

KNOWLEDGE SHARING AMONG EMPLOYEES OF KUWAIT CANCER CONTROL CENTER

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Abstract *Knowledge is a prime asset of organizations especially in knowledge intensive organizations like health sector and its management. It is important for organizational success and health services improvement. Knowledge sharing is transferring task relevant ideas, information, knowledge and experiences with other members as well as its retrieval and reuse in the organization. Therefore, acknowledgement of the importance of knowledge sharing in healthcare organizations will improve the quality of health care service. The purpose of this research paper is to investigate the current knowledge sharing practice among health professionals in order to assess knowledge flow process in Kuwait Cancer Control Center. This research mixing qualitative and quantitative study was conducted among 149 health workers using proportionally stratified random sampling technique. The data were collected using Google form questionnaire and distributed by the WhatsApp with a qualitative in-depth interview. The quantitative data was entered and analyzed using Google forms and Excel, while the qualitative data analyzed using thematic approach and presented in the form of narration. The study revealed that 40.26% of the study participants frequently share their knowledge. More than half of the participants report the absence of motivational schema or system and 41.6% of the respondents have high motivational level.*

Keywords: *Knowledge Sharing Practice, Knowledge Management, Health Care Services, Health Professionals, Kuwait*

INTRODUCTION

Nowadays worldwide competitions are increasing in every business and societies are becoming more Knowledge-based. Organizations that have knowledge assets are likely to be more successful than those that do not. So that the knowledge in a modern organization is an important resource especially because it is not readily replicated by competitive.

Knowledge is defined as human experience gained over time. There are two main kinds of knowledge: tacit and explicit. Tacit knowledge is the personal and lies in the individual's head. Generally found in non-structured forms, such as an individual's ideas, insights, values, experiences and judgments, it is more difficult to identify and to manage. However, explicit knowledge is a knowledge that can be codified, written procedures, records, notes, and graphic representations, audio and visual materials.

Knowledge management is putting the right people in the right place at the right time in order to add value through reuse and innovation. In addition, it is achieved through the promotion of creating, sharing, and applying knowledge as well as through the feeding of valuable lessons learned and best practices into corporate memory in order to foster continued organizational learning.

The health care society is increasingly becoming a knowledge-based community that depends basically on Knowledge Management (KM) activities in order to encourage nature of the care. Using knowledge management system in order to manage medical information and health care knowledge to support the knowledge needs in therapeutic process has turned into a vital issue for wellbeing experts. World Health Organization (WHO) defines knowledge management as "a set of principles, tools and practices that enable people to create knowledge, and to share, translate and apply what they know to create value and improve effectiveness" (WHO, 2006).

Knowledge sharing is sharing task appropriate ideas, information and suggestions or the behavior within one's organization. The availability of shared knowledge is important for adapting, extending and creating new knowledge and innovation. Effective knowledge sharing involves the dissemination and transfer of knowledge as well as its reuse. In the process of sharing knowledge, people are the primary entity because knowledge usually exists in the mind of individuals. The process starts in the sharing knowledge at the individual level, and expands to the group level and the organizational level. Knowledge sharing increases the organizational knowledge and improves the capability of its employees for performing their jobs better.

The basic purpose of communicating knowledge with in a group is to utilize the available knowledge and improve group performance (Nor'ashikin, 2009).

The health care society deals with patients' lives and wellness. There is clear understanding among health care managers and practitioners about the transformation of health care industry towards knowledge-based industry because it's more valuable. Sharing knowledge among professionals and patients have recently been realized in Healthcare organizations to improve the health care service quality and reduce cost (Tabrizi, 2014).

Statement of the Problem

According to Tabrizi and Morgan (2014), "delivering safe and high-quality services to patients is highly dependent on sharing the following types of knowledge, i.e. medical knowledge, scientific knowledge, incident knowledge, and experience knowledge". Medical knowledge is defined as the required information for diagnosis and treatment. Scientific knowledge is about applying research findings in practice. Incident knowledge refers to learn from medical errors. Finally, experience knowledge refers to experienced healthcare providers educate less experienced practitioners about the best practice procedures. Failure to share the above-mentioned knowledge can impact patient safety. All these types of knowledge require special attention, in order to create an environment to improve the quality of healthcare services (Tabrizi, 2014).

