

Supportive Roles of Physicians' Activities in Social Media for Healthcare Knowledge Management

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Abstract

The present study sought to identify the supportive roles of social media in healthcare knowledge management processes, including decision-making, popularizing health knowledge, and empowerment of healthcare processes based on physicians' perspectives and experiences. In a present qualitative study, a semi-structured interview was administered to 28 physicians using purposive snowball sampling. The data analysis was done using the thematic analysis method by MAXQDA 10. The analysis of interviews resulted in the extraction of three themes and eight sub-themes. Firstly, social media supports physicians' decision-making by facilitating peer-to-peer assistance, increasing benchmarking, and virtualizing the community of practices. Secondly, physician activities in social media can popularize health knowledge by developing public health education and disclosing knowledge claims. Third, social media empower healthcare processes by improving post-treatment follow-up, supporting health counseling presentations, and promoting health awareness. Physicians' experiences and perspectives showed that social media can support healthcare knowledge management implementation.

Keywords: Social Media, Technology, Healthcare, Knowledge Management, Health Knowledge Management.

Introduction

The benefits of using healthcare knowledge management at the individual, organizational, and management levels are well-identified (Bailey & Clarke, 2000; Farsi, 2021; Walczak,

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2005). From an individual perspective, using the knowledge management process for physicians can enhance scientific skills and professional participation (Dawes & Sampson, 2003). From an organizational point of view, it is important to establish knowledge management processes in both the clinical and managerial domains of health care. In the clinical domain, medical knowledge and experiences should be shared among healthcare providers to make evidence-based decisions (Luo & Ing, 2022; Zhao, Han, Zhong, Xie, Chen & Zhi, 2021). From the managerial perspective, knowledge management can also increase productivity and select appropriate management practices (Bali, 2005).

Information and communication technologies (ICT) have made it easier to move towards knowledge management by removing temporal and spatial barriers and providing different supportive roles (Nemati, 2002; Wagner, Vollmar & Wagner, 2014). Also, effective knowledge management requires the use of appropriate technologies as well as social interaction (Sher & Lee, 2004; Wagner et al., 2014). Previous literature has shown that social media is a valuable platform for facilitating knowledge management processes (Dumbrell & Steele, 2014; Olajide, 2015). Social media is defined as “interactive Web 2.0 applications” that facilitate creating and sharing information, ideas, career interests, and other forms of expression (Mauroner, 2016; Rivas et al., 2018). Specifically, social media began meeting the characteristics of Web 2.0 websites, providing a rich user experience, dynamic content, scalability, openness, and collective intelligence. These social functions often involve identity, conversation, sharing, presence, relationships, reputation, and groups (Irani, Sharif, Papadopoulos & Love, 2017; Kaplan & Haenlein, 2012; Koh, Cattell, Cochran, Krasner, Langheim & Sasso, 2013; Le, 2019; Nisar, Prabhakar & Strakova, 2019; Thomas & Thomas, 2012).

Knowledge management practices can improve business processes by creating value, and social media can assist in creating, collecting, and storing information. Using social media to develop knowledge management based on building social networks, engaging and interacting with others, and receiving feedback will build trust, collaboration, sharing, and creation of knowledge within a community and facilitate the flow of knowledge management (Hemsley & Mason, 2012; Shahmoradi et al., 2015). Opportunities created by ICT, such as social media, can also be exploited to meet the challenge of providing significant investments for deploying medical information systems and networking among physicians (Shojaie, 2016). Social media can facilitate healthcare knowledge management (Lin & Kishore, 2021; Yates & Paquette, 2011).

In general, healthcare knowledge management can be supported by a set of technologies, such as social media (Lawton, 2001), but the role of social media for healthcare knowledge management not yet been well identified based on physicians experiences and perspectives (Ford & Mason, 2013; Hemsley & Mason, 2012, 2013; Jarrahi & Sawyer, 2013; Nissen & Bergin, 2013; Zheng, Li & Zheng, 2010). The present study attempts to identify the supportive roles of social media in three healthcare knowledge management processes: decision-making, health knowledge popularization, and healthcare process empowerment by analyzing physicians' perspectives and experiences. The results of this study could provide an introduction to a better understanding of social media capabilities for physicians to contribute more actively to healthcare knowledge management. In the present study, the authors selected seven categories of social media based on the Mayfield (2008) study, including social networks, blogs, wikis, podcasts, forums, content communities, and microblogs. This study answers the following questions:

- RQ1. What are the supportive roles of social media in physicians' decision-making?
RQ2. What are the supportive roles of social media in popularizing health knowledge?
RQ3. What are the supportive roles of social media in healthcare process empowerment?

