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Assessing the Impact of Knowledge Management Practices on Organizational Learning and Performance: A Study of Govt. Medical College Jammu

Meenakshi Mangotra (Sharma)[1] and Rachna Mahajan[2]

[1]Research Scholar, The Business School, University of Jammu
[2]The Business School, University of Jammu

Abstract

Healthcare has emerged as one of the most progressive and largest service sectors in recent times. But India's healthcare infrastructure has not kept pace with the economy's growth. Thus it becomes imperative that good management strategies such as Knowledge management are leveraged to make optimal utilization of resources and improved healthcare delivery especially in a developing country like India. There is a significant body of evidence that shows that experts such as Dwivedi et al. (2005) are now keen to embrace knowledge management tools and techniques to bring about the necessary change required for improved healthcare services. This paper attempts to study the various knowledge management practices, if any followed at GMC Jammu and to explore their impact on learning and performance. Around 100 doctors were administered a five point Likert scale questionnaire which contains questions on knowledge sharing practices, learning and performance. The doctors were randomly chosen and 97 responses were received. The responses were statistically analyzed using SPSS software. The results showed that although Knowledge Management is not officially implemented in the hospital of Jammu, there are many practices which can be qualified as KM practices that are being followed by the medical professionals. These knowledge sharing practices received a mean response of 2.77, while the idea that Knowledge Management will lead to improved Organizational Learning received 3.28 and doctors agreed that this will better the performance received the response of 3.45. Moreover, the results show that Performance is a function of knowledge management and organizational learning (using regression analysis) and there is a significant positive relationship between Knowledge Management and

Organizational Learning. The basic limitation faced in the study was the lack of general understanding regarding knowledge management amongst other staff such as Nurses and paramedical personnel and hence the questionnaire could not be administered to these groups.

1. Introduction

Healthcare is one of the key service sectors in today's world and it is in the constant state of flux with ever changing technology, new findings and improved tools, new drugs and new methods of combating diseases. Experts agree that healthcare is one of the most knowledge intensive industries of the world and is potentially beneficial to the humanity as a whole. As a result countries and governments all over are focusing on this sector in the recent times. But India's healthcare infrastructure has not kept pace with the economy's growth. Thus it becomes imperative that good management strategies such as Knowledge management are leveraged to make optimal utilization of resources and improved healthcare delivery especially in a developing country like India.

The difference between a Healthcare provider organisation and any other is the fact that unlike other businesses, healthcare is not solely driven by profits but is motivated more by quality and service. Moreover, these are highly professional institutions, having people with specialised knowledge that needs to be constantly updated, shared, and leveraged.[15] Thus managing knowledge becomes all the more crucial in healthcare sector as it is being produced at an exponential rate and involves a wide range of multidisciplinary stakeholders such as physicians, nurses, administrators, patients policy makers in governments etc.[1] It has also been shown that though healthcare is a knowledge intensive area, the healthcare knowledge is largely underutilized and this is mainly due to lack of availability of specific knowledge, especially at the point of care. [14] And therefore many experts have called for and investigated the need to have more robust and efficient healthcare management thereby sparking a rigorous interest in using Knowledge management concepts and theories in this domain. [8,10] There is a significant body of evidence that shows that experts are now keen to embrace knowledge management tools and techniques to bring about the necessary change required for improved healthcare services. [5] Traditionally, quality of healthcare was explained by the technical knowledge of medical and nursing professionals who were expected to use it in the best interest of patients and hence, organisational performance of healthcare institutions was assessed mainly through clinical indicators. [13] However, now all stakeholders expect more from these institutions besides primary care. This requires administrative and managerial support to enable the patient to be comfortable, well informed and receive appropriate medical care.

2. Review of Literature

Healthcare sector is growing exponentially. According to Ibef reports, by 2017, the healthcare industry size is expected to touch US$ 160 billion. In India, the country hospitals account for 71 per cent of the total healthcare revenues. This rapid increase is

also therefore creating a huge demand for improving hospital performance. It was observed that the performance of hospitals is not only based on the discovery of new treatments but on the management of existing knowledge. Therefore, researchers proposed implementation of Knowledge Management processes as a strategic alternative for hospitals to improve efficiency and performance. [9] In one of the studies scholars were able to establish a link between knowledge management, organizational learning and leadership. [6] They argued that the quality of care is proportional to use of knowledge as a resource and health organizations that share this resource effectively can reduce their costs, generate greater returns on investment, higher satisfaction and encourage continuous learning. Thus a well-defined knowledge management process, which focuses on learning is necessary for acquiring existing knowledge and creating new knowledge and promote learning at individual and organizational levels. [2] Many studies show that healthcare organizations are now keen to manage and leverage their intangible assets and intellectual capital and are using knowledge management frameworks and techniques to transform a hospital or a medical home into a learning organization [3-4,7].

3. Research Objective

The main objective is to study the various practices followed by medical professionals at Government Medical College, Jammu for the improvement of their knowledge and performance. It was decided to see if any KM practices re being used in this hospital and how they are impacting on learning and performance.

4. Hypothesis

H1: Knowledge Management and Organizational Learning are significantly related.

H2: Organizational Performance is a function of Knowledge Management and Organizational Learning.

