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Delivering digital health:

The barriers and facilitators to University-Industry Collaboration

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Abstract

University-Industry Collaboration (UIC) is beneficial in many ways, but despite the endorsements for these collaborations, execution is challenging. To identify the benefits industrial collaborators gain from UIC, and the barriers that might prevent UICs from succeeding, this paper reports five case studies from EPIC, a project tasked with developing the digital health industry within Cornwall and the Isles of Scilly. Example cases were drawn from a set of twenty-one collaborations and included online platforms and mobile applications. The cases were selected to include the range of support provided and outcomes achieved. While the definition of success varies among UIC, those who reported successful collaboration with the university benefited from networking, raised ambitions, critical evaluation of ideas, and the technical support and expertise available from academics. Collaborations were less successful where the industrial collaborators had unrealistic expectations about funding and the amount of time and effort academics could offer. For a UIC to be successful, academics need to manage expectations about what they can offer and have a review process in place from the outset of the project.
(177 words)

Introduction

University-Industry Collaboration (UIC) is encouraged by policies to enhance innovation through knowledge exchange (1) with the aim of facilitating the flow of knowledge and experience(2–4). UICs vary in nature (5), duration (6), and form, with (7) identifying four categories of UICs, including research support, cooperative research, knowledge exchange and technology transfer. This paper explores the benefits small digital health companies can gain from a UIC, and their misperceptions which can prevent the UIC from succeeding.

Several authors have identified motivations for Small-to-Medium Enterprises (SMEs) to collaborate with universities (8,9), and barriers to success (5,10). Motivations include gaining access to university equipment, research facilities, public funding and incentives, reducing cost of overall research and development and tapping into a pool of skilled workers (10).

A systematic review (1) highlighted key motivators for SMEs: responsiveness to government initiatives; access to students; commercialisation of university technologies for financial gain; cost savings; business growth; access to research networks; enhancement of corporate image; and control over proprietary technology. These may lead to conflict between the academic and industrial collaborators' interests, hindering the UIC (11). Academics may want to see their theory-driven research put to practical use, while using methodologically sound designs and reliable measures, which can take time to develop. This is in contrast to a rapidly developing digital health industry, scaling and data- and user-driven designs with industrial collaborators having to show a return on investment quickly. Both sides

face problems of financing time and effort when the benefits may be difficult to quantify initially. These tensions between research versus commercial development goals, and between knowledge dissemination versus protection of intellectual property were identified as important barriers to UIC (10).

These findings align with research (12) identifying barriers and facilitators of academia and digital health collaboration in middle and high income countries, including China and the United States. Successful collaboration is built on reliable and accurate communication, alignment of goals and expectations, and agreement of roles each part will have from the beginning. On the other hand, ambiguous goals and expectations, incompatible timelines and scientific or business priorities were reported as primary barriers (12).

Most studies of UICs are based on single cases and there has been almost no focus on the digital health industry. This industry has the potential to solve health and social care problems including secure data sharing, staffing shortfall, self-management of chronic conditions, and access to care (13). UICs could bring developers, healthcare practitioners and service users together to focus efforts on these urgent problems. This paper reviews five case studies of collaboration between academics who were part of a European Regional Development Fund (ERDF) project called EPIC (eHealth Productivity and Innovation in Cornwall and the Isles of Scilly), and regional digital health SMEs. The aim was to identify key benefits from collaboration, barriers to success, ways to resolve these barriers, and pathways to successful collaboration. This is a first multi-case evaluation in a single study involving academics and the digital health industry.

EPIC was jointly funded by the ERDF and the University of Plymouth between 2017 and 2020. Its primary aim was to improve the regional eHealth sector, leading to improved health and wellbeing, innovation, knowledge and skills, and to grow the Cornish economy. EPIC comprised a multidisciplinary group of researchers at the University of Plymouth with five teams (engagement, behaviour change, organisational change and sustainability, usability, and robotics), each comprising two academics and a research assistant, working collaboratively with the other teams. The Behaviour Change Team consisted of two professors and a postgraduate research assistant (with a Masters degree, studying part-time for a Doctorate) from the School of Psychology. The other teams included staff from Medicine; Nursing and Midwifery; and the Business School.

The University's main partner was Creative England who provided two business engagement staff providing basic business support and guidance on how to apply for EPIC Challenge Fund grants, and assessed grant applications. Other partners in EPIC were Patients Association, Kernow Health CiC, and Cornwall Partners in Care.

