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IDENTIFYING KNOWLEDGE MANAGEMENT (KM) TOOLS AND TECHNIQUES BEING ADOPTED & APPLIED IN TEACHING HOSPITALS

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ABSTRACT

Globalization is affecting the management of different types of organizations including healthcare organizations. In the knowledge-based economy, the management of knowledge has become an important mechanism to improve the performance of professionals and organizations. Knowledge management helps in transferring and generating new knowledge among professionals including hospital doctors. The Services Hospital Lahore is a teaching hospital and one of the leading health care organizations in the public sector of Punjab, Pakistan. The main purpose of this study was to explore the tools being adopted by medical officers for Knowledge Management (KM) practices. The nature of this study was quantitative. Simple random sampling was used to select the sample from the whole population in the selected hospital. The study found that knowledge management practices among doctors were good, but it required more attention from higher administration to supports the knowledge sharing, capturing, and generating activities among doctors in Services Hospital Lahore. Previous studies revealed that good management of knowledge in a hospital has a positive effect on the performance of patients' care delivery. This study concluded that through effective knowledge management practices, the hospital cloud improves the patient's care services. The key recommendations from this study were that management of knowledge could be improved by the use of the latest technological tools.

Keywords: Tools for Knowledge Management, KM Practices, Services Hospital Doctors KM Sharing Practices

INTRODUCTION & PROBLEM STATEMENT:

Knowledge Management (KM) is defined as "an organized act of recognizing, capturing and transmitting information and knowledge so that people can use it to generate, complete, and improve the knowledge". In this regard, knowledge management is treated as a concept and practice. Knowledge management is becoming a very important tool for most organizations to maintain their goodwill and status in world competition.

The application of Knowledge Management in various sectors has spread over the last few decades due to its importance. Alajmi, Marouf, and Chaudhry (2015) stated that although Knowledge Management practices have been studied and applied in many organizations, the adoption of KM practices in hospitals is very problematic. Moreover, the way of management of knowledge in different healthcare organizations is not the same, which causes problems in the correction of health care practices and strategies (Van Beveren, 2003). However, Spender (2006) stated in his research that there is a similarity in health care organizations regarding knowledge-sharing practice. On the other hand, Anderson and McDaniel Jr (2000) noted that medical institutions are organizations that have some special functions which are implemented by some special persons under special rules through people share their knowledge, job description, behaviors, norms, and values.

There are dissimilarities in the practices of every healthcare organization, but they have a common goal, which is to serve humanity (Perrott, 2007). Further, the delivery of health care services can be attained via a shared and collective process that needs the contribution of various workers with their special knowledge, abilities, and skills. Thus, knowledge management in a hospital requires well reputable and contributive mechanism, which enriches the main objective of serving humanity and saving the life. In addition, Anderson and McDaniel Jr (2000) claimed that collaboration and interaction of employees who work in a hospital or health care organizations can improve the delivery of medical services effectively and reduce the cost of services.

Due to the development in ICTs from the last few decades, the influx production of knowledge generates difficulties for doctors in capturing, sharing, utilizing, and managing. The medical profession is a very demanding field that depends significantly on the creation of updated and new knowledge. Therefore, it is very important to find out the KM practices, which are mostly used in organizing the current knowledge of medical practitioners, and are appropriate for the improvement of hospital routines and specifically are helpful for doctors.

Services Hospital is situated in central Lahore, Pakistan. It is performing a leading and vital role in providing healthcare facilities and services. These facilities and services are linked with the best performance and updated knowledge of medical practitioners or doctors. The purpose of this study was to examine Knowledge management practices in Services Hospital Lahore. It will find out the various activities that are related to capture, share and produce knowledge among doctors. Previous studies showed that there have many works of literature published on this topic at the international level, but a lack of such studies that investigate the Knowledge management practices between doctors in the Pakistani context. Therefore, it is needed to understand the Knowledge management practices between doctors to fill this gap in the literature.

This study only covers the tools for Knowledge Management practices adopted by doctors of Services Hospital Lahore. The respondents were selected only from the Services Hospital Lahore.

STUDY-OBJECTIVES:

- To identify knowledge management practices adopted by doctors.
- To find out the demographic differences about knowledge management practices

RELATED LITERATURE:

Blair (2002) stated that Knowledge Management (KM) is the ability of the individual to perform something or to exercise a kind of expertise, he further described that knowledge is an intangible asset that can be exchanged with two or more than two persons when they interact with each other. Explicit knowledge is the tangible form of knowledge and it can be read, expressed, captured, write, and transferred very easily. While explicit knowledge in the medical context is manual patient medical records, doctor's comments on patients file about the disease, medical journal, clinical workflows, guidelines, data warehouse and books, plan and policies, medical databases, correspondence between practitioners or any other publications. The second major form of knowledge is tacit. Tacit knowledge is in the head of individuals; such type of knowledge cannot be read, captured, and shared, codified, and transferred to others. This is human intellectual capital and asset. Faleh, Hani, and Khaled (2011) defined tacit knowledge as which is experimental, intuitive, and experience-based knowledge that cannot be expressed in words, sentences, and formalized or articulated and therefore difficult to share also.

On the behalf of previous literature, there is no hard and fast definition of knowledge management from a healthcare point of view. However, knowledge management means the convergence of formal techniques and methodologies, which facilitate the development, diffusion, preservation, acquisition, recognition, and consumption of different components of knowledge assets present in the healthcare organizations (Stroetmann & Aisenbrey, 2012). World Health Organization (WHO) the 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"(as cited in Bolarinwa, Salaudeen, & Akande, 2012).

Knowledge resides in the person, groups of persons, and institutions in different formats. Major and key judgments are based on experience and knowledge which is commonly shared informally. The capturing of knowledge of individuals is very important and plays a very significant role in the success and development of an organization. As Snyder and Wilson (1998) stated in their study about the significance of knowledge capturing that the capabilities and skills

of the top-level managers, administrators should capture and stored to maintain the success of the organization.

Knowledge Management is very important for every type of business and organization. Knowledge capturing is also one of the major activities and it is not possible without tools that are used in capturing knowledge. Different organizations use a variety of tools to capture knowledge. Hari, Egbu, and Kumar (2004) conducted a study in which he expressed the importance of ICT as a tool of knowledge capturing he further addressed that organizations can capture the knowledge effectively and efficiently through ICT with the low time cost. Which can also reduce the number of mistakes, he also discussed that workshops, job training, job rotation are tools for capturing the knowledge.

Appiah (2014) discussed some knowledge capturing tools in his research, he has categorized knowledge capturing tools into two categories:

1. Information technology tools: these technologies are used for knowledge capturing such as the internet, databases, extranet, computer, etc.
2. While others are non-information technology tools: these tools are known as knowledge capturing techniques which are specially used to capture the tacit knowledge like the mentoring, project or after a project review meeting with colleagues, brainstorming, etc.

