PocketMedic - COPD

Collaborators

Academic: Health Psychology Researcher– Liam Knox, Aberystwyth University
Health Technology Company: PocketMedic, Kimberley Littlemore - Creative Director
NHS: Professor Keir Lewis at Hywel Dda University Health Board (HDUHB)

Background

PocketMedic started in 2014 as a small group of broadcast professionals with ambitions to make films to support people to better manage their chronic conditions. Hywel Dda University Health Board (HDUHB) approached PocketMedic to help with the challenge of communicating with people with type 2 diabetes who were not attending their patient education courses. HDUHB serves a large geographical area including many rural constituents and communities. Many people in these communities face difficulties with poor local transport links and, for many, there are substantial distances to travel to attend courses teaching.

PocketMedic created 10 films covering various aspects of managing type 2 diabetes and evaluated them through the Diabetes Research Unit in Swansea University. The findings were published in Primary Care Diabetes[i]; people who watched the films had measurable improvements in their diabetes control and the more films people watched, the greater the improvement that was observed in their condition over a 3-month period. It started with educating about diabetes, and now there are just over 100 films covering 10-12 different conditions.

In 2014, at the start of this project, PocketMedic had academic evidence to support the effectiveness of the diabetes films but had not yet had the opportunity to replicate that research for the other conditions. Respiratory conditions were of particular interest to Consultant Professor Keir Lewis in HDUHB who wanted to find a solution to communicate with people with Chronic Obstructive Pulmonary Disease (COPD) and motivate them to better manage their respiratory conditions. In this group, the afore mentioned travel difficulties are compounded by people needing to also travel to receive supporting pulmonary rehabilitation and the fact that mobility may be hampered by the underlying medical condition.

Through a collaboration facilitated by Professor Lewis, PocketMedic teamed up with an Aberystwyth University PhD student, Liam Knox. This enabled PocketMedic to evaluate the digital films, and Liam to use the data for his PhD thesis.

The Project

PocketMedic develop the content of their films based on existing robust academic research in Self-Determination Theory, which proposes that motivation and behaviour change occurs through 3 components: Autonomy, Competence, and Relatedness. The PocketMedic directors are strong advocates for the importance of independent evaluations to ensure their films are delivering the results they hope for and are open to honest feedback to help them continually improve their content. For this reason, they actively pursue and develop relationships with academics early in the development of new content.

Liam had an interest in Self-Determination Theory and was keen to examine whether digital media could motivate people to self-manage more effectively and compare face-to-face learning with learning via films delivered on mobile devices. PocketMedic had ideas for two research projects, a clinical trial with about 50 people and a qualitative interview arm of 7 people, and Liam added on a

third research project, with 72 participants, to form his thesis (PhD's traditionally consist of 3 separate but related studies).

PocketMedic held the IP for the films which were already professionally developed and ready for use at the start of this project and they both had equal rights to the data from the research.

Success

From the start of the collaboration there was a proactive investment in the relationship from both parties who were interested to explore the tenets of self-determination theory in the context of whether the PocketMedic films could motivate people to make changes in their behaviour: Autonomy (they can do things based upon their own volition), Competence (they feel capable in an activity), and Relatedness (they feel they're part of something).

Liam joined the project to evaluate the COPD films. Interviewing the study participants about what was driving them to make a change in behaviour. Exploring whether self-determination theory was useful for predicting motivation for people with COPD. The findings of his research were positive, showing that the PocketMedic COPD films "ticked all the boxes" for engaging, motivating, and encouraging behavioural change in those who viewed them.

The PocketMedic team was delighted with the findings which were a clear endorsement of what they were trying to do and saw a huge value in the results from an unbiased independent academic researcher. This research has not only supported the use of PocketMedic's COPD films but has also provided strong evidence for the wider roll out of PocketMedic's content to support the existing programme of pulmonary rehabilitation in partnership with the NHS across Wales. Liam's results and extracts from his research are being utilised to further PocketMedic's work in grant applications and pitches to potential buyers of the films.

Barriers

PocketMedic have potentially positioned themselves ahead of other health technology companies by developing their content based on psychological theory and principles, and by incorporating discussions and evaluation plans with academics early in the development of their content. Involvement of academia at the idea stage can help gauge patient appetite early-on, gather and analyse user experiences to shape and inform development. There is increasing opinion that academic input should be gained at the start, yet there are a number of barriers which prevent this being common practice. These include barriers such as grant application processes, lengthy research approval processes, and a willingness to act upon academic suggestions, all of which the PocketMedic team faced and overcame.

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[i] *A pilot service-evaluation examining change in HbA1c related to the prescription of internet-based education films for type 2 diabetes.* S. Rice, H. Cranch, K. Littlemore, J. Mortimer, J. Platts, J.W. Stephens. Published: March 10, 2017
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