## Multimedia Appendix 1: Interview questions

**Supplementary Table S1** Interview guide for phase I (interviews with young people, children, and parents)

- A. How do you think the smartphone application can be used to help you improve the management of your arthritis?
- B. What can be put into the application to help you better understand your arthritis?
- C. What types of data would you like to input remotely (arthritis related functional scores, pain and general well-being questionnaires, validated measure of arthritis disease activity amongst others)?
- D. What should be monitored regularly and discussed with your doctors in order to make clinic visits more efficient (e.g., exercise frequency and intensity; adherence, confidence in self-management)
- E. Would you like any reminders (e.g., date of clinic appointments, medication)?
- F. In your opinion, what kind of health-related information do you think is important and should be tracked or monitored using a smartphone application?
- G. How would you like to track this information?
- H. What feedback or reward system would you like to have for using the application?
- I. How would you design the app and how would you like it to look like?
- J. What would you like to name this application and how would you like its logo to look like?

**Supplementary Table S2** Interview guide for phase I (interviews with healthcare professionals).

- A. How do you think the smartphone application can be used to help young people with managing their arthritis?
- B. What information tracked on the smartphone application will help you better understand their arthritis?
- C. What types of data would you like your patients to input remotely (arthritis related functional scores, pain and general well-being questionnaires, validated measure of arthritis disease activity amongst others)?
- D. What should be monitored regularly and discussed with your patients in order to make clinic visits more efficient (e.g., exercise frequency and intensity; adherence, confidence in self-management)
- E. Do you think patients should get any reminders (e.g., date of clinic appointments, medication)?
- F. In your opinion, what kind of health-related information do you think is important and should be tracked or monitored using a smartphone application?
- G. How would you like your patients to track this information?
- H. How would you like the information entered by patients to be displayed and summarized for your review?

Supplementary Table S3 Interview guide for phase II (interviews with young people)

- A. What are your general impressions of the app?
- B. What do you like or not like about it?
- C. What are your thoughts on the design and format?
- D. What are your thoughts on the content? Is there anything that needs to come off? Is there anything you feel should be on and is not?
- E. Was it easy to navigate and use?
- F. Can you think of any issues or difficulties with using the app? If yes then how would you make it easier to use/implement?
- G. Do you think the app can help you better manage your illness?

**Supplementary Table S4** Interview guide for phase III (interviews with young people)

- A. Would you be able to use the app by yourself (without the help of a parent)?
- B. What did you think about the reward system?
- C. Was it easy to input information for the different sections?
- D. Was it quick to find section and information that you were looking for?
- E. Did every page and video load quickly?
- F. Did each section take an appropriate time to complete?
- G. Are the words and instructions clear and easy to understand
  - i. Was it clear what you could use each section for?
  - ii. Did the buttons in the app work as you expect them to?
  - iii. Was it clear how you can save your data?
  - iv. Was it clear how you can view your data?
- H. Will you use the app regularly in the future? Why or why not?
- I. Will this app help you with your arthritis self-management? Why or why not?