FACTORS THAT INFLUENCE THE QUALITY SAFETY CULTURE WITHIN A HEALTH CARE SETTING: A COMPARISON BETWEEN COLOMBIA AND SAUDI ARABIA

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TABLE OF CONTENT

TABLES

FIGURES

ABSTRACT

The purpose of this study is to determine the interactions among factors such as organizational learning, feedback about error, punitive response to errors and quality of communication when fostering a culture of quality and safety in hospitals in the Kingdom of Saudi Arabia and Colombia. A self-administered questionnaire was designed and used to collect responses from 417 respondents affiliated to hospitals in Saudi Arabia and 483 respondents from Colombia. The findings from the Structural Equation Modelling process shows a strong and significant predictive relationship between Feedback about Errors and Quality Safety Culture (QSC) and a very low and insignificant predictive relationship between Non-Punitive Response to Errors and QSC for the two countries. This study shows the relevant role of Organizational Learning in fostering a quality safety culture in the healthcare sector for Saudi Arabia and Colombia. Additionally, the treatment of the dimensions addressed in this study for accreditation purposes is essential to foster a culture of quality and safety.

Keywords: Organizational learning, quality safety culture, quality assurance.

RESUMEN

El propósito de este estudio es determinar las interacciones entre factores como el aprendizaje organizacional, la retroalimentación sobre el error, la respuesta punitiva a los errores, y la calidad de la comunicación cuando se fomenta una cultura de calidad y seguridad en los hospitales del Reino de Arabia Saudita y Colombia. Se diseñó un cuestionario autoadministrado y se utilizó para recopilar respuestas de 417 encuestados afiliados a hospitales en Arabia Saudita, y 483 encuestados de Colombia. Los hallazgos del proceso de Modelización de Ecuaciones Estructurales muestran una relación predictiva

sólida y significativa entre la retroalimentación sobre los errores y la cultura de calidad y seguridad (QSC), y una relación predictiva muy baja e insignificante entre la respuesta no punitiva a los errores y la QSC para los dos países. Este estudio muestra el papel relevante del aprendizaje organizacional en el fomento de una cultura de calidad en el sector de la salud en Arabia Saudita y Colombia. Además, el tratamiento de las dimensiones abordadas en este estudio con fines de acreditación es esencial para fomentar una cultura de calidad y seguridad.

Palabras Clave: Aprendizaje organizacional, cultura seguridad de calidad, aseguramiento de la calidad.

1. INTRODUCTION

During the last decades, healthcare providers have realized that being part of the health care system also involves an ethical, practical, and social responsibility towards the better understanding of the factors that drive a culture of quality and safety (Huotari & Havrdová, 2016; Richter, McAlearney, & Pennell, 2014; Withrow, 2006). The consideration of those factors to achieve a more operationally efficient environment might also prevent hospitals from committing errors that could lead to expensive losses and threats to patients and staff.

An adequate patient safety culture is firmly related to staff´s welfare as well as a culture of quality and effective healthcare practices (Alswat et al., 2017; Ferrer, Santa, Medhekar, Calvo, & Sánchez, 2018). Therefore, policymakers and hospitals from around the world have given priority to associated issues with the intention of reaching objectives to reinforce a Quality and Safety Culture (QSC), which represents a determinant factor among patient and staff welfare. They have addressed their efforts to the promotion of patient safety culture as a fundamental tool to guarantee a quality and safety culture within a healthcare setting, and are promoting it as one of the most important elements of health care quality practice, and a necessary requisite for effective safety management systems (Huotari & Havrdová, 2016).

QSC has also become important when accreditation processes are under study, as they reflect how and when a healthcare organization has reached certain international standards that might provide sustainability and quality service (Wagner, McDonald, & Castle, 2012a). Nevertheless, QSC for both patients and staff will only be acknowledged if it has been embraced by the people working in the organization (Nieva & Sorra, 2003).

According to the World Health Organization [WHO] (2004), the fostered a worldwide initiative to raise awareness of patient safety and harm in healthcare. However, to achieve this, organizational culture must be transformed into one based on learning, effective communication, and reporting errors, where staff members are encouraged to appropriate these practices in order to improve quality and patient safety, instead of fearing the existing culture of punishment and public blame.

Illich (1976) wrote a critique called *Limits to Medicine: Medical Nemesis, the Expropriation of Health*, where he concluded that healthcare represented one of the major threats to patient health, as the actual healthcare system did not work properly since hospital staff—including nurses and doctors who are in charge of patients—worked under a punitive culture that made them avoid reporting error. An organization's productivity can be negatively affected by the adverse events on staff's and patient's health, this is why healthcare organizations managers are leaning on leadership as a way of improving communication between the actors and sharing a new safety culture (Nieva & Sorra, 2003; Santa, Scavarda, Fang, & Skoko, 2011).