Similarly, Alajmi et al. (2015) mentioned in their study about the Knowledge capturing practices and tools used in hospitals of Kuwait such as Use of knowledge capturing systems, Use of knowledge codification user-friendly system, Use of IT to facilitate knowledge capturing practices, Reporting of Best practices, Lessons learned, Information systems maintenance and Knowledge update, etc. the results of this study revealed that participants rated knowledge capturing practices low due to lack of availability of suitable place where they can capture and store knowledge and ideas, further he mentions the lack of user-friendly system which categorized and codify the knowledge. Moreover, the study revealed that participants do not frequently use IT for capturing knowledge for future usage, most of the time respondents work hard to maintain

available systems and remember their mistakes for the future as compare to other practices like updating their knowledge.

Another tool Electronic Medical Record (EMR) is mostly used for capturing the knowledge in hospitals and healthcare centers. According to HealthIT, An electronic medical record (EMR) is an electronic format of a paper graphic representation that has all of a patient's medical record from one practice. An EMR is regularly used by suppliers for treatment and diagnosis. A study was conducted by Dobrzykowski and Tarafdar (2017). The result of the study shows that the performance of doctors has improved with the use of Electronic Medical records, through this tool doctors, nurses, and another staff is connected and they get enable to capture and share information and knowledge in the hospital. Likewise, Gyamfi, Mensah, Oduro, Donkor, and Mock (2017) conducted a qualitative study at KomfoAnokye Teaching Hospital's (KATH) Emergency Centre (EC), in which he discussed the use of EMR at the hospital as knowledge capturing tool he stated that via using EMR we cannot only capture the knowledge of hospital medical and supporting staff but also can improve quality and efficiency of emergency care with low cost, he also explored some challenges which are a hurdle in the implementation of EMR at the hospital like lack of finance and expertise of technologies. Data and power backup is also identifying some barriers but these barriers can be overcome by sufficient human resources and funds.

A review of vast published material on knowledge sharing shows that there is no hard and fast definition of knowledge sharing. Many philosophers define the term of knowledge sharing in their sense, small numbers of authors, researchers articulate that knowledge flows, knowledge sharing, and knowledge transfer are the same terminologies. Allameh, Abedini, Pool, and Kazemi (2012) claimed that Knowledge sharing is a set of behaviors by which members of an organization mutually exchange and share their knowledge and information to help others. Additionally, Tong, Tak, and Wong (2015) stated that Knowledge sharing is a set of actions involving distribution or conveying of knowledge between persons, groups, or organizations, where employees can communicate and exchange their explicit and tacit knowledge and also generate new knowledge. According to McAdam, Mason, and McCrory (2007), there are two major schools of thought of knowledge sharing. The follower of the first school of thought follows the view of Polanyi (1966), who says that knowledge is very personal and only exist in an individual's brain. However, it is

very difficult to share the knowledge formally. They also claim that knowledge can be shared via personal experience, imitation, observations, and apprenticeship. Further, they believe that a major part of knowledge cannot be expressed, once it is articulated it became explicit.

In the present era, online communities are becoming very famous. Online communities according to (Widén-Wulff & Ginman, 2004) Online community members having the same objectives and benefits, generally share their life experiences and histories, as well as build common principles and targets, and take mutually and collectively actions for benefits. An online environment is an electronic interface use via computers by which different tasks can be performed at the same time (Gauthier & Krajicek, 2013). Therefore, despite an immense proliferation in numbers of online communities, some of them have been very successful in holding and motivating the members to contribute the knowledge (Lai & Chen, 2014). Tseng and Kuo (2010) conducted a study on the e-learning platform of teachers, study identified that social awareness, community identification, and self-efficiency of knowledge sharing significantly affect knowledge sharing behavior.

Online and social networks are also very important tools for sharing knowledge. The social network can be defined by Huang and DeSanctis (2005) as a network by which people interact, build relations, share knowledge, information and assist each other by using electronic communication technologies. Alajmi et al. (2015) conducted a study for exploring the frequency of use of social and electronic media among doctors of hospitals the result showed that 57 % perception of the selected population is that social media is the very appropriate tool by which every medical practitioner can engage with others and it is the best tool to share the up to date and valid information with colleagues in a short time, the study further explored that 57.9% says that social media make them efficient inpatient care, 60% confirmed that basically, it improves the quality of patient care services. In the hospital or healthcare organizations physicians and surgeons perceived that social media is very easy to use which is the reason behind the use of social media for sharing knowledge among other physicians. The positive attitude towards technology influenced them to social media; they perceive that technology is a very useful tool to achieve better results of performance. There are so many social websites like Facebook, Twitter, my space,

Whatsapp, etc. by which employees of an institute can communicate with each other in a short time.

The online discussion forum is becoming a very famous web-based knowledge tool for sharing pinpoint information and solving problems. It allows individuals or groups to connect, debate, discuss the different types of topics and issues without any geographical boundary. Online discussion forums can play a very vital role in sharing knowledge and its management. It has a large number of content on different kinds of topics like politics, news, medical sciences, sports, and international affairs which is generated by online users(Seliaman, 2013). Majid, Yang, Lei, and Haoran (2014) investigated the perception regarding the usage of online discussion forums. The result shows that there is a different type of factors that affect participation in online discussion forums e.g. they have enough time to refine their ideas, no nervousness, and easy access to online discussion forums or boards.

Mobile and other hand-held devices are very essential. These are IT-based tools that enable doctors to knowledge share. It is a portable device, the purpose behind the use of mobile is to provide concise information about patients and healthcare to doctors with easy access at their workplaces (Fontelo, Ackerman, Kim, & Locatis, 2003). Information and communication is the requirement of medical professionals because they have to communicate and share their knowledge at different places and different time for making the decision. Medical professionals have critical and short time; therefore, mobile devices are very suitable to share knowledge at any location or time. Gonzalez, Chan, and Goldstein (2013) conducted a study, the result reveals that there are various factors like privacy, image, output quality, availability, and portability of resources that incline the doctors in the hospital to use mobile devices for knowledge sharing. Alajmi et al. (2015) stated that the frequency of mobile usage among the doctors of Kuwaiti hospitals is very high as compare to other tools of knowledge sharing.

Wiki is an important part of web 2.0 that can be used to develop the process of learning(Boulos, Maramba, & Wheeler, 2006). Wiki is a group collaborative software tool or collaborative website which is based on the webserver by which people can share their information and knowledge effectively. Anyone who has access to wikis can edit and add the contents in it. It

offers the bulk of unique and pinpoints information and knowledge within a short time. Alajmi et al. (2015) found out in their study that wiki is a very powerful tool for sharing knowledge amongst medical professionals. Boulos et al. (2006) explored that Flu wiki is one of the best examples of the health-related wiki, which proposed to facilitate the local communities of public health; it is also a medical online collaborative reference that can be edited by any medical professional and further invite to other non-medical experts. Some prominent features attract medical professionals towards using the wiki.

