

Background: Cardiovascular diseases (CVD) are a significant global health concern, responsible for approximately 32% of all deaths, with heart attacks and strokes contributing to 85% of these fatalities (1). In comparison to adults with normal weight, those classified as obese showed elevated occurrences of hypertension (51%), ischaemic heart disease (8%), congestive heart failure (3.5%), stroke (3%), and myocardial infarction (21%)(3). GLP-1 medications, such as semaglutide and tirzepatide, are known to reduce MACE (major adverse cardiovascular event) risk by 20% (4). In this study, we will evaluate newer hybrid care models of integrating the use of GLP-1 and GLP/GIP agonists medications alongside continuous engagement by a multidisciplinary team focused on lifestyle interventions, by using digital biomarkers on CVD risk reduction among its participants.

Methods: A retrospective observational study of medical records of Zone.Health, a 6 months hybrid medicated obesity program, prescribed with both agonists medications and multidimensional lifestyle modification (n=65, aged 40-60 years old). Behavioral change aspects of the program, delivered digitally via an app, included an accountability coach, use of food logging, CGM, and involvement of a personal trainer. Data were recorded at the beginning and at 6 months. CVD risk was calculated using 10-year ASCVD (atherosclerotic cardiovascular disease) risk score (ACC).

Results: 65 patients with an average age of 46.94 years. Significant improvements were noted in CVD risk and health parameters, including a decrease in the 10-year ASCVD risk from 2.92 ± 2.86 to 2.56 ± 2.83 (-12.3%) ($p=0.024$) and lifetime ASCVD risk from 42.28 ± 12.23 to 37.49 ± 16.17 (-11.3%) ($p=0.003$). Notable reductions were observed in diastolic blood pressure (-7%, $p<0.001$), total cholesterol (-12%, $p<0.001$), LDL (-15%, $p<0.001$), triglycerides (-26%, $p<0.001$), weight (-13%, $p<0.001$), BMI (-13%, $p<0.001$), HbA1c (-5%, $p<0.001$), and fat mass (23%, $p<0.001$) at 6 months compared to baseline.

Conclusions: This study highlights the Zone.Health program's effectiveness in improving CVD health markers. Integrating GLP-1 medications with continuous digital engagement significantly reduced CVD risk factors over 6 months, emphasizing the value of combination approaches in managing CVD with expensive GLP-1 agonists.

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Effectiveness of Hybrid Approach: Integrating GLP1 Agonists and Lifestyle Guidance for CVD Reduction

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