

A diamond-shaped image showing a screenshot of a patient registration form. The form includes fields for First Name, Last Name, Registration Type, Age, Caste, Blood Group, Monthly Income, Nationality, Address, State, Phone, and E-Mail. The form is titled "Patient Service" and "New Patient Registration".

Examining the Impact of

**Electronic Health Records Healthcare
Provider Workload and Job Satisfaction**



About

Electronic Health Records

Electronic health records (EHR) are a process to manage the patient's information in one place with a unique identity of the patient to which the patient and the hospital will have access to. This unique identity will help doctors to fetch all previous information off the patient's X-ray MRI or any other records, so the patient does not need to carry all his documents every time he visits a physician



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Appreciation

Thank You slide

Introduction

EHRs are becoming more prevalent in healthcare settings, yet they may be detrimental to the workload and job satisfaction of healthcare providers. Some studies suggest that the use of EHR increases the amount of time that is spent by the hospital staff in order to document all things rather than on the patients. According to qualitative findings, it would be found that approx. 10 mins increase per patient is observed in the overall process with EHR. Combining this problem with technical problems increases the amount of process time and workload on the healthcare providers

History

EHR came into existence in the early 1960s. The first company to produce this idea was the Mayo clinic from the USA. This company in Minnesota identified the problem with the then current system of recordation which was on paper. They observed that it was exceedingly difficult to keep all the records on paper and maintain it for a lifetime. The company saw the opportunity to develop something innovative and went ahead with the planning.

Objectives



- To assess the changes in healthcare provider workload following the implementation of EHRs



- To explore the factors influencing healthcare provider workload in the context of EHR utilization



- To investigate the relationship between EHR adoption and healthcare provider job satisfaction.



- To identify the key challenges and benefits associated with EHR implementation in relation to healthcare provider workload and job satisfaction

Methodology

This study has employed the use of Qualitative type of research design wherein various surveys were done with doctors and other hospital staff to find out whether EHR was seen as a good thing or a terrible thing. A questionnaire was prepared to get basic understanding of what the physicians and nurses thought of the EHR systems. The questionnaire consisted of questions in such a way that insights could be drawn from them as to the objective of weather.