The blog is a web technology that is used as a knowledge-sharing tool. A web blog is a sort of website in which every entry of a specific topic is arranged date-wise (current to previous). It works like an electronic journal; a blog can be written by one or more than one person. Blogs attract the huge and devoted readership because it connects the people for knowledge sharing, suggestion, and discussions. Some feature of blogs is archive prior posts, easy to the new post, search option, linkage with other sites. The best example of medical blogs is clinical cases and images (Boulos et al., 2006).

However, Knowledge sharing practices help the medical practitioner to update knowledge, skills, and patients' health services. Asemahagn (2014) stated that Health professionals can share their knowledge and experiences through lecturing, questioning and answering, demonstration, discussion, internet, video, and audio conferences, he also stated that clinicians get the knowledge from formal resources (printed) and informal resources (casual meeting of colleagues).

Alajmi et al. (2015) conducted a study in which they discussed the different tools for generating knowledge like Continues Medical educational venues e.g. lectures and seminars, morning and evening departmental meetings among seniors and junior doctors, feedback on cases, webinars, and training programs.

Moreover, a study has been conducted by Mishra, Adhikari, and Khanal (2014) in which they discussed the role of mass media and they conclude that mass media (newspapers, magazines, bulletins, etc.) is also one of the best tools to generate the knowledge at a huge level in healthcare industries.

Further, various authors and researchers stated in previous research that adult professionals used new technologies conveniently and easily. The webinar is a web seminar that is the latest technology. It is also one of the best tools to create and generate new knowledge. Mayorga, Bekerman, and Palis (2014) claimed in their study that webinar is the latest technology and method by which we can build up new relations and actively participate and get early response and feedback. It is a very effective medium for acquiring and generating new knowledge. It also gives the facility to train the medical staff regarding the new development and expertise of critical thinking which is very significant in decision making. Such kind of format attracts the young and adult doctors, who happily adopted the latest technologies in their teaching and learning procedures and methods. Moreover, Wang and Hsu (2008) stated in his study that due to the advancement in electronic learning technologies, webinar appeals more consideration because it provides the facility of real-time communication and improves the activities of online learning atmosphere.

Community of practice is also one of the best tools to generate knowledge. According to USAID (2013), a Community of practice is a set of people who come together for the same purpose and interact with others for specific learning. Further Alajmi et al. (2015) mentioned in their study that the community of practice is used for generating new knowledge in healthcare institutions and hospitals of Kuwait.

Continuous Medical Education is also one of the best tools for generating new knowledge. Continuing medical education contains education-related activities which help to uphold, improve or enhance the knowledge, capabilities, performance, and connections that a clinician uses to deliver services for the public, patients, and profession. Raza, Coomarasamy, and Khan (2009) explored in their study that due to Immense proliferation in medical education and technologies, clinicians need to adopt special strategies to update their current knowledge. Such types of strategies can be conferences, training sessions, seminars, workshops, and presentations. Most of these kinds of activities come under the continuing medical educational process. They further stated that continuing medical education program is a traditional and informal tool, it enables the medical practitioners to update and enhance the knowledge which directly has a positive effect on

the performance of practitioners and healthcare organizations. Through this tool medical practitioners interacted with other medical professionals to transfer and generate new knowledge informally.

On the behalf of previous literature, it is stated that most of the studies have been conducted by different authors, researchers on knowledge management practices but they focused on specific single knowledge management related practices in a single study like knowledge sharing, capturing, and generating practice. Also, the literature exposed that health knowledge management is the less focused area as compare to other fields. There are few studies has conducted in which researchers explore more than one knowledge management practice. As, Alajmi et al. (2015) conducted a study in which they focused on more than one knowledge management practice e.g. sharing, generating, and capturing in health care organizations.

However, the literature showed that there is no research has published on exploring the practices for knowledge management in health care organizations in the Pakistani context. This study has covered the major type of knowledge management practices like sharing, capturing, and generating knowledge also discussed the tools by which clinicians or doctors enable to share, capture and generate knowledge in health care organizations or hospitals.

METHODOLOGY

This study explored the knowledge management practices and their importance in health care organizations on their learning performance. The quantitative approach based on the survey method was used to answer the research questions. A questionnaire for survey was developed to conduct this study. A simple random sampling technique was employed to approach the selected sample. The doctors were approached from the services hospital and SIMS medical college Lahore. SPSS was used for the descriptive and inferential analysis of the collected data. The insightful findings of this research will help to promote knowledge management among medical students. It will assist institutional management to understand the knowledge management practices of the doctors so that a collaborative and cohesive learning environment could be established among doctors. The population was comprised of doctors from Services Hospital. A

total of 286 students were selected through a random sampling approach. Data was collected through a questionnaire comprising of a 5-point Likert scale format. Gathered data were analyzed through SPSS Software. Descriptive and inferential statistical tests were applied to interpret the results of the study.

DATA ANALYSIS

Demographic Information of the Respondents:

Following table 1.0 shows that 141 (63.5%) of total participants were female, and 81 (36.5%) were male. Attained results reveal that 59 (27%) respondents having age less than 25 years, while 62 (28%) respondents were aged between 26 to 35 years old. The results also revealed that 36 (16%) participants having ages between 36 to 45 years, whilst 47 (21%) participants have aged 46 to 55 years, whereas 18 (8%) participants had age more than 56 years.

Table: 1.0

Descriptive analysis about demographic information of the respondents

Variables	F	%
Gender		
Male	81	36.5
Female	141	63.5
Age (years)		
<25	59	27
26-35	62	28
36-45	36	16
46-55	47	21
>56	18	8

Knowledge Management Practices:

Table 2.0 shows that 60% (133) respondents rated frequently and 9 % (21) were rated very frequently the result revealed that most of the doctors used the patient's medical record for knowledge capturing while 4% (8) doctors rated never and 5% (10) participants rated being never. The result indicates that most doctors of Services Hospital used the patient medical record for better delivery of health care services.

45 % (100) doctors used frequently and 5% (11) doctors used very frequently, while 9% (21) used never and 5% (12) rated being never. The result found that the EMR is accessible and easy to use for clinicians of services hospital Lahore.

It also revealed that 41% (91) of clinicians rated best practices databases frequently used and 4% (9) were used very frequently, while 8%(17) medical practitioners were never used and 5 % (12) rated being never used. The result examined that a major part of the selected population has no interest in best practices databases for evidence-based.

37 % (83) doctors were rated frequently and 3% (7) were very frequently used of shared databases and file servers, on the other hand, 12% (26) were never used and 7% (15) were being never used the shared database and file servers. The result proved that a great number of clinicians were not using the shared databases and file servers which means shared databases are not easy to access or they have a lack of expertise to use them.

Further, results find out that the 49% (109) medications used frequently and 2 % (5) used very frequently recording tools, whereas 11 % (25) were never and 10 % (23) were being never used the recording tools for capturing the knowledge in services hospital, its means that usage of recording tools such as DVD, CD, Flash, etc is satisfactory.

