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Exploring the Practices for Knowledge Management by Doctors of Services Hospital Lahore

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ABSTRACT

Goals:

The objectives of the study were to investigate the practices for capturing, sharing, and generating knowledge practiced by doctors and to explore the purposes of managing knowledge among doctors.

Methodology:

The nature of this study is quantitative. Survey research method was based on a self-administered questionnaire. The target population of this study is all senior and junior doctors whose are currently working in different department of services hospital Lahore. The simple random sample technique was used to select the participants from the whole population. There were 286 questionnaires which were distributed among the doctors of different departments randomly. Collected data were entered into Statistical Package for Social Sciences (SPSS 22.0).

Major Findings

Participants used to share knowledge via mobile/ phone, face-to-face meetings, and through social media networks frequently. Doctors of Services Hospital used to capture/store/ the knowledge in personal computer/laptop / hand-held devices. Medical professionals frequently used to generate knowledge in services hospital through conducting departmental meetings. Respondents managed the knowledge to capture new knowledge and share their best practices.

Rationale and Significance of the Study

This study is important because it will add new knowledge in the area of Knowledge Management. It will add new literature in the Pakistani context. This research will guide the higher administration regarding knowledge management practices in the hospitals of Pakistan.

Delimitations of the Study

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

Keywords: Knowledge management practices, Doctors of Services Hospital, Lahore, SIMS, Lahore

Introduction & Background of the Study:

In the present era, the knowledge economy is becoming more important for every organization to accomplish their competitive benefits (Bate & Robert, 2002). Knowledge management 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 in 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). On the other hand, Anderson and McDaniel Jr (2000) noted that medical institutions are the 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.

However, there are dissimilarities in practices of every healthcare organization, but they have a common goal, that 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 a life. Besides, 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.

Services Hospital is situated in central Lahore and is the teaching hospital of the Services Institute of Medical Sciences (SIMS). It is recognized by the Pakistan Medical and Dental Council and College of Physicians and Surgeons. The main objective of Services hospital is to provide state of the art tertiary health care facilities to the community in protective, curative, promotional, and rehabilitative services through qualified and skilled medical practitioners. 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. Knowledge management plays an important role in the learning and development of individuals or organizations. Knowledge management is seen as one of the key elements in improving the proficiency and competencies of an organization. The significant effect of knowledge management is based on the emphasis on knowledge as a primary basis for improving progress and increasing output. Previous studies showed that there has much 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.

Objectives of the Study

Following are the objectives of the study:

1. To investigate the practices for capturing, sharing, and generating knowledge practiced by doctors
2. To explore the purposes of managing knowledge among doctors

Review of the Literature:

Knowledge plays a very vital role in the development of any organization. The ability to manage knowledge is becoming increasingly more crucial in today's knowledge economy.

Knowledge is the main source to recognize the competitiveness of information societies and organizations (Kimiz, 2005). Besides, organizations are trying to create added value through the sharing and innovation of sustainable knowledge. In hospital and health care organizations, Knowledge management is considered an important aspect in improving health care services because hospitals and health care institutions are heavily based on knowledge and evidence-based medicine and medical practitioners require knowledge for quality patient care services. KM facilitates the transfer of existing knowledge and the development of new knowledge in hospitals (Alajmi et al., 2015). Therefore, the main aim of this section of research is to discuss knowledge management practices, tools, and purposes in Services Hospital Lahore.

Knowledge Management Practices

Knowledge Management is the procedure by which community in an institution or organization capture, share, and generates Knowledge for deed. The capturing, sharing, and generating of knowledge have been usually observed as a significant approach for the better quality of healthcare facilities and services (Orzano, McInerney, Scharf, Tallia, & Crabtree, 2008). Higher administration and management like executives, medical superintendent in healthcare institutions and organizations gradually more prominent in sense to sustain or attain advantages, not only need to manage organizational knowledge but also it should be disseminated in clinical as well as non-clinical staff. Hence, healthcare organizations need to focus on practices and tools suitable for knowledge capturing, sharing, generating, and its use. This study's purpose is to know about the practices of knowledge capturing, sharing, and generating new knowledge.

Knowledge Capturing Practices

Knowledge resides in persons, 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 be captured and stored to maintain the success of the organization.

