Future Care Capital

Report

User Insights into Digital Mental Health Tools

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About FCC

Future Care Capital is a charity which undertakes research to advance ideas that will help shape future health and social care policy and deliver better outcomes for individuals living in the UK. Beginning life as the National Nursery Examination Board in 1945, the charity has evolved throughout its 70-year history.

About the Author

Dr Peter Bloomfield is Head of Policy and Research at Future Care Capital. He has extensive experience of clinical research, technology research & development and technology start-up acceleration.

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Romney Gwynn is a Consultant at Newmarket Strategy and has an excellent understanding of the market access landscape for digital health technologies and medicines, with experience in helping start-ups navigate the UK system.

Company Registration: 2887166.
Charity Registration: 1036232.

The coronavirus pandemic was one of the toughest times in living memory, but it undoubtedly helped shift political and public focus onto the importance of mental health and wellbeing. What was once a taboo subject is now being openly discussed, with ever growing numbers of us prioritising our mental health.

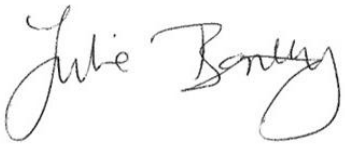
At Samaritans we want to see this momentum grow and strengthen, and for individuals to have a range of support options at their fingertips. Now more than ever, the increase in digital offerings is widening the access to mental health support tools, which can be used by hard-to-reach communities; or those who may struggle to open up to their friends, family or GPs. Given our focus on broadening the reach of mental health support, we support the additional avenues to care that digital health technology can offer.

This research is focused on understanding user's experiences of using digital mental health tools. It not only highlights the potential of digital mental health technologies but also re-affirms the importance of human connection in care delivery. It is a follow-up report to the Mental Health Tech Landscape Review, which undertook a market analysis of the mental health technologies in England, as part of the Care Tech Landscape Review.

While we are fully aware of the dangers of the online environment, digital technology can also be a great tool for social connection and finding support. This report found that many users of mental health technologies still wanted face-to-face support and were using digital mental health tools in addition to, not as a replacement for, more traditional forms of support. It also found that users would like more help to use these technologies from health care professionals.

Digital support will never be a replacement for widespread public mental health services, nor should it be. Users have clearly indicated that digital tools are complimentary to existing services, and face-to-face support remains critical. Therefore, the public mental health services we rely on need to be funded and resourced in accordance to the scale of the problem – particularly in the aftermath of the pandemic, and whilst the cost-of-living crisis and looming recession unfolds.

With such a plethora of digital tools available, including our own Samaritan web-based self-help app, and an increased openness and enthusiasm to try them, what is needed now is a greater understanding of how different tools can help in different ways, so that we can support as many people as possible on their journey to better mental health.



Julie Bentley
Chief Executive
Samaritans

Key Findings

This report follows the second instalment of Future Care Capital's *Care Tech Landscape Review* series, the *Mental Health Tech Landscape Review*. The report explored trends in the mental health technology market in England and made recommendations for the development, adoption and spread of useful technologies. This work focused on care provision rather than diagnostic or condition-specific intervention. While conducting the research, it became clear that poor demand signalling structures currently exist, and the consumer perspective is not always sufficiently considered in technology development, which inspired this user research and other FCC initiatives.

Here we are providing a snapshot of current attitudes, behaviours relating to, and perceptions of mental health technology in England. We explore what tools people use, how they use them, and why. We also identify the user perceived advantages and disadvantages of such tools, and their optimal features according to users. We consider the integration of digital tools with existing mental health services, particularly in light of COVID-19 trends in mental health. Finally, the report recommends measures that would be beneficial for the development and adoption of mental health tools, and to address some of the challenges in integrating digital and face-to-face healthcare delivery. The report seeks to inform policymakers, innovators, technology developers, clinical researchers and the health and care workforce by advancing the critical discourse around the need, role, and optimal features of digital mental health tools.

This report is based on the primary research undertaken with ZPB, looking into trends around the use of mental health tools and user perceptions. The data is from a survey of 515 individuals and a two-day workshop with 15 participants conducted in June 2022. Only individuals who had used or are currently using mental health tools were involved in our research, so the answers are not fully representative of the population. Additional research in this area, to understand the perception of technology amongst those who have never used it, may also be useful.

Use of digital tools

Smartphone apps and web-based apps were the most popular form of mental health technology. Apps, web-based apps, and wearables were also considered the most effective. In terms of descriptors, simple terminology which is easy to understand, such as 'apps' and 'websites', was preferred. 'Digital tool' was also a preferred over 'digital technology', due to its simplicity. However, some considered 'digital tools' to be unclear.

Most of the survey cohort (61%) were already using mental health support tools prior to the pandemic. However, over the course of the pandemic, the frequency in which they used the tools increased. Many people turned towards digital mental health tools because they did not want to wait for face-to-face support elsewhere. However, a minority of people preferred using digital support tools over traditional face-to-face support.

Many found the lack of interaction and support with health or care providers whilst using the technology challenging. The inclusion of therapist, councillor, GP, and healthcare professional interaction was still an important factor in accessing support for mental health and 50% of respondents thought digital support tools which help people with their mental health could be improved with more frequent recommendations from GPs and therapists.

"61% had used digital tools to help with their mental health before the pandemic"

and

"62% now use mental health technology more frequently".

"87% had used smartphone apps to help with their mental health before"

and

"Over 50% found that smartphone apps, web-based apps and wearables were quite effective."

"Only 7%-15% of respondents used digital mental health tools alone. The respondents often used the tools alongside medication, support they accessed when they need it, regular face-to-face support or regular online support, or support they accessed when they need it".