Use of Personal computers, laptops, handheld devices like mobiles, tablets, etc by medical professionals is satisfactory but not highly satisfactory because the result revealed that 45% (100) doctors were frequently and 5% (11) were very frequently used the personal computer, tabs,

laptops, mobiles, etc, whilst 9% (21) were rated never and 5% (12) being never used the above-discussed tools, which can be said that half numbers of doctors were used the personal computers, mobile, etc positively but remaining may unaware about the use of computer and other handheld devices or maybe they have not enough time to use such kind of tools for knowledge capture.

Self-created digital documents (MS word, excels, etc) are very useful sources for pinpoint information and knowledge, the result showed that 49% (108) doctors frequently used and 13% (28) practitioners very frequently used the self-created digital document but 8 % (18) never used and 5% (12) rated being never used it for knowledge capturing tool. The statistical data shows that most doctors have a positive attitude towards share knowledge via self-generated documents.

36% (80) respondents rated frequently used and 2% (4) were responded very frequently used, whereas 9% (20) practitioners rated never used and 4 % (9) respondent's response is never used, which means that progress to maintain the information system for knowledge capturing tools is not satisfactory due to lack of awareness about information systems.

45 % (101) doctors respond frequently used and 6 % (14) rated very frequently used, on the other hand, 10% (23) answered never used and 9% (19) were being never used bookmarks, hyperlinks during the searching online. The response showed that clinicians of Services Hospital were some to extent aware about keeping URLs and hyperlinks, bookmarks, and favorites while searching online.

55 % (121) respondents were frequently and 6% (14) medical professionals rated very frequently, while the response of 4% (9) was never and 4% (8) were rated being never. The result revealed that keep of manual and printed record is a very useful method for capturing knowledge; therefore, the majority of doctors used this method.

In now era, the immense proliferation of technologies the digital notebooks application is playing a very vital role to capture knowledge, the result of this section of the study showed that 41 % (91) respondents were frequently and 4% (8) clinicians were responding very frequently but

12% (26) were never and 6% (14) rated being never. The result revealed that the usage of notebook applications for knowledge capturing is low due to a lack of interest to use the technologies.

The use of Citation and bibliography management software by the doctors was very low according to the result of the study the 32% (71) respondents replied frequently and 3% (6) were responding very frequently, whilst 15% (33) were never and 10% (22) were rated being never, which means that use of citation and bibliography management software is overall very low among the doctors of services hospital Lahore.

Table 2.0
Knowledge Management Practices

<i>Statements</i>	<i>BN</i>	<i>Ne</i>	<i>N</i>	<i>F</i>	<i>VF</i>
	%	%	%	%	%
1 Patients medical records	5	4	23	60	9
2 EMR (Electronic Medical Records)	5	9	35	45	5
3 Best practices database (to store cases that have been well managed as a good example to learn from) for evidence-based	5	8	42	41	4
4 Shared database and file servers	7	12	41	37	3
5 Recording tools (such as DVDs)	10	11	27	49	2
6 Personal Computer,/Laptop/ handheld devices (mobile, Tablet)	5	9	35	45	5
7 By self-created digital document (e.g. MSWord, Excel, Google Docs, etc.)	5	8	25	49	13
8 We constantly maintain our information systems.	4	9	49	36	2
9 By keeping URLs and hyperlinks, Bookmarks, and favorites while searching online	9	10	29	45	6
10 Keeping printed or manual records	4	4	32	55	6

11	Through digital notebook app (e.g. Evernote, WordPad)	6	12	37	41	4
12	Using citation or Bibliographic Management Software (e.g. RefWorks/ Endnote/ Mendeley, etc.)	10	15	41	32	3

Scale: BN= Being Never, Ne= Never, N= Neutral, F= frequently, VF= very frequently

Skewness & Kurtosis of Knowledge Management Practices:

The normality of data depends upon the skewness and kurtosis of the data. skewness is used to find the symmetry of data and kurtosis is used to find peakedness of data. If the values of skewness and kurtosis fall between -2 to 2 then data is considered normal. Table 3 concludes that the skewness of Knowledge sharing, knowledge capturing, knowledge-generating practices, and purpose of knowledge is falling under the normal range of data. Furthermore, the kurtosis of Knowledge sharing, knowledge capturing, knowledge-generating practices are normal, except the kurtosis of the purpose of Knowledge management is not fall under the normal range of data.

Table: 3
Skewness & Kurtosis of Knowledge Management Practices (N=222)

<i>Subscales</i>	<i>Min.</i>	<i>Max.</i>	<i>Mean</i>	<i>SD</i>	<i>Sk</i>	<i>Ku</i>
Knowledge sharing Practices	1.00	5.00	3.76	0.86	-0.78	0.29
Knowledge capturing Practices	1.25	4.75	3.37	0.62	-1.16	1.39
Knowledge Generating Practices	1.14	5.00	3.88	0.81	-0.74	0.53
Knowledge Management Purpose	1.09	5.00	4.28	0.78	-1.61	2.92

Multiple age-wise Comparisons (Tukey HSD)

The present post hoc Tukey test was conducted for age-wise comparison between doctor's views on knowledge sharing; capturing, generating practices, and purposes for managing the knowledge. The mean score of doctors having age less than 25 years (Mean=3.18, SD= 0.80) is less than the mean score of doctors having age 26-35 (Mean=3.64, SD= 0.83). It means that a

doctor who's having age 26-35 years are more efficient in knowledge sharing practices. Further, the mean score of doctors who have age 36-45 (Mean=3.90, SD= 0.74) is higher than the mean score of doctors having an age less than 25 years (Mean=3.18, SD= 0.80). It means that the doctors who have age 36 to 45 keep a positive attitude towards knowledge-sharing practices among other doctors. Moreover, the mean score of clinicians having age 46 to 55 (Mean=4.35, SD= 0.51) is greater than the mean score of doctors having age under 25 years (Mean=3.18, SD= 0.80), which means that doctors whose having age 46 to 55 years have taken more interest in knowledge sharing practices. Additionally, the mean score of doctors having age more than 56 years (Mean=4.30, SD= 0.73) is higher than doctors whose age less than 25 years (Mean=3.18, SD= 0.80), it means that the medical practitioners who have age more than 56 years are giving more importance to knowledge-sharing practice.

The mean score of doctors having age 26 to 35 years (Mean=3.64, SD= 0.83) is less than the mean score of doctors having age 36 to 45 (Mean=3.90, SD= 0.74), which means that doctors having age 36 to 45 years are better than as compare to doctors whose have age 26 to 35 years regarding knowledge sharing practices. The mean score of doctors having age 46-55 (Mean=4.35, SD= 0.51) is greater than the mean score of medical professionals whose age is 26 to 35 (Mean=3.64, SD= 0.83), which means that doctors who having age 46 to 55 years are good in knowledge sharing with others. On the other hand, the mean score of clinicians having age more than 56 (Mean=4.30, SD= 0.73) is greater than the mean score of medical professionals whose age 26 to 35 (Mean=3.64, SD= 0.83), which means that doctors whose age is more than 56 years are much better in knowledge sharing among doctors.