Literature Review

Social media facilitates decision-making by diffusion of ideas, collaboration, crowdsourcing, and collective intelligence (Irani et al., 2017). Particularly in emergencies, disasters, and contingencies, in which decision-making is vital and where social media is used as a resource of information, communication tools, and information exchange space (Yates, 2016). Also, it can be said that social media contribute to problem solving by providing a place for discussion and presentation of new ideas and by making awareness of events (Kargaran, Pour & Moeini, 2017; Mantymaki & Riemer, 2016; Razmerita & Kirchner, 2011). The interactive nature of social media has accelerated the process of sending and receiving knowledge and substantially reduced cost and time. Based on access to the right information at the right time and place, this function can help strategize different knowledge-based activities (Patino, Pitta & Quinones, 2012).

Web-based models such as crowdsourcing and open innovation allow people to share content on a massive scale (Bebensee, Helms & Spruit, 2012; Hashim, Abdullah & Ali, 2015; Redecker, 2009; Sultan, 2013). Social media encourage workers to, both implicitly and explicitly, participate in communities and engage in knowledge exchange with other co-workers to improve knowledge-workers' productivity. For example, social networking reduces knowledge stickiness by improving sharing knowledge of "who knows what" and "who knows whom" which are defined as "meta knowledge" (Leonardi, 2015; Shahmoradi et al., 2015).

Social media enhances physician interaction and understanding of problems, observing other users' activities, and developing evidence-based medical education (Ghanbari, Purkiani & Selajgeh, 2022; Gholami-Kordkheili, Wild & Strech, 2013). Social media can promote clinical education (Luo & Ing, 2022; Von Muhlen & Ohno-Machado, 2012) and can be a good platform for providing some counseling services and lay the groundwork for the promotion of people's health (McGowan, Wasko, Vartabedian, Miller, Freiherr & Abdolrasulnia, 2012).

Social media provide new opportunities to popularize knowledge (Boateng, 2016; Irani et al., 2017; Patino et al., 2012; Yates & Paquette, 2011). Increased access to health information, increased likelihood of receiving peer support, and greater supervision of public health processes have been some benefits of using social media in a health context (Alsobayel, 2016; Chretien & Kind, 2013; Goodyear et al., 2021). Establishing health communication is another role of social media in support of health knowledge management processes. This communication tool enhances individual interactions, increases access to health information and sharing information, facilitates emotional and social support, and promotes prevention in public health (Moorhead, Hazlett, Harrison, Carroll, Irwin & Hoving, 2013).

Social media makes health information more popular, documentable, and accessible through automated data acquisition techniques such as feed push and pull technologies (Rodriguez-Gonzalez, Ruiz & Pujadas, 2016). For example, PatientLikeMe is an individualized health network that allows users to capture several aspects of their health status online as well as connect persons with similar conditions so that they can attain new ideas and experiences to improve their well-being (Antheunis, Tates & Nieboer, 2013; Lee, Choudhry, Wu, Matlin, Brennan & Shrank, 2016; Tempini, 2015). Similarly, social media provides an attractive

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environment for popularizing health information (Tempini, 2015). The interactive nature of social media has accelerated the process of medical information documentation (Patino et al., 2012). One of the main reasons physicians used social media tools was to document and store their professional experiences, lessons learned, or some important information they found in the literature (Scarso & Bolisani, 2020). Examples of documenting implicit information in a text format included particular tips, individual ideas, and professional opinions written down during chats and discussions. Documentation of tacit information may not be limited to just storing it in explicit forms; it can also be stored in the relations initiated and developed on social media (Giustini, Ali, Fraser & Kamel Boulos, 2018).

