

## **Exploring the Benefits of Social Media Towards Knowledge Sharing Among Doctors**

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This exploratory study investigated the benefits of social media and to enhance knowledge sharing in the healthcare settings along with identification of challenges and possible solutions. Furthermore, the study elaborated the orientation of doctors about social media applications and in-role and extra-role knowledge sharing in their work settings. Fifteen semi-structured and non-directive interviews with the doctors in healthcare institutions operating in Southern Punjab, Pakistan were carried out under constructionism perspective. The interviews resulted in five major themes. The social media applications were found to advance knowledge sharing by promoting job related information transfer and voluntary sharing of tacit knowledge and experiences among doctors. Furthermore, the challenges faced in using social media as a knowledge sharing mechanism, and suggestions for improvement of its use among doctors were also brought to surface. The results added to the existing literature on social media and knowledge sharing in light of 'dynamic theory of knowledge creation' and 'social network theory'. This study offered beneficial practical insights for practitioners and management of healthcare

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organizations for promotion of knowledge sharing through social media applications.

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Effective knowledge management processes serve as important factors in making any organization successful among which the concept of knowledge sharing is found to be meaningfully pertinent. Knowledge sharing is defined as “the act of making knowledge available to others within the organization” (Ipe, 2003, p. 341). Socialization is the prime precursor of knowledge sharing (Berliant, Reed, & Wang, 2006). Furthermore, two kinds of knowledge sharing take place in organizations that is *in-role* that is required by the virtue of job description and *extra-role* that is beyond the formal job requirements. Knowledge sharing in general is related to innumerable of organizational outcomes that is managerial effectiveness, innovation, creativity, problem solving, organizational learning, organizational renewal, organizational change, competitive advantage, technological breakthroughs, employee performance, and organizational performance (Ahn & Chang, 2004; Alavi & Leidner, 1999; Cardinal, Alessandri, & Turner, 2001; Chen, Huang, & Cheng, 2009; Chien & Tsai, 2012; Lee, Kim, & Kim, 2012). Yet, it has been found that each profession has its unique prevalence and outcomes that calls for investigating knowledge sharing according to the context of different industrial sectors (Augier, Shariq, & Thanning, 2001).

Health care profession has knowledge based nature involving considerable level of tacit and explicit knowledge transfers (Lomas, 2007). Specifically doctors, who gain explicit knowledge through professional degrees, still need practical and tacit knowledge for effective provision of services. They need to adapt their knowledge as per the unique medical cases and unexpected issues inherent in medical profession (Mylopoulos & Scardamalia, 2008). These settings need up-dated knowledge and information, and offer specific knowledge sharing avenues that is information sharing to explore policy concerns related to healthcare promotion of medical outcomes; better work assignment with professionals, colleagues, patients, and students along with public engagement; Additionally, to educate and intermingle with colleagues, caregivers, patients, and students (Bernhardt, Alber, & Gold, 2014). Despite importance of knowledge sharing, healthcare settings is still facing the challenges of that is lack of appropriate knowledge, infrastructure inability, knowledge hoarding, organizational culture and socialized environment (Fogelson, Rubin, & Ault, 2013; Guo, Guo, Fang, & Vogel, 2017).

Apart from traditional methods of knowledge sharing, there has been a paradigm shift due to advancement in technology and organizations are looking for efficient and innovative knowledge sharing mechanisms (Vuori & Okkonen, 2012). Social media is also named as 'Web 2.0' or 'social networking' embraces a dynamic concept that comprises using internet based tools for connecting people and permits facilitation of communication, sharing of information, messages, knowledge, ideas, images, and other materials (Peck, 2014). Focusing on the emergent social network approach and taking a socialization perspective introduced by Liu, Sidhu, Beacom, and Valente (2017), social media is an emergent potential tool of knowledge sharing in current times (Hemsley & Mason, 2013). Hence, social media is possibly an significant mechanism to enrich the medical related upshots by sharing effective knowledge and getting more responsiveness regarding healthcare news and discoveries in a social network including healthcare experts and concerned associates (George, Rovniak, & Kraschnewski, 2013; Medhekar, 2017).