Different authors and researchers have defined the term of knowledge capture in different ways and points of view. As Alajmi et al. (2015) defined in a study that Knowledge capturing is

an act of recognizing, codifying, and storing knowledge in a utilizable and reachable shape. Collison and Parcell (2001) claimed that knowledge capturing is the process of capturing the know-how in a specific method that can be reprocessed and adapted for a specific purpose. Likewise, Yang (2004) claimed that generally knowledge capturing refers to the acquirement and retrieving of quantitative records, using statistical computer packages, which are then used to make the decisions and planning. Knowledge in organizations can be classified into explicit and tacit. Capturing and managing explicit knowledge is very simple and easy, while tacit is very private and secret, it exists in the brain of the knowledge holder which makes it very difficult to share it.

Knowledge Sharing Practices

The gaps between human communities, the real world, digital life, and electronic information can be filled and integrated through different kind of technologies specifically Information Technology (Jafari Navimipour, Masoud Rahmani, Habibzad Navin, & Hosseinzadeh, 2014; Li, Zhong, Wang, & Cao, 2013). In today's circumstances, the knowledge of employees is a very important asset of an organization, knowledge sharing practices enable the employees to share their knowledge among others. However, the capability of successfully sharing knowledge is very significant for any kind of organization.

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 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.

Knowledge sharing is also very significant for medical practitioners for better care of patients. However, From a healthcare point of view, knowledge sharing can be described as the explanation and diffusion of the latest health-related knowledge for personnel, decisions makers and stakeholders via interactive communication channels (Lapaige, 2010). Knowledge sharing practice has great importance in hospitals and it can help to improve the knowledge of medical practitioners and the quality of patient care services.

Knowledge Generating Practices

There are a bunch of definitions of knowledge generation practices which have been defined by different authors and researchers such as Babu, Ahmed, Mahfooz, and KS (2008) Knowledge Generation is a multifaceted and instant human process that occurs in the brain of people, and this knowledge gets public automatically by the workers in the high-performance institutions; due to the enabling nature and culture of knowledge management atmosphere. As Nerkar (2003) emphasizes that generation or creation of knowledge is a developmental process that engages the mixture of knowledge or search, invention, and utilization of existed, coded, and observed knowledge within the organization that constructs over time. Additionally, T. Davenport and Prusak (2001) defines in a study a knowledge generation is a particular act and plan by which organization enlarges their corporate knowledge.

Purposes for Knowledge Management

Knowledge management is functional in all public and private organizations, institutions, and charities of the world. It is very clear, the effective management of knowledge is known as the main source to generate new knowledge, ideas to create or innovate the process, services, products, and solution of problems (Guptill, 2005). However, as per prior literature, it is clear that management of knowledge is very important for every type of industry or sector, but the purpose of managing the knowledge may be different according to their nature of the industry.

The purpose of knowledge management is to share perceptions, thoughts, know-how, and information to confirm that these are accessible in the correct place at the correct time which helps in correct decisions making and improve the efficiency of an organization. Whereas according to the WHO, the purpose of management of knowledge is to provide the right information to the right person or user at the appropriate time, it also manages for the competitive edge from the market competitors and promotes the learning environments within the organization (Wang, 2008).

One of the reasons behind managing the knowledge is for planning and decision making for health and patient care, clinical practice of medical professionals heavily based on current information and knowledge for future planning, decision making regarding patient treatment, further managing of knowledge enable to decide on the critical conditions for the betterment of patient care (Castillo & Abraham, 2008; Guptill, 2005).

With the help of knowledge management practices organizations can save time, finance, smooth the work procedures, capture the tacit knowledge, improved the organizational

performance, innovate some new technique or services and products, as López-Nicolás and Meroño-Cerdán (2011) conducted a study in which they explore the purposes for knowledge management like save the time, enhance the organizational performance and innovations, build up the coordination among workers, quick access of knowledge on a huge level. They further stated that through managing the knowledge organization can create and generate new knowledge.

Further, Asemahagn (2014) noted the purpose of managing the knowledge in his research that knowledge management in hospital is to collect and disseminate the current information and knowledge to administrator, decision-maker, and workers within the hospital, moreover, knowledge management can help to enhance and up to date the knowledge of clinicians, also improved the quality of patient care services.

It is possible through the management of knowledge to reduce the risk by collecting and refining the information and knowledge from inner and outer sources(Cooper, 2003). While Du Plessis (2007) articulates that the current era is the era of innovation; without innovation, any organization cannot stay more in the market. So, innovation highly relies on the availability of up-to-date knowledge. In nowadays, with the development of technologies, the production of knowledge has increased. The main purpose of knowledge management is to recognize and manage the relevant knowledge for successful innovations.

