Understanding Knowledge Sharing Barriers in Indian Health Care Sector: A Qualitative Inquiry

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ABSTRACT --In todays information world the medical field is undergoing though a series of burgeoning changes. This has led to a situation where diagnosis and treatment interventions are affected by information shared between various members of a medical team comprising of physicians and other health care professionals.This paper investigates how information exchange occurs between various health care professionals and on barriers in sharing knowledge . This paper discusses on two type of knowledge : implicit and explicit in nature. The researchers have adopted a qualitative approach to identify knowledge enablers and barriers in health care setting. The study helped in identifying that communication and trust were essential in facilitating teamwork across diverse organizations (or entities).Further it add that . Miscommunication may lead to misunderstandings affecting task management, workflow, and, eventually, care of patients. Two ways of solving the communication barrier are by turning implicit knowledge into explicit knowledge and by organizing seminars to various parties on the topic.

Keywords--Knowledge sharing ; Health care; Barriers to Knowledge sharing; Knowledge Transfer;India

I. INTRODUCTION

In a highly competitive scenario, an employee's knowledge is considered to be the most critical resource and holds the key to innovation (Grant 1996; Davenport & Laurence Prusak 2000; G. von Krogh & Grand 2002). A quick review of literature showcases that the implicit and explicit knowledge possessed by their members has contributed towards their competence and innovation. Henceforth organizations engage in knowledge management activities at all levels to facilitate change and remain competitive. The Know-how and best practices followed will pay off only when it is propagated among various units and members of a particular organization. Knowledge sharing mainly upon the effort spent on building and managing knowledge bases and in inculcating an organization-wide knowledge sharing culture and mechanism.

Knowledge sharing(from now on denoted using the acronym K.S.) is indispensable for success in a sector like health care for delivering excellent patient-centered service. It has been universally acknowledged that a mechanism that focuses on knowledge creation, storage, sharing, and utilization are quintessential for resolving challenges that arise in the field of medicine every day and will help in improving the quality of health care (Abidi, 2007; Nicolini et al., 2008; Zhou et al., 2010). Knowledge sharing in patient-centered health care set up is a crucial

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strategy to build a competitive advantage (McEvily et al., 2000) across the globe. For the operationalization of this study, we have adopted the definition provided by Abidi (2007)

His description of the knowledge sharing in the health care sector is as follows:,." the explication and dissemination of context-sensitive healthcare knowledge by and for healthcare stakeholders through a collaborative communication medium to advance the knowledge quotient of the participating healthcare stakeholders."

The above definition can be further expanded as the exchange of knowledge between health care professionals across domains and units. Knowledge sharing should happen by via of designated channels for a collaborative interface that exists between professionals, so that information about the patient is readily accessible and is utilized for providing quality health care and in achieving patient satisfaction. The different types of knowledge related to health care can be classified as (1)Technical Knowledge, (2) Ethical and emotional knowledge, and (3) social and behavioral knowledge.

Technical knowledge consists of diagnosis about patient health conditions and related problems, a well-documented summary containing causal factors of patient present health state along with objectives of patient care, treatment strategy devised a narrative about which specific patient requirements and needs(Smith, 1996).

The ethical and emotional knowledge deals with aspects such as feelings and emotions of patients, learning about their state of mind, negotiation style adopted to persuade and manage the Individual patients, ultimately resulting in a futuristic healthy professional-patient relationship (Fennessy and Burstein, 2007).
The social and behavioral knowledge dimensions have connected the ability to predict the behaviors of other fellow beings and patients, perception about the implied needs of patients, aptitude to understand their expectations and reaction (Fennessy and Burstein, 2007).