Social media supports the empowerment of healthcare processes and is used by health service providers to gather patient data to improve quality (Walsh, Hyett, Juniper, Li, Rodier & Hil, 2021). Some health service provider uses social media for planning by gathering data from posts made by individuals about their care experiences, by using open social media platforms to invite feedback on services, and by using private social media spaces to discuss and provide feedback on the quality of their services (Lin & Kishore, 2021; Scanlan, De Sales, Lim, & Roehrer, 2022). Social media was used to create specific interventions, products, or resources and as a platform to facilitate improved communication between service providers. It was used to improve identifying, reporting, and responding to specific health, evaluating activities, and monitoring health service adherence to national standards (Goodyear et al., 2021). Most previous studies demonstrated whether the activities improved the health service or impacted patient experience or outcomes. Using social media to educate staff about existing guidelines or clinical pathways to standardize treatment approaches (Farsi, 2021).

Materials and Methods

In the present qualitative study, some active Iranian physicians in social media were contacted by telephone, email, telegram, Instagram, and other social media tools. Only physicians who met the following criteria were invited to participate in this study: 1) Iranian physicians with at least one year of experience in the medical profession. 2) Active Iranian physicians who use social media at least three to four times a week to communicate and share health knowledge with colleagues or patients. After recruiting some participants who responded to the electronic announcements, additional participants were recruited by purposive and snowball sampling. In snowball sampling research, participants are asked to assist researchers in identifying other potential participants (Handcock & Gile, 2011). In other words, in snowball sampling, researchers reach study samples through acquaintances who recommend other participants who meet the inclusion criteria (Biernacki & Waldorf, 1981). This study used semi-structured interview guide forms to collect data (Appendix). All interviews were conducted in person or via telephone. Interviewing was begun in December 2018, conducting pilot interviews and was finished in August 2019, before covid-19 pandemic, by telephone. The average time of each interview was about 25 minutes.

This qualitative study used a data saturation approach to ensure the interview's adequacy. Data saturation refers to the point in the research process when no new information is discovered in data analysis, and this redundancy signals to researchers that data collection may cease (Choo et al., 2015). In this research, data saturation emerged in the 28th interview. After the initial transcription, the text of the interviews was returned to the interviewees to ensure data trustworthiness. The codes were extracted by one of the authors. We recruited three other

researchers with social media experience in the health context to review and revise the extracted codes and ensure data reliability.

This study used MAXQDA 10 content analysis software to analyze interviews. All recorded interviews were transcribed and entered into MAXQDA 10. After preparation, the thematic analysis method was applied to identify the role of social media in facilitating health knowledge management. Therefore, physicians’ perspectives and experiences are the primary units of observation in the study. Accordingly, health knowledge management and social media benefits constitute the study's unit of analysis. In this study, researchers used open coding for data analysis. Duplicate codes were deleted, and marginal codes were removed. After merging the similar codes, we classified codes based on meaning similarity under broader categories. The process of identifying themes in the study began with transcribing interviews, where the emerging preliminary themes were documented in the memo for each interview. The codes and categories that had appeared in previous steps were reviewed and challenged multiple times against the main research question, “benefits of social media for healthcare knowledge management”, to determine the main themes of the study. Finally, eight identified roles are classified under three benefits of social media, including supporting decision-making, popularizing health knowledge, and empowering healthcare processes.

Results

According to Table 1, the male interviewees accounted for most (57.14%). Among the interviewees, the highest professional experience of participants was between 3-10 years (64.28%).

*Table 1
Demographic Information of the Participants*

		Frequency	Percentage
Sex	Male	16	57.14
	Female	12	42.86
Age	27-37	10	35.72
	38-48	9	32.15
	49-59	8	31.56
	60-70	1	3.57
Work time experience	3-10	18	64.28
	11-20	8	28.57
	More than 21	2	7.15
Workplace	Hospital	9	32.14
	Individual office	12	42.86
	Clinic	7	25.00
Experience using social media	1-3	15	53.57
	4-7	9	32.14
	More than 8	4	14.29

According to Table 2, a total of 111 initial codes were extracted from the content analysis of the interview. The codes were categorized into three main themes, such as benefits, and eight sub-themes, such as the role of social media in facilitating health knowledge management. This table also shows the frequency of codes in the data by indicating coding references (number of statements made by the participants about each code) and coding sources (number of

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participants who talked about each code). These frequencies, however, do not necessarily imply any degree of significance of the concepts identified.

