

Is exposure to chronic stressors a risk factor for Type 2 diabetes?

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Is exposure to chronic stressors a risk factor for Type 2 diabetes?

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Background

Current policy around Type 2 diabetes (T2D) interventions to reduce rates largely invokes a bio-behavioural model. This approach is also reflected in the research literature where most research that attempts to predict the development of diabetes is restricted to conventional clinical risk factors. However, a few researchers are now suggesting that psychosocial factors (PSF), acting via the physiologic stress response (PSR) systems, increases the risk of developing diabetes. Cardiovascular disease (CVD) has been causally linked with psychosocial risk factors such as socioeconomic status, control, stress and hostility. And, while T2D and CVD share many common risk factors, the role that psychosocial factors may play is unclear, because the necessary research or analysis has not been conducted or the results interpreted from this perspective. Our working hypothesis is that the underlying mechanism is chronic activation of the PSR.

Methods

The project is a comprehensive review of the literature focused on prospective studies that investigated the risk for developing diabetes. Thematic analysis of the identified resulted in 4 categories for presentation of the Results

1) subjective & objective exposure to stressors; 2) mental health; 3) aggressive behaviour & conflict with others; 4) position in the status hierarchy.

Results

Even after controlling for conventional risk factors, an increased risk for T2D is seen in people: exposed to stressful working conditions or traumatic life events; with depression; with personality traits or mental health problems that put them in conflict with others (such as those with Type A personality or schizophrenia); of low SES either currently or in childhood; and in minority populations independent of current SES. The review also highlighted an almost complete lack of attention paid to non-biobehavioural factors; i.e., all risk was attributed to people behaving badly rather than the social circumstances in which they lived.

Conclusions

We suggest that diabetes prevention would be more effective if 1) PSF, and in particular the problem of social disparities, were recognised and 2) intervention programmes targeted the reduction in social disparities as part of a comprehensive approach to reducing the incidence of diabetes.

Key messages

- Diabetes prevention would be effective if the role of psychosocial factors were recognised.
- Intervention programmes should target a reduction in social disparities as part of a comprehensive approach to reducing the incidence of diabetes.