There is a lack of knowledge sharing in many healthcare organizations due to the absence of processes and framework for knowledge management. As a result, they face difficulties while acquiring the knowledge due to its rapid growth. Lack of knowledge sharing culture is one of the existing problems in healthcare knowledge management. This problem leads organization to the lower of efficiency and customer satisfaction and difficulty for healthcare organization to work as a group (Rizwan, 2009).

In Kuwait Cancer Control Center (KCCC) there are knowledge sharing practices like (seminars, morning sessions) which encompass doctors or specialists, but the KCCC does not have structured framework that comprises different types of health care professionals to share their knowledge, skill and practice to give quality care to patients. The KCCC knowledge sharing practice is not put in an integrated way, not supported by knowledge sharing supportive infrastructures, and there is a poor knowledge sharing practice among different departments. Therefore, the aim of this research paper is to identify the level of understanding of knowledge sharing among the employees propose a framework to support the knowledge sharing environment among healthcare professionals of KCCC.

PURPOSE

The purpose of this research paper is to identify the current sharing knowledge tools and factors that influence the current knowledge sharing practice among health care professionals in order to understand the design a framework that support knowledge flow and reuse in the KCCC and then evaluate the designed framework of knowledge sharing in the KCCC.

The health care industry is knowledge intensive industry; most of this knowledge resides in the heads of health care professionals. In healthcare organizations, medical decision depends mostly on experience and knowledge of health professionals. Thus, facilitating the interaction by integrating, sharing and making this knowledge available to healthcare professional will improve health care delivery and decision making.

The research paper helps to identify the challenges that will enable the hospital to design and implement a healthcare knowledge management system which enhances knowledge sharing practice and improve healthcare quality.

This research paper will attempt to answer the following study questions:

- What is the level of understanding of knowledge sharing among employees of KCCC?
- What do the current knowledge sharing tools in the KCCC look like?
- What are the challenges of current knowledge sharing among healthcare professionals?
- How the four factors can be mapped to knowledge sharing foundation?
- How to evaluate the proposed knowledge sharing framework?

LITERATURE REVIEW

The literature review in this research paper will shed some light on the knowledge sharing practice in health organization. Also, the influencing factors of knowledge sharing categorizing in to individual, organizational and technological factors and different research which are related to the research topic.

Rusli et.al (2008) define knowledge as it comes from information prepared by utilizing data. It helps to evaluate and incorporate new experiences and information. Also, it includes individuals' experiences, values, insights, and contextual information. Making decisions is one of the most important purposes for using knowledge. Recently, organizations realized that as they own massive amount of knowledge that this knowledge needs to be managed.

Knowledge is an essential component in the strategic resource for all organizations. It could help organizations gain competitive advantage. However, in health care, knowledge is the main asset of the organizations because it allows the organizations to achieve best medical results. Recently, healthcare organizations are attempting to build and enhance the use of owned knowledge (Zaid, 2013).

Knowledge Management (KM) is the operations by which people in organizations capture, share, and generate knowledge for action. It is one of the important elements in improving organizational effectiveness and efficiency. Thus, organizations that are capable of generating new knowledge, managing it, and applying it effectively will be successful at creating a competitive edge (Janet, 2005). In 1990s, knowledge management became very important because it helped organization to have competitive advantages and effective work through sharing and reuse of knowledge in an organization (Rusli, 2008).

Knowledge management in health care deal with people, processes, data and technologies in order to optimize information, collaboration, expertise, and experience to drive organizational performance and growth and characterized as, modeling the systematic creation, sharing operations, and the translation of health knowledge to improve the quality of patient care. The purpose of health care knowledge management is to promote and create optimum health knowledge, timely, effective and pragmatic for health professionals and even to patients and individuals where and when they need to help them create high quality, well-informed and cost-effective patient care decisions (Zaid, 2013).

Knowledge Sharing in Health Care Organization

According to WHO “A health system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health” (World, 2002). Healthcare organizations are made up of health care professionals from various disciplines forming several interconnected.

care teams that attempt to give safe and consistent care. The care teams need to coordinate and communicate amongst their team members and with other teams to function in a cohesive manner to execute the highly coordinated and high-risk activity that is called patient care. Health care organizations have to keep stability following institutional protocols. Health care organization assess their performance and evaluate protocols to create and incorporate new knowledge. The created and incorporated new knowledge should be managed and shared among the health professionals (Savithiri, 2014).

Knowledge Sharing is a very important part in the knowledge management and practice. It is an interactive practice of disseminating reliable knowledge, to the right people at the right time, in an intelligible way that allows them to act carefully and to enrich the organization’s knowledge base. Knowledge sharing among individuals enables work groups to enhance competency and generate new knowledge. Social capital is created as those who share knowledge improve their knowledge by dialogue and those who receive knowledge learn (Yang, 2007).

