



THE IMPACT OF SATISFACTION ON APPLYING OF THE NATIONAL E- HEALTH PROGRAM (HAKEEM) ON EMPLOYEE PRODUCTIVITY: AN APPLIED STUDY AT AL HUSSEIN MEDICAL CITY

Clinical Research

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ABSTRACT

Introduction: HAKEEM (National E- Health program): is an electronic medical record software which aims to achieve an essential development in the health care provided to individuals.

Job satisfaction is a group of enjoyable sensations that an employee feels about himself, his job and the institution, whereas productivity stems from the set of continuous and successive processes that aims to exploit a set of resources in order to obtain a set of productive materials. Objectives: This study has been performed to assess the level of satisfaction of employees in the application of HAKEEM; the impact of employees-satisfaction using HAKEEM on productivity.

Methods and population: This study was based on descriptive analytical methodology to identify the level of satisfaction with the implementation of Hakeem project at King Hussein Medical Center. The population consists of all employees who use HAKEEM (doctors, nurses, pharmacists, allied paramedical professions of both sex), conducted using a questionnaire distributed to random 80-employees from different medical specialties. The questionnaire was used to obtain data according to Likert scale - the five-point scale.

Results: The final stage of this study included 80-questionnaires, opinions were divided into two categories; one category pointed out the strengths of using the system, while the other group showed the Negative points of the electronic file.

Conclusion: Authors would advise: A frequent similar studies with greater spectrums in order to point out new challenges; to increase the training courses for employees; to find a mechanism to accommodate patients with no National number; and finally to familiarize the general population with the system.

KEYWORDS

HAKEEM; electronic medical record; satisfaction.

Introduction: HAKEEM (National E- Health program): is a program which aims to achieve an essential development in the health care provided to individuals, through making a health electronic file for each person and to facilitate users-access to system from any medical facility using the patient national number.

Job satisfaction is a group of enjoyable sensations (acceptance, happiness, enjoyment) that an employee feels about himself, his job and the institution in which he works in, and which turns his work and then his whole life into real fun [1]. Whereas, the concept of productivity stems from the set of continuous and successive processes that aims to exploit a set of resources in order to obtain a set of productive materials, also known as the manufacture, design or creation of a particular good or service for provision to a group of people called consumers, or clients [2,3]. This study has been performed to assess the level of satisfaction of employees in the application of HAKEEM; the impact of employees-satisfaction using HAKEEM on productivity.

Methods and population: This study was based on descriptive analytical methodology to identify the level of satisfaction with the implementation of Hakeem project at King Hussein Medical Center. The population consists of all employees who use the HAKEEM (doctors, nurses, pharmacists, allied paramedical professions of both sex), conducted using a questionnaire distributed to random 80-employees from different medical specialties, in addition to observation and interviews, to collect preliminary data. The questionnaire was used to obtain data according to Likert scale - the five-point scale [4, 5]. This scale gives a maximum of (5) points for absolute confirmation and gradually decreases to the lowest degree (Figure 1).

Results: The final stage of this study included 80-questionnaires, opinions were divided into two categories; one category pointed out the following strengths of using the system:

1. The basic data and file number are automatically printed on the patient's file, follow-up record, prescription, and appointment schedules.
2. Acknowledgement of patients number of visits, health problems and names of drugs used and its sensitivity, if any.
3. By contacting the Department of Radiology and Laboratory, it is possible to know the most recent investigations of patient and when they were done, and to refill the orders automatically

when needed.

4. Refill drug prescriptions of patients with chronic diseases such as diabetes, hypertension and others.
5. Appointment service for all clinics and investigations.
6. To notify those who were absent and missed their appointments or who missed vaccination dates.
7. Serve as a tool for medical statistics including the number of cases that were medically examined or investigated by the medical facility.
8. Rating the proportion of any disease in the community and compare it with global rates.

While on the other hand the Negative points of the electronic file were reported as:

1. The unwillingness of workers to change and the weakness in accepting the new situation.
2. Lack of training required to use the system.
3. Patients do not accept the special system at the first visit and requiring time to fix the information on the system in the short term.
4. The system is incomplete and requires adding more boxes to the information section with the use and actual practice of the system.
5. The system only serves Jordanian nationalities and needs to add other nationalities services.