Research Design and Procedure

This study aims to investigate the knowledge management practices adopted by the doctors of services hospital Lahore. The nature of this study is quantitative. Survey research method was based on a self-administered questionnaire which was used to study the mentioned objectives.

Population of Study

This study was conducted in Services Hospital Lahore, a public teaching hospital in Lahore, Pakistan with an 1196 bed capacity in different 31 clinical departments. There are 1000 doctors currently practicing in different specialties.

The target population of this study is all senior and junior doctors whose are currently working in different department of services hospital Lahore.

Sample

There were 1000 doctors currently practicing in services hospital Lahore. The sample of this research was calculated by using Taro Yamane formula with a 95% confidence level and 5 % margin of error. The calculation of sample size by using the formula of Yamane was below:

$$n = \frac{N}{1 + N(e)^2}$$

In formula:

n = sample size

N = total number of population

e = Margin of error (%)

$$n = \frac{1000}{1 + 1000(0.05)^2}$$

n = 286 (Rounded)

After calculating the sample size by putting the values in the formula, the sample size is 285.78 doctors.

Sampling Technique

The simple random sample technique was used to select the participants to form the whole population.

Instrument for the Study

The nature of this study is quantitative. It was decided to use the questionnaire to collect the data from the population. The questionnaire was adapted to explore the knowledge management practices by doctors of services hospital Lahore. The questionnaire was edited according to the need of study.

Pilot Study

A pilot study was conducted on a small level. To check the reliability of the data collection tool in a local setup, it was distributed among some doctors in different departments randomly. Doctors were approached in wards, offices, doctor's rooms, and during round in patient wards of the hospital. Twenty doctors filled up the questionnaire, they were also requested not to fill the questionnaire again in the final data collection process.

Reliability of the Instrument

Cronbach's alpha coefficient was applied on every section separately to check the reliability of the instrument. The value of Cronbach's alpha of knowledge sharing practice was 0.887, Knowledge capturing practices was 0.886, Knowledge generating practice was 0.920, and the

value of purpose of knowledge management was 0.960 which is acceptable of reliability. Overall reliability of the instrument was excellent.

Data Collection

The initial step of data collection was the distribution of the questionnaire to doctors of services hospital Lahore, also followed up repeatedly to receive the questionnaire back from doctors. According to the Yamane formula, the sample size was 286 (28.6%) out of 1000 (100%) doctors. There were 286 questionnaires which were distributed among the doctors of different departments randomly. Participants were approached by different locations e.g. in patient wards, doctor offices, in outpatient department (OPD) while they were practicing and delivering the lecture in classrooms. Collected data were entered into statistical package for social sciences (SPSS 22.0).

Data Analysis and Interpretation

Table: 1

Descriptive Analysis about Demographic Information of 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
Experience		
<5	80	36
6-10	41	18
11-15	30	14
>16	71	32

Specialties		
Surgery	38	17
Medicine	33	15
Pulmonology	8	4
Dermatology	17	8
Gynecology	12	5
Ophthalmology	7	3
Neurology surgery	5	2
Neurology	3	1
ENT	9	4
Pediatrics surgery	11	5
Pediatrics	13	6
Radiology	9	4
Orthopedics	11	5
Anesthesia	9	4
Thoracic surgery	8	4
Urology	11	5
Psychiatry	6	3
Medical Education	2	1
Endocrinology	10	5

The frequency of respondents according to gender, the result of the table shows that 141 (63.5%) of total participants were female, and 81 (36.5%) were male. It shows 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 age 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. It is also very clear from table 4.1 that 80 (36%) participants were experienced less than five years, whereas 41 (18%) respondents had experienced 6 to 10 years, while 30(14%) experienced between 11 to 15 years, whilst 71 (32 %) had experience more than 16 years. It shows that respondents were from different specialties as 38 (17%) of total selected doctors were participates from surgery departments, 33 (15%) form medicine, 8 (4%) form

Pulmonology, 17(8%) from Dermatology, 12 (5%) from Gynecology, 7 (3%) from Ophthalmology, 5 (2%) from Neurology surgery, 3 (1%) from Neurology, 9(4%) from E.N.T department, 11(5%) from Pediatrics surgery, 13(6%) form Pediatrics, 9 (4%) from Radiology, 11(5%) from Orthopedics, 9(4%) from Anesthesia, 8(4%) from Thoracic Surgery, 11 (5%) from Urology, 6 (3%) from Psychiatry whereas 2(1%) from Medical Education and 10 (5%) respondents had specialties in Endocrinology.