Knowledge sharing is the key to health care organization for patient care. Once knowledge is created there is health care quality that outcomes from its sharing because more than one individual can utilize knowledge at the same time and shared knowledge stimulates the formation of new knowledge (Sherry, 2010).

Factor Influencing Knowledge Sharing

One of the major barriers to effective knowledge management has proven to be the absence of knowledge sharing. More specifically, sharing employees’ skills and expertise is likely to enhance organizational capabilities in knowledge management and renewal, and to produce more than desirable work outcomes. Knowledge sharing can occur through written correspondence or face to face communications via networking with other experts, or documenting, organizing and capturing knowledge for others (Sheng, 2010). There are factors that impact employees’ perception of a knowledge sharing culture. The identified factors can be broadly categorized into three groups: individual or human factors, organizational factors and technological factors. Individual factors depend on the communication among individuals, particularly sharing knowledge among the individuals such as trust, awareness, personality and intrinsic factor of motivation (Zaid, 2013). The organizational factors refer to how people and tasks in an organization are arranged to ensure the work done. Identifying the factors help organizations control their knowledge asset. First, they must understand factors that affect KS at individual level.

An extrinsic motivational perspective, individual behavior is driven by its perceived values and the benefits of the action. The fundamental goals of extrinsically motivated behaviors are to receive organizational rewards or mutual benefits. Organizational rewards can range from monetary incentives such as increased salary and bonuses to non-monetary awards such as promotions, recognition and job security (Hsiu-Fen, 2007).

Technology is represented by software and hardware that people in organizations use in order to do their tasks and it is a key element in distributing information within the organization and granting people the proper access to the

right information at the right time. It facilitates the flow of information by designing and implementing systems that support communication, collaboration and knowledge distribution (Hussin, 2014). So that, knowledge sharing takes place in the organization and facilitate the knowledge sharing process.

Hyun and Seong (2014) investigate the factors that affect employee's knowledge sharing intention, behavior and innovation behavior by using self-administering questionnaires in order to collect the data for the study. These found several factors that affect the sharing knowledge such as individual factor (incentives, subjective norms and behavioral control), organizational factors (organizational structure, administrative support, information technology system and learning climate), and behavioral control and trust affecting hospital employees knowledge sharing intention and innovation.

Wai, Manjit and Kishore (2009) conducted a study in an American based multinational company in Malaysia about knowledge sharing, barriers to knowledge sharing, and strategies to promote knowledge sharing. The results of this study show that most of the respondents agreed that there is a knowledge sharing strategy and there is a growing awareness of the benefit of knowledge sharing in the organization. However, it was worrying to know that 22 percent responded negatively to the statement that knowledge sharing is important to the organization. Also, 27 percent of the respondents were also not willing to share knowledge. The study points out that the most effective method to promote knowledge sharing was to link it with rewards and performance appraisal. Top management support was also vital to ensure the success of knowledge sharing in the organization (Wai, 2009).

In Jordan, Alhalhouli, Hassan and Abualkishik (2013) conducted a study about the updated Model to Enhance Knowledge Sharing among Stakeholders in Jordanian Hospitals Using Social Networks used interview survey and interviewed 15 randomly selected workers; doctors, nurses and pharmacists on the government, military and private sectors. The researchers categorize knowledge sharing barriers as individual, organizational and technological barriers. The influential individual barriers such as lack of time, past mistakes, experience, and lack of interaction, are factors that hinder stakeholders from sharing their knowledge and impact the behavior of stakeholders, who work in Jordanian hospitals. The organizational barriers that influence the knowledge sharing of the stakeholders in Jordanian hospital are: lack of leadership, shortage of formal and informal spaces to share, existing corporate culture, deficiency of company and physical work environment. In addition, the unrealistic expectations of employees, lack of compatibility, mismatch, reluctance to use IT systems, lack of training and lack of communication are the technological

barriers that impact the knowledge sharing among stakeholders of the Jordanian hospital. Based on the findings the researchers developed a conceptual model, to improve and encourage stakeholders to share knowledge, among them (Zaid, 2013).