Questions for Doctors and Nurses/admin staff

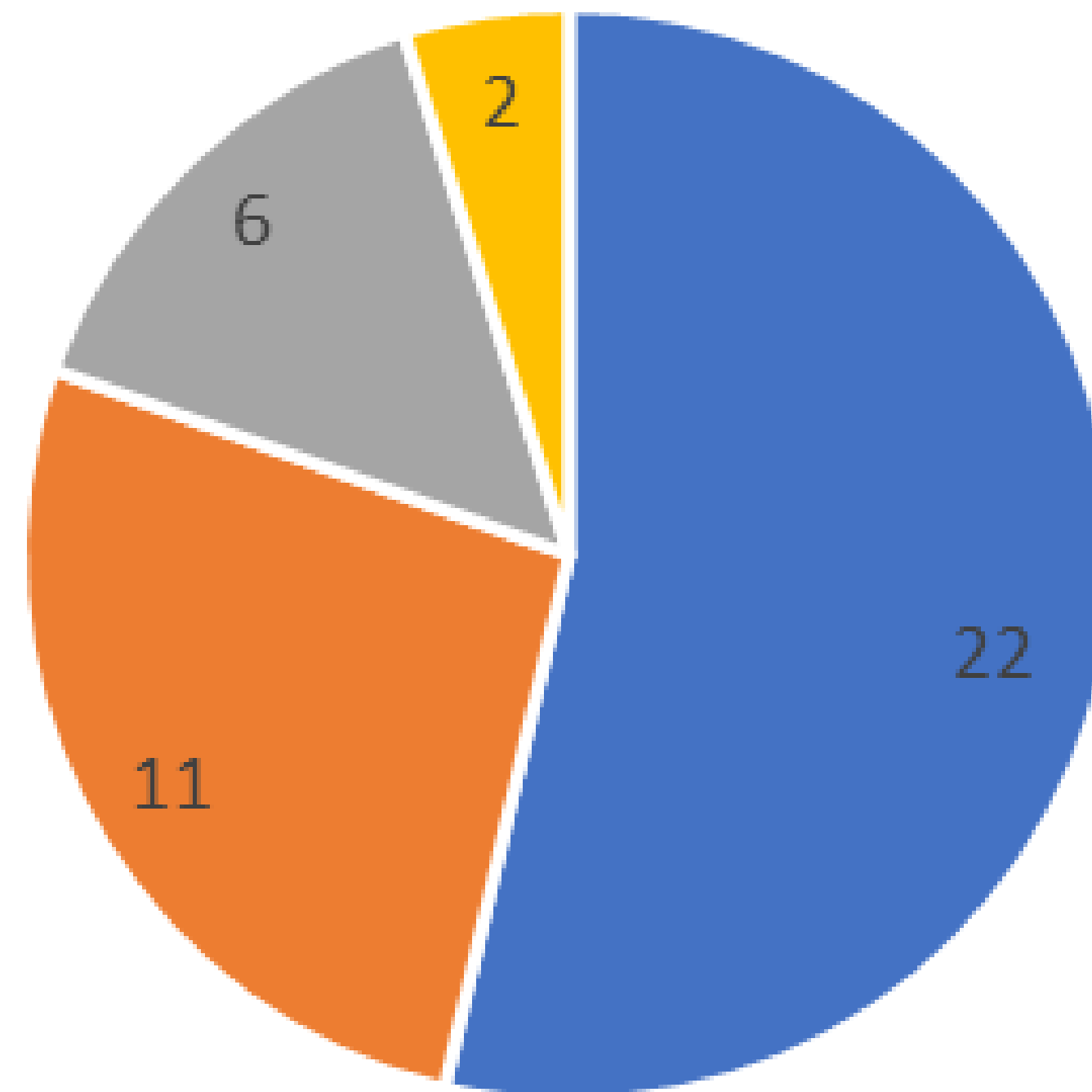
Doctors

- Duration of using EHR systems
- Do you experience any technical issues when performing actions in the system
- Would you recommend EHR Systems to your colleagues and other people in general
- Is EHR compatible with your day-to-day requirements
- Has it made any meaningful change in your daily routine activities?

Nurses/Admin Staff

- Has EMR made your activities better or worse
- Do you have to take out time from your normal day to day activities to tend to the EHR systems
- What did you love about the earlier system over EHR and what would you change or add or remove from the current EHR system?
- Is the system causing customers as Indian crowds are not used to this and only want quick solutions to their problems?
- Has EMR had a meaningful change in your daily activities

Staff surveyed



■ Doctors ■ Nurse ■ Administration staff ■ Accounts department

Approach

In order to conduct the research, secondary research was conducted to find out which all hospitals in Pune make the use of EHR/EMR systems or such software.

Then, based on this list, the hospitals were approached and made appointments with them in order to perform the surveys. Out of the 50 hospitals shortlisted, 22 hospitals gave permission to conduct the surveys with the physicians and nursing staff.

A carefully thought-out questionnaire was prepared which would help in analyzing whether EHR decreases the workload of doctors, nurses and other hospital staff and gives more job satisfaction or not.

The questions were asked to the doctors and nurses and other administration and understood their plight

After completing and continuously updating the questions depending upon the answers the survey was updated upon how the data was desired.