The mean score of doctors whose age is 46 to 55 (Mean=4.35, SD= 0.51) and whose age is more than 56 years (Mean=4.30, SD= 0.73) is greater than the mean score of doctors whose age 36-45 years (Mean=3.64, SD= 0.83), it means that doctors whose having age more than 46 years are keeping more interest in sharing the knowledge among doctors. The comparison between the mean score of doctors is 46 to 55 years is (Mean=4.35, SD= 0.51) is greater than the mean score of doctors having age more than 56 years is (Mean=4.30, SD= 0.73), which means that doctors whose having age 46 to 55 years are more efficient in sharing the knowledge.

The comparison was further shown between the doctors who belong to different age groups regarding knowledge capturing practice. The mean score of doctors having age under 25 years is (Mean=2.92, SD= 0.68) which is less than as compare to the mean score of doctors whose having age 26 to 35 years (Mean=3.35, SD= 0.60), 36-45 years (Mean=3.57, SD= 0.39), 46-55 years (Mean=3.39, SD= 0.27) and more than 56 years (Mean=3.74, SD= 0.66). It means that the doctors who's having an age of more than 26 years have a positive attitude towards capturing the knowledge, experience skills from other medical experts as compare to doctors whose age is less than 25 years.

The mean score of doctors having age 26 to 35 years (Mean=3.35, SD= 0.60) is less than the mean score of clinicians whose age are 36-45(Mean=3.57, SD= 0.39), 46 to 55 years (Mean=3.39, SD= 0.27) and more than 56 years (Mean=3.74, SD= 0.66). It means that doctors whose age is more than 36 years are more focused on knowledge-capturing practices. On the other hand, the mean score of doctors having is 36-46 (Mean=3.57, SD= 0.39) is smaller than the mean score of doctors having age 46 to 55 years (Mean=3.39, SD= 0.27) and more than 56 years (Mean=3.74, SD= 0.66). It means that medical professionals of Services Hospital who's having age more than 46 years are more interested to use knowledge-capturing tools to capture the knowledge for the future. While the mean score of doctors having age 46 to 55 years (Mean=3.39, SD= 0.27) is less than the mean score of doctors having age more than 56 years (Mean=3.74, SD= 0.66). It concludes that the doctors who are more than 56 years old are more effective in knowledge capturing because of a lot of experience and skills.

Moreover, the following table shows distinguish between the views of doctors who fall in different age groups about knowledge-generating tools and practices. The mean score of doctors whose having age less than 25 years (Mean=3.30, SD= 0.81) is smaller than the mean score of medical practitioners whose having age 26 to 35 years (Mean=3.74, SD= 0.74), 36 to 45 years (Mean=3.97, SD= 0.65), 46 to 55 years (Mean=4.43, SD= 0.47) and more than 56 years (Mean=4.67, SD= 0.40). It means that medical practitioners whose age is more than 26 years are more interested in knowledge generation activities. Moreover, the mean score of 26-35 years old doctors (Mean=3.74, SD= 0.74) is lesser than the mean score of doctors whose having age 36 to 45 years (Mean=3.97, SD= 0.65), 46 to 55 years (Mean=4.43, SD= 0.47) and more than 56 years

(Mean=4.67, SD= 0.40). it means that the doctors whose age is more than 36 years are more efficient in generating the knowledge as compare to those doctors whose less than 35 years old.

Further, the mean score of doctors whose having age 36 to 45 years (Mean=3.97, SD= 0.65) is smaller than the mean score of 46 to 55 years (Mean=4.43, SD= 0.47) and more than 56 years (Mean=4.67, SD= 0.40). It addressed that doctors whose age is more than 46 years old play a vital role in generating knowledge. While the mean score of clinicians whose age 46 to 55 years (Mean=4.43, SD= 0.47) is less than as compared to the mean score of more than 56 years (Mean=4.67, SD= 0.40), it means that doctors whose age more than 56 years are excellent in knowledge generation practices.

Furthermore, shows the comparison between opinions of doctors who fall in different age groups regarding the purpose of knowledge management. The mean score of medical practitioners whose under 25 years (Mean=4.02, SD= 0.89) is lesser than the mean score of doctors whose age 26-35 years (Mean=4.09, SD= 0.84), 36-45 years (Mean=4.40, SD= 0.73), 46-55 years (Mean=4.63, SD= 0.45) and greater than 56 years (Mean=4.66, SD= 0.35), it means that doctors whose age more than 26 years are more interested to manage the knowledge purposively as compare to less than 25 years. Likewise, the mean score of doctors who are having age 26 to 35 (Mean=4.09, SD= 0.84) is less than the mean score of 36-45 years (Mean=4.40, SD= 0.73), 46-55 years (Mean=4.63, SD= 0.45) and greater than 56 years (Mean=4.66, SD= 0.35), it concludes that the doctors whose age is more than 36 years manage the knowledge for different purposes as compared to less than 35 years. Additionally, the mean score of doctors who have age 36 to 45 (Mean=4.40, SD= 0.73) is less than the mean score of doctors whose 46-55 years (Mean=4.63, SD= 0.45) and greater than 56 years (Mean=4.66, SD= 0.35), it claimed that the medical professionals whose age more than 46 years keep more interest in knowledge management for a different purpose. Similarly, the mean score of clinicians whose age is greater than 56 years (Mean=4.66, SD= 0.35) is greater than the mean score of medical practitioners whose age is 46-55 (Mean=4.63, SD= 0.45). It described that doctors whose more than 56 years purposively manage the knowledge in Services Hospital.

Table: 4.
Multiple age-wise Comparisons (Tukey HSD)

<i>Variables</i>		<i>Age</i>	<i>M. df</i>	<i>SE</i>	<i>Sig.</i>	
Knowledge sharing Practices	Under 25 years	26-35 years	-.45653(*)	.13477	.007	
		36-45 years	-.71677(*)	.15671	.000	
		46-55 years	-1.16249(*)	.14488	.000	
		56 & above	-1.11757(*)	.19953	.000	
	26-35 years	36-45 years	-.26024	.15527	.451	
		46-55 years	-.70595(*)	.14331	.000	
		56 & above	-.66103(*)	.19840	.009	
	36-45 years	46-55 years	-.44571	.16412	.055	
		56 & above	-.40079	.21391	.335	
	46-55 years	56 & above	.04492	.20540	.999	
	Knowledge Capturing Practices	Under 25 years	26-35 years	-.42594(*)	.09949	.000
			36-45 years	-.64995(*)	.11569	.000
46-55 years			-.76845(*)	.10695	.000	
56 & above			-.81662(*)	.14729	.000	
26-35 years		36-45 years	-.22401	.11462	.292	
		46-55 years	-.34251(*)	.10579	.012	
		56 & above	-.39068	.14646	.062	
36-45 years		46-55 years	-.11850	.12115	.865	
		56 & above	-.16667	.15791	.829	
46-55 years		56 & above	-.04817	.15162	.998	
Knowledge Generating Practices		Under 25 years	26-35 years			
				-.44117(*)	.12287	.004
	36-45 years		-.66916(*)	.14287	.000	
	46-55 years		-1.12246(*)	.13208	.000	
	56 & above		-1.36360(*)	.18191	.000	

