

Chapter 8

How can health coaching link with digital technologies?

The purpose of this chapter is to provide a brief overview of how emerging digital technologies might augment health coaching, both now and in the future. While several examples are provided, the products mentioned are neither endorsed nor recommended.

The chapter is written for health and care leaders, clinicians and others and covers:

- **The rationale for combining health coaching with technology**
- **A number of key areas where technology can support behaviour change**
- **Quality assurance**

What are the opportunities?

Over recent years there has been a significant expansion in the use, types and scale of digital health technologies. For example, take-up of smartphones has continued to increase, with two-thirds of adults (66%) now owning one. Over half of households (54%) had a tablet computer in early 2015¹.

There are tremendous opportunities to tap into this technology revolution, to support the challenges of improving health and well-being.

These technologies can enhance the impact of health coaching by:

- **Identifying those at risk and who may benefit from health coaching**
- **Activating, engaging and empowering patients**
- **Setting goals and tracking progress**
- **Providing opportunities for peer support**
- **Giving access to patient information**
- **Delivering more sophisticated health behaviour models**

Digital interventions alone may be insufficient challenge to change individual mindsets and behaviours, while professional or peer coaching can be costly and/or inaccessible. Together the interpersonal support of a health coach combined with easily accessible technology could be a highly effective combination.

At a glance

The rapid growth of digital technologies offers considerable opportunity to augment one to one health coaching and better motivate patients to self-manage and adopt more healthy behaviours

Technologies that augment health coaching include those that enable tailoring of interventions through segmentation, including cognitive profiling, as well as shared records, apps to track progress, and peer support and disease specific self-care platforms

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"Information technology plays an essential and rapidly expanding role in empowering people to take charge of their own health, by providing information, support and control"

Useful resources

Examples of the digital health technologies mentioned in this chapter are listed in Figure 13

What are the potential uses of digital technology with health coaching?

1. Digital technologies for risk stratification

Risk stratification software now uses a wide range of data, criteria and sophisticated algorithms to identify those at most risk of disease deterioration and admission and hence those who would most benefit from health coaching. The sophisticated use of artificial intelligence and self-learning diagnostics, for example in retinal screening for diabetes, means that through early identification patients can be engaged to change behaviours to prevent disease progression.

Health Navigator (case study 8):

- Uses an evidence-based algorithm
- Assesses a patient's risk of unplanned inpatient care over six to twelve months
- Clinicians assess whether patients will respond well to health coaching
- Patients are invited to receive the support of a health coach who also helps them navigate their health and care, without providing direct clinical advice

2. Technologies to enhance patient-centred care

Electronic patient records shared with the patient can provide useful insights for the health coach. Agreed goals and actions can be recorded securely, including those that are important to the patient. Approaches such as care and support planning can be greatly enhanced through shared patient records (Chapter 9).

With **Patient Knows Best** the patient:

- Owns the copy of their medical information
- Chooses who to share this record with
- Maintains a record of all aspects of their health and wellbeing
- The record can include progress towards agreed goals and records of discussions, reinforcing and supporting behaviour change

2.1. Peer support

Many people, particularly with long term conditions, can feel isolated and vulnerable. Linking people together through on-line peer support networks provides the opportunity to share information that can create and reinforce ideas for change i.e. before and after health coaching sessions.

HealthUnlocked and Patients Like Me provide opportunities for patients to link to others with similar conditions and share their anxieties and strategies for living with their conditions.

2.2. Reinforcing and supporting behaviour change digital health technologies and apps

There are over 160,000 health apps³ many of which provide simple and effective ways to set goals and track progress in a timely way by the patient or health care professional to reinforce behaviour change.

However, sufficient attention to psychological theory needs to inform the design and use of these apps⁴. Gaming theory, cognitive profiling (see below) and personalised decision aids may play an increasing role in improving the effectiveness of behaviour change supported by technology.

Puffell is a social media platform that enables people to self-manage their own health and wellbeing. It has also developed a bespoke asthma platform that:

- Supports people with asthma to understand and better manage their condition
- Offers tools and trackers to enable users to track their symptoms and to understand what might be impacting their condition
- Provides a history that can be shared with their health professional
- Offer features for peer to peer support
- Supports wider life - beyond just asthma
- Helps to support the diagnosis of asthma as opposed to viral wheeze

2.3. Psycho-social and personalised "precision digital"

Perhaps one of the most exciting potential developments in digital health technology is the assessment of psycho-social characteristics, to create bespoke solutions.

