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Video-based physiotherapy assessment of knee osteoarthritis in patients with knee pain

Submission date
24/04/2025

Recruitment status
No longer recruiting

Registration date
09/05/2025

Overall study status
Completed

Last Edited
25/09/2025

Condition category
Musculoskeletal Diseases

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

Plain English summary of protocol

Background and study aims
Knee osteoarthritis is a common condition with increasing prevalence, especially in older populations. The use of video-based consultations is growing in healthcare, but their validity and reliability in diagnosing knee osteoarthritis compared to traditional face-to-face assessments are not yet well established. This study aims to evaluate the validity and inter-rater reliability of physiotherapist-led video-based assessments for knee osteoarthritis compared to conventional face-to-face assessment.

Who can participate?
Participants must be aged 45 years or older, have experienced knee pain for at least 1 month, be able to communicate in Swedish, and have access to necessary technology (e.g., smartphone or computer). Individuals are excluded if they have previously been assessed for the current knee issue, undergone knee or hip replacement surgery, are currently receiving treatment for the condition, or have had recent knee trauma (within the past 4 weeks).

What does the study involve?
The study involves two assessment sessions per participant: one via video from the participant's home and one face-to-face at a rehabilitation clinic. The video assessments will be recorded for later review. Each participant will be evaluated by three licensed physiotherapists, and the sessions will take place in the same week. Participants will also provide demographic information and rate their knee pain.

What are the possible benefits and risks of participating?
Participants may benefit from a comprehensive assessment of their knee symptoms. The study aims to contribute to improved healthcare delivery through digital means. There are minimal risks involved; however, as with all clinical assessments, there is a slight possibility of discomfort during examination or misinterpretation of symptoms.

Where is the study run from?
The in-person assessments are conducted at Sportrehab in Frölunda, Göteborg, Sweden, and the video-based assessments are carried out using the regular digital platform of the clinic, with the physiotherapist based at the rehabilitation facility.

When is the study starting and how long is it expected to run for?
May 2024 to July 2024

Who is funding the study?
The Local Research and Development Council Gothenburg and Södra Bohuslän (Sweden)

Who is the main contact?
Elvira Lange, elvira.lange@gu.se

Contact information

Type(s)
Public, Scientific, Principal investigator

Contact name
Dr Elvira Lange

ORCID ID
https://orcid.org/0000-0003-4190-8667

Contact details
Guldhedsgatan 5A
Göteborg
Sweden
413 20
+46 (0)764956123
elvira.lange@gu.se

Additional identifiers

Protocol serial number
282608 in researchweb.org FoUiVGR

Study information

Scientific Title
Video-based physiotherapy assessment of knee osteoarthritis in patients with knee pain: a validity and reliability pilot study

Study objectives
Assessment of knee osteoarthritis could be performed via video with comparable results to a clinical assessment.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 08/05/2024, Swedish Ethical Review Authority (Box 2110, Uppsala, 750 02, Sweden; +46 (0)10-475 08 00; registrator@etikprovning.se), ref: 2024-022 07-01

Primary study design
Observational

Study design
Pilot validity and reliability study

Study type(s)
Diagnostic

Health condition(s) or problem(s) studied
Knee osteoarthritis

Interventions
Participants were assessed by a physiotherapist in a traditional manner and additionally also assessed by a physiotherapist via video.

Intervention Type
Other

Primary outcome(s)
Concurrent validity: agreement between the video-based physiotherapy assessment and the conventional face-to-face assessment for diagnosing KOA (yes/no), measured once for each participant

Key secondary outcome(s)
Interrater reliability: agreement between the video-based assessment and the recorded video-based assessment for diagnosing KOA (yes/no), measured once for each participant

Completion date
04/07/2024

Eligibility

Key inclusion criteria
1. Age 45 years or older
2. History of knee pain for at least 4 weeks
3. Sufficient linguistic and cognitive ability to understand conversational Swedish
4. Access to a device for video conferencing, such as a smartphone, computer, or tablet
5. Ability to get to the rehabilitation clinic in Gothenburg

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Adult

Lower age limit

45 Years

Upper age limit
100 Years

Sex
All

Total final enrolment
35

Key exclusion criteria
1. Had been assessed by a physiotherapist or physician for the current knee pain
2. Arthroplasty of the knee or hip on the affected side
3. Ongoing treatment for the current knee pain or knee trauma over the past 4 weeks

Date of first enrolment
20/05/2024

Date of final enrolment
20/06/2024

Locations

Countries of recruitment
Sweden

Study participating centre
Sportrehab Frölunda
F O Petersons g 30
Västra Frölunda/Gothenburg
Sweden
42131

Sponsor information

Organisation
The Local Research and Development Council Gothenburg and Södra Bohuslän

Funder(s)

Funder type
Research council

Funder Name
The Local Research and Development Council Gothenburg and Södra Bohuslän

Results and Publications

Individual participant data (IPD) sharing plan

The data are stored in a controlled-access facility at Region Västra Götaland. The data generated and analysed during the study are not openly available due to sensitivity concerns. Aggregated data can be obtained from the corresponding author upon reasonable request (Elvira Lange, elvira.m.lange@vgregion.se).
Dates of availability: request for data sharing is possible until May 2034.
Whether consent for data sharing was required and obtained from participants: no consent for sharing was obtained, so only aggregated data is available to share.
Comments on data anonymization: according to European data safety regulations, only aggregated data will be shared to avoid inaccurate anonymization.
Any ethical or legal restrictions: data sharing is limited by the Swedish secrecy regulations and the EU regulation GDPR.

IPD sharing plan summary

Stored in non-publicly available repository, Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	Study website	23/09/2025	25/09/2025	Yes	No
Study website		11/11/2025	11/11/2025	No	Yes