

Health Information Technology Project: Nursing Apps

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## **Introduction**

The topic of choice for the assignment of Health Information Technology Project is nursing apps for nursing students, with a focus on Android and Apple cell phones. The site was designed for nursing students to compare and contrast apps with regards to price and functionality. The site also provides a review for the app, listing the pros and cons.

The apps chosen were to increase confidence and decrease stress for first semester nursing students. The novice nursing student spends a tremendous amount of time and energy searching books, notes and online materials for nursing skills, medication information and treatment of everyday disease processes. According to The Nursing Education Journal, “Self efficacy, for example, may play a role [in attrition], report that those with a greater sense of control are more likely to complete...” (Pryjmachuk, Eastonman, & Littlewood, 2008). The nursing apps website was designed to reduce stress and empower nursing students with knowledge that will assist with their transition into the nursing role following graduation and licensure.

The web builder chosen was Wix.com. After careful review of other web builder sites, the group decided that Wix.com would provide the most professional site with easy to follow web builder instructions. Wix.com provides the tools needed to develop a professional looking website with easy to use toggle buttons. After picking the template, the developer of the website chooses the photos and information that the website will contain. The site was user friendly and provided all the aspects needed for the group to produce a working website.

## **Literary Review**

Within the last several years, basic cell phone usage has been traded to the multi-functional smart phone. It has been reported, “88% of people own cell phones” (Smith, 2012, para 1), and

of that number half own smartphones, (Epstein & Bequette, 2013). Cell phones are replacing home phones and becoming the major way of communicating all over the world.

“Recent years have seen an increase adoption of smart phones by healthcare professionals” (Mosa & Sheets, 2012, para. 5). Their mobility makes them accessible to health care professionals in the clinical setting and makes them readily available to use in patient care. It is a quick and easy resource for clinicians to use and it saves time.

Many universities across the country are incorporating the use of hand held devices as an information source for students (Moore & Cox, 2012). The use of these particular devices, enable students to have information at their fingers tips while learning to care for their patients. Drug reference applications along with disease diagnosis and medical calculator applications were reported the most useful by medical professionals and nursing students (Mosa & Sheets, 2012). According to Trossman, nurses are increasing their use of a wide range of apps to care for patients (2012). By using apps and handheld devices during the classroom or in clinical rotations will prepare future nurses for modern technology at their fingertips.

According to the literature pros of using applications in practice are accessibility, a wealth of information at the point of care, and time management. The use of smart phone apps during the clinical settings of clinical rotations has proven to be beneficial in providing confidence and retention rates of nursing students (Eastonman & Littleton, 2008). With technology changing on a daily basis, it is important to have information needed to care for patients quickly and efficiently.

Reliability and accuracy regarding smart phone apps is debatable. When using these applications and devices during patient care, one must be certain that the information is correct and accurate to prevent doing harm to their patients. According to Moore and Cox, “Despite

pockets of mobile technology used to support patient care, there is no government guidance on the use of health care apps in the workplace" (2012, p.14). However, the FDA has proposed that medical apps may need to be certified in order to be used (Moore & Cox, 2012).

In regards to technology, "Nursing students should be expected to use handheld computers in the classroom and the clinical setting" (Sewell & Thede, 2013). Care should be taken when referring to sites that have not been certified by the FDA. One can expect as technology advances that medical apps will one day be regulated by a government entity.

### **Project Development**

Both participants of the HIT Project were excited to work on this particular project. As former associate degree nursing students, the memory of trying to retain the content that the nursing program demanded became the driving force behind this project. Within days of the assignment release, a web design site was chosen. Both parties worked on finding articles related to nursing student apps for cell phones. Each party worked on their own portion of the site. Opal Caldwell, RN, BSN was in charge of the portion of the site related to Apple iPhone apps. Bonita Smith Lawson, RN, BSN was in charge of the portion of the site related to Android apps.

The Apple iPhone apps were the first portion to be completed. The search generated over 650 apps for this one mobile device. The process in elimination was timely. Reviews were based on areas that would be most beneficial to ASN nursing students. Things like head to toe assessment, lung sounds, heart tones, bowel sounds, abdominal inspection, neuro-checks, skin assessments and wound care were reviewed for this site. While requesting permission to use one of the sites, the owner of one of the sites contacted the group. The owner was elated that the group had chosen one of their sites to use on the website. He was excited about the content and gave free promo codes to use for his app to get the group started.

The Android phone apps generated several hundred medical apps from the Google store. Again, the elimination process was timely. To stay synchronous to the Apple apps list, applications were chosen to provide the same information as the Apple apps list provided. Reviews are provided on the site in regards to the use of the particular app listed.

After articles were chosen, each party worked on an individual rough draft. Collaboration was made to write the final paper for the HIT project with articles from both individual rough drafts taken into consideration for the final paper to be submitted.

The issues incurred during the working phase of this project were minimal. Both parties worked well together and were open to discussion and suggestions. The major issue was finding enough articles to support the topic. As clinical instructors, databases from King College and Walters State Community College were used to obtain the information needed for support.

The HIT project has many positive aspects. As future nurse educators, it is important to be able to create web pages for our students to learn and obtain information relevant to their courses. This project provided an excellent review of how to obtain information that is relevant in the nursing field. Neither group member had ever built a website prior to this class. Both parties involved were excited to learn something new that could be used by our current clinical groups in their learning process.

The negative aspects of this project was the time involved in finding supports articles, time involved in review of applications, and the cost of the apps. The group could not download all the apps pertinent to the project due to cost. As working mothers, it was hard to find the time to dedicate to this project.

## **Utilization**

The content of this project was found to be of great value in the groups' current career as staff nurses, as well as, clinical adjunct instructors. While looking through the numerous apps, several were found that could be beneficial to several areas of nursing care. Wound Central has great features on how to document wounds, treatment plans for each type of wound, etc. The app has links for seminars, conventions, and products. This particular app would be very beneficial for a med surg nurse or wound care nurse.

Another app found to be beneficial was Physical Exam Essentials. This particular app takes you through a complete health history, general survey, and complete head to toe assessment. It is an app that would be beneficial for nurse practitioner students, as well as, teaching nursing students, such as a fundamentals course.

The created website will be beneficial to nursing students. Every app on this site had well to great reviews. The apps downloaded and linked to the site are free. The topics covered were basic for nursing students, such as, head to toe assessments, lung sounds, heart tones, bowel sounds, and wound recognition. Also included were teaching apps, such as, IV placement, foley catheter placement, chest tube management, trach care, and suctioning, etc.

## **Conclusion**

There is hardly a household that does not own and utilize a hand held device on daily basis. The majority of all professions use modern technology to assist in daily tasks and record keeping. According to Huston, "Technology is changing the world at warp speed and nowhere is more evident than in healthcare" (2013, para. 2). The impact of technology on nursing care is becoming more a reality than ever before with computer charting, electronic med-administration, and electronic order entry. The way information is gathered and taught to future nurses should be no different.

The Nursing Management journal stated, “The use of smartphones and discrete downloadable applications, or apps, is now part of everyday life for many people, including healthcare professionals,” (Moore, Anderson, & Cox, 2012, p. 15). Knowledge has never been more readably accessible than today. It is time to embrace the use of hand held devices within the nursing field. The place to begin is at the educational level with nursing students.

## References

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