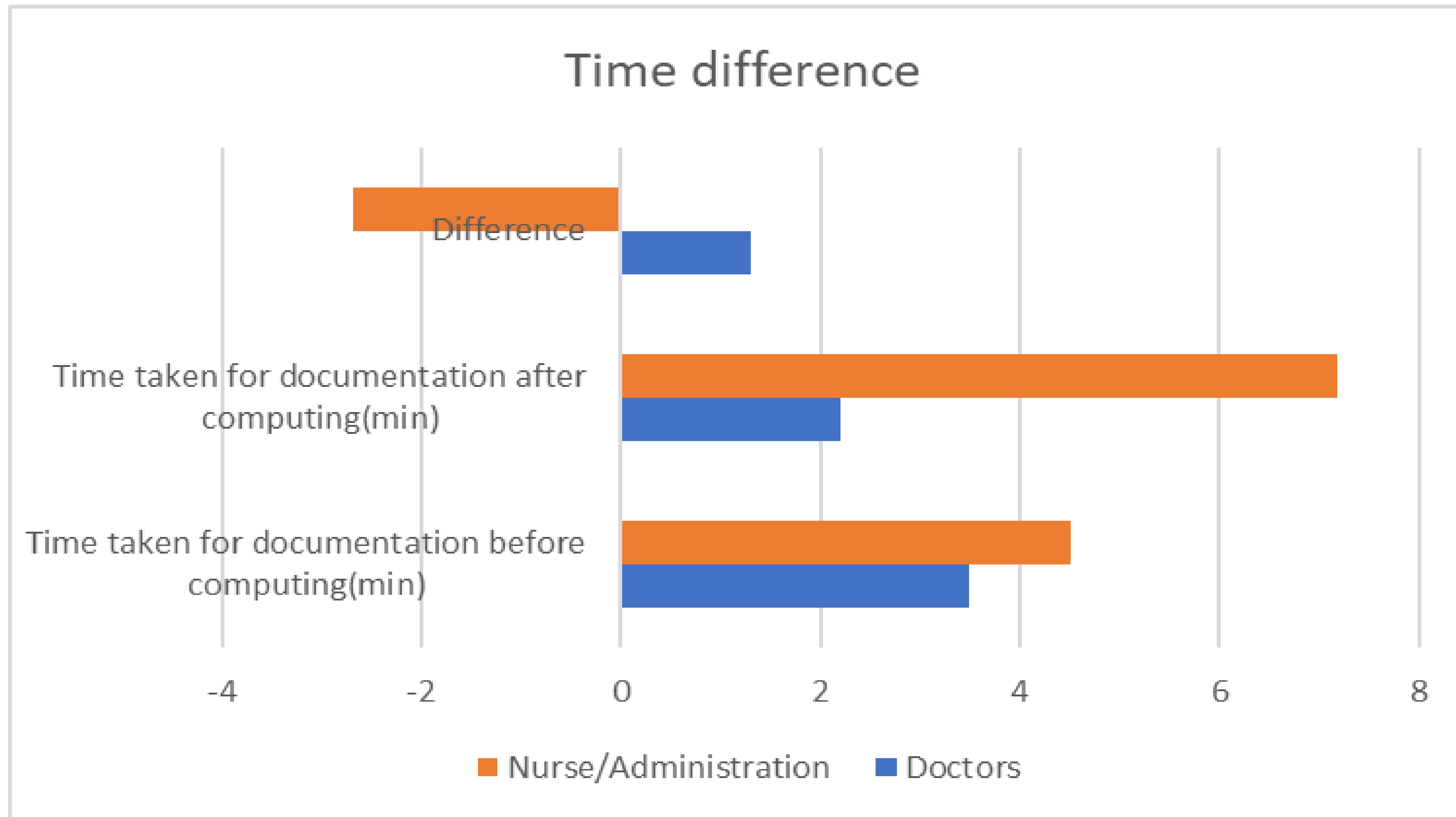
This data was then analyzed to accumulate insights based on the inputs received from the sources and the conclusion was drawn on whether EHR reduces workload and increases job satisfaction.

The staff and physicians were asked about their time spent on documenting before and after the introduction of EHR and the time were analyzed.

The questions were designed in such a way that it could address the research objective of the paper. Various analytical tools like excel were deployed in order to analyze the data that was received, and interpretations were drawn from them.