EPIC emphasised a 'bottom-up approach', focusing on healthcare professionals' and patients' awareness of digital health applications, such as telemedicine, electronic medical records, robotics and wearable and portable monitoring systems. Hurdles within care and solutions for implementation were discussed and identified through roadshows, workshops and webinars. In line with principles of user-centred design (14,15), EPIC brought end-users (patients and professionals) together with developers to co-create solutions. A £600,000 Challenge Fund supported innovations, managed by Creative England. SMEs could apply for £5000 feasibility funding to develop a proposal, and then for further funding

to support development activities, provided matched funding was available from the SME or a third party investor.

The Behaviour Change Team aimed to transfer scientifically validated knowledge regarding behaviour change to collaborators during the developmental stages of digital health product design, and to improve the end-user experience by (for example) grouping commonly used functions together on a single screen to reduce search time, and saving user details locally to support customisation. Depending upon SMEs' needs, the team reviewed the behaviour change literature, analysed the market, and sourced validated questionnaires and psychometric tests. The team also provided SMEs with networking opportunities with health care professionals, potential end-users, technology companies and other SMEs.

Between March 2018 and November 2019, twenty-one SMEs (Table 1) contacted the Behaviour Change Team and received some form of support. Ten of these applied for funding, seven receiving £5000 for feasibility work, with one receiving a further £30,000 for feasibility and development. Out of these, one SME produced marketable product, five developed prototypes for evaluation and trialling by end-users and one was unproductive. Three SMEs were not successful in securing funding. Eleven who did not seek funding asked for technical support, advice throughout early stages of their projects or networking opportunities.

The five case studies reported in this paper cover the range of the support provided and outcomes. One SME came to EPIC too late to be able to apply for funding, one applied but received no funding, two received feasibility funding and one received both feasibility and development funds. Two projects led to new products, one to a prototype and two cases were non-productive.

Methods

The following sections review the way in which each SME contacted EPIC, the support and funding given, problems that arose and outcomes. For confidentiality, the companies involved are referred to as SME1 to SME5, and the products are not named. The first five SMEs listed in Table 1 are SMEs reported in this paper, including description of their business, referral to the Behaviour Change Team, finance support provided by EPIC project and the main outcome of the collaboration. Towards the end of the EPIC project, each of these five SMEs received an email asking them to answer four open-ended questions:

1. How (if at all) did working with EPIC make a difference to your project?
2. What aspects of support made the most difference?
3. Could you have got this support from other sources?
4. Has working with the Behaviour Change Team made you more aware of psychological aspects of your project?

The SMEs' replies to this email were used to assess their views of the support provided by the EPIC project. No formal qualitative analysis method was adopted, but the replies were read by all authors and the following case studies were written to fully summarise the points made by each SME.

Case descriptions

Case 1: Online Employee wellbeing and workplace engagement portal

The online portal was proposed by SME1 who had an extensive experience in executive and development roles within the financial services sector to transform the way employee benefits are perceived by employers and employees alike. They aimed to build an online employee portal which assessed the working environment and provided personalised guides to improve employees' wellbeing and workplace engagement. The portal comprised four modules, assessing work engagement, lifestyle, mental and financial health.

SME1 was introduced to the Behaviour Change Team in May 2018, by Creative England. The Behaviour Change Team provided knowledge exchange by researching clinical support material, designing the modules, choosing scientifically validated questionnaires, networking through introductions to like-minded businesses, and market analysis. SME1 was introduced to a software developer in June 2018 during a meeting with Creative England who later became a business partner of SME1. The company received £5,000 funding from EPIC to complete a feasibility study and further £25,000, to support product design and development, with SME1 making a private matched contribution which made up 20% of the overall fund.

The EPIC team were shown a prototype in August 2019, and the team suggested how to improve the end-user experience and strengthen the market value, including reducing the number of questions in each module, showing a progress bar based on questions answered and adding a "slow down" comment if

responses were too fast. At the end of the collaboration, which continued for approximately 18 months, the online portal was market-ready. Their first customer (a company in Cornwall) bought their product in January 2020.