Despite of the fact that social media is supportive to endorse socialization in medical settings and also have a probable connection with information or information exchange; there is a dearth of understanding on what grounds social media helps knowledge sharing among healthcare professionals (McGowan et al., 2012) and how social media apps are constructive to enhance in-role and extra-role knowledge sharing (Cui, 2017). According to survey results of Househ (2013), 90% medical professionals use social media applications and out of which only 65% have its professional use that is indicating a gap in its probable use for healthcare knowledge sharing. Therefore, it is concluded that there is still a space to investigate the insights of healthcare professionals about adoption, ways, and use of social media apps for medical profession along with the detailed suggestions for healthcare settings (Medhekar, 2017; Panahi, Watson, & Partridge, 2012).

Hence, this qualitative inquiry aims to explore the role of various social media apps in context of medical settings and emerging an understanding of the manner in which these social media applications are beneficial to boost knowledge sharing that is in-role and extra-role in social networks of doctors.

Furthermore, we aim to gain an insight into the challenges faced by doctors in using social media as a medium of knowledge exchange and the possible suggestions to overcome these challenges. Finally, an overarching framework will be presented on the basis of interview results that will give a comprehensive view of use of social media by doctors for knowledge sharing and the possible barriers and solutions.

## Theoretical Framework

The dynamic theory of knowledge creation (Nonaka, 1994) posits that knowledge is a powerful weapon to develop organizational wellbeing. Davenport and Prusak (1998) defined knowledge with respect to four dimensions; framed experience, contextual information, experts insight and values. In 90s, theory building process of knowledge management emerged, after this process, a good amount of research has consensus on two broader categories of knowledge that are, explicit and tacit (Ahn & Chang, 2004; Alavi, 1997; Nonaka & Takeuchi, 1995). *Tacit knowledge* is regarded as most powerful knowledge and difficult to imitate as it belongs to individuals' property (Cavusgil, Calantone, & Zhao, 2003; Nonaka, 1991, 1994). Tacit knowledge can be learnt from real context and by socialization process (Appleyard, 1996; Beckman, 1999; Blackler, 1995). Tacit knowledge, in general, exchanges through personal interaction, mental models and experience (Gold, Malhotra, & Segar, 2001). The other category of knowledge is termed as *explicit knowledge* that is in published form. This type of knowledge can easily be traced out and availability is guaranteed to those who have valid access on local network of organization (Akhavan & Pezeshkan, 2014; Nonaka, 1994).

Knowledge sharing is an act of dispersing individual knowledge, skills, and abilities to others in an organization (Zakaria, Amelinckx, & Wilemon, 2004). The task-related information is shared with others for helping and collaborating in order to collaborate, resolve issues, and implement policies. Although, in past much of research focused on considering knowledge sharing as a single construct, a recent study of Cui (2017) segregated two distinct dimensions of knowledge sharing that can take place in organizations. One is the pre-agreed upon sharing of knowledge as required by the job duties and formal job description that is termed as in-role knowledge sharing. This kind of knowledge sharing is expected as a part of employee's job duties such as discussion of regular work progress and dissemination of job-related information. Second is the extra-role sharing of knowledge that is not obligated as a part of job duties but it is aimed at helping peers and colleagues in work related matters. This includes sharing of work experiences and competencies to help colleagues on voluntary basis. Health care settings are knowledge incentive in nature as the medical staff, specifically, doctors continuously need current and valid information up-date for enhancing their competence and offering evidence based health care services (Asemahagn, 2014).

The advocates of social network theory (Liu et al., 2017) presented the importance of social networking and are of the view that it is a vital element to build a knowledge base in the workplace. The globalization and cut-throat competitions among the organizations have given due attention to the social media instead of other traditional media for disseminating information internally and externally. Social media has been getting familiarity among internal stakeholders of the firms to exchange the internal affairs and also regarded as official correspondence as well (Imran, Iqbal, Aslam & Fatima, 2019). Auffermann (2010) posited that advent of social media tools is the most ground-breaking change that internet has brought in communication. Further, communication and relationship building flourish among employees by using social media (Bruque Moyano, & Eisenberg, 2008). Moreover, knowledge sharing in the workplace requires effective relationship building and communication (Desouza, 2003).