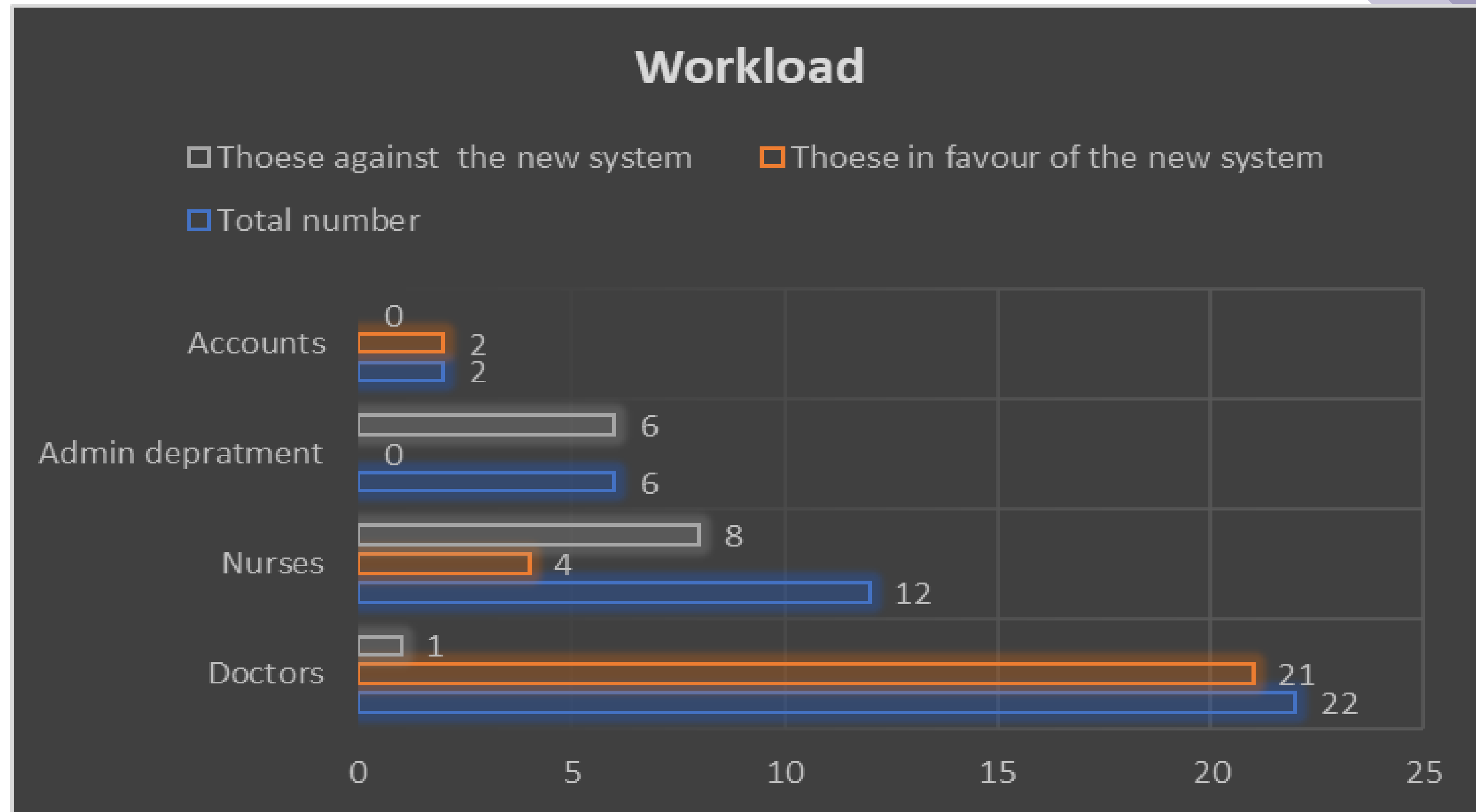
Results

Time difference before and after introduction of EHR Systems



The results obtained above show that even though the physician's time per patient is saved by an average of 1.3 mins, the same is not true for nurses and admin staff as their time is increased by a span of 2.68 minutes per patient. So, if we consider an overall situation, we find that EHR are increasing the total time it takes in serving a patient rather than decreasing it. Although time cannot be the only factor which governs the success of EHR, it is still an important part of job satisfaction for the healthcare providers.

Stand of healthcare workers on the new system of EHR



Qualitative Results

Doctors are the ones truly benefiting from the new EHR systems. It has decreased their workload and increased their job satisfaction

The hospital was profiting from the new system due to the decreased cost of raw materials and elimination of storage cost. These costs were comparatively less than the cost of sourcing the software and training the staff

Nurse Staff and hospital administration staff had to work overtime which increased their workload and decreased their job satisfaction.