Introduction

At the time of the Mental Health Landscape Review in 2021, the impact of the pandemic on the nation's mental health was still emerging, the toll on the health and care workforce was also of growing importance[1]. An approximate waiting list of 1.6 million for mental health services[2] in the UK, and a hidden waiting list of up to ten million[3] have since been reported. This combined with declining staffing numbers in NHS mental health services, mean people were, and still are, struggling to access mental healthcare. Evidence suggests that the impact of the pandemic on the nation's mental health is pervasive and ongoing[4]. The cost-of-living crisis, a looming recession, and the energy crisis will squeeze living standards; prior experience tell us this will inevitably drive a rise in mental health problems and demand for services[5]. NHS Confederation warns that "*rising energy costs, low incomes and energy inefficient homes may push half of British households into fuel poverty, resulting in cold homes, which cause both physical and mental illness and risk further straining overstretched NHS services*". Population mental health is closely linked to levels of inequality[6], and as inequality across the UK deepens, we can expect to see a rise in the need for mental health support.

Against this dire backdrop, mental health technology presents a potential solution to those unable to access support through the NHS immediately. Perhaps most importantly, "*digital technology represents an opportunity to fundamentally rethink the way we design and deliver services*"[7]. However, poor demand signalling can hinder the development of useful, needed and wanted technologies. The evaluation and commissioning processes for mental health technologies are often not as robust as is needed. To address this, FCC carried out research to give users a platform to voice their perspectives. This report will explore current consumer trends to understand how individuals perceive and use mental health technologies, explore how consumers want to integrate these technologies into their daily lives, and consider how commissioning can support this move to patient-centric technology.

Demand

To add further pressure to the NHS, the official NHS waiting list for mental health support does not provide an accurate overview of the true scale of mental health problems within the UK. It is estimated that nearly half of adults (24.5 million in England) believe that they have had a diagnosable mental health condition at some point in their lifetime[8]. Research by Mind showed that of the people who do not seek help for their mental health, almost half said it was because they did not think their issues were important enough[9]. This links to the well documented and well broadcasted waiting lists for mental health support in the UK, meaning many people know that there may not be adequate support available to them, reducing the number of people who seek support for their mental health in the UK.

Supply

Compounding these issues further, the vacancy rate of medical professionals working in mental health services in England reached 14.3% in June 2022, and 19% within NHS mental health nursing[5]. Both vacancy rates have grown since the start of the pandemic[10]. The Royal College of Psychiatrists estimated that in 2021 there was 1 consultant psychiatrists per 12,567 people in England[11]. Compared to the 2.8 doctors per 1,000 people in the UK, which is already considered

to be too low [12], the need for more mental health staff is clear. This is also combined with substantial and worsening waiting times, with the majority waiting up to 18 weeks for support after first engaging with services[13].

With much of the nation struggling with their mental health, private insurers are increasingly interested in delivering mental health services. While long waiting lists are common for public providers, private providers and insurers often provide quicker access to support for those that need it[14]. However, access is often conditional on employment, and insurance plans are not affordable for all. For those struggling to get an appointment through the NHS, that are also unemployed, or do not have access to private care or employer-led insurance plans, access to mental healthcare remains limited. Many are falling through the gaps.

With increasing vacancy rates across the mental health workforce, projected growth in service demand, and an NHS still addressing the pandemic, there is an urgent need for innovative approaches to providing mental healthcare support. The proliferation of consumer-facing technology can be seen as a natural reaction to this lack of access through traditional channels.

Investment in Mental Healthcare Technology Start-Ups

The mental health technology market has significantly grown in the last five years alone, partially because of the pandemic. Estimates find that there may be as many as 20,000 mental health apps in circulation currently across the globe[15,1]. In 2021, an estimated $5.1 billion was invested into mental health companies, a trend which has continued into 2022, with $1 billion invested in the first quarter of the year alone[13]. The market for mental health apps appears to be growing exponentially, in part to meet with the growing demand for "access-anywhere" mental health support. While mental health provision through technology has certainly helped many people during the pandemic, there is still a long way to go in the sector when it comes to ensuring well-evidenced products are recommended at the right time and to the right people.

Commissioning

In England, the regulation of mental health tools is not yet an exact science. Recent figures show that only 14% of mental health apps generated evidence of their effectiveness[11] before reaching the market. Users and healthcare practitioners alike have little guidance on what evidence to look for, which technologies are best to use under what conditions, and where to access them. Positive strides have been made to develop appropriate regulation and standards framework for digital technologies, including the Digital Technology Assessment Criteria (DTAC)[16] and NICE's Evidence Standards Framework (ESF) for Digital Technologies[17]. While these frameworks are helpful, they are generic and do not account for the specific characteristics of mental health tools. Concerns around data collection and management are particularly acute for mental health tools; there are also ethical considerations around research and patient involvement. A strong argument can be made for a bespoke mental health technology framework.

[1] Within FCC's original research - the *Mental Health Tech Landscape Review* - 56 mental health technologies were assessed, with an average investment of 3.7million each. Considerable opportunities for growth and investment were identified in the UK mental health tech market. Investment trends in the UK may have evolved since.

Commissioning structures that better align with user needs, and specifically developed evidence and assurance approaches, would benefit the development and adoption of helpful technology. The commissioning structures for digital health technologies, including those for mental health, have yet to be formalised by the system, trusts and ICSs largely appear to operate individually, and it is difficult for solution providers to navigate this landscape efficiently. This can cause bottlenecks at the point of entry and regulatory uncertainty is difficult from the perspective of users, commissioners, and developers alike. These factors ultimately slow down adoption and reduce access for patients, ultimately affecting outcomes.

The Improving Access to Psychological Therapies (IAPT)[16] programme is considered by many as a good example of a digital mental health scheme that has been commissioned at a national scale. This is perhaps not the full picture. While the referral rate to IAPT is high (and has increased since COVID-19)[18], treatment compliance and outcome data is not collected and measured consistently, so it has been hard to gauge the programmes' impact. Almost ten years since its launch, the success of the programme is unclear. The IAPT showcases not just the need to integrate technology into mental health pathways in a meaningful way, but to monitor its impact and effectiveness on an ongoing basis. There is a clear lack of robust evidence standards and evaluation around the IATP, which could be mitigated with the right framework. A bespoke digital mental health support framework could not only be applied to user-facing technology, but retrospectively to programmes like the ITAP to evidence and improve their effectiveness.