The current times social media applications include Digg and Delicious, Word press, Twitter, Wiki, Viber, Weblogs, Micro blogs, Online Forums, Skype, Whatsapp, Flickr, YouTube, Daily Motion, LinkedIn, Facebook, MySpace, Second Life (Virtual Reality), Google Apps, Podcasts, Life Streams, Social Bookmarks, Web Communities, Social Networking, and Avatar-Based Virtual Reality. These social media tools have different categorizations and used for social contact of the people around the globe (Imran et al., 2019). Jue, Marr, and Kassotakis (2010) argued that social media is widely spread media and has global presence. Further, Yates and Paquette (2011) presented that social media applications are supportive to device knowledge management in organizations. Furthermore, by deputing the services of social applications, innovative ability of the organizations can be enhanced through effective knowledge sharing (Leonardi, 2014). Moreover, informal learning environment is capable to strengthen the knowledge flourishing systems without any formal systems (Kaplan & Haenlein, 2010). In order to given efficient services to clients, healthcare organizations need up-to-date knowledge (Imran et al., 2019). Lau (2011) found that medical services firms use Web 2.0 technologies for social interaction, knowledge sharing and learning within and outside the boundaries of organizations. Similarly, healthcare organizations are promoting doctors, healthcare solutions and awareness session using social media applications (Majchrzak, Faraj, Kane, & Azad, 2013; Moorhead et al., 2013; Paroutis & Al-Saleh, 2009). Antheunis, Tates, and Nieboer (2013) argued that using social media give an additive advantage to medical professionals and hospitals as well. Further, abundance of tacit knowledge in medical

field, firms are using social media to share various solutions through text, images and videos that give insights to other professionals and students (Bernhardt et al., 2014).

Based on the above theoretical grounds, this study revolves around the social knowledge and serves the following purposes:

1. To develop a clear understanding of social media and orientation of different social media applications in medical settings.
2. To explore the nature of in-role and extra-role knowledge sharing in medical and healthcare settings.
3. To explore the relationship between social media applications and in-role and extra-role knowledge sharing in medical settings with specific context of doctors.
4. To gain an insight into the challenges faced by doctors in using social media as a medium of knowledge exchange and the possible suggestions to overcome these challenges.
5. To develop a conceptual model explaining the process through which social media fosters knowledge sharing and offer benefits to doctors.

## **Method**

### **Research Approach and Paradigm**

An appropriate research method followed by research approach is necessary to investigate the research problem (Hair, 2010). The exposition of the current study is exploratory in nature as to find out the paybacks of social media to increase knowledge sharing in the workplace, thus, qualitative research design with inductive reasoning approach has been employed to get the data from medical professionals. In cumulative, the basis of the interpretive paradigm has been deployed to explore various links of social media applications to enhance the in-role and extra-role knowledge sharing.

### **Population and Sampling**

The healthcare institutions are providing medical related services to public at large, where doctors are the key service provider agents of the institutions. The doctors hold tacit knowledge which cannot be imitated easily. This study is all about how social media facilitates

doctors to share their tacit knowledge to colleagues and other stakeholders. The population of this qualitative inquiry is the doctors in healthcare institutions operated in southern Punjab, Pakistan. In order to get relevant data, convenience sampling technique was deployed to 15 doctors of various specializations due to restraints of availability, cost, and time. The criteria of selecting the participants is very strict to ensure the quality of data that is (a) they must be practicing doctors, (b) have accounts on social media, and (c) at least one year professional experience in medical field. As the nature of this study is exploratory, thus selection of fifteen doctors was appropriate to get purposeful data and also in line with existing research in similar settings (Asemahagn, 2014; Medhekar, 2017; Moorhead et al., 2013). The experiences of doctors have been gathered to infer the results of this qualitative inquiry. The appropriateness of the sample was also validated as the opinions of last three participants were more or less same and data of 15 doctors became the saturation point.