Table 2

Supportive Roles of Social Media to Healthcare Knowledge Management from the Physicians' Perspectives

Theme	Sub-theme	Coding references	Coding sources
Supported decision-making	Facilitated peer-to-peer assist	16	13
	Increased benchmarking	10	9
	Virtual community of practices	11	9
Popularized health knowledge	Developed public health education	21	15
	Disclosure knowledge claims	11	8
Empowered healthcare processes	Developed post-treatment follow-up	18	12
	Facilitated health counseling presentation	13	11
	Promoted health awareness	11	8
Total		111	28

Figure 1 shows the coding scheme structure and presents the relationship between founded themes and subthemes.

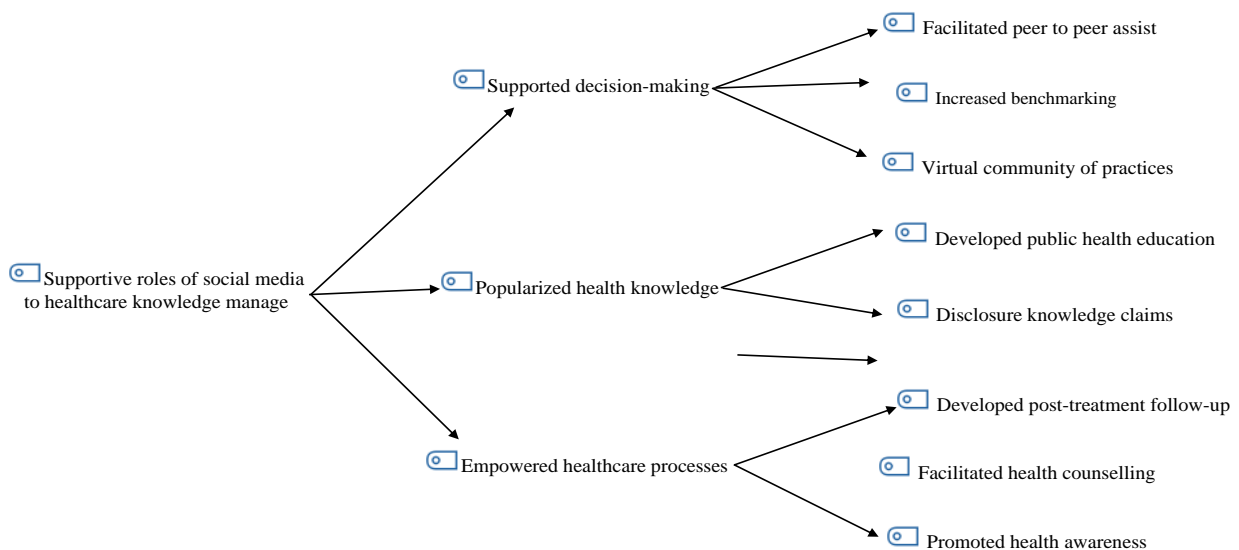


Figure 1: MaxQDA Graphic Output of Codes

RQ1: Social media supporting physicians' decision-making

Most participants said that professional interaction in social media can influence physicians' decision-making and fix some of their scientific deficiencies. In addition, some interviewees stated that patients can make better decisions using the interactions created through social media. In this study, participants said that professional interactions in social media could support their decision-making in three ways: facilitating peer-to-peer assistance

from other colleagues, enhancing benchmarking, and simplifying the creation of a virtual community of practices.

According to most interviewees, the networks and groups based on social media have led to consultations regarding problems and the assistance of other colleagues. These groups discuss the best ways to do the work and sometimes share experiences and skills. Regarding some patients with multiple health problems, several interviewees stated that different medical specialists must consult and select the best practices. In this situation, using social media has been one of the ways to make better decisions. In this regard, these participants use online or offline communication based on social media. For example, in interview number 6, with emphasis on the age factor in drug dosage determination, it was stated that:

"It happened to me that I didn't know how to prescribe the dosage. The patient was a child and I had to be very careful. I asked from a more experienced colleague through social media."

