PERCEPTIONS OF A CULTURE OF QUALITY AND SAFETY WITHIN A HEALTHCARE SETTING AND THE RELATIONSHIP TO VOLUNTARY ACCREDITATION IN THE KINGDOM OF SAUDI ARABIA

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Abstract - This study aims to identify the most important drivers of a culture of quality and clarity in safety (CQCS) in Saudi Arabian hospitals. Quantitative data from 417 surveys collected at national level were analyzed using structural equation modeling. Findings from this study suggest that Feedback about Errors and Quality of Communication have a strong role in fostering a culture of quality and safety. Findings also showthat hospital staff might be afraidof reporting errors because of potential punitive responses to mistakes made on the job. Hospital leadership can capitalize on these findings to implement preventive or corrective actionsaimed at ensuring acontinuous improvement of the healthcare system.

Keywords - Quality Assurance, Healthcare, Safety Culture.

I. INTRODUCTION

In recent years, high-quality healthcare has become more than an ethical responsibility for healthcare providers[1]. The literature reports that, in response to research that evidences poor quality issues, increasing patient expectations, and unsatisfactory media reportson the healthcare systems, developed and developing countries are increasingly concerned about patient safety and how it can be assured[2]. Hospitals around the world are committed to developing a culture of quality and clarity in safety (CQCS), as it is crucialfor the wellbeing of patients and healthcare staff. Furthermore, healthcare providers and policy makers are promoting patient safety culture as a critical component of healthcare quality practice and an essential requisite for accreditation.

Accreditation of healthcare providers, either voluntary or mandatory, is a strategy implemented by national health systems to help healthcare organizations ensure safe, quality care[2]. For instance, the United States of America's Joint Commission is an independent nonprofit organization known for promoting advancement in patient safety through its accreditation standards and safety culture initiatives. The literature suggests that voluntary accreditation following the Joint Commission's model is one of the best ways to stimulate quality improvement in healthcare organizations. Therefore, it is expected that voluntary accreditation stimulates both quality improvement and an organizational safety culture[3].

The Kingdom of Saudi Arabia was one of the first Arab countries to implement accreditation initiatives. In 2005, based on the recommendation and approval of the Saudi Council of Health Service, the Central Board of Accreditation for Healthcare Institutions was formedto ensure that the healthcare services across the country are safe and free from medical error. This study contributes to this goal byproposing answers to the research question: *What are the main drivers of quality safety culture in hospitals in the Kingdom of Saudi Arabia?* Also, this study explores the relation between the drivers of a culture of quality and clarity in safety in middle-eastern hospitals, following or not a healthcare quality accreditation.

II. QUALITY IN HEALTHCARE

Throughout the last decades, research has revealed a significant number of avoidable patient injuries in hospitals, which increase both the risk of adverse outcomes and the healthcare costs [2]. As poor health service quality wastes resources that could be used to treat more patients, the general public is increasingly critical of healthcare quality and demand improvements quality and safety in hospitals.

A World Health Organization (WHO)[2]report on the best strategies to ensure quality in hospitals showed that approaches such as Continuous Quality Improvement, Total Quality Management, and Quality Assessment and Accreditation can be effective in improving quality in healthcare organizations. However, decision-makers should be aware of situational specificity, as the same strategy, applied in different settings, may yield different results. Therefore, attention needs to be given to financial, cultural and other particular conditions when implementing quality strategy.

The WHO report also highlights important ongoing debates regarding quality in healthcare organizations. A first debate is about incentives and a "climate" for healthcare quality. One view on this matter is that poor quality providers are the least likely to participate in such public assessments—or, if they do

participate, that they can be tempted to falsify data—and that national governments have a duty to ensure minimum standards to protect people from poor or unsafe care. This view supports mandatory inspection or accreditation, with contingent sanctions or rewards. An opposing perspective states that this "police, punish and reward" approach is detrimental to sustained quality improvement. Per this view, healthcare quality is best improved by voluntary, open discussions of gaps between current and acceptable quality, and that hospitals that achieve the best improvements over time should be rewarded (an "inspire and develop" approach).

Another debate concerns the use of Western-specific quality strategies in non-Western countries. It has been suggested that many quality strategies are based on Western countries' assumptions about rational management, authority and employee participation that do not necessarily apply to other countries. And athird debate concerns the cultural preconditions for a quality strategy to be effective, either within a country or in a particular organization. Although it is generally agreed that a strategy has to change the culture of an organization to be effective, there are conflicting perspectives on what a quality-culture or a safety-culture are, how to measure them, and how to change them.

