SMARTPHONE BREAST APPS: WHAT’S THE EVIDENCE?

INTRODUCTION

Mobile Phones have become an ubiquitous technology\(^1\)
• Earlier handsets have been replaced by smartphones capable of running standalone software applications (apps)
• There are currently more than 40,000 healthcare apps\(^2\)
• Apps have been reviewed in many specialties
• Breast Cancer is the most common malignancy in females worldwide\(^3\)
• Despite the high prevalence of breast disease apps in this field have not been reviewed to date
• We have reviewed apps relevant to breast disease with an emphasis on their documented evidence base (EB) and Medical Professional involvement (MPI) in development

METHODS

• Relevant apps were identified by searching the 4 major app stores using search terms relating to the most prevalent breast presentations and diseases.
• Only apps in English and focusing primarily on breast disease were included. Breast feeding apps were excluded.
• Data was extracted from app store overviews and publisher websites and included; 1) app store category, 2) target consumer, 3) focus of the app, 4) main functions, 5) documentation of EB, 6) documentation of MPI, 7) safety concerns,

RESULTS

• 185 Apps included for data extraction and analysis
• App stores categorised majority of apps into Health & Fitness (49.2%, n=91), Medical (31.4%, n=58), Lifestyle (8.1%, n=15).

13% (n=19) of apps had Medical Professional Involvement in development*

14% (n=21) of apps had a documented Evidence Base•

16% (n=29) of apps highlighted Potential Safety Concerns•

CONCLUSIONS

• Large number of apps focusing on breast disease with a wide range of functions
• Such apps empower users (e.g. allow users to conveniently access educational material, book and manage clinic and mammogram appointments, learn how to self examine, calculate their risks of breast cancer and more)
• There is however a concerning lack of EB and MPI in development of healthcare apps in this field and concerns around the safety of some apps highlighting the need for regulation
• There is the need for an evaluation framework to help users identify apps of higher quality from the many available

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\(^*\) Apps designed solely for the purpose of increasing breast cancer awareness, social networking, clinician advertisement, breast services listing, and conference guides were deemed not to require an EB or MPI in development and were excluded from this part of the analysis (38 apps excluded on this basis).

\(^•\) Consist of 26 self assessment apps, 2 remote healing apps, 1 product advertisement app for a breast cream and dietary supplement for increasing breast size, all of which had no EB or MPI in development.