DISCUSSION:

No doubt the implementation of any Electronic Medical Record software would be expensive and problematic to apply across most medical practices. This electronic filing system is structured to provide the patient chart component in a simple design and methodology that minimizes stress and disruption that frequently accompanies the rollout of a new software system.

While it seems that the user-friendly interface for staff and physicians, come up to speed quickly and with its secure networked design, any user in the office can enjoy the benefits of the system. Nurses, receptionists, support staff, and doctors can accomplish more with less effort, but it is different situation for the patients coming from old fashion background. Parallel studies conducted showed that physicians routinely used a median 7 of 10 electronic health record functionalities targeted by the Meaningful Use program, but only 5 percent used all 10. Most (63 percent) felt the electronic health record

improved quality of care. Many (76 %) reported increased documentation time and poorer quality patient–physician interactions (45 %). Primary care specialty and time using the electronic health record were positively associated with use of its functionalities, while perceived productivity loss was negatively associated [6].

One of the major evolving issues nowadays is the prevention of medication errors, which became a high priority worldwide. There is growing evidence that systems that use electronic health record, with all its components: computerized physician order entry, automated dispensing cabinets, bedside bar-coded medication administration, and electronic medication reconciliation, are key components of strategies to prevent medication errors [7-10].

We believe it is a promising program with medical practice workflow solutions; however any growing practice is challenged to keep up with patient files and the contemporary demands which mandate interactive solutions.

CONCLUSION:

Authors would advise: A frequent similar studies with greater spectrums in order to point out new challenges; to increase the training

courses for the employees; to find a mechanism to accommodate patients with no National number; and finally to familiarize the general population with the system. The use of electronic health record systems offers a promising solution to reduce medication errors locally and internationally, ultimately improving patient safety as patients' transition through the multiple parts of a healthcare system.

Future directions

To plan more detailed appraisals with greater spectrum with both way feed-back.

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Conflicts of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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The questionnaire

Dear sir /madam

Greetings

The researcher is preparing a field study on the impact of the application of HAKEEM (National E- Health program) on the productivity and satisfaction of employees at King Hussein Medical Center , please kindly answer the following questions carefully mark the x in the box that agrees with your opinion to help us make the study successful. Note that your answers will be treated confidentially and for the purposes of scientific research only and you are not required to mention your name or address. Thank you for your efforts and good cooperation.

I-Personal Information

1. Gender ☐ male ☐ female
2. Age ☐ less than ☐ 20-29 ☐ 30-39 ☐ 40-49 ☐ 50 or >
3. Nature of work : ☐ physician ☐ nurse ☐ pharmacist ☐ paramedical profession
4. Education : ☐ high school ☐ Diploma ☐ university ☐ postgraduate
5. Experience in using the computer : ☐ medium ☐ good ☐ high
6. Previous use of HAKEEM : ☐ Yes ☐ No

no	Description	Strongly agree	Agree	Neutral	disagree	Strongly disagree
Satisfaction of use of HAKEEM program						
1	Ease of dealing with the new system					
2	Do You feel satisfied and comfortable while dealing with the new system					
3	Extent of the transition from the use of the paper file to the electronic					
4	You find it difficult to use the system because of English					
5	Specialists are available to assist in the event of any technical problem in the system					
6	Training in the use of the system is sufficient and useful					
7	Your feeling that patients are receptive to the procedures of the new system increases your confidence in the system					
8	Use of the system increases the security and confidentiality of patient information					
9	The extent of the patient's understanding and cooperation when filling the patient's electronic form					
Measurement of Productivity						
10	The system provides connectivity and sharing of information between departments and other hospitals, thus reducing the effort					
11	The use of the system increases the accuracy of information and reduces errors and repeat checks					
12	Using the system works to better organize your time and speed in completion					
13	Using the system added a quality medical value to my work					
14	The system takes less time than the paper file to fill in the patient form					
15	The increase in the number of patients under my care per day for the time factor in the procedures					
16	The system provides all patient information, making it easier to make the right decision					

Fig. 1: questionnaire distributed to random 80-employees from different medical specialties.

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