Results

The following section sets out some of the key the findings from the qualitative and quantitative research carried out with ZPB. The research focused on three themes around digital mental health tools:

- **Their use:** the types of technology the survey cohort used, the frequency of use, what they used them for, how effective they found them, whether they used them in association with other support services, and how they were introduced to the technology.

- **The impact of COVID-19:** whether users utilised the technology more frequently, and how user perceptions of the healthcare system changed during the pandemic.

- **Their benefits and drawbacks:** challenges users faced when engaging with the technology, what attracted them to digital mental health tools, why they liked using them, and how these tools can be improved.

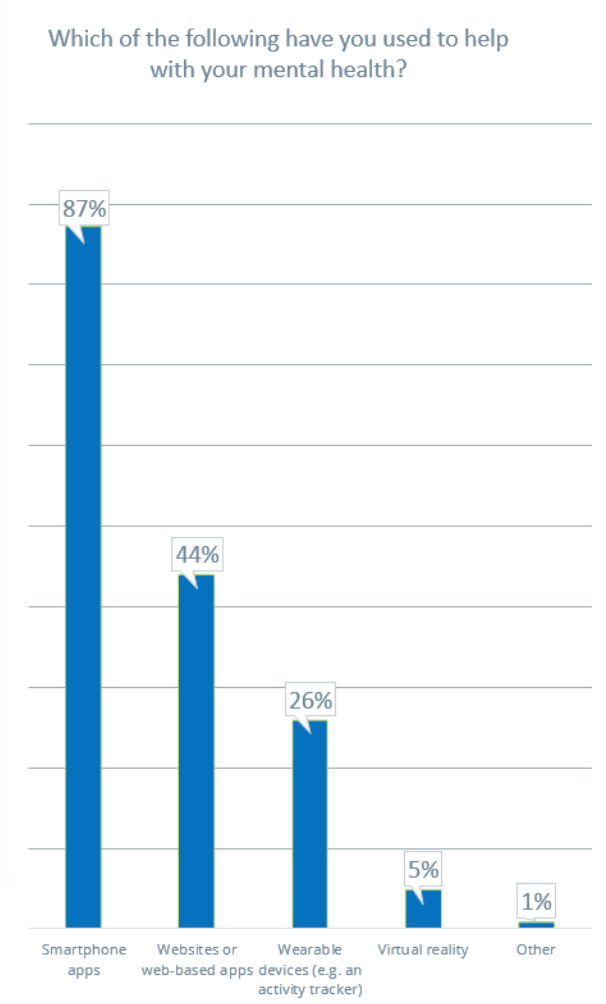
Use of digital tools

Some people use mental health tools daily, whereas respondents who used to check in daily are now using them less. Repetitiveness and a limit to what is offered were cited as reasons for this.

Some people preferred to use paper tools, whilst others preferred digital tools, partially due to their convenience and the variety of options.

Generally, people found digital tools easy to use. However, some people noted frustration with navigating apps and finding personalised options.

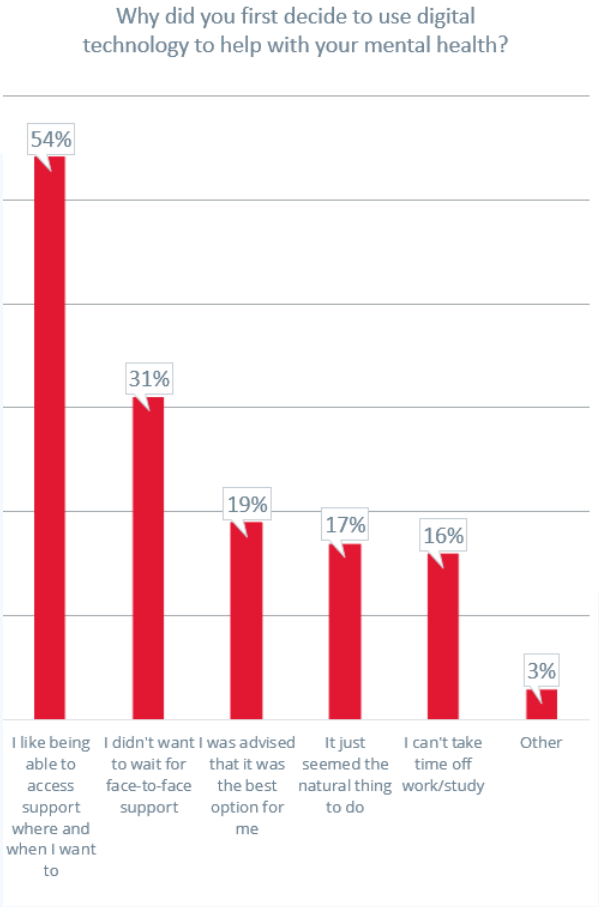
- 87% of respondents used smartphone apps to support with mental health, compared to 44% who use web-based apps.
- 33% of people who use smartphone apps found out about them on social media, compared to 13% who found out about them from their GP.
- 53% said they use tools to monitor their mental health and 52% said they use them to access other support such as information and advice.
- Of the people who use apps to support their mental health, 89% found them either very effective or effective.
- However, only 23% would recommend digital tools to their friends and family, and 41% would not.



Benefits and Drawbacks

The immediacy of accessibility (and lack of waiting times) was mentioned as a main benefit of digital tools. Main drawbacks included ambiguity, finding the right tool, lack of personalised treatment and lack of professional guidance.