SME1 found that by receiving academic, business and financial support from the EPIC team they were able to complete the feasibility phase of the project. Once they had completed this phase and found there was a market need, EPIC co-funded the build of the product ready for market launch, and "*without EPIC we wouldn't have had the time, resources or funds to get to this stage"*. When asked what aspects of support made the most difference, SME1 stated "*having access to researchers to help source information was critical to the online portal's progress"*. Further comment related to process of applying for the EPIC grants, and the support from the business team, which SME1 said "*completed smooth running of the project. Paperwork associated with applying for funding was straight forward and not over complicated, the team responded to any questions in timely manner, the decision was in days rather than weeks and the payments were quite fast"*. In summary SME1 viewed this process as "*professional and efficient from start to finish"*.

SME1 had researched suitable partners and grant availability before starting the project, and felt that "*the EPIC project was the most suitable in providing the local support, network, research capabilities and grant facility and if tried elsewhere it would have been extremely unlikely*". SME1 thought "*the Behaviour Change Team made a huge contribution to the core functionality, look and feel of the portal, as the psychology is critical to the way it impacts the individual, and therefore the ultimate success of the project".*

Case 2: Virtual mental health care

SME2 was a practitioner and a CEO of a Community Interest Company committed to changing lives and improving the mental health and wellbeing of Cornish residents. The referral to the EPIC Behaviour Change Team was made by Cornwall and Isles of Scilly Growth and Skills Hub (CIOS Growth Hub). A collaboration between SME2 and a psychiatrist was established during an EPIC networking event in August 2018. SME2 was the main applicant and received £5000 feasibility funding in October 2018. The project aimed to develop web-based virtual mental health care and an avatar clinician offering the possibility of computerised diagnostic interviews, obtaining personal history, translating diagnostic information and personal history into treatment advice, and delivery of computerised psychological treatments.

In November 2018, SME2 and the psychiatrist were introduced to two digital companies, and the newly formed project team met to discuss a product. Four aspects of this feasibility stage were supported by the Behaviour Change Team: (a) a review of the tools available to be used in a digital platform for diagnosis and treatment of mental illnesses; (b) a description of a web-based platform that can deliver these tools; (c) a description of an Artificial Intelligence/ Virtual Reality platform which could be developed further to deliver these tools through a more interactive platform; and (d) a description of the context in which this product might be delivered to people who would be willing to use it and might be helped by it. The aim was to create four descriptions for the product development to bid for a development grant.

It was felt it would be easier to concentrate on one or two areas of mental health, which would make a product focussed, but could be expanded in the future to incorporate further diagnoses and conditions. The product would be focussed on self-management as medical devices are subject to strict governance criteria.

SME2 asked the Behaviour Change Team to research the effectiveness of a test battery with widespread use in mental health measurement which identified patients with a wide array of mental health disorders and concomitant high risk of suicide and substance abuse. SME2 contacted the US-based publishers of the battery, and organised an online meeting with them in May 2019.

The local NHS trust in West Cornwall piloted the implemented prototype, which has now been trialled. Part of the funding received from EPIC was used for a networking event in December 2019, where stakeholders had the opportunity to discuss the feasibility of developing artificial intelligences in mental health settings to complement and enhance psychiatry and associated services. The collaboration between the academics and SME2 lasted approximately sixteen months.

SME2 reported that "*working with EPIC had expanded their horizons and fostered a much closer working relationship with statutory partners. It introduced the SME to a greater breadth of practical solutions and expanded their thinking and networks*". The aspect of support which made the most difference was "*Accessibility. Being able to ask questions as and when has been invaluable. It has also been exceedingly supportive to showcase EPICs wares with us in our awareness raising month*". However, when asked whether working with the Behaviour Change Team made SME 2 more aware of psychological aspects of their project, he answered "*I'm*

afraid this has not made a difference to our thinking. Possibly because we come from a clinical background well founded in psychology".

Case 3: Mobile application for Substance Disorder

SME3 was a recent psychology Masters graduate who had prototyped a science-led behaviour change mobile application (app) for eating disorders, substance dependence and alcohol addiction. The app focused on increasing emotional wellbeing, including boosting mood, lowering stress levels, and reducing anxiety and depression.

The app combined known and evidence-based techniques to identify problems, re-train negative bias, block undesirable cravings and plan achievable goals. The Behaviour Change Team was first contacted by SME3 in March 2019 by email, after the founder had read a blog-post on the EPIC website and requested support with development of the core business plan, assessing the impact of the prototype, and identification of available funding opportunities.