Examination of existing literature reveals that the transfer of technical knowledge happens in a seamlessly effortless manner as this kind of experience is more comfortable to share and often documented in detail in patient-related records. Also, healthcare professionals have their schema of analyzing and understanding things, and henceforth technical insights need not be prominent Guo, 2006; Yang, (2005). The ethical and emotional knowledge and cultural, behavioral knowledge are something which a medical professional garners out of his or her experiences and from effective interactions with patients, their relatives, and significant others in their communities. Henceforth w the difficulty level associated with the sharing of this type of knowledge, tacit is much higher than that involved in the sharing of technical expertise. In the health care sector, physicians, nurses, other professionals, and Support staff work as a single team with a clear goal of providing maximum care for a patient. To summarise, it can be considered as a collective effort by a team of people is possessing knowledge of unique nature and far different professional traits for attaining a common goal. A single group can have all the necessary skill sets and experience required for solving complex health care problems and inevitably involves teamwork.
In health care, the need for collaborative works is by and far is quite high when compared with other organizations because of the functional dependency of the service provided and requires an interface between a lot of departments and experts for providing a holistic solution Ryu et al. (2003).

Although experts think that knowledge sharing practices occupy a central role in management, it is quintessential to have predefined norms about the nature and volume and procedures for knowledge sharing with different actors in the system. Indiscriminate sharing of knowledge may result in losing the advantage gained out of the expertise. Much research has been carried out in the domain of knowledge management and knowledge

sharing that defines the importance of knowledge sharing and knowledge management process. It is noteworthy to state that the nature of knowledge affects knowledge sharing. Explicit knowledge is often shared through well-documented mediums and easily accessible channels, whereas tacit knowledge is shared through means of socialization, observation, and by attending on the job training(Nonaka and Tacheuchi, 2007). Though numerous studies deal with various ways of knowledge sharing and its impact on organizational effectiveness, not much research has happened that discuss factors that affect knowledge sharing in a health care organization. Henceforth it is worthwhile to conduct an inquiry into elements that put stress on knowledge sharing activities in an organization

II.   LITERATURE

We would like to present some of the critical factors that affect knowledge sharing in a health care setting with the help of available research. Existing literature highlights that the reliability of resources, the motivation level of an expert to share the knowledge, and the skill level of team members in learning and applying a novel idea or new knowledge influences knowledge sharing that takes place in an organization, Kwok & Gao (2006).

Riege(2005) has classified these factors into three broad categories, namely individual, organizational, and technological barriers, which can disrupt knowledge sharing in any organization. Jabur (2007) juxtaposes two views of knowledge sharing that exists among physicians in his work. In his work, he underpins the importance of knowledge is sharing in research and education intensive hospitals as physicians at university hospitals necessarily have to be research-focused and creative in medical care and in applying novel learning tools and techniques. In his study aimed at examining knowledge sharing and transfer practices among physicians, the researcher highlights that medics share their knowledge with their team members and significant others. Such practices help quite often for the completion of specialized tasks and believe it as a display of professionalism. The participants of this study conducted by Jabur (2007) are of the view that knowledge sharing should be a voluntary initiative from the part of physicians as it contributes positively to the service provided by a healthcare organization. However, it is also observed in the study that the younger physician has expressed their discomfort about the excessive workload and negative attitude displayed by senior surgeons towards knowledge sharing. In a survey carried out by Köseoğlu et al. (2009) among physicians of state hospitals, the findings demonstrate that the organizational factors can influence organizational knowledge sharing, which is followed by individual and technological aspects.

The literature in this field indicates that for successful knowledge sharing to take place, two necessary conditions(Szulanski (1996) have to meet. The foremost one is that the ideas must be in a form that is easily understandable and accessible so that one can interpret, use, and share it with others. The second necessary condition is that people should be willing to share their tacit knowledge with others so that it benefits the entire organization. Syveiby (1997) put forth the view that the majority of the issues related to barriers in knowledge transfer and sharing develop from various actors' mindset and get developed over some time. Lin, (2010) observes that knowledge sharing practices were affected by the horde of factors. Management support, complemented by rewards, and technological support, facilitated knowledge sharing practices (Ismail, 2010). In a study among conducted Malaysian public agency executives, factors such as awareness about knowledge sharing and trust between staff were found to be correlated with knowledge sharing practices   (Yallow, 2011). Studies conducted

by Ethiopian Researchers(Gizew Dessie,2017; Asemahagn MA, 2014) highlights that elements such as trust among employees, Support from top management, motivation to share, Technological platform and opportunity for sharing knowledge, and intention to share act as predictors of knowledge sharing attitude among health care workers

