Designing a diet app with a human-centered approach

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Mobile health apps for managing chronic diseases and for overall health and wellness are increasing in popularity. These apps have the potential to guide behavior change through education, diet and activity tracking,

and personalized health advice.

Many studies have focused on the role of diet apps in conjunction with physical activity and other lifestyle modifications, but none have specifically addressed managing metabolic syndrome. Metabolic syndrome is a cluster of conditions including obesity, diabetes, hypertension, and hyperlipidemia. Research suggests that diet can be a valuable treatment for those with this condition.

Diet apps have been shown in previous studies to be helpful in managing diet and exercise interventions but there are many critical gaps between user needs and the services provided by these apps. Furthermore, the volume of diet apps available for download can be overwhelming to consumers, making it difficult to choose the one that will best suit their needs.

Taking a human-centered approach to designing a diet app that would assist in management of patients with metabolic syndrome, a CUNY SPH team led by faculty Ann Gaba and Ashish Joshi published a study in the journal *mHealth*.

The researchers used a sample of 10 CUNY SPH Nutrition and Dietetic Interns in the Population Health Informatics rotation of the internship program. One-third of the interns were currently using nutrition apps themselves. In a questionnaire, the cohort identified the top five most important features of a diet app: personalization based on medical factors, personal information, and preferences; disease-specific educational tips such as food options and recipes; features for tracking progress via photos and audio; daily reminders and messages; and feedback based on the data they provide.

"Our study emphasizes the importance of human-centered design approaches in developing these kinds of apps," says Gaba, director of the

Dietetic Internship program. "We recommend that developers incorporate user characteristics, needs, and preferences using this framework to better tailor the app to the needs of the individual user."

More information: Ashish Joshi et al. A human centered approach to design a diet app for patients with metabolic syndrome, *mHealth* (2019). DOI: 10.21037/mhealth.2019.08.13

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