Although SME3 contacted the EPIC project too late to get funding, Creative England continued to give support in finding other funding options and Behaviour Change Team found organisations to support the evaluation of the app. Knowledge exchange was expanded by reviewing the business plan as SME3 perceived academic assistance and expertise invaluable at this vital stage. The Behaviour Change Team contacted a local company which specialised in supporting people affected by mental health issues in Cornwall, but the collaboration foundered. The team was eventually successful in finding a charity specialising in people with mental health issues and addictions. SME3 met with them and they liked the concept of the

digital health application, and agreed to support its evaluation. The app has been shared with a team of psychologists and psychiatrists to further assess its evidence base, and they argued that the app needed to be validated before a full trial could begin. They expressed an interest in a possible collaboration with SME3, which would mean assistance with this validation and reducing required investment cost. At the end of collaboration, which lasted approximately six months, the app was scheduled to be released pending this evaluation, as a fully marketable product.

SME3 reported that "*the Behaviour Change Team had been exceptionally helpful by answering any questions and providing support throughout the process*" and "*I think the one-to-one time and connections I have made through EPIC have been the most important contributions so far*". While SME3 believed "*the support could potentially have been obtained from other sources, however, EPIC conveniently provided the help required, online and in person*". SME3 further stated "*the behaviour change team showed me the importance of validity when utilising features that are 'supposed' to help"*.

Case 4: Digital health application for Chronic Disease

SME4 was a local authority manager, whose close relative with fibromyalgia had benefitted from a novel psychological intervention developed by academics at a University in the region. SME4 proposed building the intervention into an app to deliver lifestyle advice for individuals affected by fibromyalgia, chronic fatigue syndrome and myalgic encephalomyelitis. The app would offer people an opportunity to think about their health and wellbeing in a new way, to understand the importance of maintaining a healthy lifestyle, work-life balance, prevention of poor health and/or recovery from various illnesses which affect the body and mind. The academics who

had developed the intervention contacted the Behaviour Change Team in August 2018 to set up a collaboration with SME4. The academics had previously provided courses to patients and healthcare professionals, but recognised that with the app more people could benefit from their new approach, not just regionally, but all over the country.

SME4 was a very new start-up and received a lot of support regarding creating and formally registering their company and preparing a feasibility application from the Behaviour Change Team and Creative England business support through various face-to-face meetings and email exchanges. SME4 was very keen to apply for feasibility funding through EPIC, but was delayed by intellectual property issues with the university that employed the originators of the psychological theory which formed the basis of the application.

Due to these issues, the collaboration between SME4 and the academics did not go ahead. SME 4 applied for feasibility funding just before the EPIC project deadline, but due to competition its application was not successful. SME4 is now planning to design a ‘lifestyle digital health app’, which will include elements of the theory with a link to the originators’ website, but also broader education about healthy lifestyles, relaxation techniques, body awareness, self-care, illness prevention, work place health, signposting, links to support groups and leisure activities across Cornwall.

At the end of collaboration, which lasted approximately 12 months SME4 was registered as a new business and was interested in finding out about other funding opportunities available to SMEs in Cornwall.

SME4 registered as a company as part of the process of working with EPIC and reported "*working with EPIC made me believe that the project was viable, and the encouraging and energetic support had been very motivating*". "*Advice around completing the application for feasibility funding"* was seen as key, as SME4 was not aware of any other local sources of support. Although SME4 was not yet at the stage of designing a digital health product, they were sure they would "*benefit from additional support from the Behaviour Change Team in the future, if it were available"*.

Case 5: Mobile Application for Mental and Physical Disorders

SME5 was a new digital health company, focusing on using games to help people manage their mental and physical disorders, such as anxiety, panic disorder and chronic pain. They wanted the games to be psychologically valid, based on research evidence, and eventually evolving into a social platform. The company consisted of a software developer and a mental health mentor who was approved by the government to provide support to local university students.

SME5 first met with the Behaviour Change Team in November 2018 after an introduction at the annual EPIC conference. Face-to-face meetings were arranged to discuss possible collaborations, together with phone calls and email exchanges, and SME5 expressed an interest in providing development support for two other projects also supported by EPIC. One could not be supported by the project as it did not meet the criteria for funding, but the second project group met with SME5 in February 2019, and SME5 prepared the quote for them to include in their feasibility application. The proposal was not judged by EPIC as competitive, and collaboration did not go any further.

