Emotional well-being and social and economic disadvantage in severely obese people with type 2 diabetes

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Background

- Successful management of type 2 diabetes (T2DM) and co-morbid severe obesity (BMI ≥35) requires attention to the behavioural, psychological and social aspects of these serious conditions.
- T2DM and obesity are each associated with impaired emotional well-being\(^1\,2\).
- However, little is known about people with T2DM and co-morbid severe obesity.

Aims and Hypotheses

Aims

- To examine the emotional well-being of adults with T2DM and co-morbid severe obesity.
- To examine markers of social and economic disadvantage in this group.

Hypotheses

Compared with respondents who were not severely obese, we hypothesised that those with co-morbid severe obesity and T2DM would have:

- Greater symptoms of depression and anxiety.
- More markers of social and economic disadvantage.

Method

Diabetes MILES - Australia was a national survey (conducted in 2011) of adults with diabetes, which focused on psychosocial and behavioural issues.

A random sample of 15,000 registrants of the National Diabetes Services Scheme (NDSS) were posted a survey; an online version was advertised nationally.

Results

- Full methods are published elsewhere\(^3\) with relevant details described below.
- 3,338 eligible respondents took part.
  - 1,962 (59%) had T2DM.
- The survey included:
  - Validated scales, e.g.:
    - PHQ-9 to measure depression.
    - GAD-7 to measure anxiety.
  - Study-specific items, e.g. self-reported height, weight.
- A case-controlled analysis was conducted matching participants with:
  - A BMI ≥35 (n = 530; median BMI = 41.6), with those with
  - A BMI <35 (n = 530; median BMI = 28.2) on the following variables:
    - Age.
    - Gender.
    - Diabetes duration.
    - Insulin use.

- Respondents with severe obesity:
  - Had higher depression scores (median (IQR): 6.0 (3-12)) than the control group (5.0 (2-10); p < 0.001).
  - Were more likely to experience moderate-severe symptoms of depression (37% vs 27%; p < 0.001).
  - The two groups did not differ on anxiety.
  - Respondents with severe obesity were more likely to (all p < 0.05):
    - Live alone.
    - Receive a disability pension.
    - Earn ≤$40,000/year.
  - Respondents with severe obesity were less likely to (all p < 0.01):
    - Be in paid employment.
    - Be tertiary educated.
    - Have health insurance.

Figure 1. Social and economic disadvantage among adults with T2DM by severe obesity.

Conclusions

- Our hypotheses were partially supported. Australian adults with T2DM and co-morbid severe obesity are more likely to report:
  - Markers of social and economic disadvantage.
  - Clinically relevant depressive symptoms (though they do not differ in terms of anxiety).
  - Increased awareness of these issues may facilitate more person-centred clinical care, and realistic and appropriate healthcare goals.

References

1. All S et al. The prevalence of co-morbid depression in adults with Type 2 diabetes... Diabet Med 2006;23:1165-1173.

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Acknowledgements: The Diabetes MILES - Australia 2011 survey was funded by a National Diabetes Services Scheme (NDSS) Strategic Development Grant. The NDSS is an initiative of the Australian Government administered by Diabetes Australia.