It is noteworthy of quoting that the medical profession by design is practice-oriented, and in such professional knowledge is treated as an individual property, and when it gets shared as is also considered as an organizational asset. Henceforth it becomes imperative for health care organizations to engage in practices for strengthening and protecting such assets. This study aims to identify factors that affect knowledge sharing in a health care setting as it will help in improving knowledge sharing practices and thereby strengthens the organizational learning

Knowledge sharing happens only using socialization (Nonaka and Tacheuchi, 1995). There exists a common belief that the knowledge that is too technical and derived out of an individual's experience, otherwise known as tacit knowledge transfer, will take place only through closer interactions that happen between individuals. The same applies to health care also as it heavily relies upon the communication that takes place experts and patients and support team. One of the main challenges faced by medicos is that associated with the management of a bulk quantity of information that they receive in the form of documents, databases, researches, reports, etc. As a result of this overwhelming load of information, medical professionals find it extremely difficult to extract accurate information, whether implicit or explicit. The excess amount of information further delays the process of decision making and hinders the effectiveness of services. Many of the time, better ideas are lost in this unexpected flow of information, and the cost of underused knowledge is quite high. Bolsters our earlier argument that knowledge sharing should transform from a process to skill, and it is vital to understand the barriers that constrain effective knowledge sharing. Hi

Nine barriers in knowledge management initiatives were identified by Singh and Kant (2008), namely lack of commitment from top management, inadequate technological infrastructure, lack of a proper mechanism, absence of well defined organizational structure, Non-existence of a conducive corporate culture, Lack of recognition and motivation, Superannuation of staff. Unwillingness among employees to bear ownership of a problem and defection of employees. Kothari et al. (2011) discuss barriers at the individual level and organizational level. Information overload, inadequate training, and demotivated workforce and are identified as barriers at the personal level, whereas corporate boundaries comprised of delay in K.M. implementation, poorly defined organizational structure, shortage of resources and employees, and conflicting objectives. Patil and Kant (2014) have listed five main barriers that hinder adequate knowledge sharing, namely, strategic barriers, organizational barriers, technological barriers, cultural barriers, and individual barriers. They opine that among all both imperative as well as regulatory obstacles mainly affect the knowledge sharing process in the health care sector.HHsiao and Chen (2015) have identified eight hurdles for setting up a Knowledge management mechanism in a health care setting. These factors include the nonsupportive attitude of physicians and staff towards K.M. initiatives, task ambiguity prevailing among employees complex technology, compatibility issues with technology adopted by various units, perceived ease of technology use, perceived usefulness of K.M. initiatives, and Support from different organizational actors.

Karamat (2018), in a study among the Pakistani health care sector, highlights that the absence of Support from top management, poor strategic planning, and inadequate support from the existing organizational structure are the key barriers in knowledge management in the healthcare of Pakistan.

The significant barriers that restrict knowledge sharing consist of lack of evidence-based decision making; lack of emphasis on patient-centered health care; unstructured knowledge management practices followed by an organization that results in information overload; Resource constraints in knowledge sharing, storage, and retrieval(Gider, 2015). These barriers exert significant pressure on health care organizations to marshal their knowledge, both explicit and implicit, at different levels among different actors in the field. This can be achieved only using transforming individual experience into organizational assets and by sharing with the needs of various members. This can be achieved only by conducting an inquiry into the prevailing situation in the area where we can address an array of research questions

RQ1: What extends does the existing environment facilitate Knowledge sharing and transfer?

RQ2: What are all the barriers that they face while communicating to share knowledge?

RQ3: What are the relationships between these barriers?

III.   SCOPE OF THE STUDY

The study will help in exploiting the opportunities for superior quality Knowledge Transfer and Knowledge Sharing. Further, while conducting a review of the literature for the examination, we could identify several studies that discuss barriers to knowledge management. However, not many studies in knowledge management literature discuss issues in K.S. in the health care sector. To be precise, there was no paper regarding barriers to K.S. in the health care sector in a nation like India, which is having one of the fastest emerging markets. .The identification of barriers will result in better knowledge management practices.

