Poor structural social support is associated with an increased risk of Type 2 diabetes mellitus: findings from the MONICA/KORA Augsburg cohort study.

Several psychosocial factors have been shown to increase the risk of Type 2 diabetes mellitus. This study investigated the association between structural social support and incidence of Type 2 diabetes mellitus in men and women. Data were derived from three population-based MONICA/KORA surveys conducted in 1984-1995 in the Augsburg region (southern Germany) and followed up by 2009. The study population comprised 8952 participants (4669 men/4283 women) aged 30-74 years without diabetes at baseline. Structural social support was assessed using the Social Network Index. Sex-specific hazard ratios were estimated from Cox proportional hazard models. Within follow-up, 904 incident Type 2 diabetes mellitus cases (558 men, 346 women) were observed. Crude incidence rates for Type 2 diabetes mellitus per 10 000 person-years were substantially higher in poor compared with good structural social support (men: 94 vs. 69, women: 58 vs. 43). After adjustment for age, survey, parental history of diabetes, smoking status, alcohol intake, physical activity, hypertension, dyslipidaemia, BMI, education, sleep complaints and depressed mood, risk of Type 2 diabetes mellitus for participants with poor compared with good structural social support was 1.31 [95% confidence interval (CI) = 1.11-1.55] in men and 1.10 (95% CI = 0.88-1.37) in women. Stratified
analyses revealed a hazard ratio of 1.50 (95% CI = 1.23-1.83) in men with a low level of education and 0.87 (95% CI = 0.62-1.22) in men with a high level of education (P for interaction: 0.0082). Poor structural social support is associated with Type 2 diabetes mellitus in men. This association is independent of risk factors at baseline and is particularly pronounced in men with a low level of education.