According to the findings of this study, participants considered benchmarking on social media as one of their favorite ways to make better decisions. By referring to the informal medical information and irrelevant health resources on social media, some participants stated that they only use social media when factors such as identity verification and content-generating expertise are clear to them. Moreover, some interviewees stated that in some cases, such as understanding how a diagnostic tool works that is not directly related to a patient's health, their sensitivity to using other professional patterns is reduced. For example, interviewee No. 5 stated that:

"I wanted to know more about Laryngoscopy. ... I searched for it on the channel I was a member of. Then, after a while, I saw its multimedia clip. After seeing some of the videos released by others on these social networks, I gained particular skills in using this device. "

In this study, some interviewees stated that establishing virtual working communities through social media has kept information up to date and played an essential role in some of their decisions. Several interviewees stated that due to the expansion of medical professionals' activities through social media, access to medical knowledge has become easier than in previous years. Gathering specialist physicians in one of these virtual communities is one of the prerequisites for becoming aware of current activities and acquiring knowledge that can also influence clinical decision-making. Former colleagues, physicians with relevant expertise, and professional communications are common factors in forming virtual work communities. In the seventh interview, it was stated that:

"One of the common uses of social media for us is to search into an area of interest, find people, and share information with them. Communities that share knowledge in a working field or on a medical issue can be formed in these spaces. "

RQ 2: Social media and health knowledge popularization

In this study, some participants, by referring to the current shortcomings in accessing reliable health knowledge based on age, sex, and educational characteristics of the general public, mentioned social media as a viable solution to this problem. In these interviews, they said that social media can be used to provide health information in a simple language that fits the broader audience. The study found that two sub-themes, "developing public health education" and "disclosing health claims," are two functions of social media to popularize health knowledge.

Many participants stated that, given the lack of public medical information resources,

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social media could be a proper solution for developing public health education. More than half of the interviewees stated that much of the medical content available on social media was incomprehensible to ordinary people. In addition, the presence of physicians on social media leads to awareness of patients' information needs and a better understanding of patients' lifestyles. Promoting disease prevention can be one of the most critical roles of social media in publicizing access to health knowledge. In this regard, it was stated that formulating information policies based on social media could be one of the methods of widespread dissemination of health messages related to prevention. In this regard, interview number four stated that:

"Raising community awareness is one of the most popular social media training considering the average community knowledge and audience awareness because highly specialized training leads to boredom or running away from training. We have to present our knowledge to the level of community understanding. "

The present study found that the widespread activities of non-professionals in social media solely for commercial and economic purposes caused some concerns. Less than half of the interviewees stated that using this inaccurate information endangers public health due to the lack of health information literacy. According to these physicians, professionalism in social media has created an opportunity to become aware of quasi-medical activities.

Although several interviews stated that the emergence of social media was one of the advertisement activities accompanied by widespread dissemination of pseudo-medical information, the health professional's activities in social media could be one of the opportunities to effectively inform the public about the dangers of invalidating health information. On this basis, social media professionals can easily find accurate or inaccurate information by comparing this information with their knowledge.

RQ 3: Social Media Empowering Healthcare Processes

According to most interviewees, social media can be used to deliver applicable knowledge to patients discharged from hospitals or medical centers because of the lack of post-treatment follow-up for patients and the lack of medical educational personnel to provide essential information. Physician-patient interaction through social media has also provided health counseling and, through expanding the dissemination of alerting messages, encouraged the public to follow up on their health status.

Having emphasized the importance of post-discharge care in improving health, more than half of the interviewees considered a lack of information about primary care after treatment and that they had not received any training as one of the patients' reasons for returning to treatment centers. Interviewed physicians have individual and organizational attitudes toward using social media for follow-up. In the organizational attitude, some interviewees stated that at this level, one could predict patient information needs by extracting frequently asked questions, preparing appropriate content, and making it available through social media. Interviewees mentioned lower costs, more free time for medical staff, and reduced patient referrals as three advantages of using social media. In this regard, participant No. 10, as a physiotherapist, stated:

"I post the most common corrective exercises on the site or channel to train them. I also give them an address when they are discharged so that they can see and do the same. This had reduced the next calls and questions of the patients."

In this study, some physicians stated that they have used social media to provide health

counseling to address patient ambiguities about using medications and preparing for tests. In this case, it was stated that the fear and stress caused by some clinical interventions, such as surgery, can be reduced by the presence of patients on social media and through consultation with physicians or by acquaintance with other patients' experiences. In this regard, participant No. 5 stated that:

"Someone who has never had surgery is scared of the first time. But when I saw a post about surgery, someone commented, "I have undergone surgery. It was like I laughed during the operation; I joked with someone during the operation. So the patient's fears are reduced and he knows it."

