

Symptoms and Health Status in a Recently-Diagnosed Type 2 Diabetic Population: The ADOPT Study

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Background and Aims: This analysis evaluated baseline symptoms and health status of 4,381 patients with type 2 diabetes (T2D) enrolled in ADOPT, a global, randomised, controlled clinical trial designed to compare the efficacy and safety of initial monotherapies for T2D.

Materials and Methods: All subjects in the trial had been diagnosed within 3 years and had fasting plasma glucose (FPG) levels of 7.0–9.9 mmol/l (126–179 mg/dl). Symptoms were assessed using the Diabetes Symptom Checklist (DSC) and health status with the SF-36. Results were analysed by tertiles of body mass index (BMI), HbA_{1c}, FPG, systolic blood pressure and total cholesterol:high density lipoprotein ratio. DSC scores range from 0 to 5. SF-36 physical and mental scores are standardised to US general population norms with a mean of 50 and standard deviation of 10. The statistical significance of differences between tertiles was determined using Kruskal-Wallis tests. **Results:** Mean age of patients was 57 years (range: 26–78) and 58% were male. The largest differences in symptoms and health status were seen by tertile of BMI and HbA_{1c}.

		Tertile 1	Tertile 2	Tertile 3	P value
BMI	Range (kg/m ²)	20.1–28.79	28.8–33.59	33.6–50.0	
	Number with DSC	1,306	1,318	1,327	
	DSC (sd) [†]	0.62 (0.59)	0.72 (0.69)	0.92 (0.74)	< 0.0001
	Number with SF-36	1,034	1,015	1,070	
	SF-36 general (sd) [‡]	69.39 (18.65)	68.55 (19.11)	64.34 (19.03)	< 0.0001
	SF-36 physical (sd) [‡]	49.48 (8.08)	48.43 (8.77)	45.34 (9.52)	< 0.0001
	SF-36 mental (sd) [‡]	52.39 (8.88)	52.65 (9.03)	51.53 (9.80)	0.0287
HbA_{1c}	Range (%)	3.5–6.89	6.9–7.59	7.6–12.8	
	Number with DSC	1,196	1,243	1,492	
	DSC (sd) [†]	0.69 (0.66)	0.76 (0.68)	0.81 (0.72)	< 0.0001
	Number with SF-36	917	1,014	1,201	
	SF-36 general (sd) [‡]	66.66 (19.24)	68.08 (18.91)	67.14 (19.33)	0.2609
	SF-36 physical (sd) [‡]	47.83 (8.86)	47.6 (9.16)	47.53 (9.13)	0.9141
	SF-36 mental (sd) [‡]	52.26 (9.52)	52.36 (8.92)	51.9 (9.38)	0.6222

[†]Higher DSC denotes worse symptoms; [‡]higher SF-36 denotes better health-status.

Conclusion: The DSC results suggest that in this relatively homogenous population with recent onset T2D and few diabetic complications, symptoms were few. DSC scores were

related both to increasing BMI and to hyperglycaemia. However, worsening health status, specifically the physical SF-36 component, was related to increasing BMI but not to HbA_{1c}. This suggests that health status in early T2D is more sensitive to obesity and other potential effects of the metabolic syndrome, rather than hyperglycaemia. In assessing the impact of initial pharmacological therapies on health status, it will be important to assess the independent contributions of both changes in glycaemic control and body weight.