

Insights into recovery from severe COVID-19: a mixed method study

A Gonçalves, A Williams, C Koulouglioti, T Leckie, A Hunter, D Fitzpatrick, A Richardson, B Hardy, R Venn, L Hodgson* and the COVID-OR team

University Hospitals Sussex NHS Foundation Trust

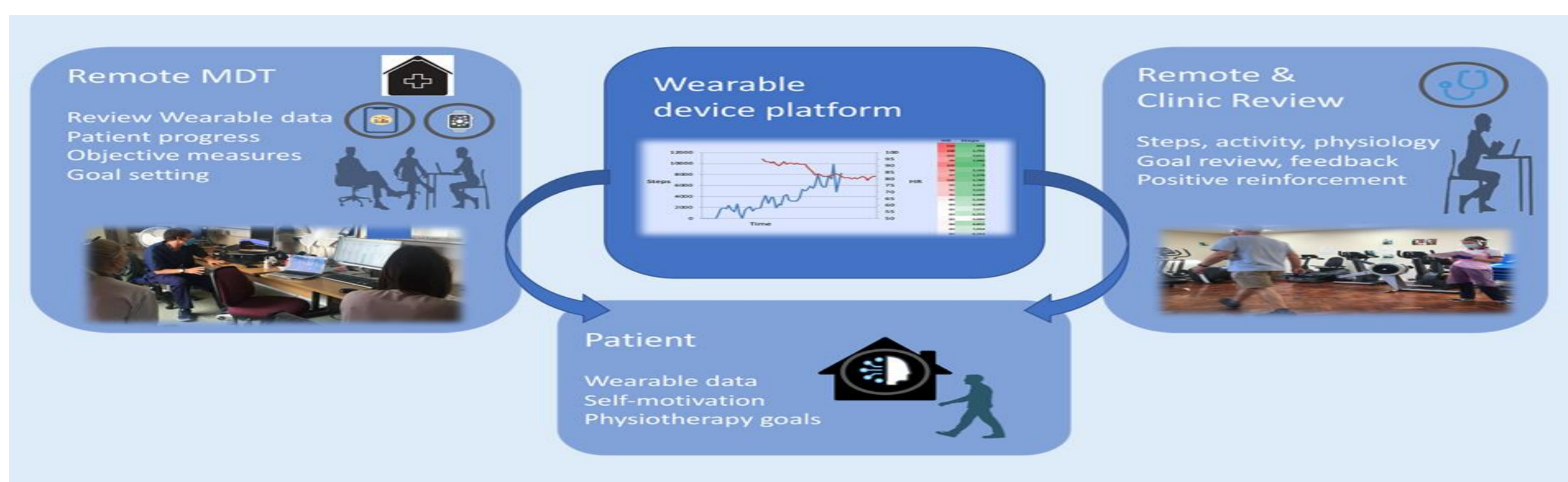
*Contact
Dr Luke Hodgson luke.hodgson2@nhs.net

COVID-OR: a local collaboration in Kent, Surrey and Sussex



Main Study Aims

- To enhance recovery for COVID-19 ICU survivors using a multidisciplinary approach and digital technology;
- To understand the recovery needs over a year post ICU discharge from the perspective of survivors, their relatives and staff