Less than half of the interviewees stated that widespread access to health knowledge through social media has made people more aware of different diseases. It was said that being aware of the early symptoms of the disease could be one of the conditions needed to persuade people to keep track of their health. In this case, it was also mentioned that some people who refuse to see a doctor for various reasons said that continuous reproduction of basic health knowledge along with the risks of multiple diseases through social media could be a method to encourage these people to go to health centers and perform initial medical testing. In this regard, interviewee No. 2 stated that:

"Every patient visiting me now knows something about their condition and examination. Of course, he was curious about this and asked or read somewhere. When we asked him who told you that? Says: I saw this in that group and asked this from that person (McGowan et al.)."

Discussion

Our findings showed that social media can support decision-making, popularize health knowledge, and empower healthcare. This study showed that "peer-to-peer assist" was physicians' first social media function to support decision-making. In this regard, it was found that by using social media and communicating directly with colleagues, physicians used methods such as forming groups and working teams to discuss problems or the best practices. In other studies, supporting decision-making is one of the uses of social media (Vuori, 2012). Previous studies also suggested that physicians' use of social media was one of the reasons for improved communication with other physicians (Giustini et al., 2018). Social media can also be a useful tool to support peer-to-peer activities (Zhang, Fan, Yao, Hu & Mostafavi, 2019). Learning from colleagues, discussing clinical problems, counseling a specific patient, and coordinating care team interactions are other benefits of using social media for physicians (George, Rovniak & Kraschnewski, 2013; Luo & Ing, 2022). Information about patients' views and experiences through social media can also help physicians' decision-making (Kallinikos & Tempini, 2014). Also, supporting decision-making based on the use of knowledge available is facilitated through social media. Creating, gaining, and sharing knowledge and patient information are two other functions of social media to support decision-making (Bordoloi & Islam, 2012).

"Benchmarking" was another identified use of social media in this study to support physicians' decision-making. Some participant stated that their sensitivity to use benchmarks was less in non-therapeutic activities if content validity and content-generating expertise had been apparent. Some physicians in this study suggested that social media has made it easier to "create virtual teams" as an informal approach to knowledge exchange and supporting decision-making. Accordingly, virtual team creation based on common interests is an example of social

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media applications facilitating decision-making. Related studies have also shown that utilizing social media to create virtual communities can support clinical decision-making by facilitating experiences and opinion sharing among physicians (Rolls, Hansen, Jackson & Elliott, 2016). Social media have created virtual communities among physicians in five ways. These tools could form professional groups for conversation and knowledge sharing, facilitate the creation of virtual networks among physicians, facilitate networking between physicians, and provide the basis for the development of medical science by developing professional interactions. Social media has also provided easier ways for physicians to receive clinical recommendations and opinions (Gaál, Szabó, Obermayer-Kovács, & Csepregi, 2015; Rolls et al., 2016).

The physicians participating in this study pointed out that social media can be a tool for publicizing health knowledge. The two functions include public education development and disclosure of knowledge claims. Social media supports knowledge sharing (Gaál et al., 2015) and continues education through the development of knowledge sharing, enhancing physician interaction and understanding of problems, observing other users' activities, and developing evidence-based medical education (Ghanbari et al., 2022; Gholami-Kordkheili et al., 2013). Social media can promote clinical education (Von Muhlen & Ohno-Machado, 2012), be a good platform for counseling services, and lay the groundwork for promoting people's health (McGowan et al., 2012). Social media use has also affected facilitating health knowledge translation, promoting evidence-based medicine, and accessing quality health information (Puljak, 2016).

Based on the results of this study, the physicians' activities in social media can provide an opportunity to become aware of quasi-medical activities. Quasi-medical materials are for commercial and economic purposes only and may present risks to users as their scientific credibility has not been proven yet. In a similar study, referring to the massive amount of fake health information on social media for the Chinese language, two solutions were proposed to solve this problem. The first solution was to improve their health literacy by providing a list of user guides. It was also stated as a second solution that health information systems should be designed to be capable of filtering fake information to improve the quality of health information (Li, Zhang & Wang, 2017).

According to the present study's findings, social media can facilitate healthcare processes by supporting three functions: facilitating the post-treatment follow-up process, providing health counseling, and encouraging health awareness. For the first role, it was announced that due to the lack of post-treatment follow-up and medical education personnel, social media could be an appropriate solution to meet some of the information needs of discharged patients.