Overall, by determining the drivers of a culture of quality and clarity in safety in the context of Middle Eastern hospitals, the present study aims at providing useful, generalizable insights for the aforementioned debates.

III. SAFETY CULTURE IN HEALTHCARE

The "safety culture" term was conceptualized by the International Nuclear Safety Advisory Group and refers to the defective processes that contributed to the Chernobyl nuclear disaster in 1986. This concept of safety culture was later extended to different fields. One of such fields is the healthcare sector, in which the term is used to describe the patterns of attitudes and behaviors observed in healthcare. In addition, Murphy et al. [4]have argued that it is imperative to first understand the concept of "organizational culture" in order to visualize a safety culture. These authors define organizational culture as the set of values, guiding beliefs, or ways of thinking that are shared among an organization's associates. They also argue that staff members often resist changing the way they do things but that they will also try to change—for better—the culture in which they live or work. In healthcare organizations, providers have traditionally been taught—through incident reporting procedures and modelling behavior of other staff members—that when things go wrong they should find out "who did it," focusing on individual failures. Instead, a safety culture asks "what happened," looking at the system, the environment, the knowledge, the workflow, the tools, and other stressors that may have affected the provider's behavior.

A study conducted in American hospitals by Singer et al. [5], explored the fundamental attitudes and the essential components needed to develop a safety culture. The study revealed that commitment to safety is crucially articulated at the highest levels of the organization and then translated into shared values, beliefs, and behavioral norms at all other levels. They argued that a safety culture is driven by an effective deployment of all the necessary resources and incentives. In such a culture, communication between workers and across organizational levels is not only valued but also frequent and sincere, facilitating reporting of errors and problems as and when they occur to encourage organizational learning.

The independent variables related to safety culture were operationalized in a Hospital Survey on Patient Safety Culture developed by the American Agency of Healthcare Research and Quality (AHRQ), and they have been measured in several studies[6], [7], [8], [9].For instance, Aboul-Fotouh et.al.[10]used this survey at Ain Shams University Hospital in Egypt to determine which factors played a role in improving patient safety culture. Respondents rated Organizational Learning and Teamwork with the highest scores, whereas Non-punitive Response to Error was given the lowest score.

In another study, Wagner et.al.[3]applied the Nursing Home Survey on Patient Safety (also developed by the AHRQ) to compare differences in scores between respondents from Joint Commission-accredited nursing homes and respondents from non-accredited nursing homes. Respondents from accredited nursing homes scored higher on the Non-punitive Response to Errors and the Feedback and Communication about Incidents domains. Such higher scores are related to the fact that the Joint Commission accreditation has well-established standards on the reporting of adverse events, which enable certified organizations to focus on systems and processes rather than on failures related to the performance of individuals. It can be inferred that accreditation supports a favorable resident safety culture in nursing homes, by setting a framework for organizing care processes and prompting continuous quality improvement.

IV. VARIABLES IMPACTING A CULTURE OF QUALITY AND CLARITY IN SAFETY

A culture of quality and clarity in patient safety depends on different factors and acts as a guide to determine and predict how employees will behave in the workplace. Characteristics of a strong and proactive safety culture include the commitment to discuss and learn from errors, to document and improve patient safety, to encourage and practice teamwork and open communication, to spot potential hazards, to use systems for reporting and analyzing

adverse events, and to celebrate workers as heroes—if they improve safety—rather than as villains—if they commit errors [10].

Although multiple investigations indicate that hospitals aiming at implementing a safety culture need to consider different variables as potential drivers, it is important to explain how these drivers (such as non-punitive response to errors, quality of communication and feedback about errors) interrelate with each other and impact on safety culture. For instance, El-Jardali et al. [11]and Fracica et al. [12],correlating Non-punitive Response withError with Feedback about Errors, found that a non-punitive environment encourages staff to better report medical errors. It follows that redesigning healthcare processes to foster a non-punitive environment results in higher reliability of the system.

On Feedback about Errors, Longenecker [13]indicates that organizations who do not include and document feedback about errors in their development programs tend to experience much lower performance improvements than expected. Likewise, Wagner et al [3],on the relation between Quality of Communication, Feedback about Errors and Non-punitive Response to Errors, observed that establishing communication channels for problem solving and quality improvement maintained a positive working relationship.

