Background

Orofacial myofunctional disorders are abnormal movement patterns of the face and mouth that may occur in children as well as in adults. Most treatment concepts in Germany contain regular exercises and behavioral change, which demands a high personal contribution of the patients. This personal contribution often is a crucial point in therapy resulting in poor adherence and transfer of the learned skills. In the age of eHealth, electronic reminder systems are increasingly being used to promote adherence to therapy and have shown to be effective. The use of an app-based reminder and exercise tool could therefore support the therapy and increase adherence and therapy success.

Objectives

The aim of this study was the development of a concept for a mobile application to support the therapy of orofacial myofunctional disorders.

Methods

To develop a concept for the application a mixed research design combining qualitative research and user-centered software development was chosen. Qualitative interviews and group discussions were conducted with Speech and Language Therapists, patients and their relatives to gather first ideas of an app supporting orofacial myotherapy. The analyzed findings were then evaluated by the end users by using a paper prototype, to refine the concept of the app.

Results

Outcomes of the initial interviews were clustered in seven topics with several subcategories containing general ideas for the app, the training at home, a control mechanism, a reward system, the visualization of exercises and pop-up messages. Evaluation of these findings lead to a paper prototype containing the design and features addressed by the end users.

Conclusion

In general, the idea of an app-based exercise tool was considered an innovation and a benefit for orofacial myotherapy. This study serves as a pilot project for the further development of this app with focus on content features gathered by the end users. Besides the chosen user-centered development that focused on the software component, further research is needed to evaluate the effectiveness of this app.