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Title: A comparison of weight loss outcomes in Black and Caucasian women following a very-low calorie diet (VLCD)

Introduction: Few studies have examined the significance of ethnicity on weight loss responses and overall health benefits following a VLCD.

Methods: Weight, height, bust, waist and hip measurements in age and BMI matched Black and Caucasian women completing a 12 week VLCD (LighterLife Total) were obtained from the LighterLife UK Limited company database. This programme combines a nutritionally complete VLCD with behavioural-modification (BM). All variables were assessed for normality; those without normal distribution were log transformed. Comparisons were performed with independent t-test using SPSS for Windows (version 17.0) (SPSS Inc., Chicago, IL, USA).

Results: No comparative differences were demonstrated at baseline. At 12 weeks, Black women lost significantly less weight (kg) (means \pm SD) (-16.8 ± 5.2 vs -19.6 ± 5.1 ; $p = 0.003$), and had lower percentage weight change (%) (-16.4 ± 4.3 vs -19.2 ± 4.4 ; $p = 0.001$), BMI change (kg/m^2) (-6.2 ± 1.8 vs -7.3 ± 1.8 ; $p = 0.002$); percent BMI change (%) (-16.4 ± 4.3 vs -19.2 ± 4.4 ; $p = 0.001$); percentage bust change (%) (-5.7 ± 25.2 vs -9.0 ± 19.7 ; $p = 0.039$) and percentage hip change (%) (-4.7 ± 27.5 vs -9.0 ± 19.7 ; $p < 0.0001$).

Conclusion: Although both groups lost significant amounts of weight, these results suggest that losing weight may be more difficult for Black women, which is in agreement with the current literature. Similar cardiovascular risk reduction benefits are, however, inferred from the comparable waist circumference reductions.

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2. Funding: Research relating to this abstract was funded by LighterLife UK Limited