2. BACKGROUND

Recently, healthcare organizations in developing countries have acquired a great interest in accreditation programs. Their quest for improving the provided healthcare service has been modified depending on the challenges they have had to face (World Health Organization [WHO], 2008). New programs and projects such as the Pan American Health Organization (PAHO) and the Latin American Federation of Hospitals, have been created by political leaders, to address deficiencies in quality and safety practices in medical centers that have led to the increase of mortality rates. These projects consist of structural

and organizational reforms with the intent of reaching higher levels of effectiveness, safety, and quality care.

The World Health Assembly is an event held yearly in Switzerland where the World Health Organization members, represented by health ministers, set health policies for its member states and determines the agenda to cope with particular international health matters (World Health Organization [WHO], 1948). Since its foundation, multiple efforts have been implemented within several nations to reach the highest standards in patient and healthcare quality service and the outcomes have not been more promising.

Voluntary accreditation is a program in which certified reviewers from different international accreditation bodies evaluate and qualify various healthcare standards and then compare them using pre-established criteria in order to determine whether the organizations under review meet them and could be considered certified centers internationally (Ferrer, Santa, Medhekar, Calvo, & Sánchez, 2018).

Although accreditation in safety culture is not an obligation, certain institutions such as the Joint Commission on Accreditation of Health Care Organizations, have requested the monitoring of some of the most critical components of healthcare quality practices, including staff performance, trust, patient outcomes, opinions, and suggestions. There are two ways to authenticate whether an organization fulfills The Joint Commission standards. The first one is accreditation, which aims to diagnose an entire healthcare institution, and the second one is certification, which is earned by specific programs or services provided by the health care institutions. The Joint Commission, (n.d.) states that both mechanisms are used by more than 19,000 health care organizations worldwide when implementing this international framework.

Saudi Arabia became one of the first Gulf Cooperation Council members to successfully adopt the voluntary accreditation system promoted by the Joint Commission International when, in November 2000, The King Faisal Specialist Hospital and Research Centre received the Gold Seal of Approval (Qureshi, Ullah, & Ullah, 2012; Santa, Borrero, Ferrer, & Gherissi, 2018). Later, in 2005, the constitution of the Saudi Central Board of Accreditation for Healthcare Institutions (CBAHI) was consolidated as a way to avoid medical error in healthcare services that were being provided ("CBAHI at a glance | CBAHI," 2015). Furthermore, since May 2016 one of this agency's main objectives is to implement the Essential Safety Standards (ESRs), which consist of 20 national standards for hospitals in Saudi Arabia that ensure patient safety and protection (Alwahabi et al., 2017). As stated by Alsakkak, Alwahabi, Alsalhi, Shugdar, & Dba (2017), the CBAHI is the only agency able to give a hospital or medical center the national accreditation depending on their compliance with its recommendations. The process of accreditation is based on the official reports of previous medical errors to the Ministry of Health, as well as investigation of patient safety.

There are only five JCI-Accredited organizations with the Gold Seal of Approval in Colombia, while in the Kingdom of Saudi Arabia there are 107 (The Joint Commission International, n.d.). In Colombia, the Ministry of Social Protection and some quality-ensuring agencies such as ICONTEC have been enforcing the practices of quality and safety in the country's health care system since 2004, through the development of policies and regulations and strengthening the accreditation process of health services and institutions. One of the components of the Mandatory System of Quality Assurance in Health is the unique accreditation system which was regulated in 2002. The latest update

was made in 2014, seeking to improve the quality of health care with a focus on safety and clinical excellence (Ministerio de la Protección Social, 2014).

Moreover, the Unique Habilitation System (SUH) in Colombia, which was updated in 2014, outlines the minimum technological and scientific conditions for the provision of health services. Patient safety is contemplated within the priority processes of this resolution and includes the identification and management of adverse events as well as the strengthening of the organizational culture (Bartolomé et al., 2005). Some of the main actors in providing quality healthcare in Colombia are the National Health Superintendence, the National Institute of food and Medicine Surveillance (INVIMA) and the National Health Institute.

