

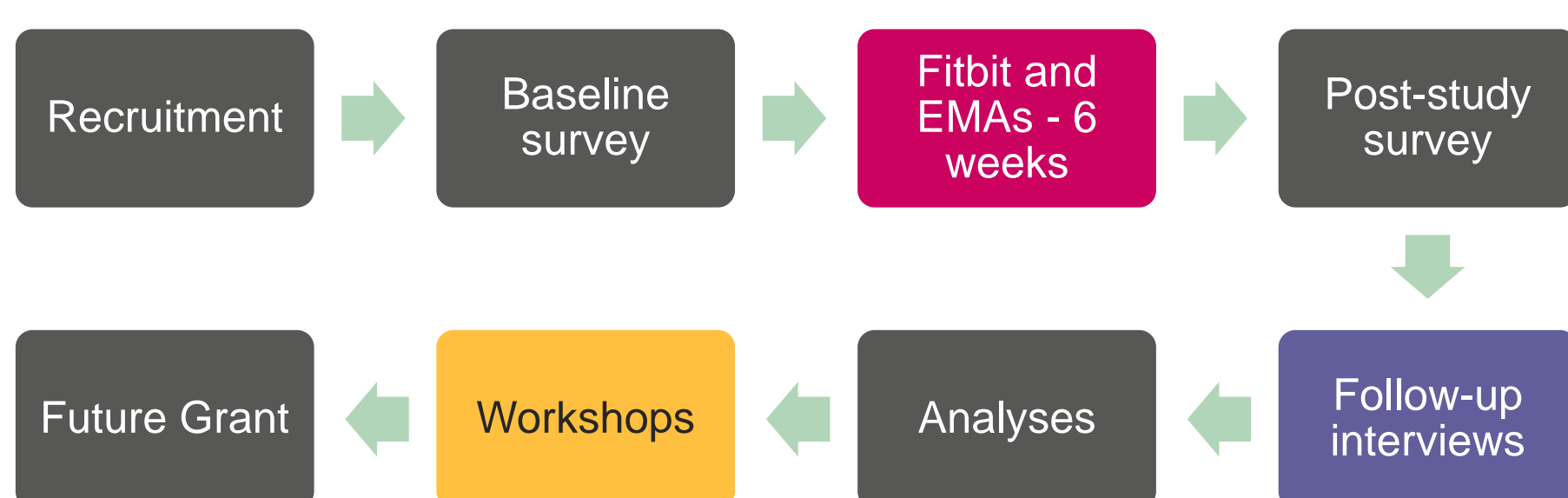
How cancer survivors use smartphone and wearable devices to support physical activity management: A GetAMoveOn Study

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Introduction

- Supervised activity programmes - good for short term benefits, but what happens after? What about people who are in a different location?
- Distance-based – positive impact but smaller effect compared to supervised. Most have been general information, less likely to be tailored.
- Digital technology – best of both worlds?
 - Recent studies show it is an accepted form of delivery among different groups including cancer survivors
- Fitbits and smartwatches are useful in helping people to become aware of and increase their activity levels, especially in the short-term. However, their efficacy in adapting to and helping maintain long-term activity habits is less evident.

Methods



RECRUITMENT

- Convenience sampling strategy, sent invitations to UK cancer support groups.
- Eligibility criteria: 1) aged 18+, 2) current residents of UK, 3) had a diagnosis of cancer, and 4) not currently using a wearable activity tracker.

PHASES

- Phase 1: Observational: 6 weeks of Fitbit use and Ecological Momentary Assessments (EMAs)
- Phase 2: Semi-structured interviews
- Phase 3: Virtual workshops (had to move to remote/online delivery)

MEASURES

- Pre/post study surveys collected demographic, medical, behavioural, cognitive and habit formation information.
- EMAs: twice daily for 6 weeks about Fitbit use and cognitions via PIEL app
- Interviews: after 6 week of Fitbit use, conducted and recorded via Zoom, then transcribed verbatim, and coded for themes
- Workshops: conducted and recorded via Zoom (June 2021), transcribed verbatim and coded for themes.

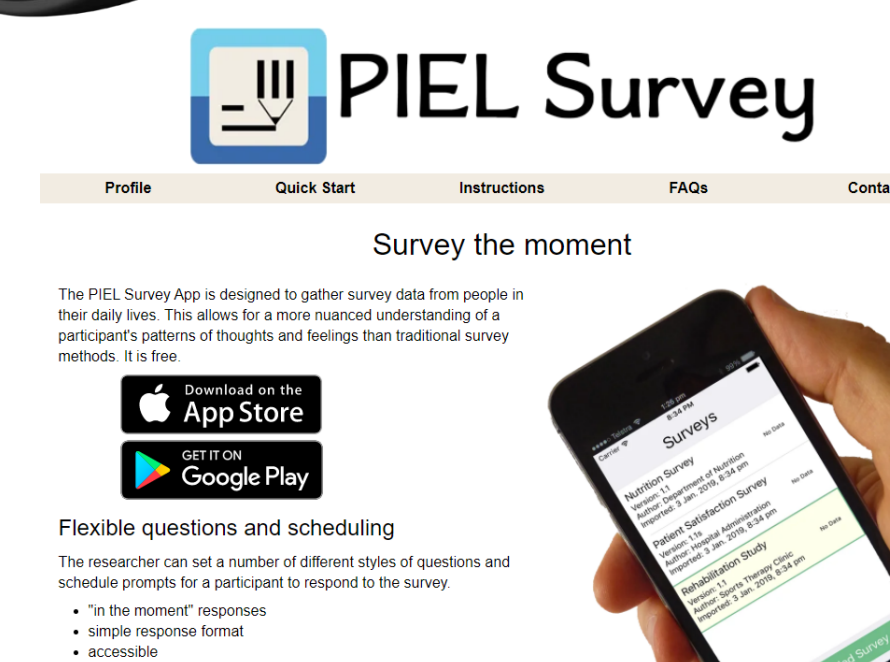
Tailored activity support. Wherever, whenever.

Results

- Phase 1: 27 participants recruited, 23 completed follow-up interviews (phase 2) and 11 participated in final workshops (phase 3).
- Participants ranged from 39 to 82 years old and were 89% female.
- Nine different cancer groups and stages I-IV were represented.
- Twenty-five of 27 participants provided EMA data with an average completion rate of 78% (range 32% to 98%).

ACCEPTABILITY

- Physical activity went down in about 60% of our participants
- Fitbit device and app deemed acceptable by most people
- Main outcome was increased awareness of activity levels
- Heard “came at the right time” often but at the same time, “would have been better in summer”
- Low level of curiosity in general
- Twice daily EMAs were not burdensome and fostered a “sense of connection [with researchers]” and “allowed reflection”.
- Missed EMAs largely due to pre-set timings



Conclusions

- Using a Fitbit and completing twice daily smartphone surveys were highly acceptable in our small group.
- These methods could be used to: 1) help empower self-management, 2) integrate physical activity prescription and management with standard cancer care, and 3) to increase the adaptability of devices to a person and their routine.



More than 2.5 million people in the UK are living with or beyond cancer

Around 1.5 million are over 65 years of age and have other health or mobility issues



This is on top of the short and long-term side effects of cancer treatments!



Healthy lifestyle behaviours can help improve quality of life, recovery and survival rates

Using digital technology for behaviour change can help people with cancer live as best as possible, for as long as possible

