

# Evaluating the role of a commercial slimming organisation within type 2 diabetes management

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## 1 – Introduction

Type 2 diabetes (T2D) is a major public health problem closely linked to being overweight or obese. T2D treatment can be both dynamic and challenging, requiring a number of lifestyle changes in order to reduce the risk of disabling and life-threatening macro- and micro-vascular complications. Weight management is highlighted as the principal strategy for managing blood glucose levels in T2D (Dyson et al, 2011). This research investigated the impact of attending a commercial weight management organisation (Slimming World (SW)) in diabetes management.

## 2 – Methods

SW members with diabetes were invited to complete a 31 point questionnaire hosted on SW's member website for a 2-week period in July 2013. Quantitative and qualitative questions were used including specific questions on medication usage and the Impact of Weight on Quality of Life. Respondents were split by diabetes type and length of SW membership and results analysed using Microsoft Excel with paired t- tests.

## 3 – Results

Of the 552 respondents with T2D, 87% were female. Mean age was 53.1 (11.1) years and mean attendance 12.2 (20.6) months. Mean joining BMI was 39.6 (8.03)kg/m<sup>2</sup>. 49% of respondents had recently been diagnosed with T2D; 21% diagnosed between 1-5 years and 30% >5 years ago.

For members who had attended SW longer than 3 months (n= 394), mean weight and BMI fell by 11.7kg (10.9%) and 5.4 kg/m<sup>2</sup> respectively. Mean weight and BMI changes are reported for different levels of attendance in table 1.

**Table 1.** Mean BMI, Glucose and HbA1c changes.

	Length of membership/ attendance at SW	N=	Values on joining SW (SD)	Current values (SD)	%difference*
>3 months	BMI (kg/m <sup>2</sup> )	394	39.3 (7.96)	33.9 (6.89)	-13.8
	glucose(mmol/l)	221	11.29 (5.03)	6.52 (2.01)	-42.32
	HbA1c%	102	8.65 (2.15)	6.55 (1.32)	-24.36
>6 months	BMI (kg/m <sup>2</sup> )	277	39.2 (8.16)	33.0 (6.73)	-15.8
	glucose(mmol/l)	157	11.36 (5.14)	6.60 (2.13)	-41.83
	HbA1c%	69	8.63 (2.18)	6.46 (1.40)	-25.20
6-12 months	BMI (kg/m <sup>2</sup> )	123	39.4 (7.80)	34.1 (6.75)	-13.6
	glucose(mmol/l)	81	11.29 (5.20)	6.98 (2.45)	-38.16
	HbA1c%	34	8.99 (2.61)	6.66 (1.75)	-33.17