Data feedback strategies have been tested in several hospitals in Colombia, to better understand if there is a positive correlation between the collection of data and the feedback given after being analyzed. In fact, data feedback can be useful when it comes to improving the staff's confidence and trust in the statistics and how do they affect the organization (Bradley et al., 2004). On the authority of Procolombia, there are 28 private and public accredited institutions that obtained its accreditation by reaching the highest standards in patient safety, quantity, and quality of information given to the patient and family, patient rights, etc.

Studies have shown that low-level performance organizations are the ones that have improved the most regarding quality and safety measures. Plus, the performance of non-accredited hospitals is significantly low than the accredited ones (Schmaltz, Williams, Chassin, Loeb, & Wachter, 2011). Nevertheless, accreditation programs from all over the world are aimed at configuring common standards supported by the World Health Organization and other international agents (Braithwaite et al., 2011).

Organizational Learning (OL).

Cangelosi & Dill (1965), first introduced the term organizational learning. After that, the term has been widely used and discussed, thus its popularity among the academics has dramatically grown and as it has been applied to different fields of knowledge, the intention to define it has remained elusive (Crossan, Lane, & White, 1999; Jabar, Soosay, & Santa, 2011). Later Dodgson (1993), defined organizational learning as the way knowledge regarding the organizational culture is aligned and adapted with the aim of enriching the firm's knowledge and ability to make its workforce an efficient and valuable one. Today's rapidly changing environment needs the effective application of this concept to develop continuous and sustainable adaptation and anticipation abilities among the staff.

There is an existing divergence concerning the learning process and applying what has been learned. Therefore, it also exists a conflict amongst the transference of learning between the organization's members and the feedback. De Geus (1988) exposed that learning will only be appropriated when managers challenge the commonly accepted assumptions and mental models about the company and its functioning. Willingness to transformation and innovation must be part of the organizational culture and so as the motivation to unlearn pre-existing practices and mental models in order to learn and be open-minded about new strategies, practices, among other things (McGill & Slocum, 1993).

In the process of introducing organizational learning to the healthcare industry, it has become clear that the biggest challenge to moving toward a safer health system is changing the culture from one of blaming individuals for errors to one in which errors are treated not as personal failures, but as opportunities to improve the system and prevent harm (Institute of Medicine, 2001). As claimed by the World Health Organization, there

has not been paid enough attention to organizational learning in healthcare, as the same problems have been occurring repeatedly. Information and data collected should be prioritized and used to enhance the existing learning strategies towards the improvement in reducing error and increasing communication, rather than new products. Healthcare industry must be considered as a hazardous one that should stop conceiving a blaming culture and start implementing one focused on learning from errors and giving feedback about them (Leape et al., 1998).

Learning is difficult because it revolutionizes the original ways people used to do things and brakes traditions, but it also involves intuition, interpreting, integrating and institutionalizing abilities. Although there is the trend of using ideas from other companies and using their experience to shorten the road they must walk through until they reach sustainable effectiveness (Santa, Hyland, & Ferrer, 2014). The consensus around the capacity of learning is growing as it has become one of the determinants of organizational effectiveness (Adler & Cole, 1993). Nevertheless, the benefits obtained from the implementation of these new strategies will not be clear until a cultural change inside the organization has been made (Nieva & Sorra, 2003; Santa et al., 2011).

Policymakers have shown increasing interest in measuring how the organizational culture has changed after being influenced by the organizational learning processes. A wide variety of tools have been developed to quantify and interpret data collected in different healthcare organizations with the purpose of determining whether they have an impact on safety and quality (Scott, Mannion, Davies, & Marshall, 2003). As suggested by (Hofstede & Bond, 1984), the understanding of the organizational learning process inside a healthcare organization must be made taking into account the existence of values and subcultures of the staff and the patients as these might have a strong incidence in the way people behave.

Feedback about Error (FAE)

Keeping the staff informed about the errors made by them or other colleagues in the organization, giving feedback about the most recent updates and changes, as well as reviewing altogether the alternatives to prevent imminent errors are the three pillars of effective communication and feedback about error according to the AHRQ's 2018 Hospitals report.

Feedback about errors and communications are signs of leadership inside the organizations. Several investigations regarding safety culture and learning from errors have shown that managers and staff members should view errors as opportunities to identify the failures and to challenge themselves to propose solutions (Piotrowski & Hinshaw, 2002). Consequently, a better understanding of adverse events in health care must be developed: its causes, how they are reported, how to learn from them and prevent them. The way the staff responds to the reports made by their own or other colleagues is the key to define how safety and quality should be improved.

