Patellofemoral pain (PFP) is characterized by anterior knee pain affecting one in four physically active individuals. Increased patellofemoral joint loading associated abnormal lower limb biomechanics (proximal, local and distal to the knee) is a common characteristic of individuals with PFP. Some of these biomechanical alterations found in individuals with DFP, such as reduced knee flexion and knee extensor moment, are considered compensatory patterns in an attempt to reduce symptoms and overload in the patellofemoral joint. Although they are effective for this purpose, they can have a negative effect on the tibiofemoral joint and increase its contact forces, which can make this joint more susceptible for future injuries, such as tibiofemoral osteoarthritis. Since no study has investigated tibiofemoral contact forces in individuals with PFP, the objectives of this project are: (1) to compare the tibiofemoral contact forces of individuals with and without PFP before and after exacerbating their symptoms; (2) to investigate
the relationship between tibiofemoral contact forces with pain, symptom duration, function and quality of life in individuals with PFP. Biomechanical data of step descent, squatting, jumping and landing will be collected in individuals with and without PFP. Posteriorly, peak and impulse of the tibiofemoral contact forces will be calculated for each task. Self-reported data of pain and symptom duration, and questionnaires about function and quality of life will also be obtained for individuals with PFP.

**Start date:** 05-03-2021

**End date:** 06-30-2022

**Last modified:** 07-13-2022

**Copyright information:**

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Forças de contato tibiofemoral de indivíduos com dor femoropatelar antes e após a exacerbação dos sintomas e sua relação com a dor, duração de sintomas, função e qualidade de vida

Data Collection

What data will you collect or create?

Biomechanical data will be obtained from individuals with and without patellofemoral pain during hop tests.

How will the data be collected or created?

Data will be saved in standard CSV format. Codes will be used to label data files.

Documentation and Metadata

What documentation and metadata will accompany the data?

All necessary information to read and interpret the data will be inserted into the data file.

Ethics and Legal Compliance

How will you manage any ethical issues?

The identity of participants will be protected via anonymization. Consent will be obtained.

How will you manage copyright and Intellectual Property Rights (IP/IPR) issues?

Data copyright will be owned by the principal investigator up to data publication. Once the data is published, the copyright will be transferred to the publisher.

Storage and Backup

How will the data be stored and backed up during the research?

Data will be stored in the hard drive of the computer used for data acquisition. Data will be backed up in a secondary hard drive of the laboratory.
How will you manage access and security?

The access to the data will be password protected. Only those involved in the research will have the password, which will be changed every 6 months.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

All data will be stored for at least 10 years.

What is the long-term preservation plan for the dataset?

Data will be stored at the university's free repository.

Data Sharing

How will you share the data?

Data will be shared via publications, a repository and direct requests. Data will be available following the end of data processing and analysis.

Are any restrictions on data sharing required?

No.

Responsibilities and Resources

Who will be responsible for data management?

The principal investigator.

What resources will you require to deliver your plan?

Data will be made available via the university's repository.