### **Data Collection and Analytical Techniques**

Semi-structured interview technique was used to gather the experiences of doctors about usage of social media to enhance tacit knowledge sharing practices (i.e., in-role and extra-role) in healthcare institutions to get deep insight in the topic of interest where experiences of participants are involved. A good amount of existing literature has been taken into consideration about social media and knowledge sharing to design the interview protocols (Cui, 2017; Ellison, 2007; Gholami, Wild, & Strech, 2013; Haas, Criscuolo, & George, 2014; Hendriks, 1999; Wang & Wang, 2012) and its use in specific medical settings (Househ, 2013; McGowan et al., 2012; Panahi et al., 2012; Sales, Estabrooks, & Valente, 2010). The interview questions were established under the guidance of five medical professionals and four academicians who were not study participants and duly adjusted from the expert opinion as per the suggestions of Sales et al. (2010) that is “what is your orientation about different social media applications?”, “how do social media promotes relationships and communication among doctors?” and “how do social media promotes knowledge conversation among doctors”.

In this qualitative inquiry, each medical professional was designated as case or unit of analysis and experiences of doctors were recorded on audio devices. Further, the recorded data were stored into a repository that was used for making transcriptions. Constant comparative thematic analysis technique was used to analyze the

transcriptions and for developing themes. Detailed process was carried out following steps: (a) interviews were transcribed; (b) an appropriate coding mechanism was initiated to capture the pertinent text regarding use of social media applications and knowledge sharing in medical settings; (c) linking and interpretation of nodes; and (d) formation of themes. The data were interpreted using NVivo-11 plus software and the subsequent results are explained in the form of themes and inter-relationships with relative strengths as shown in Matrix coding query results (see Table-1) and visually displayed in conceptual model (see Figure 1).

## Results

The outcomes of the interviews shed light on the general perceptions of doctors regarding social media, its role in fostering in-role, and extra-role knowledge sharing and the challenges and areas of improvement.

### Theme 1: Doctors' Orientation toward Social Media

Despite of the fact that social media applications are very popular in current era among professionals, doctors have somewhat different orientation about social media.

One of the doctors, Dr. A expresses the following views about orientation of social media:

In my point of view being a doctor, social media is sort of information technology based applications through which we interact, share and disseminate information to friends, patients and work colleagues...for me, its orientation is confined to Facebook, twitter, Instagram, YouTube and Whatsapp...as I usually use these for acquiring and sharing of knowledge.

Similar to this view, other doctors have more or less the same views about social media orientation in healthcare settings, "Social media is consisted of different applications that are used for interaction with others...social media includes Facebook, Whatsapp, LinkedIn, Skype, YouTube, etc." (Dr. I).

Furthermore, some doctors' remark social media as an interface by which people connect with each other and discuss whatever they want do discuss that sometime of professional use:

Social media is a kind of software that can be used in computers and mobiles for interacting with people, communicating in groups, and remaining in touch all the time with the medical community...frequent users of social media are more aware

about diseases and their cures than that on less or non users (Dr. H).

The debate about social media and knowledge sharing in context to interviews conducted from healthcare professional result into following core themes.

I am working in a tertiary care hospital from last five years, we are using social media applications for information dissemination. From last two years, with the advancement of technology and net facility in Pakistan, social media applications are very in.... Like we are the part of different groups in Facebook, Whatsapp through which we share and receive different information. Moreover, YouTube video helped us for critical operations (Dr. B).

Some doctors define social media as a source of entertainment as they feel comfortable to collaborate with people they know, "I define social media as a source of entertainment whenever it is needed and also helpful for such things as knowledge, latest technologies, development and recent advancement" (Dr. E).

## **Theme 2: Social Media Applications as a Medium of In-role Knowledge Sharing**

The responses received evidenced that communication is first and foremost outcome of social media interactions. Doctors use social media to communicate with colleagues, seniors, medical professional, and patients as well. They indicated using social media for the sharing of information related to their job.

