# Sapien CASE STUDY





## Service evaluation of Sapien Health remote health coaching mobile application within the South Tees Hospitals prehabilitation service

#### **Key Results**

- 23% Patient Activation Measure
- 27% Physical Activity Score
- 14% Diet Score
- 1 21% Mental Wellbeing Score
- 1 40% Sleep Quality Score
- 18% Sleep Duration
- Net Promoter Score: 78
- Engagement Rate: 85%
- Activation Rate: 95%

%'s are median increases (see pg 2) NPS: Based on promoters: detractors ratio Engagement: % users completing key action p/w Activation: % users completing a key action week 1 South Tees Hospitals NHS Foundation Trust (STHFT) has a team of ten specially trained hip and knee replacement surgeons operating at both The James Cook University Hospital (Middlesbrough) and the Friarage Hospital (Northallerton).

Their exemplary perioperative care programme has received national recognition, as runners up of Anaesthesia and Perioperative Medicine Team of the Year Category of the British Medical Journal Awards 2020.

STHFT identified an increasing demand for remotely delivered and supervised perioperative support particularly in the light of the restrictions resulting to the COVID-19 pandemic. The subsequent expansion in surgical waiting lists, particularly in orthopaedic surgery, offered both a huge challenge to perioperative services but also a clear opportunity to innovate in prehabilitation delivery.

"The Sapien solution was easy to roll out and onboarding new patients is really straightforward. Their standalone solution has helped unburden the whole clinical team."



Esther Carr
Program Manager & Snr Physio,
NHS South Tees



Sapien

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Improving patient activation, lifestyle behaviours and prehabilitation program engagement

### Mobile app-based multi-behavioural intervention tailored for patients undergoing elective hip and knee replacement surgery

STHFT partnered with Sapien Health to deliver a digital programme of personalised guidance and remote health coaching to optimise patients health and wellbeing preoperatively (prehabilitation). This is achieved through supported lifestyle modification and improved self-management.

Hip and knee replacement patients remotely accessed Sapien Health on their smartphones, providing them with:

- One-to-one expert health coaching
- Personalised lifestyle medicine program
- On demand access to Sapien content library
- Tailored video exercise routines
- Smart tracking of health metrics

At the mid point of a 100 patient service evaluation (full protocol is available on request) the Sapien digital solution has demonstrated excellent early results in terms of lifestyle modification, patient engagement and patient activation (as measured by PAM\*).

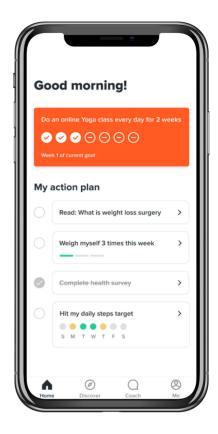
\*PAM® is a 13-item survey that assesses a person's underlying knowledge, skills and confidence integral to managing his or her own health and healthcare. With over 600 peer-reviewed published studies validating its design and results, PAM is considered the gold-standard for assessing health activation.

Existing research shows an improved PAM to be associated with;

- Greater engagement in preventive behaviours, treatment and healthy behaviours
- 8% lower healthcare costs in the baseline year, and 21% higher in the subsequent year
- Each point increase in PAM score correlates to a 2% decrease in hospitalization and 2% increase in medication adherence
- Significantly more likely to attend appointments
- 2-3x less likely to delay unmet medical needs

#### **Outcomes Improved with Sapien**

Outcome Metrics	Baseline Median	Completion Median	Completion Interquartile Range	Change
PAM (0-100)	56.8	70.2	6.9	+23.5%
Physical activity (0-10)	5.5	7	3	+27%
Diet Score (0-10)	7	8	1	+14%
Mental Wellbeing (0-10)	7	8.5	3	+21%
Sleep Quality (0-10)	5	7	3	+40%
Sleep Duration (hrs)	5.5	6.5	2	+18%



"Our work with Sapien at NHS South Tees hospital has shown their digital health coaching solution to be effective in supporting patient optimisation in the lead up to surgery.

The surgery waiting list crisis that exists as a result of the Covid-19 pandemic requires health services to use tools such as Sapien to help minimise unplanned cancellations, complications and efficiently tackle the backlog"

Prof. Gerard Danjoux Consultant Anaesthetist & VP of International Prehabilitation Society



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