A. Non-Punitive Response to Errors

One of the most important aspects for safety culture is a non-punitive approach when investigating incidents[9], [6].A non-punitive reporting environment can support healthcare staff in honestly discussing and reporting errors. A non-punitive culture is a work environment in which healthcare staff is continuously encouraged to be comfortable about acknowledging errors, as a legitimate means to developing and maintaining a sense of professional accountability. According to Leape [14], having a safety culture does not exclude punishment. Certainly, punishment is indicated for willful misconduct, reckless behavior, and unjustified, deliberate violation of rules, but it is not indicated for human error.

On the other hand, individuals in a blame culture environment are held accountable for all errors regarding patients under their care, regardless of the errors source [15]. When a staff member makes a mistake, the response in a blame culture work environment is to discipline and “re-educate” that employee. Such practices promote a work atmosphere in which staff members are afraid to admittheir mistakes, resulting in staff demoralization, high human resource costs for disciplinary processes and employee turnover control programs, and the stifling of creativity and quality improvement.Sadly, most healthcare organizations exhibit this type of culture [9], [6].

Healthcare organizations are prompted to develop leaders that create an atmosphere that promotes trust and fairness, where it is safe for staff to discuss weaknesses and failures without fear of retaliation. A blame-free work environment is an important driver of high quality and safe healthcare, in which perceptions of punitive behavior are mitigated with programs such as safety briefings about potential safety problems and informal conversations with frontline staff about safety issues [3]. In a non-punitive work environment responding to adverse events is not a synonym of punishment. Organizations that adhere to this approach acknowledge that human error is not only possible but also feasible under adequate circumstances.

Twerski [16] asserts that a proper investigation of a medical error should focus more on the ‘whats’ and ‘whys’ rather than on the ‘whos’. Indeed, in a non-punitive culture, people who report an error must trust that they will not be penalized, which in turn will encourage them to share more information about the possible causes of the error. Moreover, the identities of the parties involved should be completely confidential and unknown to experts trained to identify root causes who analyze such information. Non-punitive responses to errors facilitatea better identification of the causes of adverse events, which in turn improves the likelihood of effective improvements in patient safety and safety culture within an organization.

B. Quality of Communications

In general, failure to communicate effectively is responsible for avast majority of avoidable accidents. Healthcare organizations with a positive safety culture are characterized by communications based on mutual trust, by shared perceptions of the importance of safety, and by confidence in the efficacy of preventive measures [17].

Organizations that are aware of the importance of ensuring an excellent communication between the personnel, as opposed to than those that do not have such awareness, are more likely to ensure successful handoffs in healthcare[18], [19]. For instance, Maezzi [20] presented a model that describes how managers of successful organizations handle internal communications. The companies investigated in this research showed complete awareness of how intangible resources, such as knowledge and employee attitudes, are central in promoting active communication behaviors between employees, and are crucially influential to the company's success.

Likewise, Matthews& Thomas[21]investigated poor communication, documentation, and information exchange between the various professionals and stakeholders of healthcare organizations. The study found that hindered communication was responsible for many undesired occurrences and for omissions in the feedback given to stakeholders. A similar result was found by Lenz& Reichert [22], who conducted a

study regarding the apparently complicated nature of information networks in healthcare organizations. Reader et al. [23]also showed that poor communication between nurses and doctors was a common factor that caused serious incidents in Intensive Care Units. Moreover, interdisciplinary communication is asymmetrical, with nurses revealing lower levels of communication openness in comparison to senior doctors. It was also found that leadership and open communication increase the team members' understanding of patient care plans.

The quality of the communication between physician and patient has also a positive influence in the quality of the healthcare services, as the physician-patient relationship influences patient satisfaction, which is considered the most crucial indicator for measuring healthcare quality[24], [25], [26]. Alhashem et al. [27]conducted a study to identify determinants of patient satisfaction at primary clinics in Kuwait. Based on the responses from patients, and the reported relationships and formal interfaces between nursing and medical staff, they found that the time allotted for communication between physician and patient was not enough and that the chain of command in many organizations was cumbersome. If patient safety is at stake, the most effective solution should be implemented promptly. There is no time for a traditional chain of command that requires a nurse to contact two to three people, at least. Unfortunately, many malpractice suits evidence that a particular question about care or an urgent expert intervention was not addressed promptly[4].