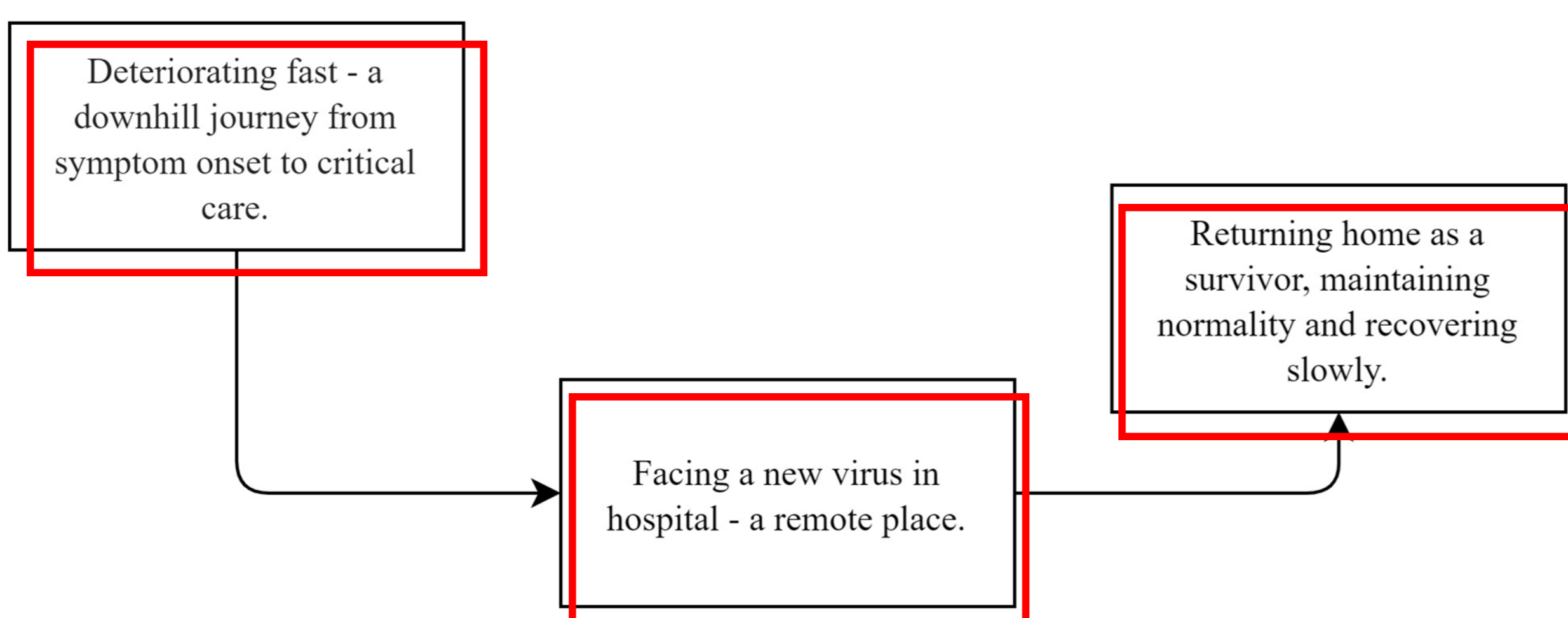


Methodology

- Design: Mixed Methods
- Qualitative:**
 - In-depth semi-structured interviews conducted remotely
 - after the 1st wave of the pandemic
 - Participants: from 5 acute hospitals in the South of England
 - 12 professionals, 6 survivors & 5 relatives
 - Data analysed following Reflexive Thematic Analysis
- Quantitative:**
 - 67 patients recruited
 - To follow the outcomes of patients admitted to ICU by
 - (1) face-to-face assessment at discharge, 3-mo and 1 yr and;
 - (2) Fitbit Charge 3 smartwatches worn by patients

Results

Qualitative: three main themes



Deteriorating fast

I know the 111 [urgent care advice number in the UK] were under such pressure with the volume of calls, but when you are on the phone for over an hour or two hours trying to get through... in desperation, really and all they say is: isolate. People aren't really seeing how bad you are [...] if it wasn't for my wife making that phone call [to 999] I wouldn't be here today, [...] and that is getting too near the knuckle, really too close for comfort.

Survivor, male, 70 year old

Results

Facing a new virus in hospital –a remote place

The earliest positive memories were (...) ICU had a tablet and then [my wife and I] would facetime on the tablet. So that was a fantastic touch, to be able to finally communicate with her

Survivor, male, 54

'...and they just say, you know "he is stable" or "he is sleepy" or something. I suppose if there is nothing else to say, there is nothing else to say. But it is not much when you are at the other end of the phone and just want to know what is going on medically'

Relative, female, 66

"I think [communicating with families] is vitally important, I think it is emotionally exhausting if you were to do it continuously. I think they [junior doctors] might have found it hard, after a while.'

Doctor, male, 40

Returning home as a survivor

"all I wanted to do was to come home. I didn't understand or appreciate how weak she was... [to care for me];"

Survivor, male, 67

"the person that you love, that was previously independent now needs help from you, they are short of breath, they have to eat an especially soft diet, they have thickener in their drinks, they are struggling to walk and you haven't seen them in all this time, you haven't seen this happen and you thought they were going to die twice!"

Speech and Language Therapist, female, 23

Quantitative:

- Ongoing write up of 1 year data
- A small cohort of patients has been reviewed thus far (n=27)
- Average increased daily steps from 4,268 (SD 3,926) in the first 2 weeks of data collected post hospital discharge to 6,189 (SD 4,420) steps at 3 month follow-up (p<0.05)
- Resting heart rate slowed from 78 (SD 8) post discharge to 70 (5) at follow-up (p<0.05)
- Daily sedentary minutes per day declined from 903 (SD 311) at discharge to 842 (SD 306) at follow-up (p<0.05).