	26-35 years	36-45 years	-.22798	.14156	.492
		46-55 years	-.68129(*)	.13066	.000
		56 & above	-.92243(*)	.18087	.000
	36-45 years	46-55 years	-.45331(*)	.14962	.023
		56 & above	-.69444(*)	.19502	.004
	46-55 years	56 & above	-.24113	.18726	.699
Knowledge	Under 25 years	26-35 years			
Management			-.07227	.13476	.983
Purpose					
		36-45 years	-.37742	.15671	.117
		46-55 years	-.61092(*)	.14487	.000
		56 & above	-.63499(*)	.19952	.014
	26-35 years	36-45 years	-.30515	.15526	.287
		46-55 years	-.53865(*)	.14331	.002
		56 & above	-.56272(*)	.19839	.040
	36-45 years	46-55 years	-.23351	.16411	.614
		56 & above	-.25758	.21390	.749
	46-55 years	56 & above	-.02407	.20539	1.000

* The mean difference is significant at the .05 level.

Multiple Comparison Regarding Experience

The following table 5.0 shows comparisons of doctors having experience in the different number of years regarding knowledge sharing, capturing, generating, and purpose of knowledge management. The result addressed that there is a significant difference ($F=26.50$, $p<.05$) between doctor's views who having experience < 5 years, 6-10 years, 11-15 years, and more than 20 years regarding knowledge sharing practices. The mean score of doctors having experiences < 5 years (Mean=3.27, SD=0.76), doctors having experiences 6 to 10 years (Mean=3.64, SD=0.92), clinicians having experiences 11 to 15 years (Mean=3.90, SD=0.73), and medical professionals having experiences more than 20 years (Mean=4.33, SD=0.58) regarding their involvement in

knowledge sharing practices. It is found that doctors who have more than 20 years of experience are more involved in knowledge-sharing practices.

The results further showed that there is a significant difference ($F=21.41$, $p<0.05$) between the opinions of doctors who have different numbers of experiences regarding knowledge capturing practices. The mean score of doctors having experiences less than 5 years (Mean=3.76, SD=0.86), doctors having experiences 6 to 10 years (Mean=3.02, SD=0.68), clinicians having experiences 11 to 15 years (Mean=3.34, SD=0.60), and medical professionals having experiences more than 20 years (Mean=3.55, SD=0.34) regarding their contribution in knowledge capturing practices. It is explored that the doctors who have less than 5 years experience are more actively involved in knowledge capturing related activities because they have less experience so they are more focused on capturing the knowledge for enhancing their knowledge.

The results indicate that there is a prominent difference ($F=36.53$, $p<0.05$) between the beliefs of doctors whose having different number of years experiences like less than 5 years, 6 to 10 years, 11 to 15 years, and more than 20 years about knowledge-generating practices. The mean score of doctors having experiences less than 5 years (Mean=3.76, SD=0.86), doctors having experiences 6 to 10 years (Mean=3.37, SD=0.62), clinicians having experiences 11 to 15 years (Mean=3.37, SD=0.77), and medical professionals having experiences more than 20 years (Mean=3.73, SD=0.78) regarding their contribution in knowledge-generating practices. It concludes that the doctors who have experiences of more than 20 years more actively contribute their efforts in knowledge-generating practices.

Moreover, the table shows that there is a huge difference ($F=12.57$, $p<0.05$) between opinions of doctors who have several years of experience e.g. < 5 years, 6 to 10 years, 11 to 15 years, and more than 20 years regarding the purpose of managing the knowledge. The mean score of doctors having experiences less than 5 years (Mean=4.04, SD=0.52), doctors having experiences 6 to 10 years (Mean=4.48, SD=0.51), clinicians having experiences 11 to 15 years (Mean=3.88, SD=0.81), and medical professionals having experiences more than 20 years (Mean=4.00, SD=0.89) regarding their contribution in manage the knowledge for a specific

purpose. In short, the doctor who's having 6 to 10 years of experience has a positive attitude towards managing the knowledge for a different purpose in services hospital.

Table: 5
Multiple Comparison Regarding Experiences

<i>Subscales</i>	<i>< 5 years</i>		<i>6-10 years</i>		<i>11-15 years</i>		<i>20 years & above</i>		<i>F</i>	<i>P</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Knowledge sharing Practices	3.27	0.76	3.64	0.92	3.90	0.73	4.33	0.58	26.50	<.001
Knowledge capturing Practices	3.76	0.86	3.02	0.68	3.34	0.60	3.55	0.34	21.41	<.001
Knowledge Generating Practices	3.72	0.40	3.37	0.62	3.37	0.77	3.73	0.78	36.53	<.001
Knowledge Management purpose	4.04	0.52	4.48	0.51	3.88	0.81	4.00	0.89	12.57	<.001

Post HOC analysis among the experience groups of doctors

Following table 6.0 shows that the mean score of doctors who have experience less than 5 years (Mean=3.27, SD=0.76) is less than the mean score of doctors who having experience 6 to 10 years (Mean=3.64, SD=0.92), 11 to 15 years (Mean=3.90, SD=0.73) and more than 20 years (Mean=4.33, SD=0.58). It means that doctors who have more than 5 years of experience are more involved in knowledge-sharing practices. Further, the mean score of clinicians whose having experience 6-10 years (Mean=3.64, SD=0.92) is lesser than the mean score of medical professionals who have experiences 11 to 15 years (Mean=3.90, SD=0.73) and more than 20 years (Mean=4.33, SD=0.58), it means that the doctors whose having experience more than 11 years are better in knowledge sharing practices as compare to those doctors whose having less than 10 years experiences. The table more showed that the mean score of medical practitioners whose having experiences 11 to 15 years (Mean=3.90, SD=0.73) is less than the mean score of the doctors having more than 20 years of experience (Mean=4.33, SD=0.58), which means doctors who have

experiences more than 20 years were more interested in knowledge sharing among the doctors of services hospital Lahore.

Additionally, the table showed that the mean score of doctors who's having experiences less than 5 years (Mean=3.76, SD=0.86) is higher than the mean score of clinicians whose having experiences 6 to 10 years (Mean=3.02, SD=0.68), 11 to 15 years (Mean=3.34, SD=0.60) and more than 20 years (Mean=3.55, SD=0.34), the result concluded that the doctors who have less than 5 years experiences were more involved in knowledge capturing activities. Table additional showed that the mean score of doctors having experience of 6 to 10 years (Mean=3.02, SD=0.68) is lesser than the mean score of the doctor whose having experience more than 11 years. It indicates that doctors who have experiences of 6 to 10 years were less involved in knowledge capturing practices as compared to other medical practitioners. Likewise, the mean score of doctors whose having experience of 11 to 15 years (Mean=3.34, SD=0.60) is lesser than the mean score of those doctors who have experiences of more than 20 years filed experiences. It means that doctors who have experience of more than 20 years are much better at knowledge capturing practices.

