**LEICESTER LIFESTYLE AND HEALTH RESEARCH GROUP**

**Evaluation of two digital health interventions for people with long term conditions**

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**Section 2 – *Project Information***

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| **Project Title** | **Evaluation of two digital health interventions for people with long term conditions**  |
| **Project Summary**  |
| *Background:* There has been an increasing interest in the use of digital health lifestyle interventions for people at risk and with long term health conditions. Restrictions during the covid-19 pandemic forced a more prominent dependence on digital health for chronic disease management.1 Digital health interventions have the potential to reduce the resources of intensive lifestyle interventions and thereby make them more scalable and accessible in clinical practice. Digital health includes the use of digital technologies in support of health care and includes technologies such as mobile apps, videos, websites, and wearable devices.2Researchers at the Leicester Biomedical Research Centre are world leaders in developing lifestyle behaviour change programmes for people with long term conditions, particularly type 2 diabetes and Chronic Obstructive Pulmonary Disease (COPD). The DESMOND programme, developed by the Leicester Diabetes Centre, supports people with type 2 diabetes with their diagnosis and management of their condition through lifestyle modification and behaviour change. In 2018 DESMOND was translated into a digital programme (Mydesmond).3 The user engagement and retention has previously been reported on the first 10,000 users4 but there are now >50,000 users and a wider implementation evaluation has yet to be conducted. Pulmonary Rehabilitation (PR) is a key intervention to improve the management of respiratory diseases, but centre based programmes are often inaccessible and burdensome for patients5. The I-impact programme, developed at the University Hospitals of Leicester NHS Trust, is a digital PR programme delivered remotely and asynchronously and was recognised as a potential technology for NHS adoption by NICE6.*Aim:* To evaluate two digital health interventions for people with type 2 diabetes and respiratory disease.*Methods:* This PhD will involve three main work streams. *Study One*: Will involve conducting an evaluation of the National (UK and Ireland) implementation of Mydesmond using the RE-AIM (Reach, Effectiveness, Adoption, Implementation and Maintenance) framework. *Study Two*: Will evaluate the uptake and effectiveness of the I-impact programme in comparison to the convention face-to-face PR (all sessions delivered face-to-face). *Study Three*: Will involve conducting interviews with participants in Mydesmond and I-impact to understand their experiences of a digital intervention and explore any barriers to engaging with the digital interventions and areas for improvement.*Expected outcomes and impact:* We will understand the uptake, impact, and experiences of two digital health programmes for people with type 2 diabetes and respiratory disease and how to improve these to maximise engagement, retention and impact. |
| **References** |
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