Behavioural understanding will become increasingly important if we are to treat and manage disease.

“...we need to look at someone’s psychometric and behavioural profile before prescribing digital health solutions. For example, if you are more competitive person who is constantly driven by targets and goals then you might respond better to a more gamified app than someone who is less competitive.”⁵

In particular, cognitive profiling can help identify the barriers to behaviour change, which are often unconscious and could be addressed through health coaching.

Mind Field Solutions has developed an evidence-based and validated tool that identifies unhelpful health beliefs based on neuroscience that compromise the patient's ability to effectively self-

manage. Specifically, a conscious and subconscious cognitive profile of the underlying decision-making processes is provided. Health coaches can then provide a more tailored and relevant support system for the patient⁶

3. How do we assess the quality of technology?

With thousands of apps available to download, it can be difficult for the public and professionals to determine which apps and technologies are the most useful and effective, particularly if prescriptions of apps and technology become as common as drug prescribing. A process for app accreditation is currently being developed by the National Information Board to enable them to make the right health and care choices⁷.

The Organisation for the Review of Care and Health Applications (ORCHA) in the absence of any formal national process, provides health professionals with a live updated resource of “approved” apps, based on a robust rating system, and which offers support and guidance to app developers.

Figure 12 gives an over view of the potential use of digital technology in combination with health coaching.

Figure 12. Summary of potential uses of technology with health coaching



Figure 13. Link and resources complimentary to health coaching

Complimentary IT Solutions	Links
<p>Ofcom</p> <p>National Information Board (2014)</p> <p>Health Navigator</p> <p>Patient Knows Best</p> <p>Health Unlocked</p> <p>Patients Like Me</p> <p>Puffell Mind Field Solutions</p> <p>Morrison (2015)</p> <p>Organisation for Review of Care and Health Apps (ORCHA)</p>	

Case study 9

Proactive Health Coaching in Scandinavia

A small share of the population accounts for the majority of healthcare costs. About 1% of the population account for approximately 35% of non-elective admissions. This is a transient group which typically follows a pattern of rapidly deteriorating health leading to increased use of A&E and acute services. Often these highly resource-intensive patients are identified too late to prevent the expected deterioration.

Targeting high risk patients

Patients are identified by a proprietary predictive model based on data from hospital Trusts and GPs which predicts who will have increased avoidable health care use over the next six months. These patients are offered a predominantly telephone-based health-management service, delivered by trained health coaches over a period of typically 6-8 months. The service helps patients identify personal drivers for health service contact, and systematically addresses underlying triggers for urgent access which may include e.g. better understanding of their long-term condition(s), addressing social isolation, how to self-manage or navigating the local healthcare system with a designated point of contact.

Proactive health coaching

Proactive health coaching (PHC) has been provided to over 12,000 patients across a population of six million, 17 hospitals and 450 primary care centres in Scandinavia. The intervention has delivered 20–40% reductions in unplanned hospital activity within the target patient groups. The impact has also been visible on a “macro level”. Three years after implementation, Stockholm County Council has achieved a reduction in readmissions from 19% to 16%⁸.

Evaluation

Data using the SF-36 shows over 54% of patients experience an increase in quality of life⁸. Patient's value the holistic listening, continuity and dependability of the

At a glance

Health Navigator, an organisation focused on innovative behavioural interventions, offers a Proactive Health Coaching (PHC) service for patients with frequent non-elective admissions:

- 1% of patients account for approximately 35% of non-elective admissions
- PHC identifies such patients and offers a structured, individualised, intense program of health coaching
- PHC uncovers drivers and triggers for acute health service use and addresses them through a nurse-driven, telephone-based service
- PHC reduces non-elective admissions by up to 40%¹

"Someone who cares, follows up, has the time to listen, calls when promised and whom you can contact when you need to"

Contact

Karin Hogsander
karin.hogsander@health-navigator.co.uk

Useful resources

health coach. The calls between health coaches and GPs provide the GP with a better basis for decisions to prevent patients deteriorating, without increasing the number of GP visits. PHC does not require any changes in the system but supports and reinforces appropriate use of current structures and pathways.

Introduction into UK settings

PHC has been introduced to Vale of York CCG, with additional CCGs joining in 2016. The aim of the CCG with York Teaching Hospitals NHS Foundation Trust and other stakeholders is to reduce the need for non-elective admissions and emergency care. Between August 2015 and July 2016, 200 UK patients have received PHC, and outcomes are being evaluated by the Nuffield Trust through a randomised controlled trial.