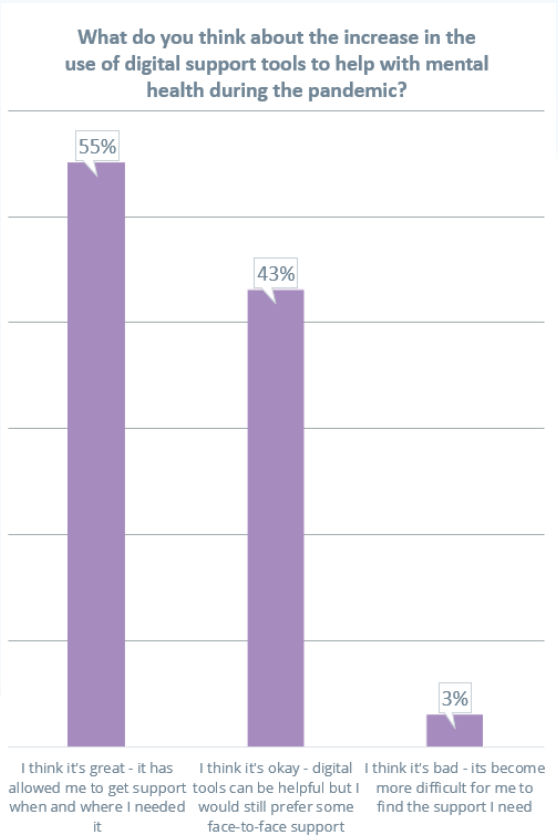
- 54% of respondents said they first decided to use digital tools because they liked to be able to access it where and when they need it.
- This was followed by not wanting to wait for face-to-face support (31%).
- 40% of people found the lack of face-to-face support challenging and 33% found it hard to stay motivated when using digital tools to support their mental health.
- 50% said more frequent interactions with GPs would improve digital tools and 39% said a better overview of which tools are helpful for what conditions was needed.
- 36% said they think more information on how to use them would be helpful.



The impact on COVID-19 on the use of mental health technology

The pandemic increased the amount of people who use digital tools to support their mental health and has also increased the frequency with which these tools are used.

- 61% of respondents used digital tools before the pandemic, however, of the ones who did not, 52% said they were not aware of them pre-COVID-19
- 62% now use digital tools more frequently than before the pandemic, of those, 73% said that is because their mental health has been affected by the pandemic and 59% said getting face-to-face support has become more difficult
- 55% said the increased use of digital technology as a result of the pandemic has been great as it allows them to access support where and when they need it. 43% said it's okay but they would still like to receive some face-to-face support and only 3% said they think it's bad and it has become more difficult for them to get the support they need.



Discussion

The discussion is split into three sections: Part 1 will focus on consumer attitudes to mental health tools: why, what, and how individuals use them. Part 2 will focus on the role of mental health tools: the advantages and disadvantages of technology for mental health, and how it should integrate in wider health and care settings, according to consumers. Part 3 will focus on access: challenges consumers face and how commissioning structures can support developers to design technologies that are needed and enable access. Quotes from the workshop are included throughout.

The discussion will also consider the importance of seizing the digital opportunity. Digital support tools can provide opportunities three-fold: the opportunity to rethink current service design and pathways; opportunities for scalable interventions for prevention, self-help, and peer support (particularly in high-unmet need areas); and provide opportunities to support innovations in the context of UK healthcare[17]. As we saw in the introduction, there are substantial, system wide, issues for delivery of services. Current approaches to digital implementation in mental health pathways have been criticised. However, the sector can move forward with methods which improve the quality of digital solutions and enable better outcomes alongside traditional approaches. The opportunity presented by technology for scalable interventions can be particularly useful for reaching rural and marginalised communities who may have poor access to healthcare institutions. Rebecca Cotton, co-founder of Lumino and former Director of Mental Health Policy at the NHS Confederation, notes that "*digital technology presents us with new opportunities to deliver NHS services differently, hopefully enabling more people to access the treatment and support they need*."[11]

It is worth noting that only individuals who reported having a mental health condition and having used digital technologies were surveyed – it would be interesting to replicate the research with a representative group who did not use digital technologies to understand the full spectrum of opinion, as well as comparing with other conditions and health tools used by the general population.

Part 1: Consumer attitudes and behaviours

The pandemic has led to an increased usage of mental health tools. According to our research findings, mental health tools were already used broadly amongst the survey cohort, with 61% of respondents claiming to have used mental health tools prior to the pandemic. This shows an interest in alternatives to traditional face-to-face therapy and alternative channels to access mental healthcare. Of the individuals who had not previously used digital tools, 52% said that this was because they were not aware of digital mental health tools pre-pandemic, 31% said it was because they did not think mental health support tools would be as effective as face-to-face support, and 20% said they felt the range of digital options was too limited. Of the 515 individuals surveyed, 73% said their mental health was impacted by the pandemic, and 62% reporting more frequent usage of mental health tools. This is unsurprising, and it will be interesting to see whether usage remains high when access to NHS or employer-led healthcare services improves.

A variety of platforms are being used to access mental health tools. Smartphone apps were by far the most popular form of technology, with 87% of respondents having used them. In addition,

44% of respondents had used website or web-based apps, 26% had used wearable devices, and 5% had used virtual reality (VR). This distribution naturally reflects the proportion of technologies available for each platform and the widespread use of smartphones. Whereas only about 5% of households own a VR headset (1 in every 17)[19], 87% of UK citizens own a smartphone.[20]

It was interesting, therefore, that 41% of respondents used their wearables more than once a day, more frequently than the other technologies examined. 'Wearables' can mean a variety of different things, be it smart watches, headgear, earpieces, and medication patches. Their functionality can range massively, as can their price. This finding speaks to the rise in wellbeing and self-tracking, and the ease of passive data collection. These aspects are increasingly integrating with the functions of our daily lives.

Perhaps unsurprisingly, mental health tools were used in a range of ways by the survey cohort. While smartphone apps and VR were used as respondents' primary channel to access mental healthcare support, web-based apps and wearables were more commonly used among a suite of support tools. Digital tools were rarely used alone, with the majority of respondents using them either alongside medication, as well as regular face-to-face or online support. Indeed, the purpose of using the tools was varied, with 53% of respondents using the tools to monitor their mental health and 52% using them to access other support such as information and advice. This suggests that technology is usually used to enhance or augment other mental health interventions, and that it is not a holistic or "one-size-fits-all" solution for most individuals. It is important to frame the role of technology accordingly – so that it is presented as one helpful option, not the only option (and certainly not one that could or should replace all other channels of support available). The variety of options that technology presents is reflected in how these tools are used. Those that use mental health tools to engage with support will ultimately want to engage in different ways, and therefore, plurality of choice[11]. Tools are currently largely static in their function and interface at present. Mental health is an experience which progresses over time and is largely dynamic. It will be interesting to see how tech can adapt over time and be tailored more flexibly to meet an individual's evolving needs.