The results further showed the comparison between doctors who's having experience different number of years regarding knowledge-generating practices. The mean score of doctors having experiences less than 5 years (Mean=3.72, SD=0.40) which is higher than the mean score of the doctor whose having experiences 6 to 10 years (Mean=3.37, SD=0.62), 11 to 15 years (Mean=3.37, SD=0.77) and less than the mean score of clinicians whose experiences more than 20 years (Mean=3.73, SD=0.78). it concludes that the doctors whose having experience of less than five years and more than 20 years experience have participated in knowledge-generating activities as compared to other doctors. Further, the mean score of medical practitioners having experiences 6 to 10 years (Mean=3.37, SD=0.62) is equal to the mean score of doctors who have 11 to 15 years experience (Mean=3.37, SD=0.77) and less the mean score of doctors who have more than 20 years experiences (Mean=3.73, SD=0.78). it examines that doctors whose having experiences of more than 20 years are better than other doctors in knowledge-generating practices. On the other hand, the mean score of doctors having 11 to 15 years (Mean=3.37, SD=0.77) is less than the mean score of doctors having experiences more than 20 years (Mean=3.73, SD=0.78). it

indicates that the doctors whose having experience more than 20 years are participating in knowledge-generating practices.

Results indicate that the mean score of medical practitioners having experiences less than 5 years (Mean=4.04, SD=0.52) is less than the mean score of doctors whose having 6 to 10 years experience (Mean=4.48, SD=0.51) and greater than the mean score of doctors having experiences 11 to 15 years (Mean=4.48, SD=0.51) and more than 20 years (Mean=4.00, SD=0.89), it means that doctors whose having experiences 6 to 10 years are more interesting in managing the knowledge for some specific purpose. Likewise, the mean score of doctors having experiences of 6 to 10 years (Mean=4.48, SD=0.51) is bigger than the mean score of clinicians who have 11 to 15 years (Mean=4.48, SD=0.51) and more than 20 years experience (Mean=4.00, SD=0.89). It means that doctors having experiences of 6 to 10 years are showing their interest in managing the knowledge purposively.

Table: 6
Post HOC analysis among the experience groups of doctors

Variables	Experience		M. df	SE	Sig.
Knowledge Sharing Practices	< 5 years	6-10 years	-.36790(*)	.14163	.049
		11-15 years	-.63155(*)	.15787	.000
		20 years & above	-1.05677(*)	.12023	.000
	6-10 years	11-15 years	-.26365	.17717	.446
		20 years & above	-.68886(*)	.14464	.000
		11-15 years	20 years & above	-.42522(*)	.16057
Knowledge Capturing Practices	< 5 years	6-10 years	-.31865(*)	.10574	.015
		11-15 years	-.52847(*)	.11786	.000
		20 years & above	-.69956(*)	.08976	.000
	6-10 years	11-15 years	-.20982	.13227	.389
		20 years & above	-.38091(*)	.10798	.003
		11-15 years	20 years & above	-.17109	.11988
Knowledge Generating Practices	< 5 years	6-10 years	-.36355(*)	.12789	.025
		11-15 years	-.66994(*)	.14256	.000
		20 years & above	-1.11675(*)	.10857	.000
	6-10 years	11-15 years	-.30639	.15998	.225
		20 years & above	-.75320(*)	.13061	.000
		11-15 years	20 years & above	-.44681(*)	.14500
Knowledge Management Purposes	< 5 years	6-10 years	-.04873	.13911	.985
		11-15 years	-.44318(*)	.15505	.024
		20 years & above	-.66482(*)	.11809	.000
	6-10 years	11-15 years	-.39446	.17401	.109
		20 years & above	-.61610(*)	.14206	.000
		11-15 years	20 years & above	-.22164	.15771

* The mean difference is significant at the .05 level.

Comparison among different specialties

Table 7.0 shows the comparison between opinions of doctors of different specialties regarding knowledge sharing; knowledge capturing; knowledge-generating and the purpose of knowledge management. The result revealed that there is a significant difference ($F=3.48, p<.05$) between doctor's views of different specialties like surgery, medicine, Pulmonology, dermatology,

gynecology, ophthalmology, Neuro-surgery, neurology, E.N.T, pediatric surgery, pediatric, radiology, orthopedics, anesthesia, thoracic surgery, urology, psychiatry, medical education, endocrinology. The mean score of doctors of surgeons (Mean=3.32, SD=0.90), physicians (Mean=3.51, SD=0.84), Pulmonologist (Mean=3.93, SD=0.72), dermatologist (Mean=3.41, SD=1.16), Gynecologist (Mean=4.14, SD=0.59), Ophthalmologist (Mean=4.04, SD=0.66), Neuro-surgeons (Mean=4.23, SD=0.30), Neurologist (Mean=3.64, SD=0.72), doctors of ENT (Mean=4.02, SD=0.96), Pediatric Surgeons (Mean=4.29, SD=0.64), Pediatric Physicians (Mean=4.04, SD=0.61), Radiologist (Mean=4.10, SD=0.42), clinicians of orthopedics (Mean=3.94, SD=0.81), medical professionals of Anesthesia (Mean=3.92, SD=0.81), Thoracic surgeons (Mean=4.29, SD=0.37), Urologist (Mean=4.29, SD=0.34), Psychiatrist (Mean=4.17, SD=0.21), Medical Educationist (Mean=3.07, SD=0.10), and Endocrinologist (Mean=2.83, SD=0.97) regarding their involvement in knowledge sharing practices. It found that the overall result doctors are good regarding sharing the knowledge but the doctors of neurology, pediatric surgery, thoracic surgery, and urology are more involved in knowledge sharing practices as compare to other doctors.

Results show that there is significant difference ($F=1.95$, $p<0.05$) between opinions of doctors of different specialty regarding knowledge capturing activities. The mean score of doctors of surgeons (Mean=3.07, SD=0.84), physicians (Mean=3.23, SD=0.77), Pulmonologist (Mean=3.64, SD=0.60), dermatologist (Mean=3.25, SD=0.68), Gynecologist (Mean=3.75, SD=0.25), Ophthalmologist (Mean=3.69, SD=0.37), Neuro-surgeons (Mean=3.73, SD=0.30), Neurologist (Mean=3.53, SD=0.25), doctors of ENT (Mean=3.32, SD=0.72), Pediatric Surgeons (Mean=3.76, SD=0.46), Pediatric Physicians (Mean=3.56, SD=0.44), Radiologist (Mean=3.47, SD=0.52), clinicians of orthopedics (Mean=3.36, SD=0.40), medical professionals of Anesthesia (Mean=3.39, SD=0.40), Thoracic surgeons (Mean=3.36, SD=0.25), Urologist (Mean=3.63, SD=0.12), Psychiatrist (Mean=3.54, SD=0.33), Medical Educationist (Mean=3.38, SD=0.41), and Endocrinologist (Mean=3.00, SD=0.40). The result indicates that the practitioners of gynecology, ophthalmology, Neuro-surgeons and Pediatric Surgeons keep more interest towards capturing the knowledge as compare to other doctors of different specialties of medical sciences of services hospital Lahore.