Further, this study will also help in identifying the interrelationship between various barriers and their successful elimination. A study upon barriers in knowledge sharing will help in re-examining the areas identified in the literature as it is validated in a diverse environment. Though there may be common barriers prevalent across sectors, all of them need not have to be present in the health care setting. Hence the study facilitates updating the existing list of knowledge is sharing barriers.

The study will contribute to the effective implementation of a K.S. mechanism in the Indian health care sector. Further, a study about barriers prevailing in a health care setting could help in designing innovative processes and procedures for disabling resistance to knowledge sharing. The outcome of such a design might get translated to an improvement in productivity levels leading to a higher degree of competitive advantage.

IV.   THE STUDY

The researchers have carried out an extensive literature review to identify critical factors that act as Barriers in knowledge sharing in various domains, including crucial research carried out by (Riege, 2005; Patil & Kant, 2014; Masingham, 2014).

similar studies carried in the health care sector by (Gider, 2015; Karamath 2018) and have extracted three barriers as the representative parameters. A qualitative approach was followed for the study. An in-depth interview

was conducted in the medical college of the leading university in South India. Nine Doctors from multiple disciplines, namely pediatrics, community medicine, oncology, dentistry, oncology, and general medicine, were interviewed.

The interviews were nondirective in nature and face to face. The discussions were held based on three themes 1) Knowledge sharing practices followed in health care sector2) Barriers experienced by health care professionals in Knowledge sharing practices 3) The benefits of Knowledge sharing practices. Out of nine Doctors interviewed, five were experienced professors or were holding the position of Head of departments, and all of them have actively participated in knowledge sharing initiatives across different phases of their carer.

The data analysis was performed by using the qualitative content analysis method (Berelson, 1952). The interview recordings were transcribed verbatim by the authors. Each interview lasted around approximately 40 Minutes. The transcripts were carefully labeled with the date of the meeting. Each of the physicians was assigned with code, and their specialty was mentioned.

The researchers put in the effort to reclassify the text into independent statements that are of educational value. Each account was representative of a single topic. A team of 3 researchers at our institute working in a related area, who are trained in the content analysis, independently coded the text to identify the enabling factors and inhibiting factors of knowledge sharing in a health care system. Once the coding process was finished, we took help from fellow researchers who is well versed in qualitative methods for validating the coded themes. Wherever there is a disagreement over codes, the entire team sat together and arrived at a consensus with the help of this independent expert.

V.   THEMES DERIVED OUT OF THE STUDY

Technology as an enabler :

The significant change that has enabled knowledge sharing is the emergence of the Internet. Physicians can have more access to update themselves on specific diseases and disorders. Before this, information was circulated among the experts in the field and was the only group that had information on numerous diseases and disorders. These websites allowed young physicians to explore more and gain access to both explicit and implicit knowledge about contemporary trends, which were earlier scattered across the globe. However, like many other changes, the websites have not been free from errors and negatives. The multiplicity of sites in recent years has to lead to a scenario where there exists a possibility of information explosions /overload, Non validated information.

Further Information that is heavily technical may lead to complexity in understanding by others. Mass implementation of the web-based knowledge-sharing platform has its limitations as it many of such knowledge sharing raises concerns regarding privacy, security, and privileges of individuals

Organizational, Technological and Individual Barriers.

A major theme   that   derived out of   our study is   One of the essential things in a knowledge-sharing process is to look at the various aspects of communication and learning. The most pivotal factor is the modality of notification or to understand how the information is being communicated?.

It is all-important to know how various activities controlled and managed and how it can affect workflow. The primary purpose of any communication process is to pass the information, which is oral, visual, and tactile, in nature or a combination of all these forms.

