

Table 3 Prevalence of obesity-linked type 2 diabetes mellitus (T2DM) among Arabs (continued)

Author (reference)	Country	Year	Sample size	Main findings	Notes
Abdella (116)	Kuwait	1996	8336	Prevalence of diabetes: 7.6% Mean BMI in diabetic women: 31.8 kg/m ² Mean BMI in diabetic men: 28.5 kg/m ²	Medical chart review
AlKhalaf (115)	Kuwait	2010	560	Prevalence of diabetes: 21.4% Mean BMI in newly detected T2DM: 32.5 kg/m ² Mean BMI in normoglycaemic group: 28.1 kg/m ² Waist circumferences ≥ 100 cm significant predictor for T2DM in multivariate regression analysis (OR 6.89; 95% CI: 1.95–24.3)	Adult Kuwaitis
Alarouj (52)	Kuwait	2013	1970	Prevalence of diabetes: 17.9% Prevalence of obesity: 48.2% Prevalence of T2DM in obese males: 47.7% Prevalence of T2DM in obese females: 77.3% Obesity significantly associated with T2DM (OR 2.87) (P = 0.0001).	Obesity defined as BMI ≥ 30 kg/m ²
Farouq (107)	Bahrain	1996	498	Prevalence of diabetes: 25.5% Prevalence of BMI ≥ 30 kg/m ² in diabetics: 31.5% Prevalence of BMI ≥ 30 kg/m ² in controls: 24.5%	-
Malik (53)	United Arab Emirates	2005	5758	Prevalence of T2DM: 20.2% Prevalence of obesity in diabetics: 40% BMI associated with T2DM (OR 1.04; 95% CI: 1.02–1.05) Waist-to-hip ratio associated with T2DM (OR 1.73; 95% CI: 1.18–2.55)	Obesity defined as BMI ≥ 30 kg/m ²
Saadi (111)	United Arab Emirates	2007	2455	Prevalence of diagnosed T2DM: 10.5% Prevalence of undiagnosed T2DM: 6.6% Mean BMI in diabetics: 30.3 kg/m ² Mean BMI in non-diabetics: 27.3 kg/m ² (P < 0.001)	Stepwise logistic regression showed only BMI and age significantly related to undiagnosed T2DM
Mansour (113)	Iraq	2007	13 730	Incidence of T2DM: 6.8% Mean BMI in diabetics: 28.68 kg/m ² Mean BMI in non-diabetics: 26.01 kg/m ² (P < 0.001) Mean waist circumference in diabetics: 100.5 cm Mean waist circumference in non-diabetics: 90.3 cm (P < 0.001)	Prospective cohort study Mean follow-up of 5 years In multivariable logistic regression analysis waist circumference was most sensitive predictor for T2DM among other anthropometric variables
Mansour (112)	Iraq	2014	5445	Prevalence of T2DM: 19.7% Mean BMI in diabetics: 28.3 kg/m ² Mean BMI in non-diabetics: 26.8 kg/m ² (P = 0.01)	-
AlMoosa (122)	Oman	2006	5840	Prevalence of T2DM: 11.6% Prevalence of obesity in T2DM: 60.1% Prevalence of obesity in non-diabetics: 28.5% (P < 0.05)	Obesity defined as waist circumference ≥ 102 cm for males and ≥ 88 cm for females
Musaiger (58)	Qatar	2005	535	Prevalence of T2DM among obese females ≥ 50 years: 51.4% Relative risk of developing T2DM in obese females (20–29 years old) (RR 11.21) (P < 0.003)	Only female obese subjects included Self-reported diabetes