The software accepted a lot of time for the hospital staff to enter patients' details but also saved time when a repeat patient came. Although the number of repeat patients in a hospital was very less

Many shortcomings were reported by the hospital staff and some doctors were also concerned about the decreased efficiency due to the increased workload on the nursing staff which were causing delays and inaccuracies in basic procedures performed by the nurses.

Increased stress was reported among the workers due to increased workload which was leading to suboptimal results in their work.

The accounts department is a target-based department where they were given incentives for decreasing the total budget, which the new EHR systems certainly did.

Many people from the hospital staff produced innovative ideas which can help save us time like software where the patient could fill up their own data



Limitations.



This study also has a few drawbacks like this study was performed in a confined geographical area thus limiting our observations to only that region



This study was done with referencing papers from 1997 to 2012, so the data may be outdated, but compared to the data in the old papers and what we found in observations was that much different. The old papers hinted at technology growing at fast speed, but there have not been any major changes in the field of EHR.



As the sample size was small and in a confined geographical area it is difficult to examine the accuracy of the result obtained above



As the hospital is completely dependent on the system, there are certain times when the system is down which leads to chaos of the highest order in the hospital. When the server is down, as the hospitals are completely dependent on the software, the hospitals come to a standstill and lead to chaos





The training time for the software and cost were huge and were seen as a boon



All hospitals have their own software in which they store data, so this means that patient must fill in the same data every time he visits a different hospital, and that doctor would not have access to the previous data of the patient from different hospital. There is a need for unified software system that could run across entirety of INDIA.



The hospital staff has access to all the patient's information which can be misused and can pose a threat to patients' privacy.

Recommendations

Great Ideas



A unified system should be deployed which would mean that all the hospitals and healthcare providers would have the same system throughout INDIA and can access the database of the patient with valid credentials

A unique key or an OTP system should be added to the software so the patient's information can only be accessed with the permission of the patient.

Appropriate training should be provided to the staff to handle the system so that they can work on the system more efficiently and smoothly to avoid wastage of time and create confusion in case of ignorance.



A failsafe needs to be developed which would act as a backup whenever there are any issues with the software for instance when software or server is down or scheduled maintenance, as a hospital functions every second of the day, the server should also function 24*7.

Make a software for the patients end wherein the patient can themselves upload their data and access it anytime to view it. This will help in decreasing the time that is spent by the hospital administration department on filling out the software ERP package and this can be done by individual patients. And those who cannot do it can get the help of hospitals staff.

Conclusion

The Impact of Electronic Health Records on Healthcare Provider Workload and Job Satisfaction has an overall negative impact. It has increased the workload and decreased job satisfaction.

From the above studies it can be considered that EHR systems have come a long way from what they used to be. EHR's are now growing rapidly and now are available in every hospital in the form of some or the other software. The duration of each patient spending time in the hospital has increased, which the software should have reduced. Hospitals are heavily focusing on this software but at the cost of their employees. Hospital administration do not seem to have any plans to combat the increasing workload and decreasing job satisfaction of the healthcare providers.