However, in the healthcare sector, there is a high probability (more than 70 %) of communication failure in a report published by multiple agencies. Healthcare communication suffers from barriers created by a multitude of factors. The most prominent ones can be named as tangible intangible and natural subjective barriers.
One of the participant shared his feelings in the following words

" I am always busy with lot of routine type of work , Sometimes unresolved issues pile up like anything in my department ans most of time they develop into more complex hurdles .This restrain me from sharing much of crucial observations"

The Tangible communication barriers are a physical barrier that can be eliminated with lesser effort but still hurts knowledge sharing. A not well-maintained conference room and reprographic inadequate audio facilities can distract recipient in listening to a seminar which is rich in content. One of the approaches could be to avoid or remove the factors that create such barriers. A routine maintenance schedule of a conference room in the above case will help in maintaining the attention span of recipients.

"I find it difficult to communicate as I find it difficult to convey my idea or experience using right set of words, There are chances of misundertsnding creeping in converstions because of differences in thought process or in personality"

In a knowledge-sharing set up a significant intangible barrier could be the absence of people having comparable experiences. A majority of the time, this could be a considerable hurdle that prevents knowledge sharing among health care professionals. This could be attributed to dissimilarity in the educational experiences of different physicians and may be due to the difference in their focus area as well as divergence in their professional expertise.Another factor that emerged out of our interaction is about the absence of an amiable organizational climate. This was in line with previous studies conducted in the area (Lingard, Espin, and Whyte).For successful correspondence to occur, patients and medicinal services experts need to take into consideration sufficient opportunity to get to the required data and afterward utilize this opportunity to convey effectively. Efficient communication has a clear purpose, is not lacking in content, and is made of the right audience [14]. That is, all the critical players for whom the data is relevant are available. For instance, the hospital administration should not have a conversation about changing the C.T. scanner without the contribution of the chief neurologist. Another aspect that adds to the climate is the location. As referenced above, the correct location must be picked, and essential visual guides can be promptly provided.

According to Malone [], coordination is "additional information processing performed when multiple, connected actors pursue goals that a single actor pursuing the same goals would not perform." This definition considers that coordination happens when there is more than one team member, and each team member performs various assignments towards a shared objective (Baligh, H. H., 1986; Malone, T. W., 1987). As such, task coordination is done when different tasks are assigned to various members of the team. In most organizations, the work is awarded based on the expertise of employees. Tasks can be coordinated sequentially or simultaneously.

Given that saving time might save a patient's life, preferably, most tasks are coordinated simultaneously. Because it is not always working on tasks simultaneously, it is good to make sense on which all tasks can be

organized simultaneously and which all jobs should be coordinated sequentially. In a health care scenario where many tasks have to be performed repeatedly for patients with similar diseases, protocols, and routines become the focal point of coordination. A person with experience can quickly figure out through trial and error how the tasks can effectively be coordinated to save time and resources. Task coordination and workflow are so closely related that the success of the task coordination system can be measured by observing the workflow. However in certain cases this does not happen ; The following lines highlights it

" The information I receive will be incomplete or too late , which reduces chance of intervention ., There are occasion where I need to be the one who have first had information, but it reaches me offlate "

In a healthcare atmosphere, staff with different duties have to interact to guarantee adequate treatment of the patient. Workflow seeks to coordinate in such a way that knowledge can be expertly compiled to carry out (Vallette, Chafac, Benedict, and Caldwell,2011) interacting tasks without causing harmful interference [24]). Thus, the workflow builds a platform for knowledge to be shared. Workflow has a direct impact on the task coordination system used in the healthcare facility. Hence, task coordination and workflow face similar challenges.

Organizational and situational change act as a significant barrier to workflow and task coordination. Change in this context includes short-term changes such as changes inaccessible data, as well as longer-term change which could happen not just in employee turnover, but technology, diagnoses, diseases, disorders, healthcare insurance policies, and treatment options. Change can become an issue in some circumstances because it can eliminate the need for some tasks. The design of new jobs and a unique organizational system can make existing routines out of date. The following comments from a respondent highlights the same

"There is no avenues or voice or solve conceived problem some times. Once we did not proper intranet for a week and seriously had a lag effect on knowledge dissemination"

One way to tackle change is by incorporating flexibility in the order. Therefore, tasks and methods should continuously evolve based on learning from past experiences and examples. According to Freed et al. (1992), it is fundamental to use knowledge of the current and proposed system's task coordination and execution mechanisms to learn about how these mechanisms might cause failure to avoid recurrence of the same fault.