The majority of healthcare professional have harmony on the argument that socialization is a vital mechanism to promote job related communication. Dr. B's view point in this context is as under:

We need to share work related information ... since the advent of social media it has become easier to convey information such as I give instructions to my juniors regarding any patients' case on, WhatsApp when physical meeting is not possible... it is an easy way to send the reports and history of patient when the colleagues are not physically present"

It was indicated that doctors are using social media as a source of sharing professional knowledge. According to Dr. G, "Well... Spreading knowledge through social media in doctor's profession is very common. In our organization, Whatsapp and Skype are mostly used social media applications for knowledge sharing among individuals and communities." While Dr. F said,

The possibility of interaction through social media is quite easy...in our organization after the facility of 3G & 4G; it's the norm to communicate with each other through social media...for that, doctors normally used Skype for video interactions and Whatsapp for messaging and call in case of discussing any case or communication of any formal notice.

In this regard, Dr. I had a very clear view regarding use of social media apps and for the sharing of work related knowledge, "We have endoscopy Whatsapp group, in which we report to senior doctors about number of patients and their status as well as decisions regarding timing of the procedure..." Moreover, Dr. H gave another stance, "Communication...I think, is the basic characteristic of social media apps. All social media applications are designed to promote socialization and communication... but its usage for job related communication is still limited"

The responses show that doctors use social media for sharing of knowledge and information regarding discussion of duty timings, communication regarding the status of patients, and sharing reports of patients' history, but still this is in the phase of infancy.

### **Theme 3: Social Media Applications for Extra-role Knowledge Sharing**

The notion of relationship building as stated in social network theory for knowledge sharing is equally applicable in healthcare settings. The findings showed that social media facilitated informal communication among doctors and as a result they share their experiences and knowledge with peers beyond the communication required as the part of their job. The interviews offered a clear view point that new and existing knowledge about diseases and cures can be achieved through social media applications.

According to Dr. C, "By using social media, doctors share their experience regarding customer care, exchange of information, and get help from daily motion or Facebook too...to access what already has been done in this particular disease." Dr. I posited, "We interact within a group dealing with different doctors around the globe as different types of social media allow group interaction like in Whatsapp and Skype... we get a broader exposure regarding the happenings in our field." Further, Dr. B indicated:

Sometimes, information regarding any seminar or any new knowledge is shared on Facebook and Whatsapp groups that are helpful in increasing our competence and learning. Doctors also

share any notable patients' cases or any issue that has occurred while dealing with patients.

The results emphasized that sharing of critical knowledge become easy using social media apps that is videos of critical diseases' operation, identification of diseases, and multiple cures. The doctors have very positive point of views; Dr. D's opinion is as under:

Different social application applications help me out to share new knowledge. Through Facebook, new knowledge is frequently obtained as shared by others...same as Facebook; Whatsapp group also produced the same. Further, clinical issues can be resolved with new and lived knowledge using Skype."

Or the other hand, Dr. J said that social media apps might be a bottleneck to physical interaction, "My point of view is that social media is helping in sharing information regarding the issues and problem that we face or any other new or update in our field...but proving itself as a handicap for physical interaction too."

Doctors' view point mainly stated that social media has proved as a ladder for knowledge sharing among healthcare professionals and promoted helping behaviors. Somehow, it cannot be a replacement of physical meetings, but still it plays a major role in problem solving and dissemination of current knowledge in the field of medical science.

#### **Theme 4: Challenges in Using Social Media Application for Knowledge Sharing**

The in-depth analysis of the participants' views indicated some of the challenges doctors had to face in knowledge sharing. They included lack of internet availability, authenticity issues, impersonal communication, and as per Dr. D:

I usually use Wikis, YouTube, Dailymotion to get access to existing knowledge that resides at web, but it is difficult to ensure that the information is credible or not as everything that is shared on social media cannot be believed blindly.

Although, most doctors have positive opinion about the importance of social media towards acquiring existing and new knowledge, but Dr. G had a different opinion in this respect, "I think you can just share what you have by social media platform...but sometimes the information violates the privacy and confidentiality norms specifically in case of sharing patients' history or reports."

