



Topic Exploration Report

Topic explorations are designed to provide a high-level briefing on new topics submitted for consideration by Health Technology Wales. The main objectives of this report are to:

1. Determine the quantity and quality of evidence available for a technology of interest.
2. Identify any gaps in the evidence/ongoing evidence collection.
3. Inform decisions on topics that warrant fuller assessment by Health Technology Wales.

Topic:	Brain in Hand digital support system for people with neurological and mental health conditions
Topic exploration report number:	TER119

Introduction and aims

Health Technology Wales researchers searched for evidence on the Brain in Hand digital support system for people with neurological and mental health conditions. Brain in Hand is a digital health technology which allows two-way communication and clinical advice provided by a professional.

We searched for evidence on the use of Brain in Hand or other similar digital communication technologies to support people with neurological and mental health conditions, including autistic people, those with learning disabilities, brain injuries, and mental health needs. It is intended to be used in a range of settings, including community settings and may be particularly effective for those in a stage of transition.

Summary of findings

Brain In Hand digital health technology and was determined to be a Tier 2 technology according to the [Evidence Standards Framework for Digital Health Technologies](#). Technologies within this classification help users to understand healthy living and illnesses but are unlikely to have measurable user outcomes. For technologies of this classification, it is recommended that to demonstrate effectiveness of the technology:

- any health information it provides is valid, accurate, up to date and sufficiently comprehensive;
- there is a commitment to ongoing data collection to show the usage and value of the technology;
- appropriate safeguarding measures are in place around use of the technology.

No current evidence was identified for Brain in Hand, however, there are a number of digital communication technologies and apps available to support mental health and wellbeing in different populations (see Brief Literature Search Results for details). It is difficult without

detailed knowledge of their capabilities to understand the level of similarity with what is offered by Brain in Hand.

One protocol of an ongoing systematic review was identified which looks at personal smart technology to improve independence and functional outcomes in adults with acquired brain injuries. The study is being partly funded by Brain in Hand Ltd. The anticipated completion date was June 2017 but we were unable to identify any published results of this review.

The topic referrer identified two surveys, by Brain in Hand Ltd. and the National Autistic Survey on autistic students, as a source of self-reported outcomes and an unpublished case study.

Areas of uncertainty

The target population is not clearly defined. Brain in Hand was initially developed for autistic people but has since been expanded to potential use in those with learning disabilities, brain injuries, and mental health needs. This could cover a wide range of health and wellbeing conditions.

There are a number of digital communication technologies and apps available to support mental health and wellbeing in different populations. It is difficult without detailed knowledge of their capabilities to understand the level of similarity with what is offered by Brain in Hand.

Conclusions

We did not identify any published evidence on the effectiveness of Brain in Hand as a digital support system for people with neurological and mental health conditions. We identified some evidence (mostly pilot studies or at the acceptability testing stage) on other digital communication tools for use in these populations, but their similarities and differences to Brain in Hand are not clear.

Brief literature search results

Resource	Results
HTA organisations	
Healthcare Improvement Scotland:	We did not identify any relevant guidance from this source.
Health Technology Assessment Group	We did not identify any relevant guidance from this source.
Health Information and Quality Authority	We did not identify any relevant guidance from this source.
UK guidelines and guidance	
SIGN	We did not identify any relevant guidance from this source.
NICE	We did not identify any relevant guidance from this source.
Secondary literature and economic evaluations	
ECRI	We did not identify any relevant evidence from this source.
Cochrane library	We did not identify any relevant evidence from this source.
Medline	We did not identify any relevant evidence from this source.
Primary studies	
Medline	<ul style="list-style-type: none"> • Davenport TA, LaMonica HM, Whittle L et al. (2019). Validation of the InnoWell Platform: Protocol for a clinical trial. JMIR Res Protoc 31:8(5): e13955. Doi 10.2196/13955. • Easton K, Potter S, Bec R et al. (2019). A Virtual Agent to Support Individuals Living With Physical and Mental Comorbidities: Co-Design and Acceptability Testing. J Med Internet Res. 2019 May 30;21(5):e12996. doi: 10.2196/12996. • Mueller NE, Panch T, Macias C et al. (2018). Using Smartphone Apps to Promote Psychiatric Rehabilitation in a Peer-Led Community Support Program: Pilot Study. JMIR Ment Health. 15;5(3):e10092. doi: 10.2196/10092. • Brandt LR, Hidalgo L, Diez-Canseco F et al. (2019). Addressing Depression Comorbid With Diabetes or Hypertension in Resource-Poor Settings: A Qualitative Study About User Perception of a Nurse-Supported Smartphone App in Peru. JMIR Ment Health. 18;6(6):e11701. doi: 10.2196/11701.
Cochrane library	We did not identify any relevant evidence from this source.
Ongoing secondary research	
PROSPERO database	<p>One protocol identified - the study is being partly funded by Brain in Hand Ltd. and the anticipated completion date was June 2017:</p> <p>Jade Kettlewell, Kate Radford, Roshan das Nair. Personal smart technology to improve independence and functional outcomes in adults with acquired brain injuries. PROSPERO 2016 CRD42016050717 Available from: https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42016050717</p>
Ongoing secondary research	
Other	We did not identify any relevant evidence from this source.

Date of search:

January 2020

Concepts used:

Brain in hand/OR digital support system mental health/OR digital support system learning disability/OR digital support system autism/OR digital support system anxiety