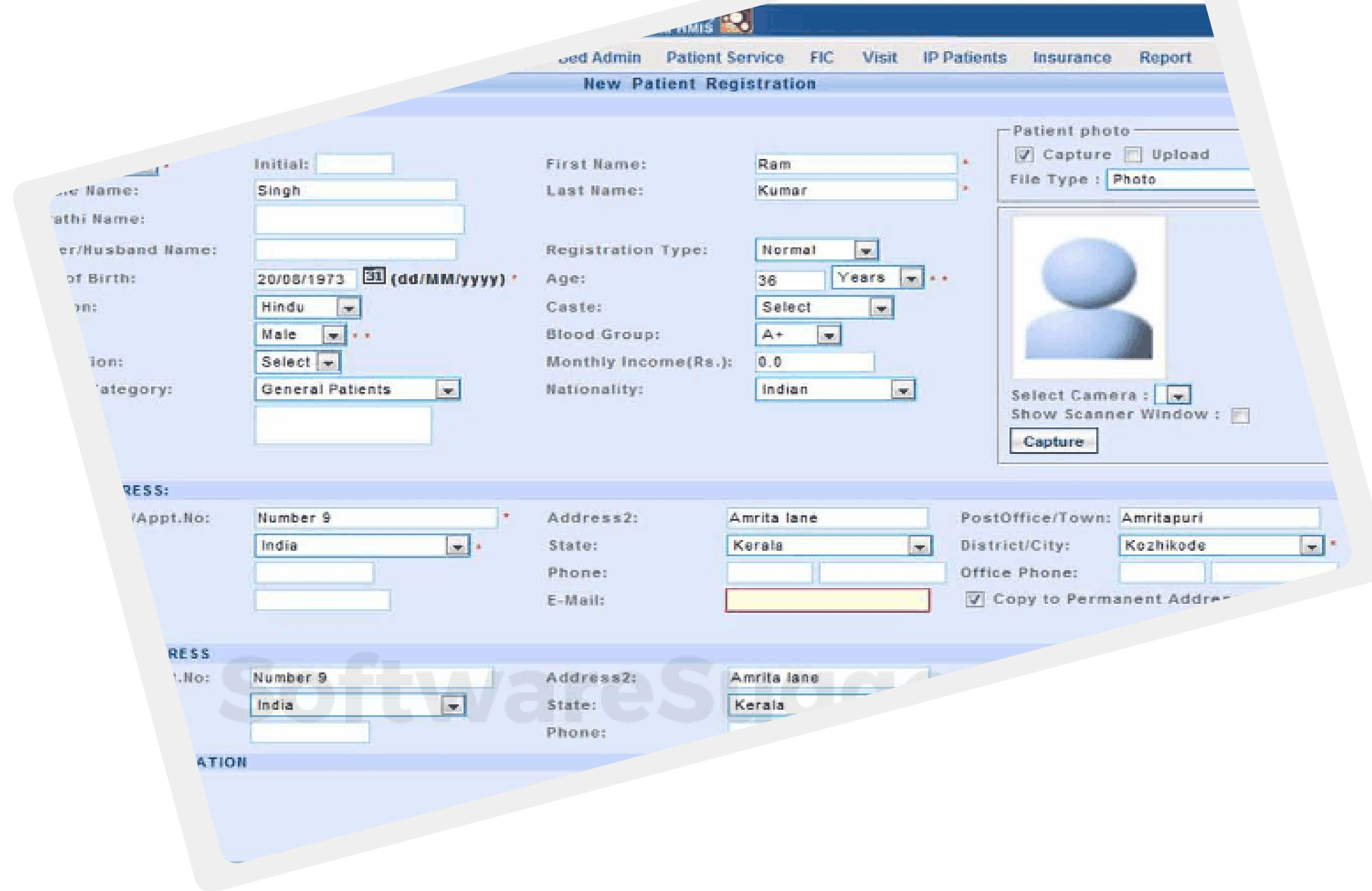
EHR's are helping physicians to avoid errors that happen due to improper or inaccurate reporting of data. For e.g. – A patient might not know which tablet he was taking for his last illness or duration of last illness or any other history which they might forget to report, can be handled by electronic health records.

The physician's general feedback is happy with the technology and are embracing it, the same cannot be said for the other hospital staff. The doctors report a decrease in their workload and increase in job satisfaction. The doctors showed better results and more accurate treatment as opposed to when they did not have a full medical history of the patient. It has also helped in increasing the approval rating of the hospital, therefore making the business grow.

The nurses and other hospital administrations have shown a decrease in job satisfaction and an increase in workload. The hospital staff need to work extra hours in order to cope with the systems and keep them updated. As the hospital is completely dependent on the system, there are certain times when the system is down which leads to chaos of the highest order in the hospital.

As we can see opposing view in doctors and nurses/admin workers regarding the implementation of electronic health record the overall impact is negative

EHR has the potential to change the dynamics of the healthcare industry, but only when released in a systematic manner and not in haphazard manner like it has been done now. If the government guidelines are followed and a unified system is developed EHR can become the best thing in the healthcare industry and save a lot of money for both patients and the hospital, but as of the situation is right now, EHR systems are not desirable with current technological and psychological limitations.



Thank You

- Special Thanks to Dr. Sudhinder Singh Chowhan