Table 2
Knowledge Sharing Practices

<i>Statements</i>	<i>BN</i>	<i>Ne</i>	<i>N</i>	<i>F</i>	<i>VF</i>
	%	%	%	%	%
1 Face-to-face meetings	3	3	7	58	30
2 Social media networks (Facebook, Whatsapp, Instagram, Twitter,)	4	5	15	53	23
3 Online discussion forums	10	12	21	36	21
4 Blogs	12	13	15	42	18
5 Email	9	8	16	40	27
6 Wikis	9	9	14	43	23
7 Mobile/Phone	5	2	8	33	52

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

Knowledge 66 (30%) out of 222 (100%) respondents were sharing their knowledge via face to face meeting very frequently, while more than half percent (58%) doctors respond that they frequently share knowledge through face to face meeting, whereas remaining results of 23% doctors showed that they were not interested to share the knowledge through face to face meeting. It has cleared that face to face meeting is very effective method for knowledge sharing. In present era, the social media is very powerful tool to share the information, knowledge, expertise and also connects the community. The table 2 also cleared that a large number of doctors (76%) rated that they frequently or very frequently use the social media for knowledge sharing and less number of participants show lack of interest to use the social media like facebook, whatsapp etc. for knowledge sharing. So, it concludes that social media is very popular for knowledge tools among the doctors. The online discussion forum is very significant tool to share the concise information and knowledge within short time. The table further indicates that more than half (57 %) participants

rated frequently or very frequently used online discussion forums for knowledge sharing, while remaining result (43%) shows that they were not using the online discussion forums. Blogs or web blogs are sort of website in which we can get the information and knowledge for specific topic. The result 60% respondents used web blogs and 40% were unaware to feature of blogs. It is very clear from the above mentioned result a significant number (60%) of participants use email as knowledge sharing tool and remaining respondents rated neutral, never or being never. Wikis is web base knowledge sharing tools in which anyone can share their knowledge who have access to it. The results indicate that 66% doctors of services hospital were using the wikis for knowledge sharing. In present era, due the advancement in technologies we cannot deny the importance of mobile or other handheld devices, the result revealed that huge number (85%) of respondents are convenient to share their knowledge just on phone call. However, overall the result of table 2 is significant. Majority of number of doctors is aware of different tools to share their knowledge in services hospital Lahore.

Table 3
Knowledge Capturing 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/ hand held 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

It shows that 60% (133) respondent 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 mostly doctors of services hospital used the patient medical record for better delivery of health care services. It is very clear that 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) 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 major part of selected population has no interest in best practices databases for evidence based. Whilst 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 share 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 is not easy to access or they have lack of expertise to use it. 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 computer, laptops, hand held devices like mobile, 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 say that half numbers of doctors were used the personal computers, mobile etc positively but remaining may unaware about the use of computer and other hand held 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 of doctors have positive attitude towards share the 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 being 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 the 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 very useful method for capture the knowledge; therefore, majority of doctors used this method. In now era, the immense proliferation of technologies the digital notebooks application is playing the very vital role to capture the knowledge, the result of this section of 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 lack of interest to use the technologies. The use of Citation and bibliography management software by the doctors very low according to the result of 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 4
Knowledge Generating Practices

	<i>Statements</i>	<i>BN</i>	<i>Ne</i>	<i>N</i>	<i>F</i>	<i>VF</i>
		%	%	%	%	%
1	Feedback of cases (meetings of mortality morbidity)	4	7	15	44	30
2	Morning departmental meetings	4	5	9	47	36
3	End of the day departmental meeting	3	7	16	44	30
4	Communities of practice (informal groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly)	1	10	17	43	30
5	Continuous Medical Educational venues such as conducting regular Seminars, lectures and presentations	3	5	10	48	34
6	Training programs	2	5	11	52	30
7	Webinars to discuss updated clinical information with other colleagues in an international level.	8	10	36	33	13