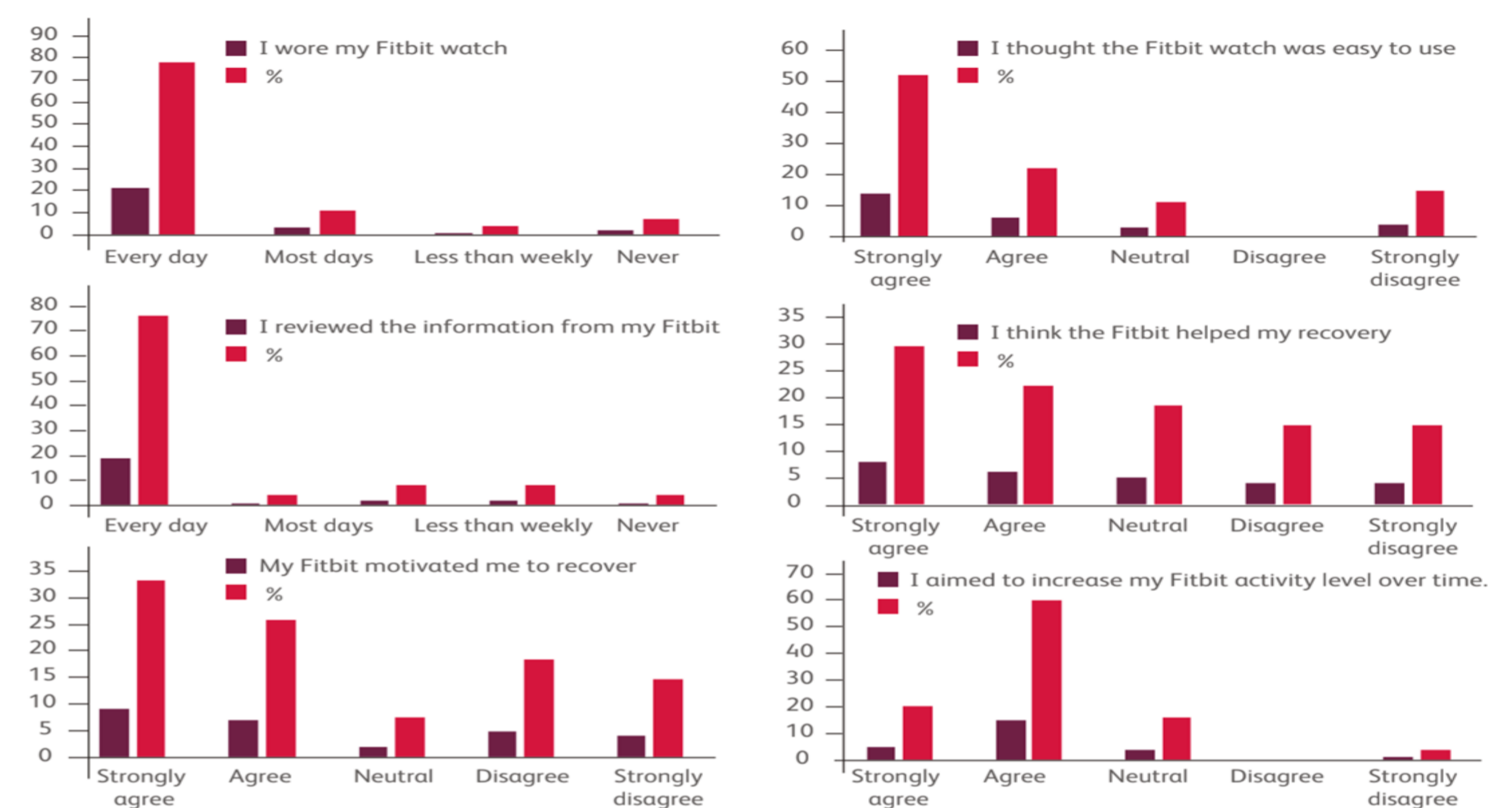


Fig 3. Smartwatch engagement collected at 3-month follow up. n=27.

Conclusions – Knowledge Contribution

- First report of a technology enabled pathway followed COVID-19 ICU admission
- Good patient uptake and engagement with the technology, able to track meaningful recovery
- After discharge patients adopted a reframed 'survivor identity' to cope with their experience of illness and recovery process

Acknowledgments

The research team would like to thank all the participants for their valuable contributions.