C. Feedback about Errors

Event reporting, or feedback about errors, is another major determinant of a safety culture[28]. Reporting incidents is essential to achieve a learning culture and can only happen in a non-punitive environment where events can be reported without people being blamed. In fact, the actual number of errors in health care organizations could be much higher than the quantity reported, as many errors are perhaps hidden because of (founded or unfounded) fears of public humiliation or punitive consequences, or the belief that reporting will not result in any effective changes whatsoever[29]. Encouraging health professionals to report events in a non-punitive environment is crucial for improving patient safety. For instance, errors in operating rooms are not uncommon and have the potential to be catastrophic. Creating a patient safety culture in surgical units by improving communication and reporting events is a priority for operating room staff and hospitals[30].

Also, employees who do not deal directly with the patients are usually more willing to report errors. As mentioned in Jones et al. [31], work in laboratory units is considered more organized than in other units since it is controlled by more professional standards, and because errors investigated in these units are done as a group. On the contrary, when an error is committed by a nurse, the nurse is investigated as an individual rather a member of a medical team.

El-Jardali et al.[11]conducted a study on patient safety culture in hospitals revealing two interesting facts. The first one is that experience and tenure in the healthcare organization has an impact on the frequency and number of errors reported: as people's years of experience within the organization increases they report more events. A second finding is that the perception of patient safety decreases as the experience in the hospital increases. The perception of patient safety is usually defined as the extent to which people feel that procedures and systems are good at preventing errors and problems in healthcare organizations. In their study[11], the authors explain that, as they become more experienced, people become more aware—and more critical—of the safety practices in their institutions. Consequently, more experienced staff are more likely to demand patient safety practices, systems, and procedures that effectively act as barriers to errors and problems. Similarly, another study by Bodur & Feliz[6]revealed that patient safety culture decreases as seniority increases. Although this could be the result of increasing staff awareness of safety problems, and thus additional reporting, it could also reflect an actual increase in medical errors due to more senior staff's frustration with hospital regulations. Another plausible explanation is that more senior staff, influenced by an organizational culture that does not enforce patient safety, become, on time, less strict in ensuring appropriate safety practices.

Finally, continuous reporting of errors –a common practice in accredited institutions- is a favorable tool to improve patient safety. After a report of adverse events is completed, healthcare institutions can conduct thorough root cause analyses and develop action plans to reduce future risks. Moreover, accredited institutions are expected to focus such analyses on systems and processes, rather than on failures related to the performance of individuals, which creates an atmosphere that promotes trust and fairness where it is safe for staff to discuss vulnerabilities and failures without fear of reprisal [3].

V. RESEARCH METHOD

A self-administered, custom questionnaire was designed to collect responses from 417 respondents affiliated to hospitals in Saudi Arabia. A model was conceptualized (Figure 1) and tested using both descriptive and inferential statistical analysis. A five-points Likertscale (from Strongly Agree toStrongly Disagree) was used to rate statements related to the operationalization of the model's variables. The questionnaire was designed based on the findings from Wagner et.al. [3]and With row[1]. The average mean values of the statements' ratings were used to build the variables that made up the structural

equation model (SEM). Amos software was used to confirm the model and to estimate the predictive relationship of the model's variables and fit indexes, and to determine the analyses' confidence level. Independent variables used in this study included Feedback about Errors, Non-punitive Response to Errors and Quality of Communication, and the predictive relationship between them and the dependent variable Culture of Quality and Clarity in Safety (CQCS).

Based on the literature reviewed, the hypotheses proposed and tested in this study are:

- H1: There is a predictive relationship between Feedback about Errors and CQCS.
- H2: There is a predictive relationship between Non-punitive Response to Errors and CQCS.
- H3: There is a predictive relationship between Quality of Communication and CQCS.

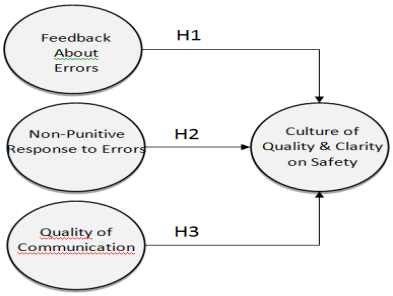


Figure 1 – Research model with Hypothesis

VI. FINDINGS

The findings from the SEM (Figure 2) show a strong and significant relationship between Feedback about Errors and CQCS (*b=0.71, p <0.001*), which supports Hypothesis 1. Interestingly, although only 17.7% of the surveyed population were native English speakers, the main communication channel in hospitals in Saudi Arabia is English. Overall, it seems that language is not a barrier for feedback to be effective.