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

It is indicated that 44% (98) respondents were rated frequently and 30% (66) ranked very frequently while 7% (16) were responding never and 4% (8) were being never. The result revealed that feedback of cases (meeting of mortality morbidity) is mostly used by doctors of services hospital Lahore, because they get early feedback from different type of cases. Therefore, the usage of feedback of case for knowledge generation is very high. Morning department meetings are very important for healthcare professionals in which they discuss about the daily working routine, basically it is an informal setting. Table 4.4 indicate that 47% (104) out of total (222) respondents is frequently, 36% (80) participants rated very frequently, 5% (11) never and 4% (8) were respond being never, the result revealed the doctors of services hospital interested to attend the morning departmental meeting. The statistical data shows that 44% (97) were replied frequently, 30% (67) were very frequently, 7% (16) rated never and 3% (7) were being never. The result conclude that

majority of doctors have taken more interest to attend the end of the day departmental meeting. The result also showed that 43% (95) respondents were acted frequently, 30% (66) rated very frequently, 10% (22) were never and 1% (2) answers being never, the result revealed that communities of practice is very useful among the doctors of services hospital because it is an informal group where every participant learn from other experiences. Continues medical education is very important for clinicians, because via this technique doctors can update their knowledge and skills. Moreover, Table 4.4 shows that 48% (107) rated frequently, 34% (76) were very frequently while 5% (11) were never and 3% (6) rated being never. The result indicates that services hospital encourages to doctors to participate in continues education program like seminars, lectures or presentations for update their knowledge and expertise for better healthcare services. The results of table 4 more signify that 52% (115) answered frequently and 30% (66) were very frequently on the other hand 5% (11) rated never and 2% (5) reported being never, which means that large number of participants attend the training program regularly for learning and capturing new knowledge. Webinar sort of e-seminar is very important tool by which medical practitioners can exchange and update their knowledge at international level, the result of table 4 also shows that 33 % (74) participants responded frequently, 13% (29) were rated very frequently, whereas 10% (23) clinicians replied never and 8% (17) were being never. The results indicate the more than half participants of this study were response negatively due lack of awareness about the webinars.

Table 5

Purposes for Knowledge Management

	<i>Statements</i>	<i>SDA</i>	<i>D</i>	<i>UC</i>	<i>A</i>	<i>SA</i>
		%	%	%	%	%
1	Planning and Decision making for health and Patient care	4	3	4	38	51
2	Enhancement of knowledge	2	4	4	39	51
3	To capture new Knowledge and share best practices	2	4	3	36	55
4	To Improve the health services	2	5	7	32	55
5	To enhance the organization performance	1	5	8	36	51
6	For understanding processes and operations	2	3	6	36	52

7	To accelerate growth and innovation	1	4	13	37	45
8	To reduce the time and effort in searching for information and documents	2	4	14	34	47
9	To avoid repetition of errors and unnecessary duplication of work	1	5	9	34	52
10	Saving financial revenues and earnings	3	4	19	30	45
11	Increasing efficiency and reducing risks	3	3	6	34	55

Scale: SDA= Strongly Disagree, D= Disagree, UC= Uncertainty, A= Agree, SA= Strongly Agree

It indicates that the 89% doctors were agreed and 7% disagreed, the result revealed that the purpose of majority of doctors is to manage the knowledge for planning and decision making for health and patient care. Further claimed that 90% clinicians were agreed and strongly agreed while 6% were not agreed, the result found that purpose behind to manage their knowledge by large number of doctors of services hospital were enhance and explore the knowledge. It is found that 91% medical professionals were rated agreed and strongly agreed whilst 6% of respondents disagreed, which means that most of medical professionals claimed that they manage their knowledge for capture new knowledge and share best practices. One of the purposes of managing the knowledge is to improve the health care services the results explored that 87% of physicians were agreed and 7% disagreed, the results explained that services hospital support to doctors for knowledge management for improving the quality of healthcare services. The performance can enhance of organization especially healthcare organization via managing the knowledge. The outcome shows that 87% of participants were agreed and 6% were not agreed, the result describes that large number of clinicians manage their knowledge for improving the performance of organization. It cleared that 88% doctors were agreed and strongly agreed whereas 5% doctors respond disagreed, the result explain that purposes of knowledge management by large number of doctors of services hospital understood the processes and operations. The result of this part of study also showed that 81% of total respondents were replied agreed, but on the other hand only 5% doctors answers disagreed, the outcome identify the most of clinicians manage their knowledge for speedy growth and innovations in selected hospital. Outcome analyzed, the 81% medical practitioners were agreed that they also manage the knowledge in selected hospital for reduce and save time and efforts which consume for search the information and records. Majority (86%) of doctors claimed that they organized the knowledge to recognized the less important work and

avoid the repetition of errors or mistakes, while 6% disagreed with this statement. The results further showed that 75% doctors were agreed and 7% were disagreed, which means that most of the medical professionals manage their knowledge to save the financial resources and expenses. It signified that 89% doctors were rated agreed and 6% of respondents were responding disagree, the result revealed that the purpose of knowledge management for increase the efficiency and reduce the risk in patients care services.

