UNIVERSITI TEKNOLOGI MARA

MOBILE HEALTH APPLICATIONS IN PAEDIATRIC CARE FOR HEALTHCARE PROVIDERS

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Dissertation submitted in partial fulfilment of the requirements for the Bachelor of Pharmacy (Hons)

FACULTY OF PHARMACY

JULY 2016

ACKNOWLEDGEMENT

First, I would like to praise and thanks God for the blessing, wisdom and perseverance that has been bestowed upon me during this research project. I also would like to grant my sincerest gratitude to my supervisor, Mdm Soh Yee Chang for the continuous support, patience, motivation, enthusiasm, guidance and advice throughout this research project that lead me to complete this research project.

A million thanks to all lecturers and staff of Faculty of Pharmacy, UiTM Puncak Alam Campus for their assistant and support in this research project.

Next, I would like to thanks all my friends who involve directly or indirectly in this research project. This project will not possible without their support and participation.

Last but not least, I would like to grant my special thanks to all my family especially my beloved parents for their unconditional support, both financially and spiritually. I would like to dedicate this thesis to them.

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ABSTRACT

Usage of mobile health applications (mHealth apps) among healthcare providers (HCPs) have greatly increased in the paediatric setting due to its handy and convenient features. However, it is difficult for HCPs to identify appropriate and reliable apps due to tremendous amount of mHealth apps available in commercial apps store. Structured review of previous literature about apps in paediatric care and quality assessment of selected apps in commercial apps store was performed. For structured review of previous literature, Google Scholar, PubMed, IEEE Xplore Digital Library and Science Direct were used for literature search. The criteria employed for quality assessment for selected apps were no internet connection, size of application less than 50MB, diseases, diagnostic tools, medical calculator, treatments, dosage recommendations and drug interaction checker. 27 out of 90 mhealth apps which fulfilled the study citeria were selected for quality assessment. Medscape®, Skyscape® and iGuideline® score the highest (score=7) while PediaBP score the lowest (score=3). Medscape®, Skyscape® and iGuideline® are the most comprehensive mHealth apps for HCPs in paediatric setting for quick reference particularly in medical emergency. However, the downside of Medscape® is the requirement for internet connection for access. Skyscape® and iGuideline® both have no drug interaction checker. In view of the increased apps development in the future, regulation on the safe use of mHealth apps is warranted.

CHAPTER 1 INTRODUCTION

1.1. Background Of Study

Smartphone has an advanced mobile OS with combination features of personal computing OS with other features. It is useful for mobile or handheld use. iPhone and Android are currently the two major platforms of smartphones that are popular and the most preferable platform by smartphone users. These two platforms have become rapidly advanced in their technology.

Mobile health applications (Mhealth apps) are software that is incorporated into smartphone to improve health outcome, health research and healthcare services. The numbers of smartphone users has increased every year which includes the healthcare providers (HCPs). The use of mHealth apps among HCPs has rapidly increased every year due to the handy features that can be used anywhere. These apps are used as tools for healthcare information delivery in various diseases. Thus, it can improve health outcomes and care processes. The mhealth apps not only facilitate communication between HCPs and patient, but also useful in maximizing efficiency of caregivers in running their daily activities. Other than promoting better interaction, these technologies also can establish medication control system.