SME5 was awarded £5000 feasibility funding for one gamified app of its own, which they spent on research and writing a business proposal. They were worried about cash flow during the development stage, and submitted a development request for just under £100,000, but the EPIC project was able to offer them only £25,000 contingent upon match funding being obtained within two months. They were not able to obtain this additional funding and collaboration between the company and the EPIC project did not progress any further. SME5 did not provide any responses to questions asked by the Behaviour Change Team.

Discussion

The benefits reported by SMEs and barriers to success align with previous research (1,5,8–10), including collaboration between academia and the digital health industry (11). In terms of Santoro and Gopalakrishan's (7) four categories of UIC, the five SMEs mainly required research support or knowledge exchange, rather than co-operative research or technology transfer. A common advantage reported by all of the SMEs from engagement with the EPIC project was the networking with other SMEs, end- users and public bodies. SMEs are often led by one or two individuals, who can feel isolated and unsupported, lacking knowledge of funding sources or markets for their products. Attending project events and conferences enabled them to make new collaborations and push their ideas forward in ways that would not have occurred to them without such contact. Three out of five SMEs reported that working with the project had made them more ambitious and motivated, encouraging strong psychological bases of their inventions where they did not already have an academic background. The project was able to guide SMEs towards behaviour change

techniques with a better evidence base and to ensure that their implementation within digital health apps was functionally appropriate.

Other members of the EPIC academic team were also able to provide technical, programming and usability support, marketing support or other research facilities otherwise unavailable to small start-up companies without secure funding streams and access to end-user groups.

The feasibility funding and the process by which the SMEs had to provide business plans and concrete ideas also helped the SMEs move their plans forward, either from the drawing board to prototype or from prototype to product. Only one of the five discussed in this paper received a more substantial amount of development funding, but even the limited amount of feasibility funding gave the SMEs time and resources to firm up their ideas. Feedback from EPIC during the feasibility process was felt to be honest, and timely, allowing the SMEs to avoid wasting effort on unproductive aspects of their proposal and to focus upon achievable goals.

The variety of outcomes mentioned as benefits by the SMEs reflects the differing ways in which success can be defined in UIC (1-4). Some focus on building relationships, some focus on resource availability and product delivery, and others focus on the extent of collaboration. Our short set of questions may not have prompted all of these aspects equally.

As EPIC emphasised the importance of a ‘bottom-up approach’, the introduction of SMEs to end-users at an early stage in product development was seen as vital by the project team, but this was not recognised by SMEs. They already had a product idea which they wanted to develop first and test it on users afterwards, rather than to develop it with user input, contrary to user-centred design

practice (14,15). This would allow their needs and requirements to feed into the design process, and avoid SMEs spending time on unmarketable ideas.

A major incentive for SMEs to engage with the project was the offer of funding from the EPIC Challenge Fund managed by Creative England. While the limits on this and the need for matched funding were very clear, some SMEs anticipated that once they had contacted the University other funding streams would be found to further support the development of digital health applications.

EPIC did not specify a limit on academic team time in supporting SMEs, but some assumed that researchers would be able to play a role in supporting them in promoting their product, and supporting its uptake within the market. For example, SME1 hoped that the team could persuade the University to take up their product, and SME3 wanted the team to identify a company to adopt their product. By making the universities the servant of industrial development, this risks inverting the intended role of UICs, which should be a two-way process of collaboration, knowledge exchange and transfer of innovative ideas (1).

To support this, it is hypothesised that a university needs to manage expectations clearly and to specify in advance the support available. UICs would benefit from a review process in place from the beginning of any project to avoid inappropriate expectations developing. Overall, the experience of managing UICs within this strand of the EPIC project showed there were various positive aspects for SMEs, but also that there were negative aspects hindering collaboration. These hypothetical conclusions need to be tested in future research with UICs, and it is planned to do so in EPIC's recently funded follow-on project, which extends the activity until 2023.

These conclusions are limited to the subset of the SMEs who answered the questions. It is inevitable that SMEs who have experienced a positive UIC would be more likely to respond to such a survey, biasing the conclusions, as shown by the lack of response from SME5. Although the study tried to sample across a range of outcomes, SMEs who had a limited engagement with the project were not emailed the questions. To better understand the reasons why they failed to engage, some way to obtain their opinions should be found. Another potential bias arises from who in the SME responds to questions: even in small teams differences of opinion and experience exist, and may not be captured by asking for one response per SME.

