

Abstract

Single-Arm Trial of a Flexible Multicomponent Commercial Digital Weight Management Program

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Abstract

Background: Hunger and food cravings predict poor outcomes in lifestyle interventions for weight management. For this reason, flexible weight management programs, as opposed to restrictive weight management programs, are needed. WW (formerly *Weight Watchers*)—a widely available, commercial weight management and wellness program—includes an approach that allows participants to obtain a personalized zero-point food (ZPF) list, which includes foods that do not need to be weighed, measured, or tracked. With over 300 potential options, ZPFs can include fruits, vegetables, legumes, whole grains, nonfat dairy, and lean sources of protein. Participants are assigned an individualized daily and weekly point target and can use ZPFs to help budget their points throughout the day, which can nudge participants toward a healthier overall dietary pattern.

Objective: In a 6-month, single-arm trial, we examined the efficacy of WW when delivered via multimodal digital tools, including a mobile app for assisting with point tracking, weekly virtual workshops, weekly 5-minute wellness check-ins, and a Facebook group in which participants could socialize and support each other.

Methods: The outcomes included weight change from baseline, as measured by the Bluetooth scales provided to each participant; hunger (visual analogue scale); food cravings (Food Craving Inventory); the intake of fruits and vegetables (The Five Factor Screener); physical activity (Global Physical Activity Questionnaire); and overall well-being (WHO-5 Well-Being Index).

Results: Of the 153 participants, 70% were female, and 66% were White. Participants' mean age was 41.09 (SD 13.78) years, and they had a mean BMI of 31.8 (SD 5.0) kg/m². Retention was high, as 91.5% provided 6-month follow-up data. Participants lost an average of 5.1% of body weight from baseline to 6 months (mean -4.4, SD 4.87 kg; $P < .01$), with 51% losing clinically significant weight ($\geq 5\%$). Hunger significantly declined over 6 months (mean percent change -14.74%, SD 64.28%; $P < .01$), as did food cravings (mean percent change -16.99%, SD 19.98%). The intake of fruits (mean percent change 65.95%, SD 188.78%; $P < .01$), vegetables (mean percent change 68.29%, SD 172.61%; $P < .05$), and salad (mean percent change 127.43%, SD 250.82%; $P < .001$) significantly increased. Engagement in moderate physical activity increased by an average of 32 (SD 133) minutes per day ($P < .01$), and sedentary time decreased by 90 (SD 24.5) minutes per day ($P < .001$). Finally, well-being significantly increased (mean change 17.77%, SD 46.21%; $P < .01$).

Conclusions: This program, which used a less restrictive method of food tracking and provided personalized ZPFs, resulted in significant weight loss and an increase in fruits, vegetables, and exercise, while also reducing hunger and food cravings. Future research should compare the effectiveness of these approaches to traditional programs that require the self-monitoring of all foods and beverages.

Trial Registration: ClinicalTrials.gov NCT04302389; <https://clinicaltrials.gov/ct2/show/NCT04302389>

Conflicts of Interest: None declared.

(*iproc* 2023;9:e39538) doi: [10.2196/39538](https://doi.org/10.2196/39538)

KEYWORDS

mobile apps; diet tracking; wellness; social media intervention; Facebook; weight management; obesity; digital health; virtual counseling; WW; weight watchers

Edited by T Leung; this is a non-peer-reviewed article. Submitted 13.05.22; accepted 22.12.22; published 24.01.23.

Please cite as:

Pagoto S, Xu R, Bullard T, Bannor R, Arcangel K, DiVito J, Foster GD, Cardel MI

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iproc 2023;9:e39538

URL: <https://www.iproc.org/2023/1/e39538>

doi: [10.2196/39538](https://doi.org/10.2196/39538)

PMID:

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