Regarding Hypothesis 2, the analysis showed a very low, non-significant relationship between Non Punitive Response to Errors and CQCS (*b = 0.10, n.s.*). This result could indicate deficiencies in policy and communication of procedures to healthcare staff and from managers to medical staff about the actions taken after errors are found.

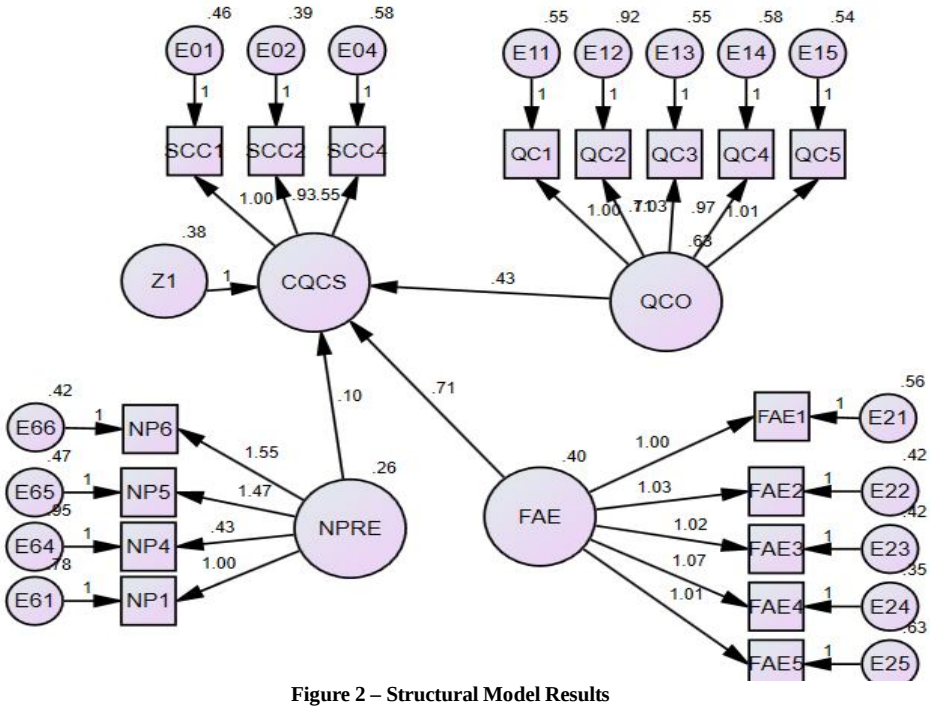


Figure 2 – Structural Model Results

Also, there could be cultural characteristics in play that account for people not being able to accurately judge the existence or degree of a Non-Punitive Response to Errors environment. This is, if punitive, contingent consequences are generally accepted and assumed to be the norm throughout the country, it could be harder for respondents to judge whether their particular organization has fostered a non-punitive culture.

Finally, the strong and significant relationship between Quality of Communication and CQCS *(b=0.43, p <0.001)* supports Hypothesis 3.

Taken together, the positive and significant impact of Feedback about Errors and Quality of Communication on CQCS are important findings for accreditation purposes and to implement quality assuring processes in hospitals in Saudi Arabia. It is essential to ensure open, quality communication between medical staff and management about procedures, practices and patient condition. Also, that appropriate actions, procedures and practices are established and disseminated to adequately respond after errors are found. The fact that there is a lack of appropriate action after errors are found, indicates that hospitals in Saudi Arabia have much work to do on developing better policies and procedures to address these issues

CONCLUSION

This study set upon the task of answering the research question 'What are the main drivers of quality safety culture in hospitals in the Kingdom of Saudi Arabia?' Results suggest that Feedback about Error and Quality of Communication are the main drivers of a culture of quality and safety. Additionally, this research found that non- punitive response to errors has to be better addressed in the healthcare sector in Saudi Arabia to achieve a culture of quality and safety.