Moreover, it revealed that there is significant difference ($F=2.51$, $p<0.05$) between views of clinicians of different type specialties regarding generating of knowledge. The mean score of doctors of surgeons (Mean=3.45, SD=0.92), physicians (Mean=3.78, SD=0.80), Pulmonologist (Mean=3.68, SD=0.83), dermatologist (Mean=3.43, SD=1.02), Gynecologist (Mean=4.42, SD=0.42), Ophthalmologist (Mean=4.22, SD=0.74), Neuro-surgeons (Mean=4.46, SD=0.33), Neurologist (Mean=4.29, SD=0.62), doctors of ENT (Mean=4.38, SD=0.45), Pediatric Surgeons (Mean=4.06, SD=0.61), Pediatric Physicians (Mean=4.05, SD=0.61), Radiologist (Mean=4.03, SD=0.38), clinicians of orthopedics (Mean=3.95, SD=0.69), medical professionals of Anesthesia (Mean=3.89, SD=1.03), Thoracic surgeons (Mean=4.27, SD=0.40), Urologist (Mean=4.30, SD=0.44), Psychiatrist (Mean=4.26, SD=0.62), Medical Educationist (Mean=3.50, SD=1.31), and Endocrinologist (Mean=3.53, SD=0.97). the result indicates that the overall result regarding knowledge generating practices by doctors of services hospital was good but the doctors of neuro-surgery and gynecology keep more interest in knowledge generating activities as compare to other doctors of different specialty.

The results further express that there is significant difference ($F=2.87$, $p<0.05$) between the views of doctors of different specialties regarding the purpose of knowledge management. The mean score of doctors of surgeons (Mean=4.06, SD=0.89), physicians (Mean=4.32, SD=0.59), Pulmonologist (Mean=3.92, SD=0.78), dermatologist (Mean=3.37, SD=1.33), Gynecologist (Mean=4.45, SD=0.74), Ophthalmologist (Mean=4.44, SD=0.47), Neuro-surgeons (Mean=4.62, SD=0.33), Neurologist (Mean=4.58, SD=0.52), doctors of ENT (Mean=4.64, SD=0.51), Pediatric Surgeons (Mean=4.17, SD=0.82), Pediatric Physicians (Mean=4.53, SD=0.46), Radiologist (Mean=4.21, SD=0.42), clinicians of orthopedics (Mean=4.36, SD=0.63), medical professionals of Anesthesia (Mean=4.58, SD=0.47), Thoracic surgeons (Mean=4.74, SD=0.27), Urologist (Mean=4.86, SD=0.23), Psychiatrist (Mean=4.41, SD=0.71), Medical Educationist (Mean=4.68, SD=0.45), and Endocrinologist (Mean=4.35, SD=0.60). The result described that the trends of overall doctors towards manage the knowledge purposively and high.

Table: 7
Comparison among different specialties

<i>Specialties</i>	<i>Knowledge sharing Practices</i>		<i>Knowledge capturing Practices</i>		<i>Knowledge Generating Practices</i>		<i>Knowledge Management Purpose</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Surgery	3.32	0.90	3.07	0.84	3.45	0.92	4.06	0.89
Medicine	3.51	0.84	3.23	0.77	3.78	0.80	4.32	0.59
Pulmonology	3.93	0.72	3.64	0.60	3.68	0.83	3.92	0.78
Dermatology	3.41	1.16	3.25	0.68	3.43	1.02	3.37	1.33
Gynecology	4.14	0.59	3.75	0.25	4.42	0.42	4.45	0.74
Ophthalmology	4.04	0.66	3.69	0.37	4.22	0.74	4.44	0.47
Neuro-Surgery	4.23	0.30	3.73	0.30	4.46	0.33	4.62	0.33
Neurology	4.33	0.72	3.53	0.25	4.29	0.62	4.58	0.52
E.N.T	4.02	0.96	3.32	0.72	4.38	0.45	4.64	0.51
Pediatric Surgery	4.29	0.64	3.76	0.46	4.06	0.61	4.17	0.82
Pediatric	4.04	0.61	3.56	0.44	4.05	0.61	4.53	0.46
Radiology	4.10	0.42	3.47	0.52	4.03	0.38	4.21	0.42
Orthopedics	3.94	0.68	3.36	0.40	3.95	0.69	4.36	0.63
Anesthesia	3.92	0.81	3.39	0.40	3.89	1.03	4.58	0.47
Thoracic surgery	4.29	0.37	3.36	0.25	4.27	0.40	4.74	0.27
Urology	4.29	0.34	3.63	0.12	4.30	0.44	4.86	0.23
Psychiatry	4.17	0.21	3.54	0.33	4.26	0.62	4.41	0.71
Medical Education	3.07	0.10	3.38	0.41	3.50	1.31	4.68	0.45
Endocrinology	2.83	0.97	3.00	0.40	3.53	0.97	4.35	0.60
ANOVA Results	F=3.48	P<.001	F=1.95	P=.014	F=2.51	P=0.001	F=2.87	P<.001

CONCLUSION

The findings showed that the participants used to share knowledge via mobile/ phone, face-to-face meetings and through social media networks frequently. Whereas, the tools of email, wikis, online discussion forums and blogs are also popular among doctors. Gender effect on knowledge sharing practices was also determined by applying an independent sample t-test. The results

showed a significant difference of opinions regarding "Knowledge sharing Practices" between males (mean=3.61) and females (mean=3.85) at $t=-2.03$ and p-value 0.04.

The results revealed that the doctors of services hospital were used to capture/store/ the knowledge in personal computer/laptop / hand-held devices in terms of the patient medical record, printed or manual record and self-generated digital documents frequently. While, other tools like EMR, best practices databases, digital notebook apps were less used among doctors regarding knowledge capturing. The gender effect on knowledge capturing practices was also determined by applying an independent sample t-test. The result showed that there is an insignificant difference of opinions regarding "Knowledge capturing Practices" between males (mean=3.30) and females (mean=3.41) at p-value 0.19.

The findings showed that the medical professionals frequently used to generate knowledge in Services Hospital through conducting departmental meetings, continuous medical educational opportunities, lectures, and training programs. On the other hand, communities of practices, end-of-day departmental meetings, and webinars are also famous among the respondents for generating knowledge. A gender effect was also determined on knowledge-generating practices by applying the independent sample t-test. The result showed that there was a significant difference between the opinions of male doctors (mean=3.68) and female doctors (mean=4.00) at $t = -2.86$ and p-value (0.00).

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