Another study conducted at Malaysia's healthcare research institutes by Ramlee Abdul Rahman (2011) on Knowledge sharing practices using descriptive survey method and studied 400 researchers and officers from six research institutes under national institute of health. This study showed that knowledge sharing depends on the context of encouraging and rewarding practices of organizational knowledge sharing. The findings of this study suggest that organizational environment and infrastructure, management support, organizational culture and technology are factors that influence the organizational knowledge sharing practices among the employees. On the other hand, respondents in the case study did not perceive lack of policies and guidelines and lack of reward schemes would hinder knowledge sharing. Finally, the study concluded that creating a knowledge sharing environment in an organization requires change in the corporate culture and knowledge sharing culture needs to be a positive force towards creating an innovative organization (Ramlee, 2011).

Teklit et al. (2014), conducted a study about Knowledge sharing practice among healthcare professional of public hospitals and its associated factors in Mekelle, Northern Ethiopia using cross sectional study design and applied simple random sampling technique to select respondents for the study. The study found that motivation to transfer knowledge, salary increment, supportive leadership and knowledge sharing opportunity were significant predictor that affect healthcare professional's knowledge sharing practices in the hospitals under the study (Teklit, 2014).

Bhatti, Latif, and Iqbal (2014) conducted a study about Knowledge sharing intentions among doctors of private and government hospitals. The authors measure the knowledge-sharing intentions the physicians to test their relationship. The authors distributed a questionnaire having various questions amongst 100 doctors; half of the questionnaires were distributed in private hospitals while the remaining half was distributed in government hospitals. The results of the study indicate that sharing knowledge is very essential because of the fact that it may help others and this attitude is very encouraging towards the intentions of the Doctors.

METHODOLOGY

The study was conducted in Kuwait Cancer Control Center. The Kuwait Cancer Control Center (KCCC) is a comprehensive center providing Cancer Care across the State of Kuwait. It was established in 1968. KCCC is a governmental center affiliated with Kuwait ministry of

health. It was primarily made up of three center the Hussain Makki Juma building for Specialized Surgery, the Sheikha Badriya Al Sabah Medical Oncology Building, and the Faisal Sultan Ibn Issa Diagnostic Imaging building. There are over 600 highly qualified medical oncology staff. KCCC treats over 2000 new cancer patients each year from Kuwait and the region (KCCC, 2017).

This study uses both quantitative and qualitative methods. The quantitative method attempts to generalize the findings and generate statistics by use of large scale survey while the qualitative method explores attitudes, behavior, knowledge and experiences through interviews. Both research methods counteract the weaknesses in both qualitative and quantitative research and give superior evidence of the results.

For the qualitative study interview were conducted with 7 participants. The participants were matron, pharmacy, laboratory, imaging, outpatient and health department heads. The qualitative study, only those who serve as the head of the departments were chosen using purposive sampling because the participants are people who give inside and detail of information about the study topic. For the qualitative data semi-structured interview guide was developed to collect the data. The qualitative data were collected by the investigator through taking notes and for the ease of communication the interview was conducted in English were summarized for writing up by using thematic analysis. It is a process of analyzing data with little or no predetermined theory, uses the actual data itself to derive the structure of analysis, the process involves analyzing transcripts, identifying themes within those data and gathering together examples of those themes from the text.

For quantitative study the sample population were selected using proportionally stratified random sampling. It is a sampling technique in which the sample population categorize in to different subcategories then the sample identified and selected proportionate to their occurrence in the population. The survey methods are used for the quantitative study in order to collect data of the study. The questionnaire used in this paper was available online and I used after getting permission to use it. The Data were collected electronically through WhatsApp by using the Google forms. The questionnaires sent to all the employees in the Kuwait Cancer Control Center electronically. The increasing the response rate because it is electronically used. This survey is a part of the quantitative method, which is used widely and easy to work with it. The total number of participants is 149 employees (Doctors, Nurses, Technologist, others).

The survey contains mainly the three sections with 41 questions distributed through these sections. The first section is related to the demographics characteristics of the KCCC employees. The second section is a checklist with the ability to choose only one of the provided choices, which is about the knowledge sharing. The third part is the scaled questions by using the Likert's scale. Likert scales ranging from strongly disagree to strongly agree. This section is dividing to 9 sections. Trust was measured by five close ended questions (13-17) to be answered using Likert scale. Awareness was measured by four close ended questions (18-21) and the response option was Likert scale. Personality was measured by three close ended questions (22-24). Intrinsic motivation was measured by four close ended questions (25-26). Extrinsic motivation was measured by two close ended questions (29-30). Administrative support was measured by three close ended questions (31-33). Organizational arrangement was measured by two close ended questions (34-35). Group interaction was measured by three close ended questions (36-38). Finally, the information technology was measured by three close-ended questions. The quantitative data was collected and analyzed automatically by using Google forms application.

