Assessing the Impact of Visual Acuity on Quality of Life in Individuals With Type 2 Diabetes Using the Short Form-36

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Diabetes Care (2006); 29(7):1506-1511

OBJECTIVE: We sought to ascertain quality-of-life measures and utility values associated with visual acuity in type 2 diabetes. RESEARCH DESIGN AND METHODS: The Medical Outcome Study Short Form with 36 items (SF-36) was administered to 4.051 individuals with type 2 diabetes who were enrolled in the Lipids in Diabetes Study, and their best attainable vision was determined using an Early Treatment of Diabetic Retinopathy Study chart, expressed as a LogMAR score. Eight domain scores and a utility value representing an overall quality-of-life score were calculated using predefined algorithms. The associations between quality of life measured and best-eye visual acuity were assessed graphically and by regression analysis. **RESULTS:** All eight SF-36 domain scores were negatively associated with reduced visual acuity. The impact of lower levels of visual acuity ranged from a decline of 1.3 units for a 0.1-LogMAR increase for physical functioning and 0.6 units in mental health. Regression analysis indicated a negative association (P < 0.001) between utility and reduced visual acuity after controlling for sex, BMI, smoking status, and history of diabetes complications. Patients whose LogMAR scores equated to legally blind had, on average, 0.054 (95% CI 0.034-0.074) lower utility compared with patients with normal visual acuity. CONCLUSIONS: Reduced visual acuity is negatively associated with quality of life. The utility scores estimated here should inform studies quantifying the burden of diabetes and those evaluating potential therapies for treating or preventing diabetic eye diseases.