Task compatibility is one other major challenge for workflow and task coordination. The problem is that how the tasks can be organized such that there are successful task interactions and negligible destructive interference. Freed and Collins (1994) has outlined five compatibility levels between pairs of tasks: (1) mutually exclusive jobs, (2) order sensitive assignments, (3) order insensitive tasks, (4) specification sensitive, and (5) specification insensitive responsibilities. These compatibility levels reduce the complexity of the compatibility challenge. Functions that can be grouped into different coordination processes help them more comfortable to deal with. Mutually exclusive tasks are such that performing one task prevents the successful performance of the other job.

Fundamental to information sharing is collaboration. A large number of the hindrances referenced above can be rendered incapable of capable group rehearses. Active cooperation can be straightforwardly connected to group building and communitarian collaboration. There are issues connected with motivation level of individual which may hinder knowledge sharing.The following quotes clearly highlight the same :

"*I am not motivated to share . It is necessaryone search for themselves , There are occasion where I felt My works is designed in a such way that I should always keeps on probing, and there is no one to ask for help "*

Cooperation begins when the individuals in question (social insurance staff and patient) distinguish themselves as a feature of the "care group." A well-organized group has a sincerely defined chief even although every group member takes possession and responsibility for the performance of their taskOne approach to encourage cooperation is through familiar dynamics. A case of shared momentum is the point at which the leaders of a considerable group looks for and considers contribution from other colleagues when deciding..

VI.   CONCLUSION AND FURTHER RESEARCH

The study determined that communication and trust were essential in facilitating teamwork across diverse organizations (or entities). Approachability is critical for establishing excellent connection and trust. Every individual in the association, particularly the pioneers, needs to put forth a conscious attempt to stay agreeable. This generally originates from putting forth the effort to listen viably to other colleagues and to find a workable pace their partners, including their skill and interests. Actualizing icebreakers, for example, an inviting hello can help open the stream of communication. Robust cooperation relies upon a few components, including trust between group accomplices, to play out their particular errands (i.e., maintaining a strategic distance from micromanagement). At the point when individuals go to a medical clinic, they have some degree of trust that the doctor is going to treat their wellbeing condition. The degree of confidence extends or reduces dependent on their correspondence with social insurance suppliers (Ledford, C. J.,2010; Castro, C. M., 2007;) Also, nurture doctor correspondences can be influenced by the level of collective belief and regard.

One concern in regards to fitting information sharing and assignment coordination in medicinal services is that of viable correspondence among various team members One anticipates finished by one of the creators of this paper is the improvement of an Individualized Wellbeing, Vallette, Chafac, Benedict, and Caldwell(2011)

This paper investigated the sharing of information and the exchange of data between and among the medical experts and their colleagues. The article identified and emphasized two types of knowledge: implicit and explicit. Examples were provided about circumstances that examined where vital information was lost and thus prevented a patient's care. Communicating and working together as a unit is essential for all concerned parties in a patient's treatment plan. Miscommunication may lead to misunderstandings affecting task management, workflow, and, eventually, care of patients. Two ways of solving the communication barrier are by turning implicit knowledge into explicit knowledge and by organizing seminars to various parties on the topic.

One area of further research relates to Wyatt (2001)underutilization of specialists' knowledge due to lack of conducive culture. This lack of communication and teamwork can preclude an affected person's care. It also disallows for creative thinking and creative problem-solving to happen with the affected person and other scientific professionals. An area for future lookup would be to strive to recognize the lack of this tacit knowledge. A second region for research is in the field of technology. As before mentioned, employees are now capable of accessing healthcare records right away with the aid of leaping onto healthcare webs or downloading the identical statistics to their cellular phones.

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