HOCHSCHULE OSNABRÜCK
UNIVERSITY OF APPLIED SCIENCES

RefLabPerform - Development of a reference laboratory for the evaluation of playing- and performance-related dysfunctions of performing artists to derive individual prevention and rehabilitation strategies

Background

Performing artists are exposed to high strains during their performance. These strains are similar to the ones of professional athletes, but in contrast to athletes there is a **comprehensive undersupply** of care regarding a **targeted functional diagnosis** as well as **preventive** and **rehabilitative therapy** offers.

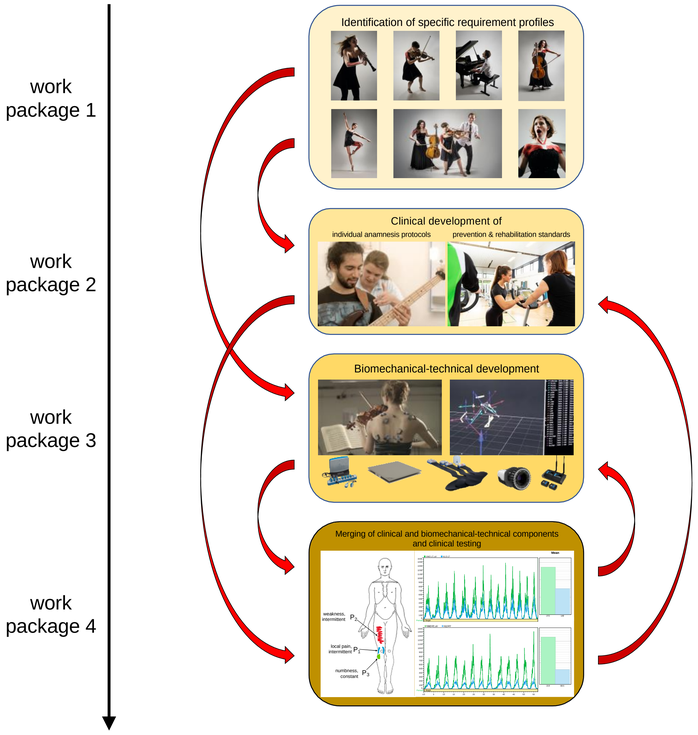

Fig. 1: Overview of the work packages and their content-related iterative interaction for the development of RefLabPerform.

Aim

The aim of *RefLabPerform* is to **develop a reference laboratory** for the assessment of neuromusculoskeletal disorders using physiotherapeutic assessment methods in combination with biomechanical motion analysis. This includes the **automatized integration** of the **physiotherapeutic assessments** with the technical **biomechanical analysis** for an **individual treatment recommendation**. Part of the recommendation are evidence-based prevention and rehabilitation strategies. With this approach a decentralized health care is provided.

Methods

Several work packages are processed systematically, whereby according to the requirements in the course of the project an overlapping of work packages occurs (fig. 1).

- **work package 1:** *Identification of specific requirement profiles of each performing artist group* to plan the innovative laboratory structure
- **work package 2:** *Clinical development of individual anamnesis protocols and prevention and rehabilitation strategies*
- **work package 3:** Biomechanical-technical development. Various analysis tools are being developed for biomechanical data, which are individual for each specific group of performing artists
- **work package 4:** *Merging of all components and clinical testing*. Clinical and technical data are brought together and checked by means of individual case trials on various groups of artists. In terms of an agile development process, the results flow back into the previous work packages in order to optimize and then test again.

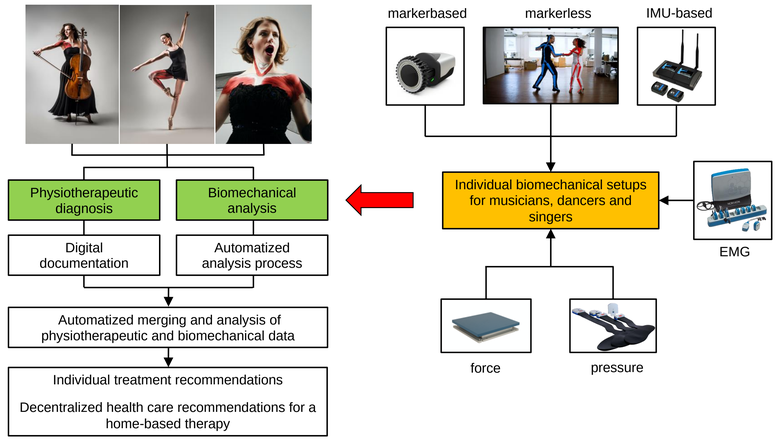

Fig. 2: Structure of data collection and application possibilities of the biomechanical assessments according to individual requirements of different performing artist groups.

Conclusions

At the end of the project a functional and proven reference laboratory for the comprehensive analysis of performing artists will be developed. It will be specialized to the diagnosis and treatment of performing artists specific playing- and performance-related dysfunctions with a focus on clinical findings and biomechanical movement analysis.

Project partners

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Dirk Möller
d.moeller@hs-osnabrueck.de

Florian Avermann
florian.avermann@hs-osnabrueck.de

Christoff Zalpour
c.zalpour@hs-osnabrueck.de

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