A study made by Ginsburg et al., (2010) examined the existing relationship between organizational leadership and Patient Safety Events (PSEs). Strong administrative leadership was found to be one of the main drivers of the improvement of safety processes in small healthcare organizations, rather than in large ones. The reasons may vary, but the proximity of the Chief Officers to staff members, patients, and managers seem to reduce the bureaucracy and formal administrative processes needed to take action regarding certain issues. Along with leadership, visibility and interaction are key elements to improve patient safety and avoid adverse events by satisfactorily learning from them.

There are two main obstacles regarding the improvement of safety culture on healthcare organizations. First is perfectionism, which is an ideal every person working on

the healthcare industry works for; and second, the stigmatization and sanctioning culture. Failing or having a low performance on either one or both of them, represents incompetence and lack of knowledge. Altering and changing the common belief that punitive response and shame culture will encourage health professionals to report errors and consequently, to improve patient safety. Operating rooms, intensive care units are considered as high-risk areas, so healthcare organizations must work toward the development of an organizational culture that helps preventing inevitable errors that may be catastrophic (Makary et al., 2006).

Improving communication and reporting errors in the healthcare industry is a difficult task to achieve as this sector has developed and institutionalized a strong culture of blame and shame. Employees avoid reporting errors because they fear being accused and involved in issues related to the patient safety and care; nevertheless, among the staff members, those who do not have much contact with the patients are those who most report errors (Jones, Skinner, Xu, Mueller, & Sun, 2008). Human error represents nearly 80% of causes in hazardous environments (Hollnagel, 1993). A distinction between latent and active failures must be implemented as the people in the front rows are not the only responsible for committing errors, but also those who do not have contact with the patients including managers and directors (Reason, 1997).

The existing evidence about KSA found that organizational learning, teamwork within units, in addition to feedback and communication about errors are among the strongest aspects of patient safety culture as they led to a continuous improvement, whereas the non-punitive response to errors and teamwork are the two areas that require intervention (Al-Ahmadi, 2009; Alahmadi, 2010). A patient safety study conducted by El-Jardali, Dimassi, Jamal, Jaafar, & Hemadeh (2011) exposed a direct relation between the number of

years of experience and the number of errors reported, and an indirect relation between the years of experience and the patient safety perception. This means that by gaining experience working at a healthcare organization within a safe environment, staff members are becoming more critical about the safety procedures and systems, and at the same time, they are willing to contribute to its improvement and implementation of new technologies despite the existing traditional culture.

It is imperative that policymakers and healthcare organizations managers drive their attention to the less experienced staff as they are the least demanding when it comes to patient safety practices, tend to commit more errors and when they do, are the least willing to communicate them to their superiors.

Quality of Communication

An adequate safety culture in a healthcare organization is characterized by communications based on mutual trust, shared perceptions and confidence in preventive measures. Consequently, most accidents could be avoided by implementing communication channels based on quality principles (AHRQ, 2007). An excellent communication between personnel at different organizational levels is likely to yield successful outcomes in healthcare (Nembhard, Labao, & Savage, 2015; Richter et al., 2014).

Physician-patient communication also has a positive influence on healthcare service quality. Physician-patient relationship influences patient satisfaction, a crucial indicator for measuring healthcare quality (Lin, Lin, & Lin, 2010; Mercer et al., 2008; Moret, Rochedreux, Chevalier, Lombrail, & Gasquet, 2008). Majeed Alhashem, Alquraini, & Chowdhury (2011) identified patient satisfaction determinants in Kuwaiti primary clinics. Based on the responses from patients, reported relationships, and formal interfaces between

nursing and medical staff, they found that the time allotted for communication between physician and patient was short and that the command chain was lengthy and cumbersome.

There is, therefore, an imperative to implement immediate and effective solutions for patient safety and welfare problems. There is no need for a traditional command chain that requires a nurse to contact two or more people before an appropriate action can be taken. Unfortunately, questions about care or urgent expert interventions are not addressed properly and at the right time owing to ineffective communication processes (Murphy, Shannon, & Pugliese, 2006).

3. HYPOTHESIS AND MODEL

Given the existing literature on safety culture clarity, we propose that there is a need to construct a comprehensive theoretical framework that incorporates the relationship-facilitating aspects of a culture of learning, quality and safety context. Independent variables used in this study include Organizational Learning (OL), Feedback about Errors (FAE), Non-Punitive Response to Errors (NPRE), and Quality of Communication (QC), and the predictive relationship between them and the dependent variable SCC. Additionally, the study identified the mediating role of organizational learning in achieving SCC. Consequently, the hypotheses tested in this study are:

H1: There is a predictive relationship between QC and SCC.

