

User's appraisal of the SMARTFAMILY2.0 Application: a qualitative investigation

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Introduction

Today, there are numerous mobile health applications (app) available. In the process of development, it is important to include participants' needs into the app to enhance the frequency and duration of usage. Hence, the purpose of this qualitative examination was to evaluate user feedback for the key features, a just-in-time adaptive intervention, an interactive, humanized goal-setting coach, and an app-based ecological momentary assessment (EMA), of a mobile health app (SMARTFAMILY2.0 app) among families and peer groups.

Methods

Twenty-three families (N=77, adults n=42, children n=35) and 27 peer groups (N=74) were recruited. Every participant received a smartphone with the SMARTFAMILY2.0 app, which is aiming to improve health behavior among families (Wunsch et al. 2020), and was instructed to use the app for at least three consecutive days. User feedback was obtained using two open qualitative questions, asking what the participants especially liked about the app and what could be improved, multiple answers were possible. The responses were clustered based on behavior change techniques (BCTs) from Michie and colleagues (2011).

Results

A total of N=574 qualitative answers were obtained ($n_{\text{peer}}=317$, $n_{\text{family}}=257$). The design/interface($n=37$) and usability($n=37$) were most appreciated. In contrast, the categories food query($n=44$) and EMA ($n=44$) were rated as being in need for improvement.

Discussion

Qualitative analysis of results suggests a well-perceived ease of use and well-integrated BCTs, like providing information on consequences of behavior in general, while there are still possibilities for improvement. For example, the EMA questions should be prompted less often at inconvenient times. Future studies should examine the optimal frequency for the questions from the different EMA categories and provide rationales for their use.

References

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