

Evaluating the Adherence of Popular Diet and Nutrition Apps to Evidence-Based Guidelines for Adult Weight Management

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Objectives: To assess the adherence of popular, commercially available diet and nutrition apps to the Academy of Nutrition and Dietetics' Adult Weight Management (AWM) guideline recommendations and to discern associations between the guideline adherence and indicators of the perceived popularity of an app among consumers.

Methods: A preliminary search for apps was conducted in Apple App Store and Google Play Store using keywords "diet" and "weight loss" in October 2020. Selection criteria screened to only include calorie-tracking apps with greater than 10 million installations, focused on weight management as a primary outcome. Apps addressing other

health outcomes, disease management, or specific dietary approaches were excluded. Selected apps were assessed with iPads using a prescribed 7-day dietary intake and collected data were recorded.

Results: There were no significant correlations between any of the individual recommendation categories and app metadata attributes (app ratings, installations, subscription cost). Greatest recommendation adherence was observed in those corresponding to nutrition intervention ($n = 9$ recommendations; 65.9%) and monitoring and evaluation categories ($n = 2$ recommendations; 75%).

Conclusions: Popular, commercially available diet and nutrition apps offer limited adherence to expert guideline recommendations for adult weight management.

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