Understanding attitudes towards personalised weight loss treatment in individuals with overweight and obesity who have considered or attempted to lose weight

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Obesity is one of today's most blatantly obvious, yet most neglected, public health problems.[1] Current obesity treatment programs are effective at the group level, but individual variability is consistently demonstrated, indicating that not all treatments suit all individuals.[2] This often leads to multiple weight loss attempts followed by subsequent periods of weight regain. Gene expression levels in peripheral blood mononuclear cells, measured from a routine blood draw, have been shown to be responsive to weight loss with differential gene expression patterns between high and low responders.[3] This presents an important new strategy for improving individual outcomes in obesity treatment by prioritising treatment options for an individual based on their gene expression. We explored attitudes towards personalised weight loss treatment, via a blood test, among a key target audience; individuals who have overweight or obesity and have considered or attempted to lose weight. An online survey adapted from Brennan et al.[4] was publicised and accessed via social media, between May and July 2022. Questions included demographic information, weight history, health related values and motivations, eating and lifestyle habits, food choices and consumption, use of online health and food information, health care usage, and views on personalised nutrition. Ninety-seven people completed the survey. The population consisted mostly of women (87%), with a university degree (72%) working in a professional career (58%). Ninety-one percent of participants had previously made two or more weight loss attempts and 60% had made five or more weight loss attempts. Self-reported BMI indicated that 45% of participants were overweight (BMI 25–29.9 kg/m2), 23% had class I obesity (BMI 30–34.9 kg/m2), 22% has class II obesity (35–39.9 kg/m2), and 10% had class III obesity (BMI 40+ kg/m2). Individuals with obesity (BMI $\geqslant$ 30 kg/m2) were more likely to experience weight-related discrimination in the healthcare sector ($p < 0.001$) and delay ($p = 0.027$) or avoid ($p = 0.040$) seeking healthcare treatment because of their weight, compared with individuals with overweight. Only 3% of participants said that they would not consider using a personalised weight loss treatment, which was largely due to not wanting to provide a blood sample. The majority of participants indicated that they 'would consider using' (46%), 'intend to use' (9%), or would 'definitely use' (41%) personalised weight loss treatments based on a blood test. The findings indicated that this population were engaged in health messaging on social media and receptive to the idea of using a personalised nutrition tool for weight management. The next step is to develop this tool and determine the feasibility and efficacy in individuals with obesity and develop appropriate communication strategies to reach and engage the target audience.

References

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