One of the benefits of social media is improving patients - physicians communication; it can also provide the right information, raise awareness, and facilitate the exchange of ideas, which can improve patients' motivational therapies (Chen & Wang, 2021; George et al., 2013). Also facilitating patient communication and sharing information about the condition, symptoms, and treatments can be part of the function of social media for patient education (Saleh, Robinson, Kugler, Illingworth, Patel & Saleh, 2012). Following up on health and accessing medical information are among patients' most important uses of various social media tools, including email, social websites, and Facebook (Lee et al., 2016).

Based on the findings, some physicians use social media to provide health counseling aimed at resolving patient ambiguity in situations such as how to take medication, preparation for examinations, or stress reduction in some clinical interventions. Analyzing the

empowerment of patients through social media can identify five functions: educational, informational, networking, research, and support roles (Househ, Borycki, & Kushniruk, 2014). The capability of some social media to provide health counseling also has a significant effect on increasing the likelihood of using health services (Chen & Wang, 2021; Mano, 2014).

Conclusions

The findings of this study indicated that, Firstly, social media supports physicians' decision-making by facilitating peer-to-peer assistance, increasing benchmarking, and virtualizing the community of practices. Secondly, physician activities on social media can popularize health knowledge by developing public health education and disclosing knowledge claims. Third, social media empower healthcare processes by improving post-treatment follow-up, supporting health counseling presentations, and promoting health awareness. Physicians' experiences and perspectives showed that social media can support healthcare knowledge management implementation. Although the results of the present study showed that physicians' activities on social media can have different supportive roles for health knowledge management, Considering the wide range of social media tools, each tool has other effects on health knowledge management. One tool cannot be said to play all the roles extracted in this study.

The present study had the following limitations: 1) lack of cooperation of some qualified physicians and specialists to participate in the study. 2) Some physicians widely use social media for advertising purposes. 3) Due to delayed interview time and due to the busyness of some physicians and despite frequent follow-ups, the research team was unable to interview five qualified physicians. 4) The phone call quality of several interviews was poor, and the research group was forced to listen to it several times to transcribe it. 5) Two interviews were left unfinished due to the interviewee's request to leave the interview and were eventually excluded from the study. 6) For the sake of a small sample and limited to Iran, the generalizability of the findings is limited.

Based on the results of this study, these topics are suggested for future research: 1) Identifying the advantages and disadvantages of using social media in healthcare knowledge management based on the viewpoints of different healthcare and clinical care provider groups, 2) Identifying individual and organizational factors affecting physicians' acceptance of social media for participation in the health knowledge management cycle, and 3) Designing a special model for health knowledge management based on social media.

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Conflict of interest statement

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Appendix

Interview Steps

1. Welcoming the interviewee and introducing the interviewer
2. Providing a brief overview of the research to the interviewee and encouraging her/his to ask any questions about the research
3. Inform the interviewee about recording the interview and ask her/his permission. The interviewee will also be reminded that they can withdraw from the study at any time of the interview.
4. Ensuring the interviewee that all information will be treated confidentially
5. Start the interview by providing definitions of the main terms of the topic, experiential knowledge, and social media, and ensuring that the interviewee has no difficulty understanding the terms.
6. Begin the interview by asking the main questions outlined below. Asking sub-questions and probe questions when it is appropriate and applicable
7. Finishing the interview by thanking the interviewee and informing him/her that the interview transcript will be returned for their perusal and revision.
8. Asking the interviewee if s/he recommends anyone else who might be interested in the topic

Interview Questions

- Q1.** Can you tell me a little about your job? How long have you been working?
- Q2.** Could you tell me about the benefits of using social media for professional decision-making?
- Q3.** Could you tell me about the benefits of using social media for popularizing health knowledge?

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Q4. Could you tell me about the benefits of using social media for or empowering the healthcare process?

Q5. Could you describe some situations in which you use social media to make decisions, popularize health knowledge, and empower the healthcare process? Please explain.

Q6. Could you give me some examples of using social media to make decisions, popularize health knowledge, and empower the healthcare process?

Q7. Is there anything else you can tell me about social media and decision-making, popularizing health knowledge, and empowering the healthcare process?