H2: There is a predictive relationship between FAE and SCC.

H3: There is a predictive relationship between NPRE and SCC.

H4: There is a predictive relationship between QC and OL.

H5: There is a predictive relationship between FAE and OL.

H6: There is a predictive relationship between NPRE and OL.

H7: There is a predictive relationship between OL and SCC.

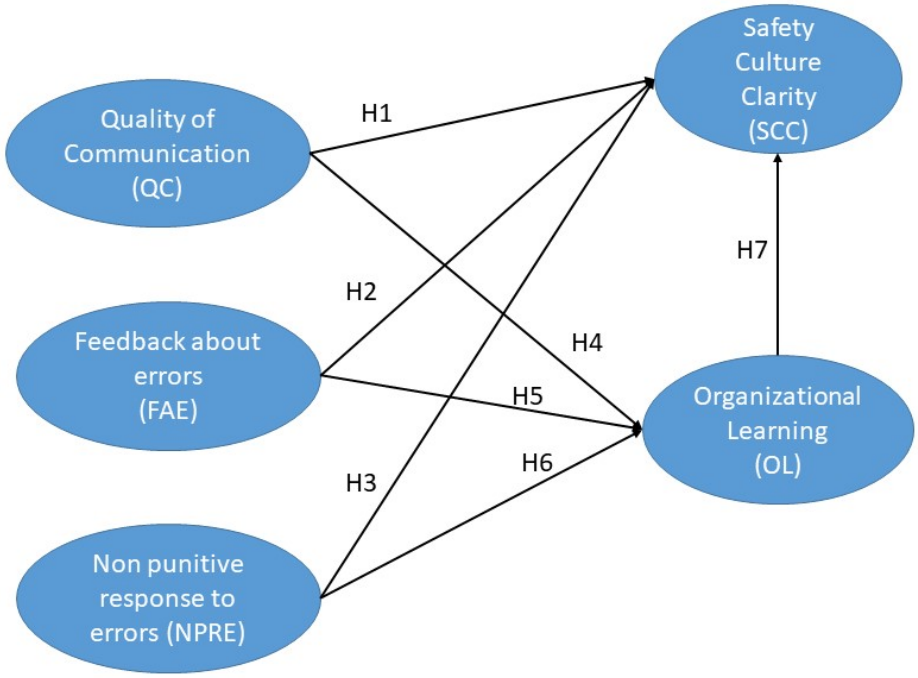

Figure 1. *Research Model with Hypotheses*

4. RESEARCH METHODS

To test the hypothesis, the survey instrument, measurement constructs, and best fit model were developed according to guidelines established by Hair, Black, Babin, & Anderson (2010). A self-administered questionnaire was designed to collect responses from 417 respondents affiliated with Saudi Arabian hospitals and 485 with Colombian hospitals. The survey format consisted of a demographic section, followed by a conceptualized set of variables to build a model that was tested using both descriptive and inferential statistical analysis once the data was collected.

A five-point Likert scale (from strongly agree to strongly disagree) was used to rate statements related to the model's operationalization. The questionnaire was based on (Wagner, McDonald, & Castle, 2012b) and (Withrow, 2006), partially adapting (Churchil Jr., 1979).

Other previous studies regarding a quality safety culture have been made in Colombia with different structural models. '*Drivers of Hospital Safety Culture of Quality In Emerging Economies: The Case of Colombia', by* Ferrer et al. (2018), was published in worldwide-known conferences, such as the Proceedings of the Health and Environment Conference, held on Dubai, UAE, from March 6th-8th, 2017.

The statements' mean ratings were used to build the variables that made up the structural equation model (SEM). Each questionnaire was reviewed for completeness and several were considered unusable owing to inconsistencies and significant missing data, for both countries. The average mean values of the statements' ratings were used to build the variables that made up the structural equation model. This methodology was chosen as it fits the requirements of this research and allows the analysis of latent variables and their relationship and the required sample is met by the collected data (Nachtigall, Kroehne, Funke, & Steyer, 2003).

5. DATA ANALYSIS

Confirmatory factor analysis (CFA) was used to study the relationships between observed and continuous latent variables, and to determine the measurement model's overall fit (Cooksey, 2007; Hair et al., 2010). Factor loadings were estimated, items loaded on only one construct (i.e., no cross loading) and latent constructs were correlated (equivalent to oblique rotation in exploratory factor analysis). Internal consistency was assessed using Cronbach's alpha coefficient and the items-to-total correlation. Table I and Table 2 summarizes the constructs' coefficient values. All constructs have values greater than 0.7 of the cut-off level set for basic research (Nunnally, 1978). Confirmatory factor analysis (CFA) was conducted to test construct validity (Table 1, Table 2).

