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Over-the-counter medicines and the management of self-limiting conditions

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Description | What was done?

Applications (apps) are increasingly seen as valuable tools within healthcare to aid clinical decision-making and increase knowledge-base [1], yet there appeared to be none relating to evidence-based OTC consultations. While textbooks are available and utilised, the information rapidly becomes outdated - sometimes even before publication. Healthcare is dynamic with product-based safety announcements and changes to clinical condition management occurring routinely, coupled with deregulations from 'prescription-only' to 'OTC' medicine status and new products being launched. Moreover, resources prepared by reputable health organisations require interpretation to put the information into a community pharmacy context, as they are often prepared for other healthcare professionals such as doctors and nurses. Additionally, there is insufficient time to conduct literature searches, critically appraise and manage an extensive amount of information in practice (or in our role-play scenarios in the module, which emulate real-life practice). We therefore developed a mobile app to provide succinct evidence-based information about self-limiting conditions and their management, which was easily accessible and update-able.

Motivation and Aims

Motivation

As pharmacists and educators of future pharmacists, concerns about inadequate or incorrect advice provision [2] and lack of an evidence-based approach [3-6] motivated us develop a digital tool that facilitated evidence-based decision-making in relation to OTC consultations. We jointly coordinate and teach this subject area in the School of Pharmacy at Queen's University Belfast and provide expertise to regulatory and professional pharmacy organisations. Between us, we have over ten years' community pharmacy experience and over twenty years' teaching experience. Through conducting research in the area of OTC decision-making (from perspectives of members of the public, pharmacists, pre-registration trainees and their tutors, and undergraduate pharmacy students)[3-7], Lezley-Anne was cognizant of the problems that existed in practice and how best to address these via the app content. Having a keen interest in digital literacies, Maurice used his expertise in graphic design and technology for the app design.

Aim

Our aim was to produce a innovative and more importantly, update-able resource that would provide future pharmacists and the community pharmacy workforce with evidence-based information they could trust and easily access at the point of care. We considered it would enable the public to receive best practice

management strategies for self-treatable conditions, with potential to positively affect patient outcomes and standardisation of care.

Methodology

Once we secured initial funding in 2016, we worked with a digital marketing company to create and launch the app. After an initial meeting where we shared our vision, one clinical condition was developed in its entirety by the company as proof of concept. Subsequently we were trained on the content management system (CMS) and developed the remainder of the app, including the name, graphics and HyperText Markup Language 5 (HTML5) files relating to 70 conditions and OTC medicines.

Literature Review

As part of the funding application process, we comprehensively reviewed the literature (and app stores) to check whether similar apps already existed and whether there was a need for such an app. As previously mentioned, Lezley-Anne's doctoral research related to decision-making about OTC consultations and the role of evidence of effectiveness, so a literature review had previously been conducted in that context too.

Successes | Challenges | Lessons Learned

Successes

Since launching in February 2017: there have been >140,000 sessions of use across 99 countries, and it has received a 5-star rating on both Apple and Google Play stores. Positive feedback has centred on the material being relevant and up-to-date, that it facilitates quick access to information in the workplace and is easy to navigate and is a good training tool. The app is used by students within the university and within the pharmacy profession more widely, including being recommended by the Commonwealth Pharmacists Association. We have won a university teaching award and an external e-health and innovation award in relation to this work.

Challenges

Despite an increased emphasis on using digital literacies in higher education teaching, staff may not possess skills or confidence to develop digital material and there may be a lack of support. This was one of the key challenges for us. Our determination and passion for the subject area motivated us to apply for funding so that we could be guided by experts in the field and buy relevant software.

It was difficult to decide on a suitable name and our original idea 'OTConsult' (i.e. using one 'C' for OTC and Consult) caused confusion around spelling. We later changed it to 'OTC Consult' to enable the app to be found more easily.

Possible changes or enhancements

After achieving more external funding (April 2018), we have recently added a First Aid section and expanded the number of self-limiting conditions (adding ten more). We continue to update the app on an ad hoc basis when changes occur in practice that have relevance for OTC consultations and/or medicines.

Scalability and Transferability

Our app has relevance for anyone involved in teaching and/or facilitating self-care and self-medication and this project (developing an app) is transferable to other settings. It has the potential to be wide-reaching.

References

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4. Hanna LA, Hughes CM. Pharmacists' attitudes towards an evidence-based approach for OTC medication. *Int J Clin Pharm.* 2012;34(1):63-71.
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6. McKee P, Hughes CM, Hanna LA. Views of pharmacy graduates and tutors on evidence-based practice in relation to OTC consultations. *J Eval Clin Pract.* 2015;21(6):1040-6.
7. Hanna LA, Hall M, Duffy D. Pharmacy students' use and views on OTC medicines. *Curr Pharm Teach Learn.* 2016;8(3):289-98..

Further Information

The digital marketing company we worked with was Blue Monkee™. Funding was obtained via the CW Young Scholarship (awarded by the Pharmacy Forum NI) in both 2016 and 2018.

This is a summary case study. A full paper about this work is published in the *European Journal for Person Centered Healthcare*.

Hanna LA, Hall M. Launching and evaluating a mobile phone app to provide contemporary, evidence-based advice about self-treatable conditions. *European Journal for Person Centered Healthcare*. 2018 Sep 28;6(3):358-62.