Recommendation: user insights suggest that mental health tools are utilized alongside other interventions - such as medication, talking therapies and peer support groups – and that access to a healthcare provider is still incredibly important. Digital mental health tools should be designed and commissioned with the idea of choice and access to traditional services in mind, and proper consideration on how to integrate technology into traditional forms of support should be taken.

Accountable parties: NHS bodies, clinicians, insurers, innovators, and employers.

Most people found that mental health tools were 'quite effective' at improving their mental health. Wearables had the highest rate of response for 'very effective', whereas web-based apps and VR had the highest rate of responses for 'not very effective' and 'not effective at all'. It is likely that the passive data collection and monitoring element of wearables was perceived positively, as it requires less manual input and provides more data outputs, highlighting its effectiveness. Over the longer term, such data can be effectively utilised to tailor products to adapt over time. 55% of respondents thought that increased usage of mental health support technologies during the pandemic was 'great', as it allowed them to get support when and where they needed it. However, 43% still preferred face-to-face support, while recognising the benefits of such tools.

Our research findings suggest that people pivot to mental health tools when accessing support via traditional channels – whether NHS, employer-led insurance, or private care – becomes difficult or unmanageable. Given the current economic climate and difficulties faced by the sector, we can expect interest in mental health tools to remain high for the foreseeable future. While the trends above provide a useful snapshot of current attitudes to mental health tools, these are likely to change and should be monitored on an regular basis. Accessibility and affordability should remain key considerations in the development and spread of technologies.

Recommendation: understanding user insights is key to developing helpful, needed, and wanted technologies. Ongoing monitoring of user behaviours, preferences, and experiences of using mental health tools will enable technologies to evolve alongside user's expectations.

Accountable parties: think tanks, such as FCC, innovation hubs, patient organisations, and NHS bodies. Regulatory bodies will need to arrange the appropriate safeguards to ensure safe usage and data management of user feedback.

"It's a great thing if a professional tells you what to do with it but most people struggling with mental health start using digital tools without much information just because professional help is not available".

However, to complicate matters further, research has found discrepancies between user and professional interpretations around the quality of mental health apps[21]. The research found that users were consistently rating the technologies lower than their professional counterparts[12]. Professional reviewers often overlooked features that users found important in these technologies, such as tracking progress and educational content[12][21]. The research was limited however, as it looked at mental wellness apps, not the broader scope of mental health technologies. As elaborated on in the original report, there are important differences between mental wellness technologies and mental health support tools that should impact their regulation.

Developers and clinicians should both equally recognise that their interpretations of a quality digital tool may not mirror the impressions of the users, underpinning the importance of demand signalling and listening exercises. Clinician Reported Outcome Measures (CROMS)[22] and Patient Reported Outcome Measures (PROMS)[23] are two evaluation methods used in the NHS to gauge the effectiveness of an intervention. Although PROMS are used for a narrow selection of interventions currently, future research into the effectiveness of digital mental health tools should explore utilising both methods to better measure their outcomes.

Recommendation: exploration and adaptation of CROMS and PROMS for digital technologies in the UK, to ensure ongoing monitoring of effectiveness and support iterative development of helpful technologies. Insights and needs from both users and professionals should be made explicit for usable technologies to be developed.

Accountable party: NHS Transformation Directorate.

Part 2: The role of technology

Accessibility was one of the main benefits of mental health tools for the survey cohort, with 54% of respondents saying they first decided to use digital tools because they liked to be able to access them where and when they wanted. Many of the respondents noted that the reason they first turned to mental health tools is because they did not want to wait for face-to-face support. In addition, respondents preferred the convenience and customisability of mental health tools compared to similar paper-based tools.

"I was drawn to the use of digital tools after asking for help that I never got"

However, only 16% of respondents said that they preferred digital tools over other forms of support. Reasons given included frustration with navigating apps and finding personalised options; repetitive or finite resources; struggling to find technologies that are effective, with payment to progress making it challenging to find a truly effective one; and lack of face-to-face support. A lack of professional guidance and training on how to use the tools, lack of progress tracking, and not knowing which tool to use for which problem, where also cited by many of the survey cohort as being limitations of mental health tools. Another limitation identified by a third of respondents was that it is hard to stay motivated when using mental health tools, with usage dropping off over time. Despite an overwhelming majority of responders finding mental health tools effective, only 23% would recommend digital tools to their friends and family, and 41% would not. There was also a clear sense of concern that the NHS would become too dependent on digital tools.

"I feel that the NHS and any mental health services rely too much on digital tools and the real human interaction and therapy is not as it used to be. I think the focus that is on digital tools right now is more than enough because digital tools can't replace a mental health professional."

Some of the most interesting insights came from respondent's feedback on what can be done to improve the user experience of mental health tools. 50% of respondents agreed that more frequent interactions with GPs and professionals would improve digital tools. The desire for human contact and tailored care plans came across strongly in our findings.

"The main drawback in using digital tools is that sometimes it can feel daunting without personal contact with a mental health specialist."

The concerns and obstacles presented by users are valid and useful for informing adoption of mental health tools. It can be argued that different mental health tools serve a narrow purpose best, whether this be enabling access to talking therapies, signposting resources or tracking wellbeing. Currently these tools do not evolve with user's changing needs. To some degree, these findings strongly reflect there has been poor expectation management around what digital technology can realistically achieve in isolation; and that it is most helpful as part of a wider set of interventions. It is important to remember that technology is not an outcome, it is a tool to achieve an outcome, and should be used with a clear purpose in mind. As such, digital tools and more traditional mental health services need to function in balance with each other, complementing care rather than replacing it.

Recommendation: exploration of how to retain the human element of care in digital interventions

Accountable Parties: developers, commissioners, mental health service providers.