5. Research Methodology

5.1 GMC Jammu

The study has been carried out at Government Medical College, Jammu. The Government Medical College, Jammu, is a premier institute of J&K and was started in the year, 1973 in a temporary building with the object to provide quality education and deliver the health care service to the people of this region. This institution was started with the aim to train fifty medical students for MBBS course per year and to serve as referral hospital for Jammu Province. But now the seating capacity has been increased up to 120 students per year, Besides MBBS course the college also imparts Post-graduate training Course. From the make shift sheds of years, with meager staff and equipments, to the present day mammoth complete with chain of adequately staff and fully equipped associated hospitals, this college is now credited to the amongst a few top institutions in the Northern India. The institution started with a total of nine hundred beds and with the inauguration of Medical College Hospital building in the year of 1993, it has now increased to 1700 beds including associated hospitals including Col. R.N.Chopra Nursing Home.

5.2 Methodology

A five point Likert scale questionnaire was used and it contains 62 items on knowledge sharing practices, learning and performance. The cronbach alpha value (which is a measure of internal consistency, based on the average inter-item correlation.) was 0.928 signifying a good fit. Around 100 doctors were randomly chosen and administered the questionnaire. We received 97 responses. Initially, the nurses and paramedical staff were also provided the questionnaire but the pilot study showed they were unable to comprehend most of the items. That can be one of the limitations of the study. The responses received from the doctors were statistically analyzed using SPSS software.

6. Analysis and Findings

The initial analysis showed that although Knowledge Management is not officially implemented in the hospital of Jammu, there are many practices which can be qualified as KM practices that are being followed by the medical professionals. These knowledge sharing practices received a mean response of 2.84, while the idea that Knowledge Management will lead to improved Organizational Learning received 3.01 and doctors agreed that this will better the performance received the response of 3.45. See Table 1 below.

Table 1: Means.

	No. of items	**Means**
Knowledge Management	27	2.84
Organizational Learning	24	3.01
Performance	11	3.45

Some of the activities followed by doctors that can be classified ad Knowledge sharing activities are :

"We use Manuals and Best practices regularly" This received the mean response of 3.01, while the item "In our department, lots of Group Discussions take place where we share our ideas and procedures received the mean response of 3.00. Similarly, "There are Morning or Evening Meetings in the department where we discuss the important events/happenings/cases quickly averaged 2.86. It was also seen that technology in terms of internet and journals are available to the doctors (mean response of 3.00) is satisfactory while doctors do believe that there is a culture of sharing and learning (mean response of 3.55) Based on these, it can be said that even though there is no hospital wide single system which helps to manage knowledge, individual and groups (departments) do carry out their own initiative sin sharing and learning. For our first hypothesis:

H1: Knowledge Management and Organizational Learning are significantly related.

Using Bivariate Correlation analysis, we see that there is a significant and positive correlation between Knowledge management and Organizational Learning at 0.01

level. The Pearson correlation coefficient measures the linear association between two scale variables. See Table 2.

Table 2: Correlations			
		KM	**OL**
KM	Pearson Correlation	1	.600**
	Sig. (2-tailed)		.000
	N	97	97
OL	Pearson Correlation	.600**	1
	Sig. (2-tailed)	.000	
	N	97	97
**. Correlation is significant at the 0.01 level (2-tailed).			

For our 2nd Hypothesis

H2: Organizational Performance is a function of Knowledge Management and Organizational Learning.

We used Regression analysis. See Tables 3, 4 and 5 below.

Table 3 Model Summary					
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1	.509a	.259	.243	.59848	2.144
a. Predictors: (Constant), OL, KM b. Dependent Variable: Performance					

Table 4: ANOVA						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	11.761	2	5.881	16.418	.000a
	Residual	33.668	94	.358		
	Total	45.429	96			
a. Predictors: (Constant), OL, KM b. Dependent Variable: Performance						

Table 5: Coefficients						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
1	(Constant)	1.450	.354		4.096	.000

	KM	.297	.138	.239	2.149	.034
	OL	.357	.121	.329	2.961	.004
Dependent Variable: Performance						

As seen from Table 3 above, the R value is 0.509 – it is the multiple correlation coefficient between the predictors and the outcome. While R^2 is 0.259 and signifies how much the variability in the outcome is due to the predictors. The Durbin-Watson statistic value is 2.134 which is closer to 2. This informs us whether the assumption of independent variables is tenable. The closer the value is to 2, the better it is.

The Table 5 gives the model of relationship between KM, OL and Performance. As the t values are higher, sig values are less than 0.05, the model is a good fit. And it shows that Performance is a function of Knowledge Management and Organizational Learning. Thus the second hypothesis also holds good. The relationship can be written as

Performance = 1.450 + 0.239*KM +0.329*OL

7. Conclusion and Suggestions

The above findings clearly show that there is a significant positive relationship between knowledge management practices and organizational learning. This was also previously agreed to by academicians who said that knowledge is manifested in learning and knowledge management and organizational learning are intricately related. [2] Another study showed that knowledge management affects performance measures by enhancing learning, decision making, and task execution. [11-12] This is similar to what was seen from the results of this study.

It is clear that Knowledge management is not officially implemented in GMC Jammu and thus this study throws up a lot of implications for the future approach to improve hospital performance. There are lot of practices which are followed by the employees that fall under the knowledge sharing activities. The sharing of knowledge through conferences, seminars and lectures, exchanging information in departmental meetings, using internet facilities are some of the KM practices that make it easier for the medical doctors to exchange and improve knowledge. It can be said that even though there is no hospital wide single system which helps to manage knowledge, individual and groups (departments) do carry out their own initiatives in sharing and learning. This is an advantage since a culture of sharing already exists. What is required is an integrated effort from the top to formalize and centralize processes for quicker and easier assimilation for the users. A hospital wide database and centralized repository that is available at each department can be a good place to start with. The hospital can also go for step wise implementation by focusing on doctors initially and then gradually covering Nursing and other paramedical staff.

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