Table 6

<i>Subscales</i>	Independent Samples t-test						
	<i>Male</i>		<i>Female</i>		<i>Independent samples t-test</i>		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>P</i>
Knowledge sharing Practices	3.61	0.89	3.85	0.82	-2.03	220	0.04*
Knowledge capturing Practices	3.30	0.63	3.41	0.62	-1.32	220	0.19
Knowledge Generating Practices	3.68	0.84	4.00	0.78	-2.86	220	0.00*
Knowledge Management Purposes	4.07	0.91	4.41	0.67	-3.13	220	0.00*

Level of significance * $<.05$

Independent sample t-test was presented to compare male and female doctor's opinions on Knowledge sharing, knowledge capturing, knowledge generating practices and purposes of knowledge management. There was significant difference $t(220) = -2.03, p=0.044$, between male and female doctor's views on knowledge sharing practices. Additionally, there was no significant different $t(220) = -1.32, p=0.190$, between opinions of male and female medical practitioners on knowledge capturing practices. While there was significant difference $t(220) = -2.86, p=0.005$ between male and female clinicians believe on knowledge generating practices, likewise there was major difference $t(220) = -3.13, p=0.002$ between the views of male and female medical professionals on purpose for knowledge management.

Table 7

Post HOC Analysis among the Different Experience Groups of Doctors				
<i>Variables</i>	<i>Experience</i>	<i>M.</i>	<i>df</i>	<i>Sig.</i>

Knowledge Sharing Practices	< 5 years	6-10 years	-.36790(*)	.14163	.049
		11-15 years	-.63155(*)	.15787	.000
		20 years & above	-	.12023	.000
	6-10 years	11-15 years	-.26365	.17717	.446
20 years & above		-.68886(*)	.14464	.000	
11-15 years		-.42522(*)	.16057	.043	
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		-.17109	.11988	.484	
Knowledge Generating Practices	< 5 years	6-10 years	-.36355(*)	.12789	.025
		11-15 years	-.66994(*)	.14256	.000
		20 years & above	-	.10857	.000
	6-10 years	11-15 years	-.30639	.15998	.225
20 years & above		-.75320(*)	.13061	.000	
11-15 years		-.44681(*)	.14500	.012	
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	-.22164	.15771	.497	

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

It shows that the mean score of doctors who have experience less than 5 years (Mean=3.27, SD=0.76) which 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 whose have more than 5 years experiences 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 whose having 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 than 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 experiences (Mean=4.33, SD=0.58), that means doctors whose having experiences more than 20 years were more interested in knowledge sharing among the doctors of services hospital Lahore.

Conclusions

The study concluded that the doctors have adopted the advanced knowledge management practices in their services. The participants have acknowledged that they are sharing knowledge using advanced contemporary tools i.e. mobile phones, social media networks, email, wikis, online discussion forums and blogs and face to face as well. The doctors have adopted the proliferation of technology in capturing or storing knowledge in terms of self-generated digital documents, patient medical records and in the form of printed records. The medical professionals generate knowledge with the help of conducting departmental meetings, continuous medical educational opportunities, lectures and training programs alongside the participating in communities of practices, end of day departmental meeting and webinars. The respondents manage knowledge for the purpose of capturing new knowledge and sharing their best practices, increasing efficiency and reducing risk, enhancing the organizational performance, making decisions and saving the financial resources and earnings.

Recommendations

Following recommendations are furnished in light of results of the study:

1. Training programs for the development of knowledge management practices for doctors are required to be carried out for their personal, professional and organizational performance.
2. Doctors are considered major stakeholders of the system their psychological aspects have a direct relationship with each other. So, the researches relevant to Knowledge management must also be conducted in developing countries like ours.

3. Government and policymakers should give due considerations to the concept of Knowledge management so that the doctors may get more benefits of the learning process in the form of success.
4. This study recommends that hospitals should promote advanced tools of sharing, capturing, and generating knowledge among workers and staff in order to improve their knowledge management capacities and job performance.
5. It also recommends that if the knowledge management policy is aligned with the organizational strategy, it will act as a guideline on how knowledge should be circulated and disseminated within the organization.
6. Hospital administration should arrange workshops, seminars and training session regarding the management of knowledge in different ways.
7. Medical and hospital librarians can act as information or knowledge manager effectively and they might introduce some new tools and technology among hospital doctors to promote knowledge management practices.

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