No doubt social media has eased sharing of knowledge among doctors but some of them also complain regarding the information

overload and disturbance in their personal lives. Such that Dr. O indicated, “I have a hectic day in hospital and when I come home still my social media is bombarded with information and messages that disturbs my personal life. Social media has blurred the boundaries in personal and professional lives.”

Generally, almost all respondents’ expressed that social media is helpful for acquiring existing and new knowledge about diseases, cures, and solutions; but it poses the threat to personal life, confidentiality, and privacy; in addition, the source’s credibility was also indicated a major concern.

### **Theme 5: Suggestions for Improving Knowledge Sharing Through Social Media**

According to findings of current inquiry, social media applications advance knowledge sharing among doctors. The results are quite obvious that knowledge sharing in healthcare organizations can be endorsed with the help of social media apps, but this can be improved through taking certain actions like development of specialized groups for each topic, use of simple language, and visual content for clarity along with proper check and balance on the groups to ensure confidentiality and elimination of any unnecessary person, content, and stimulating the information sharing when needed, as Dr. C indicated the importance of content, “I think the information shared should be from credible sources and the content should be in easily understandable language... pictures and videos do a great job in enhancing the clarity of content.”

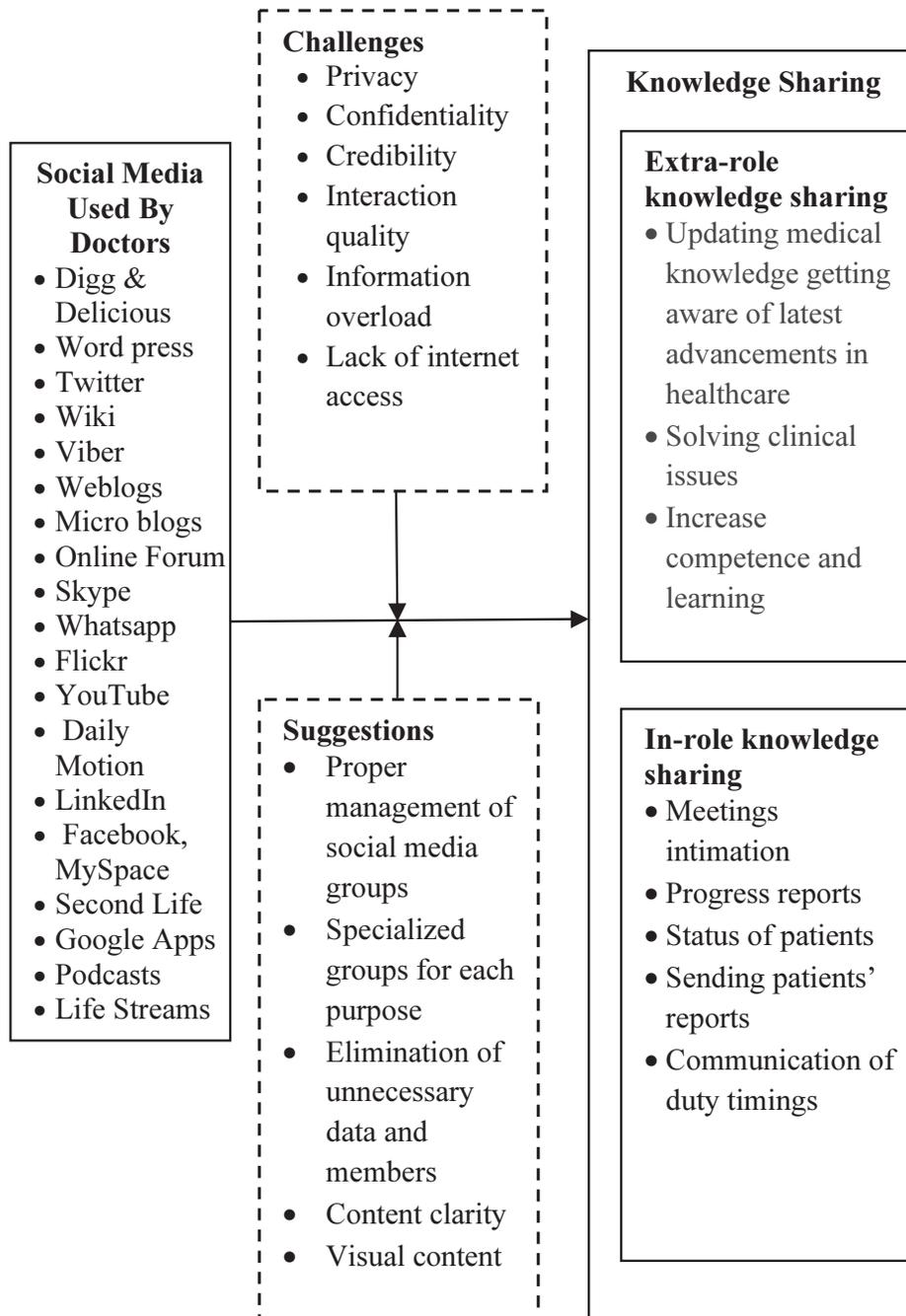
Another suggestion was given by Dr. K regarding the organization of social media groups:

