

## The Comorbidity of Depression and Diabetes Mellitus Type 2: an Observational Study

F. Battaglia<sup>1</sup>, D. Cannavo<sup>1</sup>, E. Battaglia<sup>1</sup>, E. Fazio<sup>1</sup>, G. Minutolo<sup>1</sup>, E. Aguglia<sup>1</sup>

<sup>1</sup>Psychiatry, University of Catania, Catania, Italy

---

**Introduction:** Comorbidity between depression and diabetes is a particularly common condition as underdiagnosed. Individuals with diabetes have about a 2-fold increased risk for major depression, affecting one of every 10 diabetic patients. Biological and psychosocial variables represent risk factors. Comorbidity with depressive disorders led to a worsening of diabetic symptoms, greater functional impairment and worse quality of life.

**Objectives:** To evaluate the relationship between depression and HbA1c levels, biological and socio-demographic factors, quality of life and diabetes distress.

**Aims:** To demonstrate how depression in diabetic patients results in a worsening of clinical, treatment and social outcome.

**Methods:** 72 patients with diabetes were recruited and matched into two groups (depressed, non-depressed). Socio-demographic data and HbA1c levels were collected. Diabetics patients were tested using Hamilton Depression Scale, Quality of Life Index and Diabetes Distress Scale (DDS).

**Results:** Depressed diabetic patients had about a 4-fold increased risk for higher HbA1c levels ( $\geq 8\%$ ) (OD= 4.375). Depression was more prevalent in women than men ( $p < 0.05$ ) and in retired ( $p < 0.05$ ). Lower education level was significantly correlated with depression in comorbidity with diabetes ( $p < 0.05$ ). Quality of life in depressive diabetic patients was poorer than patients without depression ( $p < 0.01$ ). Depressed group showed higher levels in DDS particularly in Emotional Burden ( $p < 0.01$ ), Regimen Distress ( $p < 0.01$ ) and Interpersonal Distress ( $p < 0.05$ ).

**Conclusions:** Depression in diabetic patients is significantly related to biological and socio-demographic factors and worse quality of life. Depressed demonstrates higher distress due to diabetes.