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A recent study out of Chicago's "failure" is far less discouraging than it might appear.

Children from lower-income households are less likely to benefit from weight management interventions, even though they're almost twice as likely to be obese. Historically, program attendance predicts weight loss outcomes, and lower socioeconomic status predicts lower attendance. A recent study provided in home sessions to address this barrier to care and assess their efficacy.

The Creating Healthy Environments for Chicago Kids(CHECK) randomized controlled trial provided 6- to 12-year-old children from lower-income households with BMI >85 percentile with a weight management program. The plan consisted of a family-based pediatric weight management program with 12 monthly telephone support calls and 18 in-person sessions. The only difference in the treatment arms was the location of the 18 in-person sessions; home-delivered(n=133) vs clinic-delivered(n=136).

This study was unfortunately plagued by COVID restrictions. Delivering family-based weight management in the home setting did not improve 12 month zBMI change(the primary study outcome) relative to the clinical setting when patients were evaluated in aggregate. However, the pre-pandemic patients who were randomized to home-delivered treatment did experience larger zBMI reductions prep pandemic. This effect was not significant in the peri- nor post pandemic patients. Why this reversal during the pandemic? It may be that participants had to perform 46 "in-person" sessions via video or telephone conference due to COVID restrictions. Stated differently, during the pandemic, for both arms, many of the "in-person" sessions weren't performed in-person.

Pre pandemic participants received the interventions per study design and without pandemic historical confounding. Peri and post pandemic participants were subjected to an altered intervention and historical confounding.

Overall, being in the home-delivered treatment arm did increase session attendance and in-person contact time, which was associated with better weight loss outcomes amongst all study participants. The home-delivered and clinic-delivered groups had a median of 500 minutes(8.3 hours) and 315.5 minutes(5.3 hours) contact time, respectively(P= 0001). It is worth noting that this is far fewer than the USPSTF's recommended 26 hours of contact.

Despite these challenges, 13.7% of participants had clinically significant weight loss(zBMI 0.25) in the home-delivered arm and 8.6% in the clinic-delivered arm, though these differences weren't statistically significant (OR = 1.53, 95% CI [0.61–3.81]; P = .36).

This study, taken at face value, could be used to dismiss home-delivered interventions. However, given significant historical confounding and protocol changes due to unique pandemic challenges it is inappropriate to claim this study proves home-delivered interventions are ineffective. If anything, it reinforces the importance of in-person contact.

This study demonstrated clinically significant BMI reductions in 11% of participants, even though it falls short of the providing the recommended minimum of 26 contacts hours.

Home-delivery of in person care provided reassuring appearing results pre-pandemic and increased in-person contact hours with patients. It would be interesting to see a similar study that met USPSTF contact hour recommendations and wasn't confounded by a global pandemic. Bravo to the study authors for doing their best to stick to their original study design, despite significant and unforeseeable challenges.

PS-
There were also fewer adverse events amongst patients and their families in the in-home intervention arm(6) vs in clinic arm(18), and most events occurred in adult family members. None were serious.

https://publications.aap.org/pediatrics/article/155/4/e2024069282/201163/Home-Delivered-Pediatric-Weight-Management-for-Low?autologincheck=redirected