Diabetic Medicine June 2018

**Editorial**

**The psychosocial impact of diabetes**

The relationship between diabetes and the mind is truly amazing, spanning effects on cognition through relatively minor psychological problems to major psychiatric disease. The connection is complex, with mood and psychotic disorders both increasing the risk of developing diabetes, while, conversely, people with diabetes are more likely to develop a range of psychological and psychiatric disorders. One of the joys of working in diabetes is the privilege of getting to know people with the condition over many years and learning how they cope with and fit diabetes into their lives. There can be little doubt that diabetes places huge behavioural and treatment demands on these individuals. This month, we have nine articles examining different facets of the psychosocial aspects of diabetes and covering self-management and education, peer support, diabetes distress, depression and anxiety.

Nelson Mandela said, “*Education is the most powerful weapon which you can use to change the world.*” Understanding diabetes and its management is surely a prerequisite to changing diabetes outcomes. Education is not merely the transference of knowledge but a process by which the individual can act differently; knowing more can only take you so far – think about the value of a pub quiz where knowledge of trivia is the key to victory. The philosophy of self-management education is to enable people with diabetes to self-manage by giving them the knowledge, skills, and ability necessary for this task. The importance of self-management education has been enshrined in NICE guidance for both type 1 and type 2 diabetes and this month’s issue provides further evidence of the effectiveness of the Dose Adjustment for Normal Eating (DAFNE) programme. An analysis of 687 individuals with type 1 diabetes from Scotland who had participated in DAFNE showed that the structured education led to a 3.5 mmol/mol (0.3%) reduction in HbA1c after 12 months with reduced HbA1c variability (1). Educational activity should be based on the needs, goals and lived experiences of the person with the chronic condition and House and colleagues have demonstrated the feasibility of supporting self-management in adults with obesity, type 2 diabetes and an intellectual disability (2).

People with diabetes do not live in isolation and the support they receive from their friends and family as well as the healthcare professional team affects their ability to look after their diabetes. Kragelund Nielsen et al summarise the key messages from a Danish Diabetes Academy symposium held in Copenhagen in May 2017 on the prevention of diabetes in women with a history of gestational diabetes (3). The review places the challenges faced by the women into a family context. This is relevant not only to the women but also to their partners as they too are at increased risk of diabetes. It seems that interventions that target the whole family may be more effective in future, not least because family members of those with diabetes find educational courses valuable and enjoy learning more about the condition (4).

The least effective anti-diabetes drug is the one that stays in the cupboard but unfortunately fewer than 50% of people receiving oral anti-diabetes treatments, antihypertensive agents and statins persist with their medication 2 years after treatment initiation and up to 20% never start treatment (5). Neglecting self-management plans poses a major challenge in diabetes as this leads to poorer metabolic control, higher rates of hospitalisation and mortality (6) and higher direct medical costs (7). In order to support people better, we need to understand what predicts less-than-ideal self-management; in a cross-sectional study from Singapore, diabetes-related distress and poor disease perception was associated with worse medication adherence and higher HbA1c (7). Two trials reported in this month’s issue have attempted to address diabetes-related distress. In the first, an emotion-focused educational programme (VEMOFIT) was compared with a programme of active listening to participants’ emotional experiences, social support and their opinion of their diabetes care services (8). Both interventions reduced distress but neither was superior to the other. In the second trial, Ju et al showed that peer support led by trained leaders effectively reduced distress, adding benefits beyond standard diabetes education (9). Perhaps in both of these trials, the “active ingredient” was the opportunity to be listened to. Peer support also features in another of our articles, in which peer support, either one-to-one or within a group setting, led to less healthcare utilization and reduced costs (10).

Moving to psychiatric illness, Lloyd et al add to the growing evidence of the link between diabetes and depression by showing across 14 countries that around 10% of people with diabetes have a diagnosis of major depression and a further 17% experience moderate-to-severe depressive symptoms (11). In common with the general population, women with diabetes are more likely to develop depression than men with diabetes as were those with lower educational attainment and those who were physically inactive. Diabetes distress was associated with depression showing the overlap between these two conditions. Sadly, in many countries, identification and treatment of depression was low or non-existent.

Although less well studied, there is an expanding body of literature connecting diabetes with anxiety. The meta-analysis of 14 longitudinal studies by Smith et al reports a 47% increased risk of diabetes in those with baseline anxiety but interestingly, unlike depression, diabetes was not associated with incident anxiety in the studies that examined this.

Humans are incredibly resilient but diabetes and its management can impair quality of life. A deeper understanding of how diabetes affects the mind will allow us to develop interventions to improve the lives of those with the condition.

Richard IG Holt

Editor-in-Chief

Diabetic Medicine

References

1. Walker et al. Structured education using Dose Adjustment for Normal Eating (DAFNE) reduces long-term HbA1c and HbA1c variability. DME13621
2. House et al. Randomized controlled feasibility trial of supported self-management in adults with Type 2 diabetes mellitus and an intellectual disability: OK Diabetes. DME13626
3. Kragelund Nielsen et al. Prevention of Type 2 diabetes after gestational diabetes directed at the family context: a narrative review from the Danish Diabetes Academy symposium. DME13622
4. Kovacs Burns K, Nicolucci A, Holt RI, et al. Diabetes Attitudes, Wishes and Needs second study (DAWN2): Cross-national benchmarking indicators for family members living with people with diabetes. *Diabet Med.* 2013;30(7):778-788
5. Yeaw J, Benner JS, Walt JG, Sian S, Smith DB. Comparing adherence and persistence across 6 chronic medication classes. *J Manag Care Pharm.* 2009;15(9):728-740
6. Ho PM, Rumsfeld JS, Masoudi FA, et al. Effect of medication nonadherence on hospitalization and mortality among patients with diabetes mellitus. *Arch Intern Med.* 2006;166(17):1836-1841
7. Lum et al. Mediators of medication adherence and glycaemic control and their implications for direct outpatient medical costs: a cross-sectional study. DME13619
8. Chew et al. The effectiveness of an emotion-focused educational programme in reducing diabetes distress in adults with Type 2 diabetes mellitus (VEMOFIT): a cluster randomized controlled trial. DME13615
9. Ju et al. Effect of peer support on diabetes distress: a cluster randomized controlled trial. DME13625
10. Yu et al. Impact of peer support on inpatient and outpatient payments among people with Type 2 diabetes: a prospective cohort study. DME13624
11. Lloyd et al. International Prevalence and Treatment of Diabetes and Depression (INTERPRET-DD) study, a collaborative study carried out in 14 countries. DME13611
12. Smith et al. Investigating the longitudinal association between diabetes and anxiety: a systematic review and meta-analysis. DME13606