



Cystic Fibrosis Research News

Title:

Developing a smartphone application to support social connectedness and wellbeing in young people with cystic fibrosis

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What was your research question?

What is the usability and acceptability of a smartphone application designed to support the social connectedness and wellbeing of young people living with cystic fibrosis (CF)?

Why is this important?

An increase in the median survival of babies born with CF has been accompanied by a growing recognition by researchers and clinical staff of young peoples' long-term social and emotional health. Daily treatment, treatment side-effects, frequent hospitalisation, and subsequent school absences can exacerbate social isolation and mental health problems. In addition, children with CF are limited in their capacity to obtain peer support from one another as infection-control guidelines prohibit face-to-face contact. Innovative technological interventions, such as smartphone applications (apps), that encourage social connectedness between people who are geographically constrained may benefit young people with CF.

What did you do?

A CF app was co-designed with young people with CF and an expert reference panel. The app contained seven features, including a virtual buddy, chatroom, wellness tips, medication reminders, entertaining videos, CF resources and support services. Twenty-two young people with CF aged 12-17 years were recruited from two paediatric hospitals in Australia. Study participants tested the CF app for six weeks before responding to an online survey about the

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app's usability and acceptability. A subsample of twenty participants discussed the app's strengths and weaknesses during 11 online group interviews.

What did you find?

During the six-week testing period, 77% of participants used the app at least once a week. Usability of the CF app was high. Most participants agreed the app was easy to use and felt comfortable using it. Acceptability of the app was moderate. Many participants found the app both useful and fun to use and agreed they would recommend the app to other young people with CF. Recommendations to improve the app included locating the chatroom within the app rather than redirecting users to a web browser and allowing users to personalise images, wellness tips and videos.

What does this mean and reasons for caution?

This study developed and tested a highly usable, and moderately acceptable, smartphone app to improve the psychosocial health of young people living with CF. The study also provided evidence that young people with CF want opportunities to interact with each other. As participants experiencing moderate to severe mental health problems were excluded from this study, future studies may benefit from testing the app on a more diverse sample of young people living with CF.

What's next?

Changes recommended by study participants to improve the CF app will be incorporated into the app before it is distributed more widely. Future research will test the efficacy of the CF app on users' social connectedness and wellbeing.

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