The Intelligent Physical Exercise Training app

Identification of essential behavioral components in m-Health to optimize engagement with a physical activity app

Sjöberg, Linnea Marie; Dalager, Tina; Sjøgaard, Gisela; Overgaard, Anne Kathrine; Kaarsted, Thomas; Andersen, Lotte Nygaard; Faber, Anne; Søgaard, Karen

Publication date:
2023

Document version:
Final published version

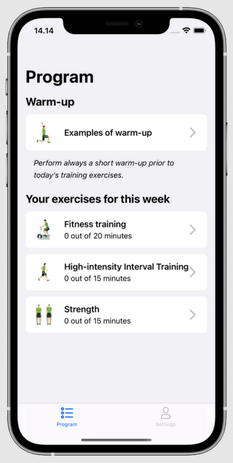
Citation for pulished version (APA):
Sjöberg, L. M., Dalager, T., Sjøgaard, G., Overgaard, A. K., Kaarsted, T., Andersen, L. N., Faber, A., & Søgaard, K. (2023). *The Intelligent Physical Exercise Training app: Identification of essential behavioral components in m-Health to optimize engagement with a physical activity app*. Poster session presented at The International Society of Behavioral Nutrition and Physical Activity - Annual Meeting 2023, Uppsala, Sweden.

The Intelligent Physical Exercise Training app

Identification of essential behavioral components in m-Health to optimize engagement with a physical activity app

Tina Dalager(1), Linnea Marie Sjöberg(1,3), Gisela Sjøgaard(1), Anne Kathrine Overgaard (3), Thomas Kaarsted (3), Lotte Nygaard Andersen (1), Anne Faber Hansen (1,2), and Karen Søgaard(1)

1: Department of Sports Science and Clinical Biomechanics, University of Southern Denmark
2: Department of Research and Education, University Library, University of Southern Denmark
3: Citizen Science Knowledge Center, University of Southern Denmark



The Intelligent Physical Exercise Training (IPET) app designs individually tailored exercises based on information on work profile, physical capacity, musculoskeletal pain, and general health profile. Benefits from training are well-known but the knowledge gap relates to means of motivation for training adherence. Thus, the aim is to gain knowledge on preferred motivational features in the IPET app to increase user behavioral in terms of engagement and training adherence.

The proces included various steps:

1

January-April: Recruitment of participants, conducting a systematic literature search to identify essentials themes within app-design, and prepare workshops

- 929 hits were screened, and 8 references provided data for workshop content
- 77 citizens were recruited at two Danish hospitals and among employees at the University of Southern Denmark

2

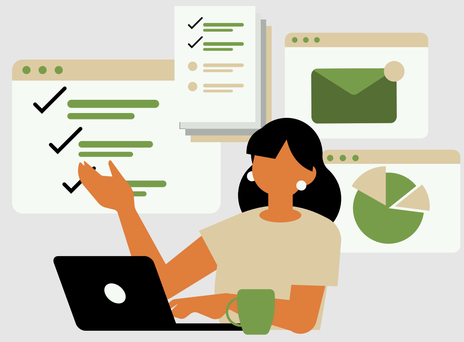
May: Workshops held

- 5 workshops were conducted
- Citizens received information on downloading the app and a package of resistance bands one month prior to the workshops to be able to test the app
- 5 themes emerged from the literature search. The themes were:
  - 1) Personal and tailored, 2) Feedback, 3) Simple to use, 4) Data security and privacy, 5) Support and social
- Workshops were conducted as 'Think Aloud' sessions.

3

June-August: Develop and improve app content

- The tech company, that developed the IPET app, will receive a prioritized list of essential features generated at the workshops. Together we will design, develop, and refine these features into the app.



4

September-November: Pilot test of the refined IPET app

- Between 75-150 citizens will pilot test the refined IPET app with the objective to investigate engagement and different health effects.
- Workshops participants will be invited to take part in focus group interviews, on whether or not the refined app increases user engagement and training adherence.

5

December: Plan further collaborative research on implementation

- From the pilot study we will gain knowledge about the state of the IPET app and whether or not it is ready for implementation on a larger scale.
- We will look into further funding options for an implementation study

References:

- Dalager, T., Faber, A., Holtermann, A., Sjøgaard, G., and Søgaard, K. Intelligent Motion: Smart Mosjon i Arbejdslivet i Norge. 1-66. 2019. Syddansk Universitet, Danmark.
- Søgaard K., Sjøgaard G. Physical Activity as Cause and Cure of Muscular Pain: Evidence of Underlying Mechanisms. Exerc.Sport Sci.Rev. 2017;45(3):136-45.
- Sjøgaard G. Arbejdspladsen som arena for fysisk aktivitet. Fysisk aktivitet for sundhed. København: Kulturministeriets Udvalg for Idrætsforskning, 2010:17-21.