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Weight loss, stress responses and depression in obese patients: usefulness of an online questionnaire for assessment and management of psychological and behavioural factors

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The objective of the research programme was to examine the validity of the Larocque Obesity Questionnaire (LOQ)⁽¹⁾ and its usefulness in the context of long-term weight management. The relationship between changes in BMI early in treatment and changes in stress and depression was examined, as well as the relationship between these early changes and weight change later in treatment.

The subjects were ninety-six obese women (BMI 30.8 (SE 5.2) kg/m²) undergoing treatment by French general practitioners (GP). Participants were given a nutritional programme (3347 kJ (800 kcal)/d) and were asked to complete the LOQ once monthly during the treatment (duration 3.3–20.6 months; average 270 d). Two variables of interest were stress response (six items) and depression (eight items). The assessment was conducted online before the consultation with the GP. The ninety-six patients included in the study all met the criteria for 'full engagement' in the protocol, which was defined as continuing in treatment ≥ 8 weeks. The time 2 (T2) assessment was defined as the last assessment, taking place between 8 and 16 weeks from the beginning of treatment (average T2 12.5 weeks).

The scores obtained at the first assessment (T1), T2 and beyond (≤ 270 d from the beginning of treatment) were compared. The reduction in BMI was highly significant at T2 (from 30.8 (SD 5.2) kg/m² to 27.4 (SD 4.7) kg/m²; $P < 0.0001$). BMI reduction was also significant after T2 (last BMI 26.9 (SD 4.7); $P < 0.01$). Stress response and depression were also significantly improved at T2 ($P < 0.0001$) and remained stable thereafter. A highly significant relationship was found between BMI loss by T2 and reduction in stress response (r 0.41; $P < 0.0001$). There was a non-significant positive correlation between variation in BMI and change in depression scores (r 0.18). Finally, there was a strong correlation between changes in stress response and changes in depression (r 0.40; $P < 0.0001$).

A relationship was found between early fall in BMI and reduction in stress responses. The reduction in stress appeared stable with time during a period of active treatment (9 months). These patients who 'fully engaged' in weight-management treatment with a GP showed highly significant and stable reductions in perceived stress and depression. These results along with those previously published⁽²⁾ help to identify psychological variables likely to predict the long-term weight-management success of obese patients. The online behavioural assessment procedure is an efficient, patient-centred and interactive method allowing the clinician to track behavioural and emotional changes, which should provide for more effective treatment of obesity.

1. Stotland SC & Larocque M (2005) *Br J Health Psychol* **10**, 601–614.

2. Stotland SC, Cousset F, Tranchant T & Larocque M (2006) *Obesity Rev* **7**, Suppl. 2, PO0708.