The ideal technology according to users

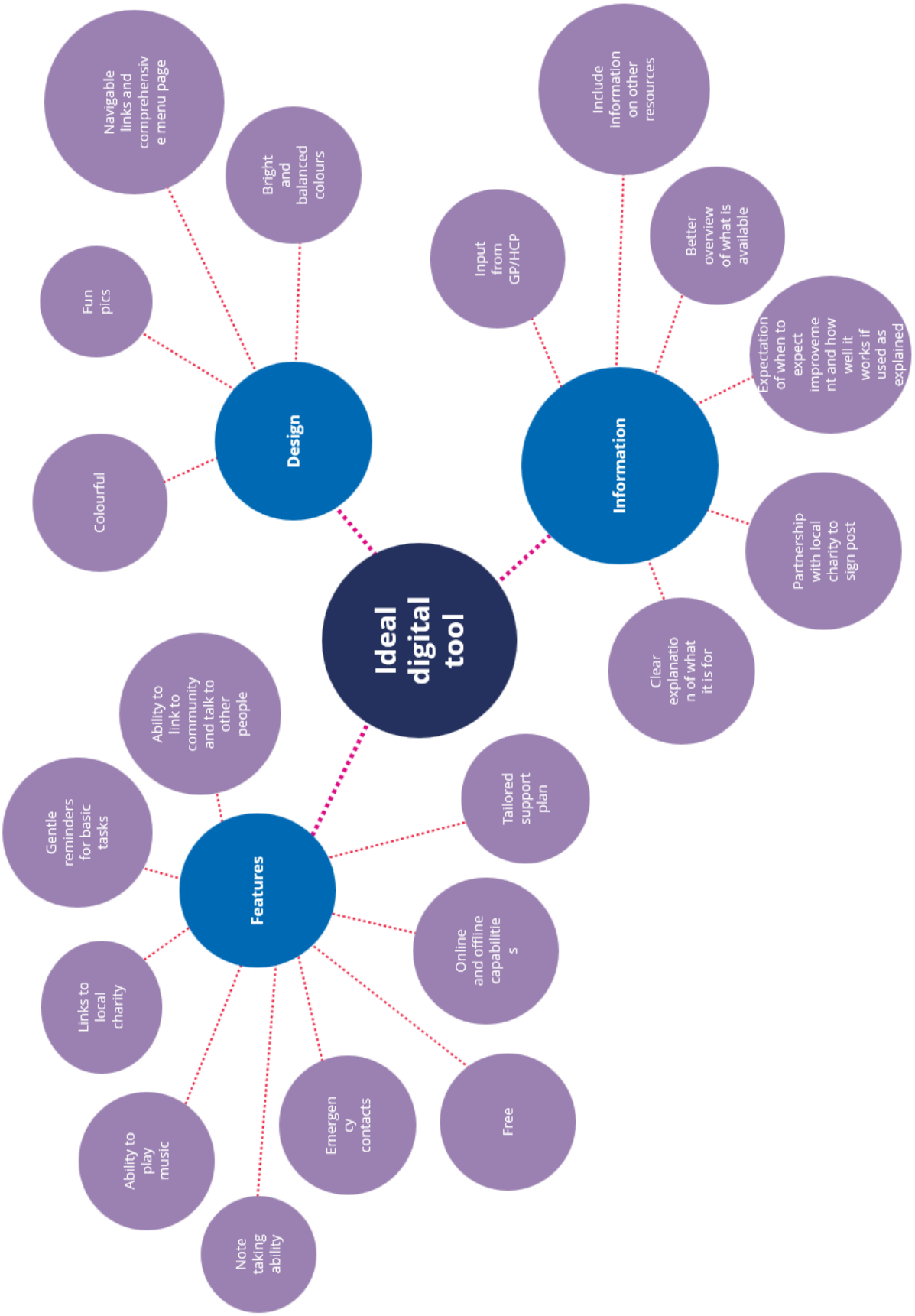
Interestingly, 31% of respondents said that mental health tools improved over the course of the pandemic. While much can still be done to improve their accessibility, usability, and impact, respondents have reported a positive impact on their mental health. Respondents outlined the ideal criteria for a mental health technology, including the design, information, and features.

- **Design:** including its colour and design palette. People responded better to bright and balanced colours. Fun and interesting pictures, navigable links and comprehensive menu pages were also important design factors. The design and flow that guides user interface and experience is very important.

- **Information and communication:** including a clear explanation of what the technology is for and an overview of what is available within the product was identified as important information to include. When improvements to the product could be expected, users having access to the data they input, signposting to other resources. Suggestions included local charities and input from a GP or healthcare professionals. FCC would also add that with the introduction of AI tools, clear descriptions of implementation and consent criteria should be prominent.

- **Features:** the ability to use the product whilst both online and offline, a log of emergency contacts and links to local charities were important features the survey cohort wanted present within the tools. The inclusion of a tailored support plan, gentle reminders of basic tasks and note taking abilities, as well as the ability to communicate with others through the tool for support were also identified as features that an ideal mental health support tool should include. Choice is paramount here, selecting these features is attractive for personalised implementation.

The ideal features have been represented graphically in the map below.


Ideal digital tool
Design
Navigable links and comprehensive menu page
Bright and balanced colours
Fun pics
Colourful
Information
Include information on other resources
Input from GP/HCP
Better overview of what is available
Expectation of when to expect improvement and how well it works if used as explained
Partnership with local charity to sign post
Clear explanation of what it is for
Features
Ability to link to community and talk to other people
Gentle reminders for basic tasks
Tailored support plan
Links to local charity
Online and offline capabilities
Ability to play music
Emergency contacts
Free
Note taking ability

User expectations in healthcare and digital services are changing, with a newfound emphasis on co-production and shared decision making[17]. We recommend innovators and policymakers take this feedback into account when developing and commissioning digital health technologies, as well as recommend clearly communicating how to interact with such development processes. In particular, the system could validate and develop this map further, into a formal set of criteria to help recognise quality technologies from the offset. These formalised criteria should then be communicated clearly with industry so it can develop technologies that are known to work for both patients and the system. Better demand signalling mechanisms (whereby users and providers of care communicate what they want and need) is the first step to developing more usable mental health tools.

