

Overview

The increasing advancement of technology has started to replace all traditional paper records with computers. In so doing, a lot of companies all over the world have invested in computers in the management of their business including the healthcare industry. IS THE HEALTH CARE READY FOR THIS? Is it a blessing or a disaster? Is computer technology an asset or liability to health care industry? Is it worth investing or worth ignoring?

Purpose

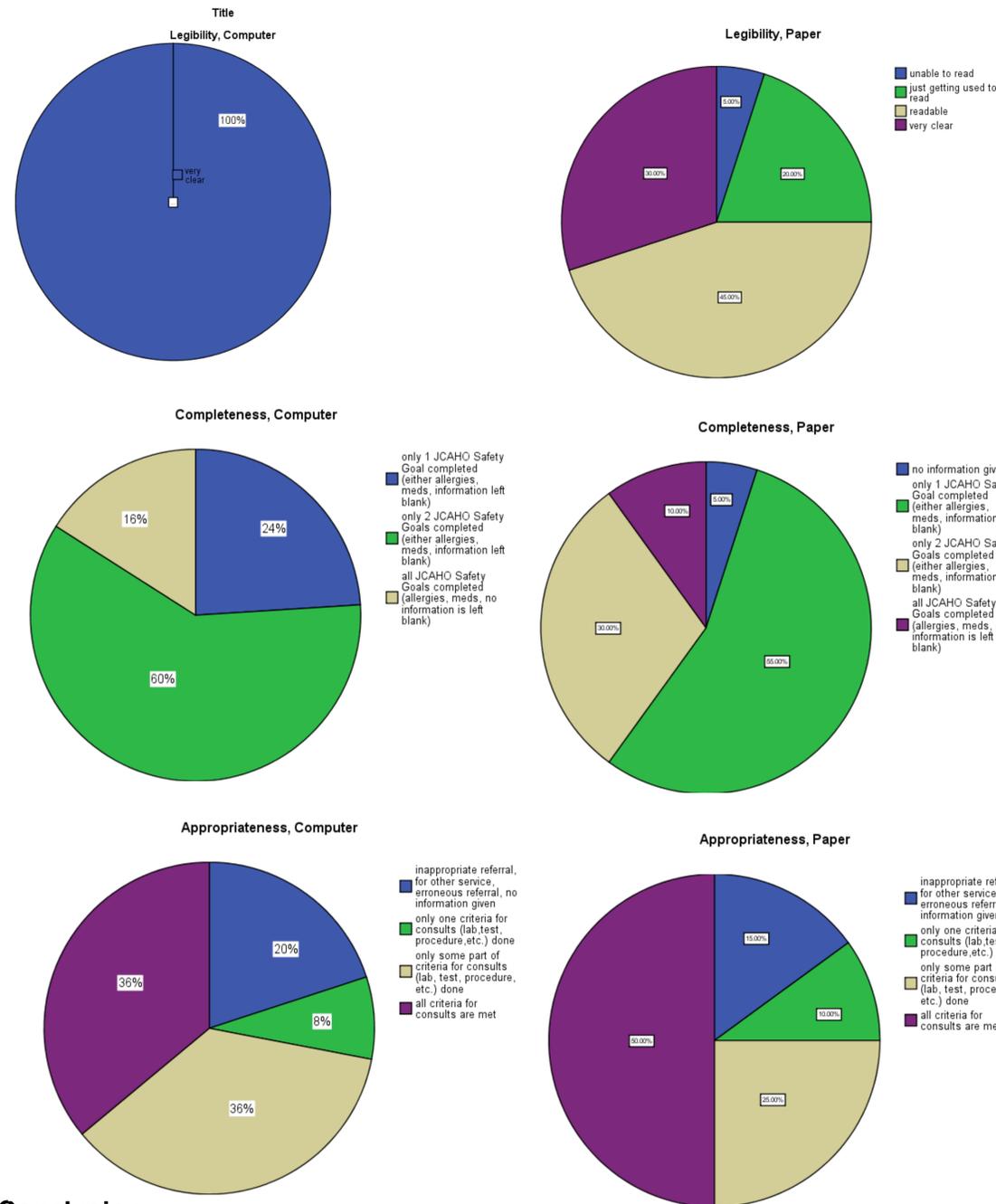
The purpose of this study is to compare effectiveness, efficiency, speed and safety/error prevention of the introduced Ambulatory Pathway Computerized Consult System (APCCS) with the traditional paper consult system that is continuously still being used.

Review of Literature

One of the major problems in the outpatient setting is dealing with cumbersome paper records for consults/referral due to the following reasons:

- Numerous paper consults.
- Long-waiting time to get for appointments because it takes time for the paper consults to reach the specialty clinics.
- Erroneous referrals/consults
- Incomplete requirements/criteria written on the paper consults
- Inappropriate consults/referrals that occupies schedule in the system and causing the scheduling system to slow down
- Problem of legibility
- Too many paper works/paper trail & possibility of being lost on transit.

In order to address this problem, Jackson Health System, Ambulatory Care Center Department instituted a computerized system called the Ambulatory Pathway Computerized Consult System (APCCS) for more than 3 years. However there has been a big challenge in implementing this system and transitioning from a paper consult to a computerized consult has been very difficult and very challenging. Now is the time to compare the productivity of the computerized system (APCCS) and the paper system of making these consults /referrals.



Conclusion:

The data shows that there is variation of results in the effectiveness and safety/error prevention of a computerized consults versus paper consults as evidenced by legibility, completeness and appropriateness in completing these consults. Legibility was no problem in the computerized system, however the computerized system has been used for other reasons by its users that made its score lower for its appropriateness. For completeness there is not much of a difference whether a consult is written in paper or made via the computer. This therefore shows that the compliance of the user determines the effectiveness and safety/error prevention of making a consult whether it be a computer system or a paper system..

Research Questions

- Q1.** Is there a difference in effectiveness between APCCS (computerized system) and the traditional paper system in making consults/referrals?
- Q2.** Is there a difference in efficiency between APCCS (computerized system) and the traditional paper system in making consults/referrals?
- Q3.** Is there a difference in speed between the APCCS (computerized system) and the traditional paper system in making consults/referrals?
- Q4.** Is there a difference in error prevention between APCCS (computerized system) and the traditional paper system in making consults/referrals?

Method

Study Design

To compare the effectiveness, efficiency, speed and error prevention of the computerized consults (APCCS) vs. the traditional paper consults a quasi-experimental comparative study design between these two groups will be used: Clinic A using APCCS (computerized consults).
Clinic B using consult forms (traditional paper consults).

Data Collection

- For the for the first stage of the study: In order to compare effectiveness and error prevention of the computerized consult versus the traditional paper consult, a data collection instrument has been filled out during a chart review focusing on legibility, completeness and appropriateness of the consult form. Same was done in the consult completed in the computer (done).
- For the 2nd stage of the study: In order to compare efficiency of the computerized consult vs. the traditional paper consult, the PCP's will be observed and recorded how long do they take them to complete a consult in the computer versus filling out a consult paper. Observations will be recorded to see how PCP's efficient use of time both in paper and computer (on going study).
- For the third stage of the study: A Tracking tool will be utilized to measure the time the completed paper consults had reached the specialty area. A date is recorded from the time the PCP completed the paper consult to the date that consult had reached the specialty clinic (on going study).

Data Analysis

Note: This study is currently on going, only the data on the first stage of the study is currently available at this time. Data analysis for the first stage was done using frequencies for the purpose of making comparison of results between the traditional papers consults versus the computerized consults. Data analyses was performed with SPSS 14) Software (Kinnear & Gray, 2006).

