

Abstract

The bachelor's thesis focuses on the use of mobile apps in vestibular rehabilitation. The main purpose of this thesis is to provide market research of mobile apps currently available at Google Play Store. Additional goal is to provide an overview of current literature relating to the use of the mobile apps in vestibular rehabilitation.

Theoretical section summarizes knowledge of the anatomy and physiology of the vestibular system, vestibular compensation mechanisms and vestibular rehabilitation practice. It also provides a brief information about mHealth apps and rehabilitation apps. Following topic is a retrieval of the literature scoping mobile apps in vestibular rehabilitation and a search of mobile applications available on the Google Play Store, that are or may be intended for use in vestibular rehabilitation.

Experimental section consists of two case reports of patients with vestibular hypofunction using mobile app for 4-week therapy. Patients underwent 3 measurements (before, during and after the therapy) including Clinical Test of Sensory Interaction and Balance (CTSIB), Functional Gait Assessment (FGA), and Dynamic Visual Acuity Test (DVA). Also, a standardized questionnaire The European Evaluation of Vertigo scale was used and finally, patients were asked about satisfaction with the therapy using questionnaire. Comparing objective results, the effect of the therapy is not evident – the results vary among both patients and their measurements. Long-term and wide-range study is necessary to determine the effect of the therapy with mobile apps. According to answers from the questionnaire, the app appeared to be comfortably usable with the patients and motivating for practicing regularly.