


Please cite the Published Version

McCallum, Claire, Birjandi, Parvin Asadzadeh, Pakpahan, Eduwin, Campbell, Miglena, Vines, John, McCay, Kevin , McColl, Elaine and Hackett, Katie (2022) P284 Evaluation of a self-management smartphone app for those living with Sjögren's syndrome: a fully remote randomised pilot and feasibility trial. In: British Society for Rheumatology Annual Conference 2022, 25 April 2022 - 27 April 2022, Glasgow, United Kingdom.

DOI: <https://doi.org/10.1093/rheumatology/keac133.283>

Publisher: Oxford University Press (OUP)

Version: Accepted Version

Downloaded from: <https://e-space.mmu.ac.uk/633991/>

Usage rights:  In Copyright

Additional Information: This is a published abstract of a poster presentation.

Enquiries:

If you have questions about this document, contact openresearch@mmu.ac.uk. Please include the URL of the record in e-space. If you believe that your, or a third party's rights have been compromised through this document please see our Take Down policy (available from <https://www.mmu.ac.uk/library/using-the-library/policies-and-guidelines>)

P284 EVALUATION OF A SELF-MANAGEMENT SMARTPHONE APP FOR THOSE LIVING WITH SJÖGREN'S SYNDROME: A FULLY REMOTE RANDOMISED PILOT AND FEASIBILITY TRIAL

Claire McCallum¹, Parvin Asadzadeh Birjandi², Eduwin Pakpahan³, Miglena Campbell⁴, John Vines⁵, Kevin McCay⁶, Elaine McColl⁷ and Katie Hackett⁶

¹Faculty of Engineering, Bristol University, Bristol, UNITED KINGDOM, ²School of Design, Northumbria University, Newcastle upon Tyne, UNITED KINGDOM, ³Department of Mathematics, Physics & Electrical Engineering, Northumbria University, Newcastle upon Tyne, UNITED KINGDOM, ⁴Department of Psychology, Teesside University, Middlesbrough, UNITED KINGDOM, ⁵School of Informatics, Edinburgh University, Edinburgh, UNITED KINGDOM, ⁶Dept of Social Work, Education and Community Wellbeing, Northumbria University, Newcastle upon Tyne, UNITED KINGDOM, ⁷Population Health Sciences, Newcastle University, Newcastle upon Tyne, UNITED KINGDOM

Background/Aims

People with Sjögren's Syndrome (SS) experience a range of symptoms, including dryness, pain, fatigue, and poor sleep. Pharmacological management is limited, and SS patients may not have timely access to non-pharmacological support with these symptoms. Accessible evidence-based support via an app may benefit some. An evidence-based app (Sjogo) was co-developed with SS patients through a series of focus groups and workshops (n=7). Alongside the workshops, behaviour change techniques and evidence-based intervention components were identified from the literature and known evidence-based interventions and were discussed with participants in focus groups. An app was developed containing active ingredients (e.g. features supporting behaviour

change, validation of experiences, reflective activity diary, goal setting, cognitive behaviour therapy for sleep) to facilitate participation in daily activities and support symptom management. An additional control app was developed which contained "information only" content. We conducted a fully remote pilot feasibility RCT of the app. The aim of the study was to test trial procedures including recruitment rates, outcome completion, and engagement with the app.

Methods

The Sjogo app was released internationally for 8 weeks on Android and iOS app stores in January 2021. Potential participants were alerted to the trial through social media and patient groups. Those who downloaded the app were guided through in-app study procedures (screening, informed consent, demographic questions and baseline symptom, patient activation and quality of life outcome completion). Outcome measures included ESSPRI, Modified Fatigue Impact Scale, depression (VAS), anxiety (VAS), Sleep Condition Index, PAM-10 and ICECAP-A. Participants were randomised to an information-version (control) or full-version of Sjogo containing features supporting behaviour change. Users could engage with Sjogo as they wished and were asked to complete outcomes at baseline, 5 and 10 weeks.

Results

996 participants from 33 countries downloaded Sjogo, with 617 (61.95%) completing the onboarding procedures and consenting to participate in the study. These participants were randomised to the full-version of the app (n=318) or control-version (n=299). Participants were mostly female (95.62%) iOS users (55.11%) from the UK (54.62%) or USA (28.92%) with a mean age of 50.97 (SD 13.75). Outcome completion rates at 5 and 10 weeks were 29.24% and 13.52% respectively for the full-version and 44.48% and 28.42% for the control-version.

Conclusion

Completion rates demonstrate that Sjogo can be evaluated in a real-world context in a fully powered RCT with large numbers of participants over a short timescale. However, maintaining engagement rates is challenging. App design could be optimised to maintain effective engagement with the app and support behaviour change. A process evaluation which includes further analysis of app engagement data and interviews with participants will further inform improvements to app content, features and trial procedures.

Disclosure

C. McCallum: None. **P. Asadzadeh Birjandi:** None. **E. Pakpahan:** None. **M. Campbell:** None. **J. Vines:** None. **K. McCay:** None. **E. McColl:** None. **K. Hackett:** None.