First of all it is better to have separate groups for each purpose like... for official communication and others for discussion in specific areas this will improve their effectiveness and only relevant people should be added so that information overload and excess of disturbance is avoided. Any irrelevant information should be checked and removed and if the group is inactive, it should be simulated by admin by initiating discussion.

Dr. A suggested, keeping the privacy intact and maintenance of professional ethics to be the top priority, “No content should be shared without proper permission and the privacy of patients should be kept intact.”

It was indicated by Dr. G that every hospital should have access to internet for all the doctors so that the relevant information can be shared on timely basis. He said, “there should be uninterrupted

availability of internet networks in the premises of hospital to ensure that timely communication can take place.” Overall, results of the analysis strongly suggest that knowledge sharing can be advanced in organizations through social media apps.



*Figure 1.* Conceptual framework of findings regarding social media and knowledge exchange relationship.

## Discussion

The aim of current qualitative exploration was to uncover the use of contemporary social media applications as a beneficial mode of sharing knowledge. The findings indicated a positive trend in doctors to use social media as source of knowledge sharing (Househ, 2013; Medhekar, 2017; Panahi et al. 2012). Moreover, this study built on the assertions of Guo et al. (2017), who asked for detailed inquiry of the process through which social media acts as a knowledge sharing tool in the specific medical context. First of all the use of social media allowed the doctors to build knowledge based social networks that act as the source of filed related information dissemination (Stankovic-Rice, 2011). These kinds of networking platforms acted as the medium to spur medical knowledge through effective communication and relationship building (Jue et al., 2010).

In this study we have further elaborated the work of Chen and Huang (2007) who deemed social media as an important knowledge sharing tool in medical settings by uncovering the role of effective social relationship building and widespread communication. It affirms the stance of Sales et al. (2010) who found social media as an effective knowledge sharing tool in medical field. Panahi et al. (2012) called for inquiring the ways in which medical practitioners use social media for knowledge sharing. We have answered this by illuminating that social media is used for in-role as well as extra-role knowledge sharing in healthcare environment. Such that the formal tasks of communicating the duty allocations, timings, progress reporting, meetings intimations and discussion about the status and treatment of patients, all these aspects cover the area of in-role sharing of knowledge (Cui, 2017). The higher tendency of using social media was for the sharing of knowledge not needed for the formal job duties that comes under the premise of extra-role sharing of knowledge (Farrell, Lau, Nusser, Wilcox, & Muller, 2007; Kasavana, Nusair, & Teodosic, 2010; Ma & Chan, 2014). This kind of knowledge sharing included information regarding the latest developments in medical sciences, new medications and methods of treatments. Medical practitioners also shared the sources of conferences and seminars for the latest discoveries and practices in the medical field. Overall, in the medical context trend was found for sharing knowledge based on social media usage for the in-role and extra-role purposes. This is in line with the extant research that deems social media applications as a prime source of sharing knowledge about the state of art and contemporary developments in medical filed and their use for the benefit of professional work (McGowan et al., 2012).