The independent variables analyzed in this study are important determinants of a clear safety culture that promotes high quality standards in healthcare organizations. To create a culture of quality, safety and continuous improvement, healthcare organizations must enable direct communication channels and ensure prompt, relevant correct feedback after errors are found. The fact that Hypothesis 2 was rejected might be an indication that medical staff are afraid of being blamed when a patient is harmed or when procedures are not followed appropriately, with potential consequences to their work history or job stability.

Results supports the findings from Wagner et.al.[3]on the positive relationship between Quality of Communication and Feedback about Errors with problem solving, quality improvement, and maintaining a positive working environment.

The findings also indicate flaws regarding Non-punitive Response to Errors that could be affecting the entire healthcare system in Saudi Arabia. Healthcare organizations need to promote leaders that create a work place environment that promotes trust, impartiality and fairness, where staff feel free to discuss weaknesses and failures without the fear of being punished. A work environment where employees feel free to discuss mistakes to seek corrective actions and continuous improvement is an important driver of high quality and safe healthcare systems.

With a caveat. It is possible that such promotion is more difficult in Saudi Arabia than in other countries, as there could be nation-wide cultural specificities [32], [33], [34] that permeate the organization and thus account for the flaws detected. Future research should further investigate this issue, contrasting Non-punitive Response to Errors procedures in different countries and healthcare systems with those national cultural drivers related to hierarchy, organizational justice and power distance.

Finally, this research confirms the findings from Van Geest & Cummins[29]that the number of errors within healthcare organizations is probably much higher than the quantity actually reported, as people fear that reporting errors will not result in positive changes. This fact makes a stronger case for the recommendation that the Non Punitive Response to Errors issue has to be taken (more) seriously by the Saudi healthcare system in order to achieve a culture of quality and safety.

Overall, this empirical research adds value to the national healthcare industry, and effectively addresses the Saudi Ministry of Health's interest in promoting improvements in the quality of the healthcare service provided by its hospitals. Furthermore, these findings are probably generalizable to other healthcare systems throughout the world, a matter that will be investigated by future, cross-cultural studies.

REFERENCES

[1] Withrow, S. C. (2006). the 8 dimensions of quality. *healthcare financial management*.

[2] WHO. (2003). What are the best strategies for ensuring quality in hospitals?

[3] Wagner, L. M., Shawna, R., McDonald, M., & Castle, N. G. (2012). Relationship Between Nursing Home Safety Culture and Joint Commission Accreditation. *The Joint Commission Journal on Quality and Patient Safety, 38*(5), 207-215.

[4] Murphy, D. M., Shannon, K., Pugliese, G. (2006). *Risk Management Handbook for Health Care Organizations*.

[5] S. J. Singer, D. M. G., J. J. Geppert, A. D. Sinaiko, S. K. Howard, and K. C. Park, . (2003). The culture of safety: results of an organization-wide survey in 15 California hospitals. *Quality & safety in health care, 12*(2), 112–118.

[6] Bodur, S. F., E. (2009). A survey on patient safety culture in primary healthcare services in Turkey. *International Journal for Quality in Health Care, 21*(5), 348-355.

[7] Al-Ahmadi, T. A. (2009). Measuring Patient Safety Culture in Riyadh's Hospitals: A Comparison between Public and Private Hospitals. *The Journal of the Egyptian Public Health Association, 84*(5-6), 479-500.

[8] Fadi El-Jardali , M. J., Hani Dimassi , Diana Jamal , Rana Hamdan. (2010). The current state of patient safety culture in lebanese hospitals: A study at baseline. *International Journal for Quality in Health Care, 22(5), pp.386–395., 22*(5), 386-395.

[9] Alahmadi, H. A. (2010). Assessment of patient safety culture in Saudi Arabian hospitals. *Quality & safety in health care, 19*(5), p.e17.

[10] Aboul-Fotouh, A. M., Ismail, N. A., Ez Elarab, H. S., & Wassif, G. O. (2012). Assessment of patient safety culture among healthcare providers at a teaching hospital in Cairo, Egypt. *La revue de santé de la Méditerranée orientale (Eastern Mediterranean health journal), 18*(4), 372-377.

[11] El-Jardali F, D. H., Jamal D, Jaafar M, Hemadeh N. . (2011). Predictors and Outcomes of Patient Safety Culture in Hospitals. *BMC Health Services Research, 11*(45).