RESULTS AND DISCUSSION

Results of Quantitative Study

The questionnaire was distributed to all the employees of the KCCC through WhatsApp. Of the total distributed questionnaires, 149 were completed and analyzed directly in the Google forms.

Socio-Demographic Characteristics of the Respondents

Among 149 respondents 57.7% were females and 42.3% were male. Regarding the age group of the respondents the result shows that the average age of the respondents 53% was between the age group 31- 40 years, figure as seen in table 1. Concerning education, 43.6% had bachelor's degree, 14.8% had specialty degree of doctors. In terms of educational background 62.2% were laboratory professionals, followed by nuclear medicine specialist and radiologist 14.1%. Most of the respondents had worked for more than or equal to 10 years.

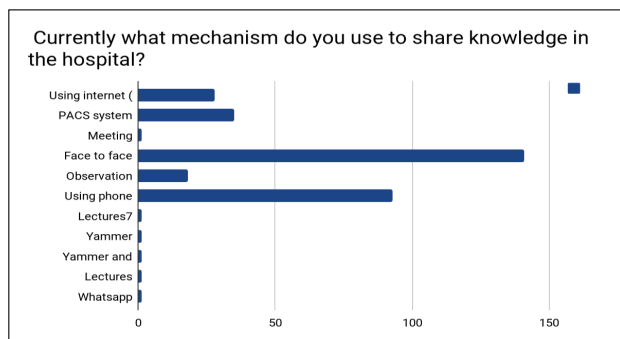
Table 1: Demographic Characteristics of the Employee in the Group

<i>Demographic characteristics of the respondents</i>	
Gender	
Female	86(57.7%)
Male	63(42.3%)
Age of the respondents	
21-30	37(24.3%)
31-40	79(53%)
Above 40	33 (24.8%)
Degree	
Master	14 (9.4%)
Specialty	22 (14.8%)
PHD	23(15.4%)
Bachelor	65 (43.6%)
Diploma	25 (16.8%)

Knowledge Sharing Practice

Knowledge sharing is sharing task, ideas, information and suggestion among team members or staffs at the KCCC, which is making the shared knowledge reusable by other people or staffs. The result shows that most of the employees frequently sharing the knowledge among each other.

There are several mechanisms of the sharing knowledge tools among the employees in the KCCC. As in the sharing tools lecture, using the mechanisms for sharing the knowledge like face to face communication, phone, observation and internet, which is facilitate the knowledge sharing practice among the professionals. In addition, Picture Archiving and Communication System (PACS) is one of the sharing tools among the professionals in the hospitals. In this section of the questionnaire the respondents have to choose more than one tools of sharing knowledge. Fig. 1 shows that 94.6% of the respondents use face to face communication. 62.4% of responds use phone to share knowledge with coworkers. 23.5% of responds uses PACS in order to share knowledge.



The level of motivation in the hospital is very important in order to take appropriate measures. More than half of the respondents have high and medium motivational level to engage in knowledge sharing practice. The results in Fig. 2 show that 41.6% of the respondents were highly and medium motivated in sharing knowledge practices.

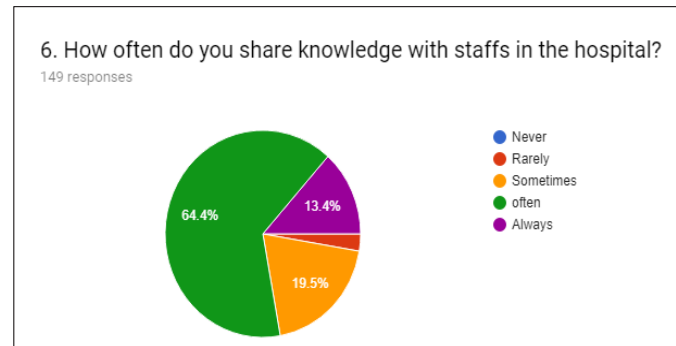
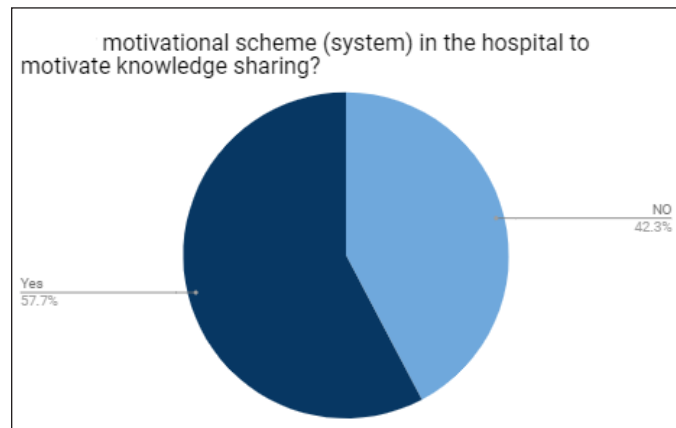


