

ABSTRACT

Mobile interventions created through research studies often have not focused on user preferences, and consequently, people are less likely to use the app once it enters the real world. FoodSteps is a mobile intervention to help users manage weight and reduce binge eating and was designed with extensive user input through user-centered design methods. In this study, 30 people with recurrent binge eating and obesity completed a 16-week clinical trial of the FoodSteps intervention and participated in semi-structured interviews following treatment regarding their experiences with FoodSteps. Interview transcripts were analyzed, and five themes emerged regarding program recommendations. Participants wanted to choose the method of delivery of auto messages (e.g., text, app notification) and review and edit past data in the eating log. Participants wanted a greater variety of goals and challenges. Participants desired a more interactive design (e.g., videos, peer competition, incentives), and recommended adding a support group. Understanding the experiences of people who have completed the intervention revealed important considerations for future versions of the mobile intervention. The FoodSteps team will continue to incorporate user feedback to improve the intervention to meet the needs and preferences of its users.

INTRODUCTION

- FoodSteps is a mobile intervention that is being tested through a research study and was designed based on extensive user input through user-centered design methods.
- The purpose of this study is to understand FoodSteps users' recommendations for improvements to the intervention to enhance the experience for future users.
- The responses will allow the FoodSteps research team to further understand the preferences and goals of the users so they can continue to design and optimize a tool to meet user needs.

METHODOLOGY

- 30 people with recurrent binge eating and obesity completed a 16-week clinical trial of the FoodSteps intervention.
- Following the intervention, participants completed semi-structured interviews regarding their experiences with FoodSteps.
- Transcripts and audio files for the interviews were analyzed and coded.

Theme	Representative Quote(s)
	Methods to Improve the Intervention
Delivery of auto messages and notifications	<ul style="list-style-type: none"> • "I'm assuming a notification could be set up, so I wouldn't need it to sync to a calendar." • "I think maybe having an option as either [a text or app notification] might be good. And that should be doable as a toggle, you know. And, you know, whether or not someone's enabling notifications from the app on their phone anyway." • "I would like to set up three notifications or whatever to log my food and then have the ability to maybe snooze them for a certain period of time. So, if I'm not available to do it that second, like 10 minutes later." • "I think the auto messaging was helpful, but since that was all saved in the text messages with [coach] I thought it was a little bit confusing sometimes. I think it might be more beneficial to have a notification on my phone pop up rather than a text message."
Editing the eating log and making it more specific	<ul style="list-style-type: none"> • "Well I'm thinking like for the logging, it might be nice to have it separated. Like it says, you know, log your meals for the day. Well, I would personally write in breakfast semicolon, you know, lunch semicolon. I think it'd be helpful to have the meals separated out like maybe a section for each." • "It will be helpful for reduction of the weight if your people can suggest in your app, what time you ate." • "Having like a box of like how much how many calories you consumed at the end of the day, or each meal might be beneficial as well, just for people that like to do that."
More goals and challenges	<ul style="list-style-type: none"> • "Maybe like a little bit more of an array of goals that you can set." • "I think having some flexibility where you can kind of have like a "reset your weekly goal" option." • "I see it being beneficial to still have the free choice, but to offer a suggestion." • "Maybe I... did a really good job on the goal from the week before and I kind of carried that into the new week? And it would have been nice to sort of keep track of that too."
Interactive design and incentives	<ul style="list-style-type: none"> • "I do wish the information was a little bit more interactive, though. Like that um. Maybe it was a video sometimes maybe once a week there could have a video where the team gets together." • "If you could... I don't know earn entry every so many stars or something and you know, have a possibility of win--, even if it was something small, like a \$5 Amazon gift card or. Like little incentives, like I find I need a lot of incentives when it comes to motivation."
Adding a support group	<ul style="list-style-type: none"> • "If you could just have a support group for others that are having the same issues that you're having, for example, the bingeing, maybe someone that has an issue, but has learned through their experiences that doing A B or C is helpful." • "Share your thoughts with your group and then that'll immediately link to the group. And I find that helpful and then I can see what other people have said."

CONCLUSIONS

- These themes will be considered by the FoodSteps team to incorporate user feedback into improving the intervention for the future.
- The methods we used for soliciting user feedback are applicable beyond just FoodSteps to help digital tools improve, and our findings can inform the design of other behavior change interventions.

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