

Overview of interview topic guides

Appendix to: Beukenhorst *et al.* Engagement and Participant Experiences With Consumer Smartwatches for Health Research: Longitudinal, Observational Feasibility Study. *JMIR Mhealth Uhealth* 2020; 8(1); e14368.

OA = osteoarthritis

Baseline interview

- **Health and existing long-term conditions:** overall health, timing of OA diagnosis, previous knowledge of OA, comorbidities (especially other musculoskeletal conditions or mental health conditions) and other health problems
- **Management of OA:** healthcare (medication, operations, joint replacements), lifestyle changes since diagnosis (diet, exercise, social support groups, changes to home), reasons for (not making) lifestyle changes, barriers to lifestyle changes
- **Impact of OA in life:** on day-to-day activities, emotional wellbeing, mood, coping, social life, relationships with family, friends or work colleagues?
- **Views and opinions on using a smart watch app to collect KOALAP data:** views on storing and sharing health data, on collecting information about peoples' position and movements, concerns, perceived benefits, expected effects on own OA management
- **Previous experience of using smartphone, other devices and apps:** usage or ownership of smartphone, tablet or computer, frequency of use, reason of (non-)usage, experience with health-related apps
- **First impression of the watch:** expectations of usage, daily symptom monitoring and daily wearing the watch

Follow-up interview

- **Recent OA symptoms:** overall health, OA symptoms since last interview, perceived experience of pain-activity relationship
- **Experience with self-reporting functionalities:** experience, ease of use, difficulty of use, useful aspects, unuseful aspects, experience of self-reporting symptoms, frequency of completion, reasons for (not) completing surveys, experience with questions, suggestions for changes to questions
- **Experience of passive monitoring:** experience being tracked, any differences with expectations, what did the watch track, and was this a true reflection of your movements, impact on movements, experience wearing the watch, frequency and duration of (not) wearing the watch
- **Smartwatch and self-management:** impact on view of OA symptoms, impact on frequency of thinking about OA symptoms, impact on managing changing symptoms, usage of activity data on smartwatch and graphs in smartphone app
- **Usability:** daily reminders, battery life, charging, cellular connection
- **Prolonged usage:** willingness to wear the watch for a year (+ reasons), reasons why some people won't be willing to use the watch long term, reasons/incentives to encourage long-term involvement in others