Fig. 2: Motivation to Transfer Knowledge Among the Respondents

Fig. 3 shows that 65% of respondents indicate that there is a motivational system in the hospital while 35% of the respondents indicate that there is no motivational system in the hospital.



Knowledge Sharing Factors

Individual Factors

In this section there are different questions in order to identify the factors that affect the knowledge sharing among the respondents. There are individual, organizational and technological factors that help managers design strategies that improve organizational efficiency by better knowledge sharing.

Trust is very important tool among employees in knowledge sharing. The relationship among coworkers is very important in order to provide the best quality of health care. The results show 35.9% of respondents agree and 30.2% of responds strongly agree on the importance of trust with each other.

According to the results, more than half of the respondents in the hospitals agree on trust, which improves the sharing of the knowledge among them.

The respondents were aware the importance of the knowledge sharing among each other in their daily work process, 50.3% of respondents strongly agree on awareness and 22.8% agree on that. 36.2% of the respondents strongly agree and agree on the awareness to avoid repeating the same mistakes.

Overall, 43.6% of respondents had an extrovert personality and high self confidence in order to share knowledge and experience among each other.

Fig. 4 shows that 36% of the respondents have intrinsic motivation in order to share knowledge among each other.

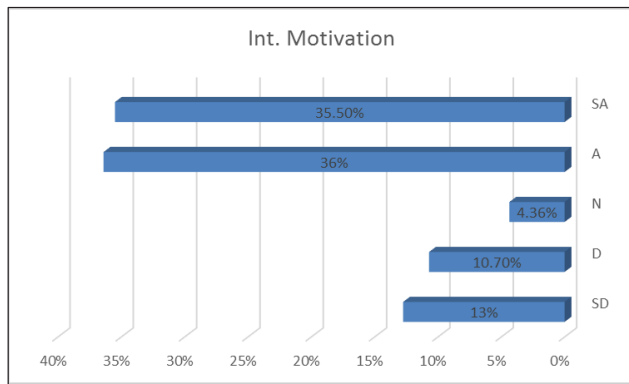


Fig. 4: The Percentage of Intrinsic Motivation of the Responds in the Hospital

Organizational Factors

The findings show that 42.3% of respondents strongly agreed on the encouragement of managers of sharing the knowledge with staffs. Less than third of them 32.2% of respondents strongly agree on manager’s encouragement for new idea and focus on learning from failure. Only 7.4% of respondents strongly agree on the presence of consultation to team members for solving the problem.

Almost half of respondents strongly agreed on presence of open space for knowledge sharing in the KCCC. Only 4.7% of respondents strongly agreed that knowledge sharing included in daily work process.

More than half of respondents strongly agreed on the importance of the team work in the hospital in order to improve the quality of health care.

Technological Factors

As the results, show 52% of respondents agree on the presence of the intranet and internet in the hospital. Fifty percent of respondents agree of the use of knowledge network like e mail in order to communicate with each other.

Results of Qualitative Study

An in-depth interview was conducted with seven participants in order to obtain detail information on the sharing of knowledge. Regarding how participants understand the concept of knowledge sharing, the respondents understand knowledge sharing as a sharing of knowledge that obtained from school’s learning, training, guidelines and experience and when they give response about the hospital knowledge sharing culture most of them said that the knowledge sharing culture differ from department to department but there is no integrated knowledge sharing culture in the hospital.

When the respondents talk about the importance of knowledge sharing, they said that knowledge sharing helps not to repeat the same mistake. In addition, it helps to learn faster with little time and increases the staff communication which will help to improve work practice.