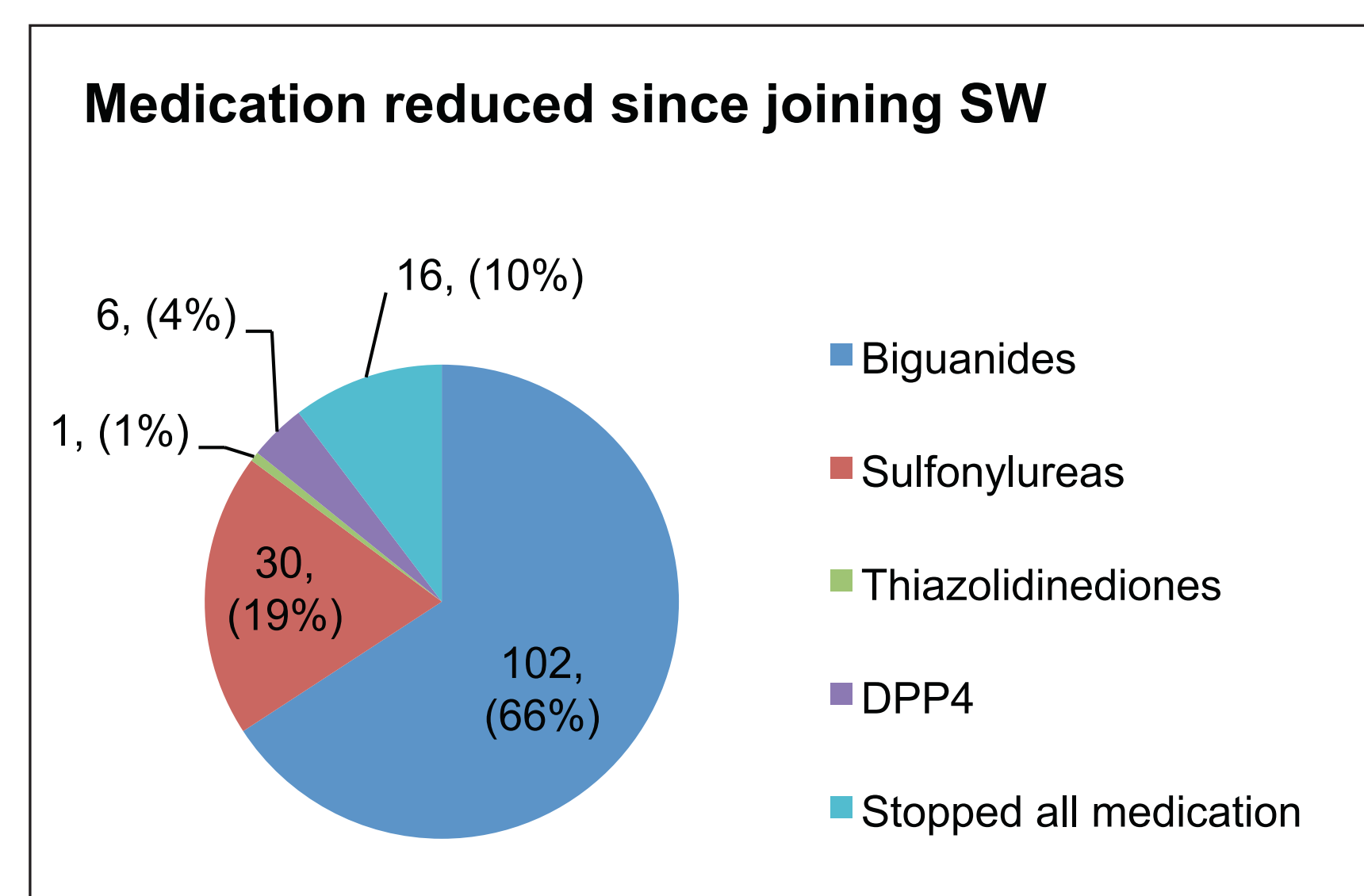
\*All changes were significant p<0.00.

Of the 479 (87%) members with T2D taking medication, 38% reported a reduction in medication (figure 1) and of the 123 taking insulin, 61% reported a reduction in dosage, since joining SW.

Respondents also reported significant improvement in their physical activity levels and physical functionality scores; measures of self-esteem, sexual life, public distress/weight stigma and working experiences (P<0.000 for all changes).

### References

P. A. Dyson, T. Kelly, T. Deakin, A. Duncan, G. Frost, Z. Harrison, D. Khatri, D. Kunka, P. McArdle, D. Mellor, L. Oliver and J. Worth on behalf of Diabetes UK Nutrition Working Group. (2011). Diabetes UK evidence-based nutrition guidelines for the prevention and management of diabetes. Diabetic Medicine. 28, 1282–1288



**Figure 1** shows which medications were reduced (where information was provided, n=155)

## 4 – Discussion and Conclusions

SW is a commercial weight management organisation running 10,000 community-based weight management support groups each week across the UK. People who choose to attend may have a chronic condition, for example T2D, which may benefit from weight loss. In this evaluation SW members with T2D lost weight, reported improved blood glucose and HbA1c levels irrespective of how long they had been a member. Reductions in medication, including insulin, were also reported, as were improvements in quality of life measures.

The improved glycaemic control, indicates attendance at SW is a practical, effective option for supporting weight management in T2D in a community setting. The organisation always recommends that members with chronic conditions have regular reviews with their health care team.