The opinions of participants on large acknowledged the use of modern social media in creating greater pool of knowledge in medical settings (Liu et al., 2017), for better sharing of knowledge (Nonaka, 1994). Social media is acting as a complimentary tool in addition to the traditional knowledge sharing modes i.e. face to face interactions and meetings and proved to be efficient in advancing the lasted medical knowledge by increasing its access to medical practitioners in fast and economical way (George et al., 2013; Medhekar, 2017).

Table 1

*Matrix Coding Query*

	Themes				
	A	B	C	D	E
Participants	Orientation towards Social Media	In-role knowledge sharing	Extra-role knowledge sharing	Challenges in knowledge sharing	Suggestions for improvement of knowledge sharing
1 : Dr. A	2	3	3	2	5
2 : Dr. B	1	3	4	1	2
3 : Dr. C	1	3	3	2	2
4 : Dr. D	2	3	5	1	2
5 : Dr. E	1	2	4	2	3
6 : Dr. F	2	1	3	1	3
7 : Dr. G	2	3	3	1	3
8 : Dr. H	2	4	6	1	4
9 : Dr. I	1	3	2	2	4
10 : Dr. J	2	4	7	4	3
11 : Dr. K	2	3	4	3	2
12 : Dr. L	2	2	3	5	1
13: Dr. M	1	2	3	3	2
14: Dr. N	1	5	2	3	2
15 : Dr. O	2	3	3	1	3
Total	24	45	51	30	39

Despite the majority of doctors were of the view that social media applications specially, Skype, Facebook and Whatsapp supported knowledge sharing in their settings, yet some participants had opposite view points. According to them, social media is just suitable recreational, gossiping, and entertainment purposes and it have nothing to do with the professional use. Others said they do not feel comfortable in using social media for knowledge sharing because they are concerned about the privacy and security issues. This depicts the reason of less usage of social media in medical settings due to the

hurdles of low awareness and lack of security. Some of them raised concerns about the authenticity of shared information and others indicated the interrupted and poor internet connection as a cause of not sharing knowledge on social media (Househ, 2013).

However, in accordance with the findings of Gholami et al. (2013), we suggest some rules to use social media for exchange of knowledge in a meaningful way, due care should be taken in ensuring privacy and confidentiality of data. Only relevant and credible data should be shared to avoid the poor quality knowledge and information overload. Uninterrupted internet connection should be available within the hospital along with proper management of social media groups in medical settings. Table 1 overall depicts the level of endorsement of each theme by each participant.

### **Conclusion and Implications**

This study affirmed the beneficial usage of social media for knowledge sharing for the job related matters as well as for the voluntary purposes for being alert about the recent medical advancements. In this regard some of the participants were hesitant in sharing medical knowledge on social media due to the lack of awareness and being skeptical about the security and infrastructure availability issues. Thus, it is concluded that social media is beneficial of sharing knowledge in the medical context only if proper facilities, security and awareness is present.

This study has theoretical importance because it builds on combined tenant of social network perspective (Inkpen & Tsang, 2005; Liu et al., 2017) and dynamic theory of knowledge creation (Nonaka, 1994) using an inductive approach in medical settings. Moreover, the use of dimensional conception of knowledge sharing into in-role and extra-role knowledge perspective offers better understating than the combined construct (Cui, 2017).

Practically this study is useful to draw attention of medical practitioners for using social media in way beneficial to upgrade and improve their knowledge by sharing. The hospital administration can take measures to promote this practice by providing needed infrastructure and making official platforms and knowledge sharing groups and linking them to credible and secure sources. Lastly, the awareness regarding the use of social media in medical knowledge sharing should be spread via training and informal persuasion.

## Limitations and Future Directions

Nonetheless, this study has contribution in theory of knowledge sharing and practice of medical field yet it has a few limitations. The sample was from the Southern Punjab region of Pakistan and the findings could differ in other cultural and national settings. The qualitative inquires have inherent issues of biasness and limited generalizability that can be addressed in future through use of mixed methods and triangulation. In addition, the mere focus was on using social media a tool of knowledge sharing that can be extended to other dimensions of knowledge management process i.e. creation, acquisition, exchange and implementation.

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