

Powering the largest remote study investigating sleep and quality of life for adults with rheumatoid arthritis.

QUASAR case study

“We are seeing unprecedented volumes of data. The entire team is astounded by the numbers and impressed by the uMotif platform.”

Dr Katie Druce Centre for Epidemiology, University of Manchester



Background

The University of Manchester conducted a real-world evidence (RWE) prospective cohort study designed to understand the burden of sleep disruption on rheumatoid arthritis sufferers.

The study, named QUASAR, required a modern technology platform to accurately capture data via an easy-to-use mobile app downloaded on patients' own devices.

University of Manchester's approach included:

- Implement a hybrid site and virtual-based trial
- Embed data collection into patients' daily lives via mobile technology
- Capture a minimum of two validated questionnaires, 15 days of symptom data, and one sleep diary
- Supplement subjective data capture with a sleep-tracking device

The Challenge

- Perform the largest remote study into sleep and rheumatoid arthritis
- Avoid using sleep clinics
- Provide an engaging patient experience
- Capture population representative data

Why uMotif?

- Experts in large-scale virtual and hybrid studies
- Ability to capture both symptom and validated questionnaire data
- Easy-to-use mobile app
- Proven user adoption and engagement
- Real-time results for study participants and investigators
- Highly efficient deployment



Impact

Implementing uMotif's platform enabled the QUASAR research team to complete the study six months early and required 30% fewer patients than expected due to high levels of engagement and complete data submission.

 **94%** Patient Engagement

 **>100,000** Data Points

 **6** Months Faster

 **30%** Fewer Participants

Reference: Druce KL, Cordingley L, Short V, et al. Quality of life, sleep and rheumatoid arthritis (QUASAR): a protocol for a prospective UK health study to investigate the relationship between sleep and quality of life in adults with rheumatoid arthritis *BMJ Open* 2018;8:e018752. doi: 10.1136/bmjopen-2017-018752

Capturing high volumes of quality data

Using a hybrid model encompassing on-site and virtual data collection, a group of 177 patients (94% of eligible participants) submitted complete data providing more than 100,000 data points. The high volume and quality of data captured is unprecedented in similar studies.

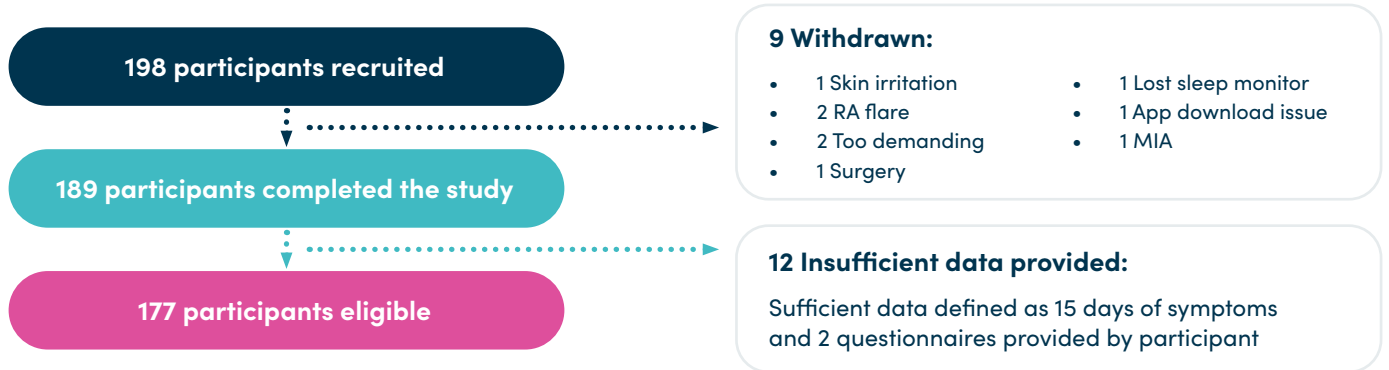
Putting patients at the center

In using a data capture mobile app, patients contributed to clinical research from the comfort of their own homes. This provided more realistic and accurate sleep data, while removing the need and expense of using sleep clinics.

Patients loved using the mobile app, finding it easy and fun to use. In-app data visualizations of symptoms, as well as a sleep diary, provided participants with new insights into their condition without biasing the study.

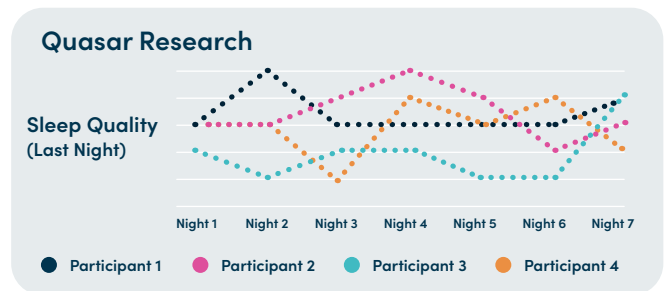
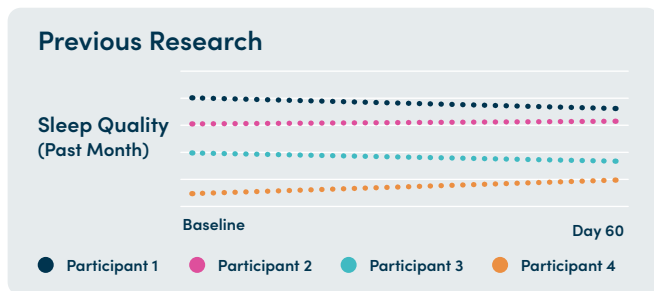
Minimum study power reached early

Higher patient engagement levels enabled the research team to recruit fewer patients to achieve the data volume required for powering the study. In total, 198 participants were recruited (compared to the 350 patients that the protocol initially expected).



New data insights

Previous research has only highlighted macro trends of sleep quality over time. In collecting more data, with greater accuracy, researchers are now able to identify deeper patterns in the relationship between rheumatoid arthritis symptoms and sleep.



Find out more about how uMotif can help drive unparalleled patient engagement and data capture in your next study.

Contact us