Outside of the healthcare system, this criterion could also be adopted by private insurers and employers providing mental health support to their staff – safer in the knowledge that these technologies have been designed with the user in mind and evaluated for their impact. The use of mental health tools does not stop at the NHS. The criteria and evaluation of these technologies should be made widely available to the public, so those wanting to access them independently can make informed decisions on which technology is best for them.

Recommendation: development of a demand signalling mechanism, whereby healthcare prescribers and decisionmakers, and users, feed into the development of technology. Open communication channels should be incentivised top-down and included in formal policies to ensure patient involvement does not become a 'nice to have'. Additional resources would be helpful for all parties.

Accountable parties: NHS England, NHS Transformation Directorate.

Part 3: Enabling Access

The popularity of mental health tools was quite high prior the pandemic. However, of those who had not used technologies before, 52% attributed this to being unaware of digital support tools prior to the pandemic. Across the board, mental health tools were introduced to individuals by family and friends or had been found online independently. A minority of respondents had been recommended a technology solution by either a therapist, councillor, GP or other healthcare practitioner. Awareness of mental health tools is a clear barrier to uptake amongst those who need them. Many respondents felt that the involvement of, or access to, healthcare professionals when using these technologies was important. Patients would prefer to hear about mental health tools from a trusted source, such as a prescriber of healthcare practitioner. This can help to address decision fatigue and should enable patients to access the right tool, at the right time. However, the literature confirms that there are problems within the system when it comes to commissioning and prescribing digital support tools[24].

"I usually find the digital tools by doing a Google search, but this doesn't really prove successful"

Despite recent advances, the health technology market in England remains immature; there is a lack of formalised evaluation systems for digital mental health tools with widespread use across England. This means that it is not always clear which technologies are evidence-based, or what approach is being used to generate and assess evidence. Further down the chain, healthcare

practitioners at every level are burdened with evaluating the tools themselves, with little support or training on doing so, making them less confident to make decisions and recommendations on behalf of their patients[20]. Commissioners are understandably nervous to prescribe mental health tools due to the lack of evidence, perceived risk of integrating ineffective products, a lack of funding and clarity around responsibility[20].

"In the case of mental health… [it is] a sector that is ripe for digital disruption."[11]

Addressing these issues could enable widespread adoption and access to mental health tools, aiding patients and the system simultaneously. Feedback from commissioners showed that clarification around funding and responsibility, the housing of relevant digital expertise in the right place, and a trusted evaluation mechanism within the system, would help in making decisions when it came to commissioning these technologies. It is important that commissioners and providers alike are given the right tools and support so that their service models can respond effectively to those who need the help, when they need it.

Recommendation: the UK healthcare system should develop formalised and specific evaluation criteria for mental health tools, informed by the understanding that mental health is distinct in the sector. Alongside due diligence and evaluation, user insights and maturity of evidence should be considered, setting standards not only for technologies that meet user needs, but those that are effective and have proven outcomes.

Accountable parties: NHS bodies, regulators.

Recommendation: a replicable commissioning methodology in the UK for mental health tools would be helpful. Creating a structure that supports healthcare organisations to select the correct solution is key to ensure widespread adoption and uptake, allowing patients to feel benefits quickly. Ringfenced funding and training should also be made available to commissioners so they can make effective decisions and implement and scale them across their footprints quickly and efficiently.

Accountable parties: NHS bodies, policymakers, regulators.

Call to Action

This research has surfaced clear insights from users of digital mental health tools. A range of needs and conditions were represented in the sample, yet the perceived benefits and drawbacks of the current ecosystems of solutions were remarkably consistent. In the coming months and years, it is critical that we see change in this environment. We would like to enable more access to tools for users through recommendations from trusted sources such as healthcare providers and practitioners.

1. **Recommendation**: user insights suggest that mental health tools are used alongside other interventions - such as medication, talking therapies and peer support groups – and that access to a healthcare provider is still incredibly important. Digital mental health tools should be designed and commissioned with the idea of choice and access to traditional services in mind, and proper consideration on how to integrate technology into traditional forms of support should be taken.

   Accountable parties: NHS bodies, clinicians, insurers, innovators, and employers.

2. **Recommendation**: understanding user insights is key to developing helpful, needed, and wanted technologies. Ongoing monitoring of user behaviours, preferences, and experiences of using mental health tools will enable technologies to evolve alongside user's expectations.

   Accountable parties: think tanks, such as FCC, innovation hubs, patient organisations, and NHS bodies. Regulatory bodies will need to arrange the appropriate safeguards to ensure safe usage and data management of user feedback.

3. **Recommendation:** establishment of CROMS and PROMS as a pre-requisite to launch digital technologies in the UK, in order to ensure ongoing monitoring of effectiveness and support iterative development of helpful technologies.

   Accountable parties: NHS Transformation Directorate

4. **Recommendation:** exploration of how to retain the human element of care in digital interventions.

   Accountable parties: developers, commissioners, mental health service providers

5. **Recommendation:** development of a demand signalling mechanism, whereby healthcare prescribers and decisionmakers, and users, feed into the development of technology. Open communication channels should be incentivised top-down and included in formal policies to ensure patient involvement does not become a 'nice to have'. Additional resources would be helpful for all parties.

   Accountable parties: NHS England, NHS Transformation Directorate

6. **Recommendation**: the UK healthcare system should develop formalised and specific evaluation criteria for mental health tools, informed by the understanding that mental health is distinct in the sector. Alongside due diligence and evaluation, user insights and maturity of evidence should be considered, setting standards not only for technologies that meet user needs, but those that are effective and have proven outcomes.

   Accountable parties: NHS bodies, regulators

7. **Recommendation**: a replicable commissioning methodology in the UK for mental health tools would be helpful. Creating a structure that supports healthcare organisations to select the correct solution is key to ensure widespread adoption and uptake, allowing patients to feel benefits quickly. Ringfenced funding and training should also be made available to commissioners so they can make effective decisions and implement and scale them across their footprints quickly and efficiently.

