

PROMOTING PHYSICAL ACTIVITY USING MOBILE HEALTH TECHNOLOGY IN PEOPLE LIVING WITH RHEUMATOID ARTHRITIS (MOTIVATE RA)

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RATIONALE

Rheumatoid arthritis (RA) is associated with low levels of physical activity (PA) due to disease symptoms, as well as increased morbidity and mortality mainly due to cardiovascular disease (CVD). Modern treatments are able to control inflammation but do not alleviate all pain and risk of development of CVD.

Physical activity may compliment drug treatment well in RA to help reduce CVD risk. Recently, mHealth technology (health practice supported by mobile devices) has been used to increase adherence to PA programmes in other groups. As such, mHealth technology may aid the prescription of (and adherence to) PA in RA.



AIMS

- The primary aim is to assess whether the use of mHealth technology can increase physical activity levels in people with RA.
- Secondary outcome measures: PA programme adherence, demographics, quality of life and disease severity (e.g. RA symptoms, pain & con meds)

METHODS

A randomised-controlled trial, including an mHealth group (motivate programme, described on the right) & conventional care group (only receiving online educational materials, similar to that provided in a conventional care setting).

Due to **COVID-19** this is a **remote non-contact study**, with testing kits sent via **post** and meetings conducted via **video call**.

The following measures were taken at baseline, 6 and 12-weeks:



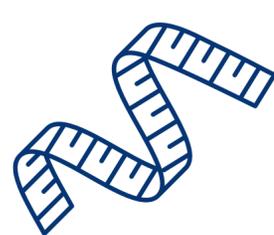
Physical activity



Height



Weight



Waist Circumference



Blood Pressure



PA, Health & RA Questionnaires

THE MOTIVATE PROGRAMME

1. A progressive 12-week walking programme aiming to achieve 150 minutes of moderate-to-vigorous physical activity, in line with government guidelines.



2. Mobile Health (mHealth) Technology used to support the delivery and completion of the programme.



3. Physical activity support text messages after every walk for the first 6-weeks (once a week thereafter). There are also educational materials available online.



4. Personalisation of the programme to suit the patients needs. E.g., duration of the sessions, number of sessions per week etc.



References

- Tiago Peçanha, Daniel J Bannell, Sofia Mendes Siczowska, Nicola Goodson, Hamilton Roschel, Victoria S Sprung, David A Low, Effects of physical activity on vascular function in autoimmune rheumatic diseases: a systematic review and meta-analysis, *Rheumatology*, 2021
- Laranjo, L., Ding, D., Heleno, B., Kocaballi, B., Quiroz, J.C., Tong, H.L., Chahwan, B., Neves, A.L., Gabarron, E., Dao, K.P. and Rodrigues, D., 2021. Do smartphone applications and activity trackers increase physical activity in adults? Systematic review, meta-analysis and metaregression. *British journal of sports medicine*, 55(8), pp.422-432.