the National Database of

Nursing Quality Indicators (NDNQI) was discussed by interviewees in Hospitals B and C, and Hospital A reported that it had benchmarked performance against a hospital in the USA. In all cases, the management information system was being used to improve the performance of the monitoring system and all stakeholders had a good knowledge of the key measurements used.

Teamwork and Communication (TC)

The CSF relating to internal collaboration was measured using four statements relating to the encouragement or practice of team working and communication between functions, departments and professions, with one statement about communications between employees from different national cultures. The most positive views were expressed in Hospital C where, on average 80% of respondents agreed/strongly agreed to statements about positive communications and team working, compared with 76% and 66% in Hospital A and B respectively. However, in Hospital A this factor scored the second lowest of all eight CSFs. The score in relation to no communication problems between national cultures was equally high in all three hospitals (66% to 80%) with Hospital B being the lowest. The interview findings stressed the importance of collaborative nature of work and the use of teams from different departments of the hospital working on projects together (Hospital C). Clear documented procedures for work practices were also reported to facilitate good communication within the hospital (Hospital A). As discussed further below, issues relating to workplace national cultural diversity are noted to potentially have both positive and negative impact on team working and communications.

Overall, the results indicate that TQM is well embedded within the three Saudi hospitals and that there are proactive managerial actions directed towards re-enforcing TQM practices. The next section explores the national workforce cultural diversity challenges and impact.

National Workforce Cultural Diversity Challenges and Impact

In terms of proposition 3, the management interviewees from all three hospitals generally revealed very positive views about the impact of international workers on the deployment of TQM in their respective hospitals. The mixed nationalities working in the hospital was viewed

as bringing benefits to the application of the quality strategies and practices, particularly in relation to new learning that occurs from the experience of workers from overseas, as these views demonstrate:

Other benefits were linked to the cohesiveness within cultural nationalities in supporting TQM:

"In our department, we have many Filipinos. You will always see them discuss issues and take decisions together, even if they do not have to do so. Such a cooperative environment and type of attitude made it easier for us to apply quality strategies." (Interviewee 4 - Saudi, Hospital A)

On the other hand, several interviewees suggested that difficulties could arise due to insecurities that foreign workers have about their employment contracts. For example, an interviewee commented:

"You can see that foreign workers in general really worry about renewing their contracts. They try to please their managers, do what they are told to exactly expecting that this will grant them good recommendations. Such attitudes are not easily reconciled with quality initiatives in the department where employees from different levels are expected to be on the same platform. In the regular meetings with employees, you can see the same attitude from foreign workers, praising their supervisors' views without having an objection."(Interviewee 13 - Saudi, Hospital A)

There were also some comments that foreign employees tended to be more obedient to their managers and were often inclined to refer tasks to them even if they were authorized to take the decisions themselves, which may contribute to the low EIE CSF score. For example:

"Some foreign employees came through a long journey to get a work permit to be able to work in the country, and will do as much as they can to keep their jobs. This sometimes makes them afraid of taking authority, preferring to refer many tasks to their managers for assurance, although we try to encourage all of our employees to take decisions themselves as much as possible." (Interviewee 8, Hospital C, Non-Saudi)

A related observation was that some foreign workers try to highlight their individual accomplishments to ensure the renewal of their contracts and it was felt this may work against team collaborations that are key to hospital quality improvement strategies. For example, one manager explained:

"Some foreign employees especially in their first years of employment try too hard to prove themselves in their professions. Even though it may be positive to have such an attitude in the sense of getting the best out of them, sometimes teamwork may be less interesting (to them)." (Interviewee 6 - Saudi, Hospital B)

In Hospital B, several interviewees indicated that having different nationalities in the workforce can bring challenges in terms of their remoteness from the national culture of the patients that may cause quality problems. For example, an interviewee commented:

"... sometimes it can be hard for the foreign workforce, especially those in direct contact with patients to comprehend and address the patients' needs as they should, since they are culturally distant from them, hence adding more challenges to providing them with the best levels of quality service." (Interviewee 8 – non-Saudi, Hospital B)

Based on the above, it can be stated that overall the interviewees across each case study viewed national cultural diversity in the workforce as advantageous to the application of TQM in the hospital, despite a few challenges. This reflects the findings of Yousuf (2017) and Aljuaid et al (2015) who did not find that a foreign workforce affected quality. However, Yousuf (2017) did identify a high employee turnover as being a "critical challenge" (p215).

CONCLUSION

The main aim of this paper was to explore the level of TQM development in light of literature that suggested that workforce national cultural diversity (WNCD) was causing challenges (Albejaidi, 2010; Jannadi et al., 2008; Walston et al, 2008). The research was conducted at a time of change with developments seen in relation to increases in the presence of Saudi nationals in the health profession following on from Saudi public policy measures.

Our research had three propositions:

1. TQM is embedded in Saudi public hospitals.

2. Specific Critical Success Factors underpin and reflect the level of TQM development.

3. Workplace national cultural diversity (WNCD) poses challenges to embedding TQM in Saudi public hospitals.

In relation to proposition 1, the case study findings show that there is a clear management commitment to TQM in all three Saudi public hospitals and that there is significant evidence of TQM activity and proactive development. Thus, TQM is embedded.

Regarding proposition 2, the CSFs are present in the hospitals studied. However, there are some differences across the three case studies and across the various CSFs themselves. The high level of agreement with the statements regarding continuous improvement (CI) and employment and training (ET) in all three hospitals suggests the presence of a strong environment for continuous improvement projects and a high priority to providing employees with suitable knowledge and training that support the development of a TQM culture.

Finally, relating to proposition 3 and issues of WNCD, it is notable that Hospital B scored lower in all CSF dimensions and that this hospital does differ in its workforce characteristics compared with A and C in relation to having the lowest proportion of Saudis in the workforce - 38% compared with 57% and 58% in A and C respectively. Employees in Hospital A tended to be more positive in their perceptions of the presence of the factors associated with a well-developed TQM environment. This could have been the due to the increased presence of Saudis in the workforce, along with a higher proportion of UK/USA workers.

Overall, the case study evidence suggests that it may be the job insecurity felt by overseas workers rather than their national traits/attitudes which can cause barriers to some of the behaviours required for TQM maturity (in particular empowerment and teamwork). The wider case study evidence suggests that having a nationally diverse workforce is generally positive and, in itself, does not impose a major inhibiting factor to the success of TQM in a hospital, even though there may be some challenges. This is similar to findings by Saxena (2014) in terms of workforce diversity and productivity improvement. Even in Hospital B which had a high proportion of non-Saudi staff

and a lower level of TQM maturity, managers reported benefits from WNCD. Given that negative issues linked to WNCD are associated with job insecurity, further development of HR policies for non-Saudi nationals may be important to further embed TQM culture within Saudi hospitals.

LIMITATIONS

There are two main limitations to the work. Firstly the multiple case design and secondly the scope of the work. In terms of the case design, a limitation of the study is that the multiple case provides major benefits for cross case or context analysis but at the expense of single in-depth exploration of phenomenon. This is recognized and was considered carefully during the research design. Given the nature of WNCD and the cultural aspects of the community, including access and trust, the decision was made to seek cross comparisons rather than single case depth in specific groups of respondents. The later would not have been feasible and would have questionable validity and rigor.

The second key limitation was the scope of the research. The scope focused on public sector hospitals located in Riyadh, which is the capital of Saudi Arabia. This may have had an effect on the results as hospitals in capital cities may have a more diverse workforce compared to other regions. Hence, further research needs to be carried out across Saudi hospitals to establish if the findings are replicated across both different type of hospitals and hospitals in different regions of the country.

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