Table 1. *Baseline comparisons – Colombia*

Colombia					
Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.893	.867	.926	.907	.926
Saturated Model	1.000		1.000		1.000
Independent model	.000	.000	.000	.000	.000

Table 2. *Baseline comparisons – KSA*

KSA					
Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.852	.825	.899	.878	.898
Saturated Model	1.000		1.000		1.000
Independent model	.000	.000	.000	.000	.000

6. RESULTS

The SEM findings are shown in the regression weights in Table 3 and Table 4 and the structural models in figure 2 and figure 3, for Colombia and The Kingdom of Saudi Arabia (KSA). A low and insignificant relationship between QC and SCC (b=0.25, p >0.05, Col and b=0.23, p >0.05, KSA) was found. A low and insignificant relationship (b=0.27, p >0.05) in Colombia and a marginally supported relationship (b=0.41, p =0.003) in KSA was found between FAE and SCC. Additionally, a very low and insignificant relationship was found between NPRE and SCC (b=-0.02, p >0.05, Col and b=0.06, p >0.05, KSA). Therefore, H1, H2 and H3 were rejected for both countries, with the exception of H2 that was marginally confirmed for KSA. These results are disquieting for both countries as they indicate that when errors are found, organizations in the healthcare sector are not using

communication effectively to give high quality, appropriate, effective feedback and respond to mistakes or errors with non-punitive actions, which would promote safer procedures in the healthcare environment.

A strong and significant relationship between QC and OL for both countries ($b=0.40$, $p<0.001$, Col and $b=0.31$, $p<0.001$, KSA) was found, which supports hypothesis H4. Nembhard et al. (2015), and Richter et al. (2014) mentioned that staff who ensure excellent communication between personnel are more likely to ensure successful handoffs in health care.

A strong and significant relationship between FAE and OL for both countries ($b=0.58$, $p<0.001$, Col and $b=0.44$, $p<0.001$, KSA) was found, which supports hypothesis H5. These results are important for both countries, indicating, as pointed out by Bodur & Filiz (2009), that staff elect not to report the error to avoid the additional reporting required when errors are detected.

In the case of both countries, they believe errors found should add to the learning practices of the organizations. However, the findings for H6—that there is a predictive relationship between NPRE and OL—were rejected for Colombia ($b=-0.02$, $p>0.05$) and KSA ($b=0.05$, $p>0.05$). These results indicate that although healthcare practitioners are aware of the importance of reporting errors so as to receive appropriate feedback after errors are found, they fear the punishment and the blame for inappropriate practices by more senior staff.

Finally, hypothesis H7—that there is a predictive relationship between OL and SCC—was confirmed ($b=0.57$, $p<0.001$) for Colombia, and marginally confirmed for the Kingdom of Saudi Arabia ($b=0.60$, $p<0.05$). This finding demonstrated that healthcare

practitioners are aware of the importance of the learning process and all of its outcomes in their organizations.

Table 3. *Regression Weights – Colombia (Group number 1 - Default model)*

	Colombia				
	Estimate	S.E	C.R	P	Label
OL ⟵ QC	.401	.066	.6107	***	Highly Significant
OL ⟵ FAE	.585	.067	8.686	***	Highly Significant
OL ⟵ NPRE	-.024	.044	-.550	.582	Non-significant
SCC ⟵ QC	.250	.122	2.049	.040	Non-significant
SCC ⟵ FAE	.272	.141	1.934	.053	Non-significant
SCC ⟵ NPRE	-.024	.070	-.338	.736	Non-significant
SCC ⟵ OL	.567	.171	3.306	***	Highly Significant

Table 4. *Regression Weights – KSA (Group number 1 - Default model)*

	KSA				
	Estimate	S.E	C.R	P	Label
OL ⟵ QC	.312	.050	6.253	***	Highly Significant
OL ⟵ FAE	.443	.064	6.919	***	Highly Significant
OL ⟵ NPRE	.047	.050	.925	.355	Non-significant
SCC ⟵ QC	.230	.104	2.212	.027	Non-significant
SCC ⟵ FAE	.412	.139	2.964	.003	Significant
SCC ⟵ NPRE	.069	.095	.722	.470	Non-significant
SCC ⟵ OL	.603	.220	2.739	.006	Significant

This research demonstrated an indirect impact of Quality of Communication (QC) and Feedback About Error with Safety Culture Clarity (SCC) through the Organizational Learning construct (OL). Therefore, the hospitals surveyed in these two countries must put into practice appropriate learning so healthcare practitioners and the system can learn from errors committed during the performance of their duties.