At the time of interview some of the respondents indicate that they use different mechanisms to share knowledge. Most of them use face to face mechanisms and phones. Also, they state that they obtain knowledge through lectures conducted by the KCCC. Making discussion with senior staffs, through morning sessions but the morning sessions are attended only by physicians. One of the respondent states that: *“the hospital does not have formal mechanism that support interdepartmental knowledge sharing. The knowledge from one department to other differs in many ways but to exchange that knowledge the staff uses informal ways, if the person wants to know something from that department he/she ask the member department.”*

The respondents reported that in the hospital there is no management support to encourage knowledge sharing, but some of the respondents stated that the senior managements try to support knowledge sharing by organizing different trainings with other governmental and nongovernmental organizations and by facilitating ways that the staff learn from other organizations best practices.

To improve knowledge sharing the respondents suggest different measures. The majority of the respondents recommend creating awareness about the importance of knowledge sharing among the staffs, providing recognition and reward for those who share their knowledge, facilitating for those who don’t have knowledge sharing sessions’ departments or professions to start the session and setting knowledge sharing strategies may help to improve knowledge sharing.

DISCUSSION

The aim of this paper is to describe the current knowledge sharing practice and the factors that affect the knowledge

sharing among employees at the KCCC in order to design the foundation, to support knowledge sharing in the KCCC.

Knowledge sharing is one of the effective tools to increase the performance at the work. The results of the paper showed that, most of the respondents always and often share the knowledge with each other. Individuals should be motivated in the KCCC because it is important to enhance sharing the knowledge. The results in this paper showed that 41.6% of the respondents have high level of motivation in order to share their skills and experience among each other.

The factors that affects knowledge sharing could be categorized into three factors: organizational, individual and technological factors. The individual factors include all the knowledge possessed by individuals. These factors include trust, personality and intrinsic motivation. The trust is very important in knowledge sharing. It makes the relationships among the employees stronger. According to the results in this paper 42.3% of the respondents believe that trust is present among them.

The first phase of knowledge sharing initiative in the organization is awareness. The results showed that 44.4% of the respondents agreed the having awareness, which is importance for the knowledge sharing.

Personality is another important individual factor. Forty presents of the respondents have high self-confidence to share knowledge and experience with others. In addition, intrinsic motivation is also part of the individual factor. The results showed that 41.27% of the respondents have intrinsic motivation for knowledge sharing.

The organizational factors that used in this paper were administrative support, organizational arrangement, extrinsic motivation and team work. Only 38% of the respondents agreed on the presence of the administrative support for the knowledge sharing in the KCCC. The arrangement of an organization is very important in order to achieve the tasks the work. Moreover, it encourages knowledge sharing among the employees. Team work is essential for enhancing the knowledge sharing in the work place. The results showed that more than half of respondents have believed in the importance of the work team in the work place to improve job performance.

Information communication technologies have vital role for increasing knowledge sharing among the employees in the KCCC as the results showed in this paper.

- Organizing workshops and conferences in order to maximize the rate of sharing knowledge.
- Developing PACS system to be a powerful tool to speed up the sharing process among the employees.
- Creating sharing strategies in order to enhance sharing knowledge.

- The professionals need to use other mechanisms such as intranet and PACS in addition to face to face and phone to improve the sharing practice.

CONCLUSION AND RECOMMENDATION

KCCC is part of the health care organizations. It is created by health care professionals. This organization requires effective knowledge management and knowledge sharing practice. This practice is very important to solve the problem and achieve the goals and objectives. In this paper, most of the respondents in the KCCC are aware of importance of sharing the knowledge. Face to face communication and using the phone are the most popular mechanism for sharing knowledge among the employees in the KCCC.

The majority of respondents were highly motivated to share their knowledge but there were lack of organizational arrangement for sharing knowledge. Team work is one of the very important concepts that the respondents believe in. It makes the sharing knowledge process easier among the employees in the KCCC.

Information and communication technologies have a vital role in KCCC for sharing knowledge. In this paper, there were a good percentage of respondents who use these technologies for sharing the experience.

Medical knowledge is not static in nature. It is dynamic so that, each health professional should update themselves. The knowledge sharing among the employees of KCCC is very importance to improve the quality and performance of health care services. Structured foundation of the knowledge sharing is very necessary to use and reuse and share the knowledge among them.

- In the KCCC, there are several professionals who have lot of experience should share their experience knowledge to the new worker who has less experience in order to improve the performance in health care services.
- Organizing meeting, morning sessions encourage the employees in KCCC to share the knowledge.
- Creating activities and bringing new technology that help the professionals to sharing knowledge in smoothly way.
- Creating a motivational system that encourages the knowledge sharing among health care professionals.

