

Use of digital devices to help manage physical health amongst people with severe mental illness: Lay summary.

Background

People diagnosed with severe mental illness (SMI) are more likely to have poorer physical health than the general population. Managing things such as diet, exercise and sleep can help people's mental and physical health but require a level of self-management which can be difficult for people with SMI who may struggle with low motivation and self-esteem.

Digital Health Interventions (DHIs) such as apps and wearables may help people with SMI in managing and monitoring health-related behaviours. There is a strong evidence base which suggests DHIs are useful in promoting positive physical health in the general population, and for people with common mental illness such as depression or anxiety. However, there is limited research for whether devices are useful in managing physical health for people with SMI.

As part of the Integrating our Mental and Physical Healthcare Systems (IMPHS) Programme, researchers at King's College London and South London and Maudsley NHS Foundation Trust (SLaM) wanted to explore which devices people with SMI are currently using to manage their physical health and whether DHIs which may not have been developed for people with SMI specifically meet their needs. We aimed to evaluate how useful devices are, any barriers and facilitators to use, and the impact on physical health.

How did we do it?

We did a research study split into three stages:

Stage 1 Online Survey:

People using SLaM community mental health services who had a diagnosis of SMI were invited to take part in an online survey regarding their use of DHIs.

Stage 2 Interviews:

Participants from stage 1 were invited to take part in an interview to discuss their experiences and attitudes towards digital technology in greater detail.

Stage 3 Stakeholder Workshops:

Key stakeholders including service users, carers, clinicians, commissioners, and voluntary sector staff were invited to take part in workshops. In these workshops, results from stages 1 and 2 were presented to the group who were asked to make recommendations based on these findings. Throughout the study, the research team had the help of two experts by experience (EBEs), one of which was a mental health service user, and the other a service user and carer. The two EBEs helped develop the project and gave valuable input in all stages of the research, from developing the survey and interview topics, to analysing our data and helping produce outputs.

Results

Stage 1:

- 33 people completed the survey.
- Over 54 devices were named in the survey, with the most frequently used being Fitbit, MyFitnessPal and Apple Health.
- The most common target behaviours were exercise, diet and weight management, but people also used devices for a range of other things including period tracking, sleep monitoring and medication reminders.
- Generally, participants were satisfied with their preferred device, with over 50% completely or slightly agreeing for each of the survey questions, which included different statements about various aspects of device usage. The highest rated questions included “I would have no difficulty in telling friends what it does” and “I have no difficulty understanding the information in it”.

Stage 2:

- 15 people were interviewed
- Participants preferred devices which were simplistic, passive and incorporated data syncing and sharing with other devices and other users. Negative qualities included intrusiveness and lack of consideration for diagnoses.
- Participants reported several benefits to using DHIs, including increased control of their own care, encouragement, positive routine, and tangible improvements to physical health. On the other hand, participants noted that DHIs could also have negative impacts, including encouragement of toxic or obsessive behaviours and potentially demotivating qualities.
- Participants had a strong appreciation of the complex link between mental health and physical health: level of device usage and motivation to engage in DHIs could be directly affected by fluctuating mental health.
- DHIs aimed at physical health also had potential to impact mental health both positively and negatively which should be taken into consideration both prior to and during usage.
- DHIs were seen as a positive aid but could not replace clinical care. Participants valued DHIs as an addition to care which helped them to manage their own health, without having to rely on their care team for information.

Stage 3:

- 14 people attended the two workshops.
- Participants were interested in clinical guidance on which DHIs could be used to manage physical health. Participants felt it was important that DHIs were not a 'must-have' in clinical care, but rather an optional add on, to avoid affecting quality of care for people who did not have access to digital devices.
- Service users, carers and clinicians agreed they could all benefit from further training or information about DHIs- perhaps through a popular devices list, or peer support networks.

- There is a need for more research with more people with SMI, focussing on demographic factors which may influence use such as age or illness severity.

Discussion

- This study addressed a gap in research by gaining an understanding of use of DHIs for physical health, by people with SMI with our participants representing a mix of ages, genders and ethnicities.
- There is a real appetite for information about DHIs by a range of stakeholders: the general feeling is that DHIs could be a realistic and scalable addition to help expand the impact of clinical advice.
- Service users were interested in knowing more about what DHIs are available, and would like DHIs developed with consideration to their specific needs and preferences.
- Our key finding is that DHIs can be useful and effective in managing physical health. The uptake of these devices amongst people with SMI may be lower than the general population but the gap in smartphone usage and ownership continues to decrease between people with SMI and the general population. For this reason, DHIs should be considered as a realistic, practical, and scalable option for self-managing physical wellbeing in mental health service users. Any usage of DHIs by services needs to be carefully considered to ensure that it does not add to digital exclusion for this group: we suggest DHIs have the potential to be an addition to in-person clinical care and benefit those who wish to use it without risking quality of care for those who are not digitally equipped or informed.

If you would like any more information about the study, or have any questions, please contact the research team at: IMPHS@slam.nhs.uk