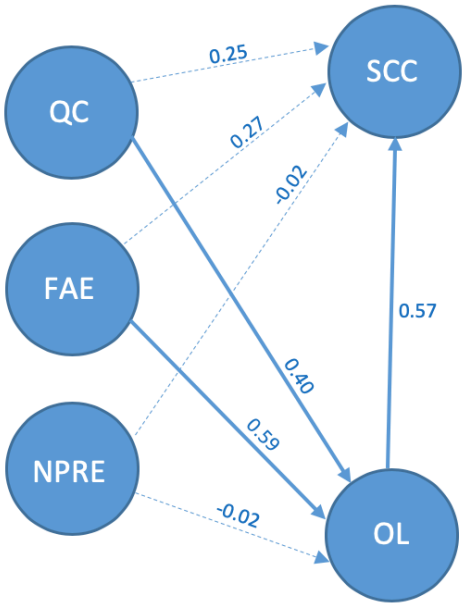

Figure 2. *Structural model – Colombia*

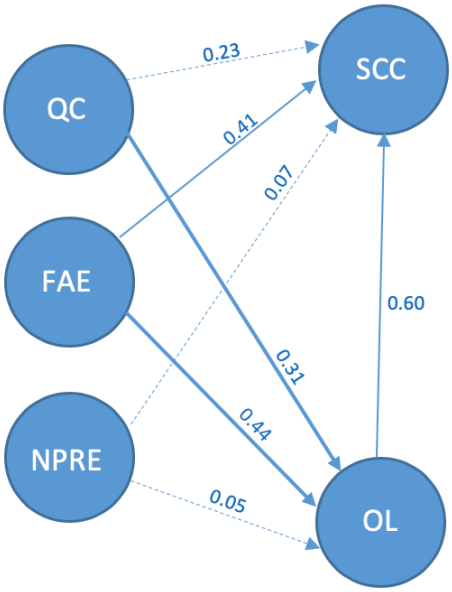

Figure 3. *Structural model – KSA*

Conventions:

Highly significant

Significant

Non-significant

7. DISCUSSION

Colombia and Saudi Arabia are two developing countries that do not have the highest technologies yet. Though policymakers have made strong efforts to improve procedures and practices in healthcare organizations, better policies should be developed in order to came up with solutions to the most critical issued that were identified on this study.

The rejection of H1, H2, H3 and H3 hypothesis reflects the fear of the healthcare organizations staff of the consequences derived from committing or reporting errors. As it has been discussed, there is a strong culture of blame and shame among this organizations, and it has negatively impacted the way staff members react to this events. The thing they fear the most is the way their professional careers might be affected as punitive response to

errors is a common practice in these countries and has direct incidence on their work history, reputation and stability (Aboul-Fotouh, Ismail, Ez Elarab, & Wassif, 2012). Al-Ahmadi (2009) revealed that NPRE, staffing and transitions in hospital management have a weak incidence on patient safety culture.

Several actions must be implemented in order to improve patient safety culture. These must include the eradication of blame culture among the staff members and implement a new one based on considering the errors as opportunities as they might not be mainly caused by staff members, but by failures o weaknesses in the system that obstruct a better understanding on how to prevent them in the future. Real life has shown that mistakes have led to positive changes when strategies have been successfully implemented and changed the cultural values and practices.

The cultural practices and specificities exposed along this study, and the power distance concept might be the main causes of the avoidance of reporting errors. As stated by Hofstede (1985, 1993, 2001); Hofstede, Hofstede, & Minkov, (2010), power distance is the way individuals perceive the distribution of power in an unequal way. To measure the power distance in a society, Hofstede developed a scale from 0 to 100 that indicated how unequally the power was distributed; the higher the score, the most unequal power was spread.

A study made in Colombia by Contreras, Barbosa, Juarez, Uribe, & Mejía (2009) revealed that Colombians agree with an unequal distribution of power. Indeed, power in Colombia is held by a small percentage of the population. Molero (1990), and House, Hanges, Javidam, Dorfman, & Gupta (2006) concluded that countries with high power distance tend to have a culture based on hierarchy where subordinates fear to communicate things and express themselves freely. Reluctance from employees to interact with the

higher hierarchy members impede integration and communication (Varela, Salgado, & Lasio, 2010).

