
ELECTRONIC HEALTH RECORDS (EHR)

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ABSTRACT

The study on Electronic health record is brief analysis on the effect of the new technology in the healthcare industry and the rate of acceptance of the EHRs by the healthcare providers, the research on workflow efficiency and its effectiveness is been the key component does EHRs provide ease toward the working or lead toward more of burden and excessive work stress , its application and how easy is to install the EHRs in and hospitals, the study is been done on the basis of survey questionnaire and observation and study on previous journal and the result which we got through the process of collection of the complete relevant data for the study is that There are more no of population that are inclined toward the acceptance of the new technology and do found the new technology helpful and easy to use creating less risk of failure and increasing the efficiency of the work done , few challenges that can be seen are budget and training constraint which are on of the biggest challenge.

I. INTRODUCTION

Electronic Medical Records (EMR), also known as electronic health records (EHRs), are a digital version of a patient's paper medical charts. EHRs provide comprehensive collections of information about a person's medical history, such as diagnoses, treatments, medication, allergies, and lab results. They are designed to simplify healthcare processes, enhance patient care, and help healthcare providers make better decisions. In India, the adoption of EHRs is increasing, especially in urban areas and in private healthcare facilities. This is due to government initiatives and increased awareness of digital healthcare. EHRs offer a centralized and standardized method of recording and accessing patient information, allowing authorized healthcare providers to easily access it. Patient privacy is a top priority, and EHRs use security measures such as encryption, authentication, access controls, and HIPAA compliance to protect patient information.

II. METHODOLOGY

QUESTIONNAIRE

OBSERVATION

SURVEY

REVIEW JOURNALS

1. Questionnaire: A questionnaire has been prepared which contain question about how and for what EHRs is been used in a hospital, if the healthcare provider find any improvement in the working condition after the implementation of EHRs or they find it as a burden, if EHRs reduce the rate of error, create a better understanding between the provider and the receiver

All those points are covered under the questionnaire.

2. Observation: A brief round of hospitals and follow up taken in certain hospital to check if the EHRs has been taken in use or not, if yes for what purpose EHRs are used for and if the staff are comfortable and compatible enough with the EHRs technology.

Hospital visited.

- a. ESIC hospital (Ratlam)
- b. HCG cancer centre
- c. Railway Hospital
- d. Maharaja Yashwantrao hospital

SAMPLING METHOD

Convenience sampling

SAMPLING FRAME

Cochran's formula used to determine the required sample size for a survey or study.

Formula: $n_0 = (Z^2 * pq) / E^2$

- $Z = 1.44$ (from the standard normal distribution)
- $P = 0.5$ (we expect that about half of the population supports the policy)
- $E = 0.05$ (5% is a common value for the desired level of precision)

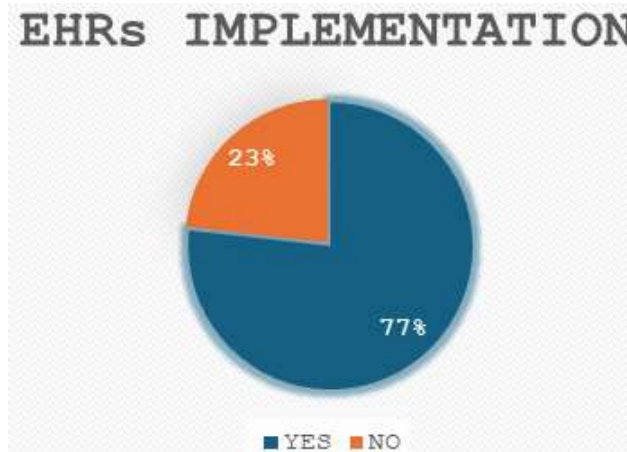
Plugging these values into Cochran's formula, we get:

$n = (1.44)^2 (0.5) (0.5) / (0.05)^2 = 208$ So, to estimate the proportion of people who support the policy with a 85% confidence level and a maximum error of 5%, we would need a sample size of at least 208 people. $n_0 = (Z^2 * pq) / E^2 = (1.44)^2 (0.5) (0.5) / (0.05)^2$ $n_0 = 208$ We are Considering Sample size of: 210

III. RESULTS AND DISCUSSION

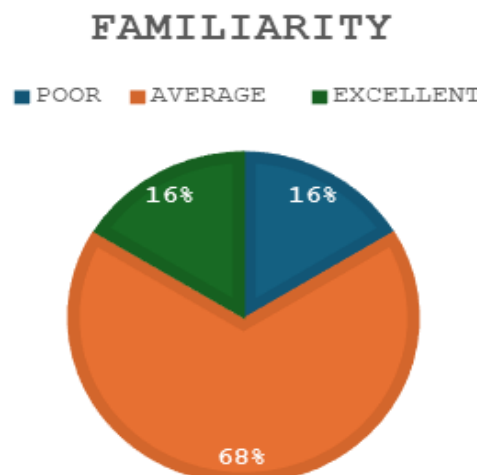
With the help of the study we got to the conclusion that the larger part of the population are in the favour of the study that is in favour of Electronic Health record, here are some of the charts that explain the responses of the population toward our study

1. Implementation of EHRs in hospitals



The total number of the population that was required to conduct the study was 210 and was calculated by the Cochran formula and according to this population size 77% of the population state that EHRs are being already into use in the hospitals and the rest 23% state that the ehRs are not used and all the work done are carried out through the old traditional method that can be documenting everything on paper and files.