[12] Fracica, P., Lafeer, M., Minnich, M., & Fabius, R. (2006). Patient safety checklist: keys to successful implementation. *Physician executive, 32*(4), 46-53.

[13] Longenecker , C. O. F., Laurence S. (2001). Improving management performance in rapidly changing organizations. *Journal of Management Development, 20*(1), 7-18.

[14] Leape, L. L. (2004). An interview with Lucian Leape. *Joint Commission journal on quality and safety, 30*(12), 653-658.

[15] Sandars, J. C. G. (2007). *ABC of patient safety*: Blackwell Publishing Ltd.

[16] Twerski, R. A. J. (2007). Medical Errors: Focusing More on What and Why, Less on Who. *American Society of Clinical Oncology, 3*(2), 66-70.

[17] AHRQ. (2007). Guide to prevention quality indicators: hospital admission for ambulatory care sensitive conditions.: The Agency for Healthcare Research and Quality.

[18] Richter, J. P., McAlearney, A. S., & Pennell, M. L. (2016). The influence of organizational factors on patient safety: Examining successful handoffs in health care. *Health care management review, 41*(1), 32-41.

[19] Nembhard, I. M., Labao, I., & Savage, S. (2015). Breaking the silence: Determinants of voice for quality improvement in hospitals. *Health care management review, 40*(3), 225-236.

[20] Mazzei, A. (2010). Promoting active communication behaviours through internal communication. *Corporate Communications: An International Journal, 15*(3), 221-234.

[21] Matthews, J. T., P. (2007). Managing clinical failure: a complex adaptive system perspective. *International Journal of health care quality assurance, 20*(2-3), 184-194.

[22] Lenz, R. R., M. (2007). IT support for healthcare processes - premises, challenges, perspectives. *Data and Knowledge Engineering, 61*(1), 39-58.

[23] Reader, T. W. e. a. (2007). Interdisciplinary communication in the intensive care unit. *British Journal of Anaesthesia, 98*(3), 347-352.

[24] Lin, B. Y.-J., Lin, C.-C., & Lin, Y. K. (2010). Patient satisfaction evaluations in different clinic care models: care stratification under a national demonstration project. *Health & place, 16*(1), 85-92.

[25] Mercer, L. M., Tanabe, P., Pang, P. S., Gisondi, M. A., Courtney, D. M., Engel, K. G., . . . Makoul, G. (2008). Patient perspectives on communication with the medical team: Pilot study using the communication assessment tool-team (CAT-T). *Patient education and counseling, 73*(2), 220-223.

[26] Moret, L., Rochedreux, A., Chevalier, S., Lombrail, P., & Gasquet, I. (2008). Medical information delivered to patients: discrepancies concerning roles as perceived by physicians and nurses set against patient satisfaction. *Patient education and counseling, 70*(1), 94-101.

[27] Alhashem, A. M., Alquraini, H. & Chowdhury, R.I. (2011). Factors influencing patient satisfaction in primary healthcare clinics in Kuwait. *International Journal of health care quality assurance, 24*(3), 249-262.

[28] WHO. (2008). World Alliance for Patient Safety. Summary of the evidence on patient safety: implications for research. Geneva, Switzerland: World Health Organization.

[29] VanGeest, J. B., & Cummins, D. S. (2003). An educational needs assessment for improving patient safety: results of a national study of physicians and nurses. *White Paper Reports.*: National Patient Safety Foundation; 2003. White Paper Report 3.

[30] Makary MA, S. J., Freischlag JA, Millman A, Pryor D, Holzmueller C, Pronovost P. (2006). Patient safety in surgery. *Ann Surg., 243*, 628–632.

[31] Jones KJ, S. A., Xu L, Sun J, Mueller K. (2008). The AHRQ hospital survey on patient safety culture: a tool to plan and evaluate patient safety programs.

[32] Hofstede, G., Hofstede, G. J., & Minkov, M. (1991). *Cultures and organizations: Software of the mind* (Vol. 2): Citeseer.

[33] Hofstede, G. (1985). The interaction between national and organizational value systems [1]. *Journal of Management Studies, 22*(4), 347-357.

[34] Hofstede, G. (2013). Hierarchical power distance in forty countries. Organizations Alike and Unlike, ed. CJ Lammers and DJ Hickson (London: Routledge and Kegan Paul, 1979), 97-119.

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