When comparing power distance indexes between Colombia and Saudi Arabia from Hofstede Insights, results show scores of 67 and 95 respectively. Colombia is shown to have 27 points less than Saudi Arabia in power distance scoring, revealing that the power in Colombia is better distributed, but that both countries scores high on the Power Distance Index. In both countries it is widely accepted that business leaders and people in high positions have the power and do not need to justify their actions. This leads to subordination and inequalities represented by prestige, status and wealth.

Taking this into account, Saudi Arabia and Colombia are expected to be countries whose society is divided into social classes, information is controlled and undisclosed to the public in the case of Saudi Arabia, corruption is acknowledged by the population but people do not talk about it in public, nor discuss it freely as a result of the subordination, autocracy and coercion (House et al., 2006), or in the case of Colombia because it is normal to obtain certain privileges derived from the social status or job position. In this order of ideas, power distance concept is also related with corruption and underemployment indexes: the higher the power distance values and practices, the higher the level of corruption (Seleim & Bontis, 2009). A positive correlation between this concepts was also found by Davis & Ruhe (2003); Getz & Volkema (2001), who stated that from some Latin American countries, Colombia is one of the most corrupt countries with the highest power distance and cultural values difficult to change. In Saudi Arabia power distance has had a positive effect on corruption (Parboteeah & Cullen, 2013).

8. LIMITATIONS ON THE STUDY

For investigators, it is clear how different organizational factors might affect patient safety culture, there are wide gaps in research regarding this topic. Nevertheless, studies have not shown which of these factors are the ones that have been affecting the most. A document of the World Health Organization stated that there are also other organizational factors such as fatigue, lack of training, etc. that have strong incidence on the safety culture in healthcare organizations. Studies regarding the relation of the previously mentioned aspects have not been developed yet neither in developed countries, nor in developing countries. It is also difficult to find enough evidence on the Hofstede indexes for Saudi Arabia due to the authoritarian government system which keeps certain information unrevealed to the public.

Rising statistics in medical errors in Saudi Arabia, summed with the pressure media and public do when this kind of events happen, have required healthcare managers and policymakers to join efforts directed to improve safety and quality of healthcare services in the country (Alahmadi, 2010). However, few studies have been made to evaluate the importance patient safety culture is given in Saudi Arabia and Colombia.

It has been revealed and confirmed in several studies that Non Punitive Response to Errors is not a contributor to a Safety Culture Clarity. Correlations between NPR and SCC are non significant in most of the studies made, but there is no literature that explains this outcome. It is clear that in order to improve the safety culture in healthcare organizations, it is important to promote a culture of communication and leadership, and it demands the eradication of the existing culture of blame and fear between the hierarchical structure. Leadership should also be taken into account when trying to understand the drivers of a safety culture clarity in healthcare organizations (Al-Ahmadi, 2009). Empirical research on

the relationship between leadership and the development of a safety culture within a healthcare setting is being currently broadened (Ginsburg et al., 2010).

9. CONCLUSION

In answering the research question 'What are the main Safety Culture Clarity drivers in hospitals in the Kingdom of Saudi Arabia and Colombia?', the results of this study indicate that providing feedback about errors and ensuring effective communication are drivers of a culture of safety and clarity. Furthermore, establishing procedures to guarantee the learning of the organization are also essential drivers of the creation of a culture of safety and clarity in Colombia and in the Kingdom of Saudi Arabia.

The independent variables analyzed in this study are important determinants of a clear safety culture that promotes high-quality standards in healthcare organizations. For organizations in the healthcare sector to create a culture of clarity, safety, and continuous improvement, they must fashion clear communication channels and correct feedback after errors are found. The importance of quality communication coincides with other findings from studies completed in KSA and Colombia.

Medical staff have a fear of being blamed when a patient is harmed. Furthermore, staff feel concern about mistakes affecting their personal profiles, among several other consequences that may befall them. Concurrently, the findings also indicate the importance of addressing the fact that Non-punitive Response to Errors is not practiced, which is contrary to the quality practices in the healthcare sector in other countries. It is possible that this issue is more difficult to resolve in developing countries such as Saudi Arabia and Colombia than in other more developed countries owing to cultural specificities (Hofstede et al., 1991).

10. FURTHER RESEARCH

Future research should investigate the issues addressed in this article, exploring non-punitive approaches in different cultures and countries in healthcare environments. Additionally, it is important to identify how such behaviors contrast with cultural drivers such as organizational justice, or national leanings related to hierarchy and the power distance cultural dimension identified by Hofstede (1985), Hofstede et al. (1991) and Lammers and Hickson (2013).

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