   Accountable parties: NHS bodies, policymakers, regulators

Future Care Capital is committed to stimulating such change and would recommend any interested parties to directly engage with us to take forward recommendations or to discuss other relevant ideas. FCC is always keen to hear from innovators, policy-makers, clinical researchers, and others involved in the innovation ecosystem. You are encouraged to get in touch if you want to discuss the findings or engage with us further:
Research@futurecarecapital.org.uk

Appendix: Methodology

This report is based on the quantitative and qualitative research carried out with ZPB Associates (ZPB) in June 2022. ZPB carried out an online survey of 515 individuals to understand use and perceptions of mental health technology. All individuals identified as having a mental health condition and having used or using digital tools to support its management.

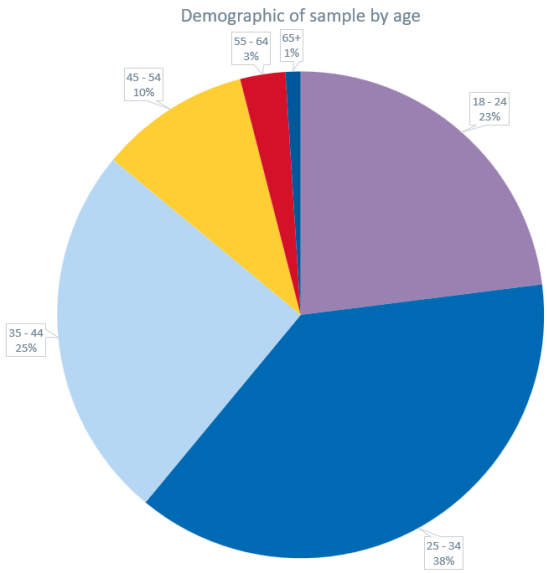
From the survey sample ZPB recruited a sample of 12 into a two-day online workshop conducted in a closed Facebook group. This allowed participants to have an open and meaningful conversation about the topics discussed. Both the survey and online workshop were run by Anne Janssen, Senior Analyst and Oswin Baker, Associate Research Director.

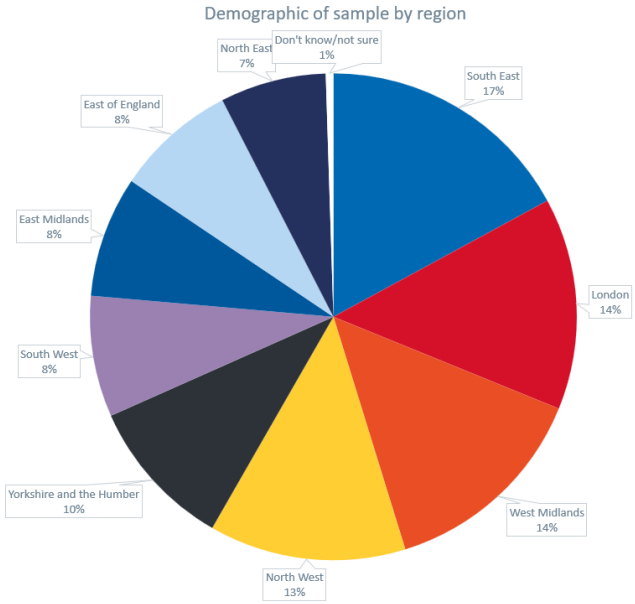
In addition to this primary research, a variety of searches were conducted. Reports, NHS policies, and company databases were researched to ensure FCC could comment on the current narrative around mental health technology use.

In addition, the research investigated popular technologies used by the cohort. Calm, Headspace, Mind, NHS apps, and Breathe were all used by the respondents that used smartphone apps. For websites and web-based apps, the Mind and NHS website were mentioned. Fitbit and Applewatch were the two technologies respondents used that were considered wearables, and there were no specific brand mentions for virtual reality.

Survey demographics

Note: The demographic breakdowns were asked in line with the breakdowns used by the Office of National Statistics for the Census





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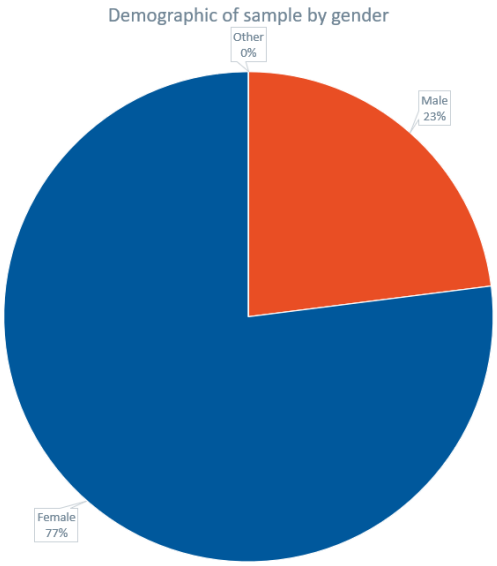

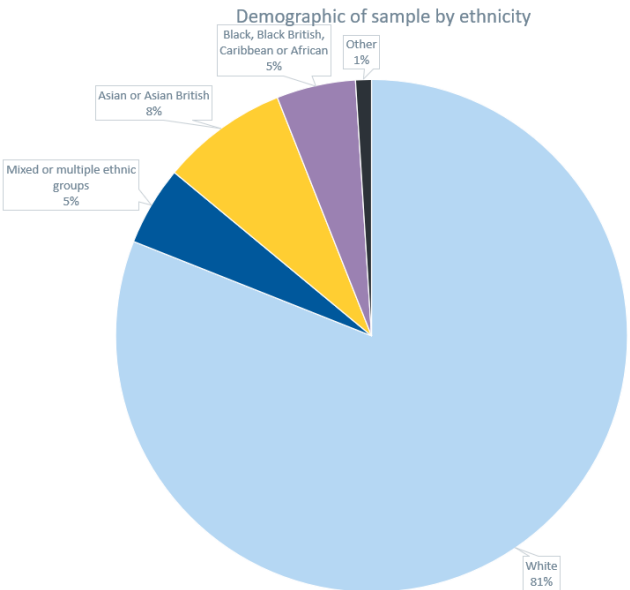

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