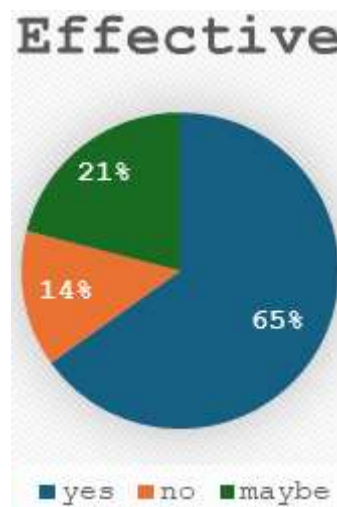
2. FAMILIARITY



Out of the total population that is 210 the research state that

1. Only 16 percent that is 33 out of 210 of the population is excellently familiar with the EHRs and they are very comfortable with the EHRs and there are no other problem in between the technology and the staff they are quite comfortable with it and find it effective and efficient
2. The other 16 percent of the population is not aware of the EHRs technology and may have not come in contact with this technology and they are not trained to use these technologies and may not be able to use this technology effectively and efficiently
3. The rest 68% of the population that is 142 of the total population size fall between being excellently aware and being not completely aware they may have somewhere used ehrs and know the usage of her and with the help of the proper training and knowledge they might turn into great user

3. EFFECTIVE



These chart show the figure about what size of the population find the ehrs to be effective in the workflow and does not create any burden and is better than the old traditional methods

1. 65% of the total size (210) find ehr to be more effective, being effective here means to carry out the daily task in such manner that there is no or less wastage of resource time and other constraint , 136 no of people find it effective out of the total size
2. And 14% of the size find ehr not to be effective and rather find it creating more of workload and creating more disruption in the workflow process
3. And the remaining 21% of the population are not sure about ehr being effective or not they have no sure ans and does not fall in yes or no category

4. Major task carried out through EHRs



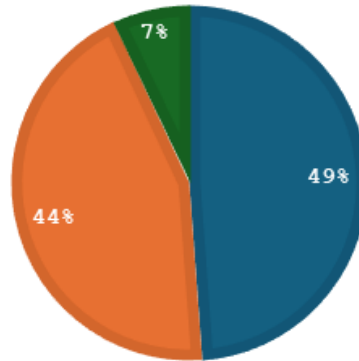
The major task that are been carried out with the help of the ehrs are as follows

1. Documentation being of the most common task carried out through the EHRs

2. Patient chart are the second most preferred task with
3. Then medication being the 3rd most carried out task

5. EHRs improving patient care

■ significantly ■ moderatly ■ no change



1. 49% of the total percent found EHRs helping significantly in improving the patient care service that can be because of proper delegation of the information , time saving process , better quality of service , identical results , reducing the risk of false information causing risk of fall
2. 44% of the population find moderate level of betterment and find it quite similar to the olden method or slightly better than that and does not find it to be a whole new level of development or improvement of the quality
3. 7% the remaining of the population does not find any changes and find old method and the new technology to be the same.

IV. CONCLUSION

1. For the conclusion we find that EHRs help in reducing the burden that is being carried upon the healthcare service provider that can be sorting of data searching for right information at right time that may reduce the risk of fall
2. EHRs increase the efficiency rate of working by increasing the accuracy and quality of the work and help in creating identical results which increase the satisfaction level of the customer and help In increasing the profitability ration
3. EHRs help in increasing profit as it reduce the operational cost by reducing the use of unnecessary stationary and paper and ensure the smooth flow of the information
4. EHRs are time saver and ensure sharing of the information of the patient to the wide networks and which reduce the turn over time and increase the speed for the service delivery that may be crucial in emergency situation
5. EHRs provide right information at the right time which may help the provider to get the patient information quickly
6. The major task that are been carried out with the EHRs at the current time are as follows
 - a. documentation
 - b. medication
 - c. Patient chart
7. The larger no of the population believe that EHRs are effective toward the working of the healthcare service and are time saver and can be found very helpful in the emergency situation as they provide the complete info of the patient to the provider and doesn't take time in searching of the details

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