In conclusion, this paper has provided some initial evidence on collaboration between academia and the digital health industry, so far missing from research on UICs. Successful collaboration in this domain could play an important role in the development of ‘evidence based’ digital applications aimed at long-term behaviour change. It may positively influence end-user health outcomes after a common understanding of the purposes of the collaboration, and the goals that each collaborator is working towards to are reached.

Academics need to be aware that SMEs will be keen for human resources, funding support and networking opportunities. SMEs need to be aware that academics have institutional and disciplinary goals around research and teaching, and are highly constrained in both time and resources. Like (11,16,17) this project found that for a UIC to be successful, these contrasting expectations need to be managed very carefully and made explicit to both sides of the collaboration from the outset.

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Case	SME formed	Main business	Referral from	First e-product?	Date met EPIC	Financing provided	Outcome
1: Online Employee wellbeing and workplace engagement portal	February 2013	Design and implementation of innovative employee benefit packages Practitioner moving into digital health	Creative England	Yes	May 2018	£5000 feasibility £25000 development	Product
2: Virtual Mental Health Care	October 2013	Mental health charity specialising in delivery and management of complex adult care Practitioner moving into digital health	CIOS Growth Hub	Yes	August 2018	£5000 feasibility	Prototype
3: Mobile Application for Substance Use Disorder	November 2018	Developer of a science-led behaviour change App Practitioner moving into digital health	Blog post	Yes	March 2019	None	Product
4. Digital health app for chronic disease	December 2019	Service user moving into digital health	Academic	Yes	August 2018	Applied but was not successful	None
5. Mobile Application for Mental and Physical Disorders	November 2018	E-Health Games Company App developer moving into digital health	EPIC conference	No	November 2018	£5000 feasibility	None

6. Childhood anxiety and phobias within clinical environments	N/A	Service user moving into digital health	Academic	Yes	March 2018	None	None
7. AI Avatar for mental health coaching	N/A	Service user moving into digital health	Creative England	Yes	December 2018	None	None
8. Emotional Coping Skills	N/A	Healthcare professional moving into digital health	EPIC event	Yes	July 2018	None	None
9. Sensory garden	April 2016	Charity supporting individuals affected by learning difficulties and/ or visual impairment Service user moving into digital health	EPIC event	Yes	January 2019	Applied but was not successful	None
10. Digital health physio exercise	December 2017	Healthcare professional moving into digital health	EPIC event	Yes	April 2018	None	None

11. Self-management	August 2014	Bot design and AI agency App developer moving into digital health	EPIC event	Yes	April 2018	£5000 feasibility	Prototype
12. Healing Wheel- digital platform and programme	N/A	Holistic approach to mind, body & wellbeing Ex Healthcare professional moving into digital health	Creative England	Yes	September 2019	None	None
13. Healthy lifestyle	February 2018	Nutrition, sleep, movement and stress management Service user moving into digital health	Creative England	Yes	June 2019	None	Prototype
14. Lifestyle interventions for individuals looking for employment	April 2019	Improving health and wellbeing by making regular physical activity accessible to all Service user moving into digital health	EPIC event	Yes	November 2019	£5000 feasibility	Prototype
15. Tailored made plans	September 2017	Tailormade plans for personal and professional results Service user moving into digital health	Creative England	Yes	December 2018	Applied but was not successful	None

16. Dental anxiety	September 2017	Social enterprise that promotes best practice in the management of dental anxiety Service user moving into digital health	Creative England	Yes	April 2018	£5000 feasibility	Prototype
17. Active kids	September 2018	Physical activity in school age children Service user moving into digital health	Creative England	Yes	July 2018	£5000 feasibility	Prototype
18. Home safety in elderly	April 2007	Two Way Radio Systems integration Service user moving into digital health	EPIC event	Yes	April 2019	None	None
19. VR/AI in a clinical setting with acquired brain injury	March 2008	Consultant Clinical Psychologist Healthcare professional moving into digital health	EPIC event	Yes	March 2018	None	None
20. Digital platform for support, advice and signposting (Breast Cancer)	April 2018	Innovative products that boost mood and confidence Service user moving into digital health	Creative England	Yes	March 2019	None	None

21. General wellbeing	October 2017	AR company focusing on health and wellbeing App developer moving into digital health	EPIC event	No	February 2019	None	Prototype

Table 1. Summary of SMEs involved with Behaviour Change Team, contact dates, funding provided and outcome by end of EPIC project. SMEs 1 to 5 are reported in this paper.