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APPENDIX

Questionnaire Sample

This questionnaire is part of research paper that used to design a framework for knowledge sharing practice among health care professionals at KCCC. The paper will provide better understanding on the existing situation about knowledge sharing practice among healthcare professionals. Understanding the existing situation will be used as a base line for designing intervention program to alleviate the knowledge sharing problems.

Part 1: Demographic profile of the Respondents

Please encircle your answer or write in space provided that represents your most appropriate

answer.

1. Indicate your gender?
A. Male B. Female
2. Indicate your age group?
A. Less than 20 years C. 31- 40 years
B. 21 – 30 years D. Above 40 years
3. Your highest educational level?
A. Diploma D. Specialty
B. First degree E. Doctorate degree (PhD)
C. Master's degree
4. Your profession?
A. Specialist doctor D. Health officers G. Laboratory professional

B. radiologist E. Nuclear medicine specialist H. Pharmacy professional

C. Nurse F. Anesthetics I. Others

5. Your working experience in health organization?

Part 2: Questions about the knowledge sharing

Knowledge sharing is sharing task-relevant ideas, information, and suggestions among team

members (staffs) and making the shared knowledge reusable by other people.

Based on the above Knowledge sharing context please encircle your answer that represents your

most appropriate answer.

6. How often do you share knowledge with staffs in the hospital?
A. Never B. Rarely C. Sometimes D. Often E. Always
7. Currently what mechanism do you use to share knowledge in the hospital? (Possible to choose more than one answer)
A. Face to face communication with colleague D. Using internet (such as e-mail)
B. Observation E. PACS system
C. Using phone
8. How do you feel motivated to transfer your knowledge?
A. Very low B. Low C. Medium D. High E. Very high
9. Is their motivational scheme (system) in the hospital to motivate knowledge sharing?
A. Yes B. No

No. Please tick (√)one answer only which indicate your extent of agreement

Knowledge Sharing		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
10.	In the KCCC there is periodic meetings in which people working in different teams, department may participate					
11.	In the KCCC are formal opportunities like training program and workshop within the hospital that allow employee to share knowledge.					
12.	There is informal knowledge sharing practice within KCCC					
Trust						
13.	I trust knowledge of my co-workers					
14.	I have full confidence in the skills of my coworkers					
15.	If I got into difficulties at work, I know my coworkers would try and help me out					
16.	If I share knowledge with in my organization my colleagues will believe that I am very concerned about their welfare (wellbeing)					
17.	If I share knowledge with my organization my colleagues will feel very confident about my skill and capability					

Awareness						
18.	I am aware of the importance of knowledge sharing in daily work					
19.	Knowledge sharing helps not to repeat the same mistake					
20.	I believe I would gain new ideas, technologies, skills or techniques by sharing knowledge					
21.	I believe knowledge sharing helps to learn faster					
	Personality					
22.	I am an extrovert type of person (like to know what is happening, socialize and open minded)					
23.	My self confidence is high to share knowledge					
24.	I feel secured when I share my knowledge and experience					
Intrinsic Motivation						
25.	I believe my experience can improve work efficiency and increase productivity					
26.	I enjoy helping colleagues by sharing my knowledge					
27.	I am confident in my ability to provide knowledge that others in my organization consider valuable					
28.	I enjoy sharing my knowledge with colleagues					
Extrinsic Motivation						
29.	In the KCCC individuals who share their knowledge gets recognition and acknowledgement					
30.	In the KCCC I get bonus, promotion in return to my knowledge sharing with colleague					
Administrative Support						
31.	Managers in our organization encourage knowledge sharing with colleagues or staffs					
32.	Managers in the KCCC encourage new idea and focus on learning from failure					
33.	Managers in the KCCC consult team members to make decision and solve problem					
Organizational Arrangement						
34.	There is open space that used for knowledge sharing in the hospital					
35.	In the hospital knowledge sharing included in daily work process					
Team Work						
36.	Our organization encourage group interaction (team work) regarding knowledge sharing					
37.	Most of the people I work with are cooperative and open to share knowledge					
38.	I would rather cooperate with colleague than compete with them					
Information Technology						
39.	. Information Communication Technology infrastructure (internet, intranet) is available in the hospital					
40.	There is technical support and maintenance of integrated Information Technology system					
41.	In the hospital, employees use knowledge networks such as (email, intranet, internet) to communicate with colleagues					