New five-year data hails benefits of group treatment: can we do the same in the UK?

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The paper by Trento and colleagues presents the five-year results of the Turin model of diabetes education. In the study, 42 people who had the group education for over five years were compared to 42 who had one to one individual education. The group care people had better knowledge of diabetes, better problem solving ability, better quality of life scores, a decrease in BMI, an increase in HDL cholesterol and better HBA_{1c} measurements than those in the control group!

The group education scheme had a curriculum that was intentionally kept to a minimum of essential concepts which were transmitted by hands-on activities, problem-solving exercises, real life simulations and role play. The programme included the burden of overweight, choosing food and planning meals, physical exercise, checking and improving metabolic control, smoking cessation, correct taking of medications and preventing complications.

The curriculum was initialled divided into four sessions and was repeated in years one and two. It was then spread over seven sessions in years three and four, and started again in year five.

Although the study had fairly small numbers the effectiveness of the intervention on social, psychological and biomedical parameters was amazing. It is the first study of an educational intervention in diabetes care to publish five-year data, and the data presented suggest that the intervention has more powerful effects on a greater range of parameters than any known therapy.

The question is, can such fascinating results be replicated when the intervention is repeated in other situations and could such an intervention be translated into a UK context and give such spectacular results?

CURRENT MEDICAL RESEARCH AND REVIEWS

Metformin-XR better tolerated than immediate release

Readability	✓ ✓
Applicability to practice	✓ ✓ ✓
WOW! factor	✓ ✓

1 This study was a retrospective chart review that examined the overall gastrointestinal tolerability of immediate-release metformin and extended-release (XR) metformin.

2 A total of 471 patients' charts were reviewed and data collected from four diabetes clinics; 310 metformin-XR and 158 immediate release metformin participants were included.

3 Participants were an average of 56 years old and overweight; most were Caucasian (50%), Hispanic (24%) or Black (19%).

4 The mean daily doses were 1282 mg for immediate-release metformin and 1258 mg for metformin-XR; approximately 25% of the metformin-XR group had been switched from immediate-release metformin because of gastrointestinal adverse events (AEs).

5 The overall occurrence of gastrointestinal AEs was similar between metformin-XR and immediate-release metformin (11.94% vs 11.39%), and the incidence of individual gastrointestinal AEs did not significantly differ.

6 In 205 participants started on immediate -release metformin and changed to metformin-XR, the frequency of any gastrointestinal AE was 26.34% while on immediate-release metformin vs 11.71% while on metformin-XR.

7 People switched from immediate-release metformin to metformin-XR experienced fewer gastrointestinal side-effects on comparable doses.

Blonde L, Dailey GE, Jabbour SA, Reasner CA, Mills DJ (2004) Gastrointestinal tolerability of extended-release metformin tablets compared to immediate-release metformin tablets: results of a retrospective cohort study. *Current Medical Research and Reviews* **20**: 565–72

DIABETES CARE

Group care is associated with better QOL

Readability	✓ ✓ ✓ ✓
Applicability to practice	✓ ✓ ✓
WOW! factor	✓ ✓ ✓ ✓

1 The study of time course changes in knowledge, problem solving ability and quality of life (QOL) in people with type 2 diabetes managed in groups rather than individual care and education was the aim of this five-year randomised controlled trial.

2 A total of 120 people with type 2 diabetes (non-insulin treated) were enrolled and allocated to group or individual care.

3 The main outcome measures were knowledge of diabetes, quality of life, problem solving ability, BMI, HbA_{1c} and HDL cholesterol.

4 Knowledge of diabetes and ability to problem solve improved from year one in the group care, and worsened in the control group.

5 QOL improved from year two in group care, but worsened in those individually cared for; HbA_{1c} levels increased over five years in the control group, but not in group care patients.

6 The BMI of those in the group care decreased, but their HDL cholesterol increased.

7 When exposed to education that is tailored to their needs, people with type 2 diabetes can attain specific knowledge and conscious behaviours.

8 Individual care was associated with progressive deterioration of knowledge, QOL and problem solving ability.

Trento M, Passera P, Borgo E (2004) A 5-year randomized controlled study of learning, problem solving ability, and quality of life modifications in people with type 2 diabetes managed by group care. *Diabetes Care* **27**: 670–75

Type 2 diabetes

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

Beneficial effects of coffee in type 2 diabetes

Readability	✓ ✓ ✓
Applicability to practice	✓
WOW! factor	✓ ✓ ✓

1 Coffee is the most consumed beverage in the world, but little research has been carried out about coffee consumption and diabetes.

2 This prospective study aimed to establish the relationship between the consumption of coffee and the incidence of type 2 diabetes in Finnish people, who have the highest coffee consumption worldwide.

3 Data were gathered from surveys that had been conducted in 1982, 1987 and 1992 of 6974 Finnish men and 7655 women aged 35–64 years with no previous history of stroke, CHD or diabetes at baseline.

4 During the follow-up period of 12 years, 381 cases of type 2 diabetes were reported, and after adjusting for confounding factors the hazard ratios of diabetes associated with coffee consumed daily (0–2, 3–4, 5–6, 7–9, ≥10 cups) were 1.00, 0.71, 0.39, 0.39 and 0.21 in women, and 1.00, 0.70, 0.67 and 0.45 in men, respectively.

5 Drinking coffee has a graded, inverse association with the risk of type 2 diabetes, but the reasons for this risk reduction are unclear.

Tuomilehto J, Hu G, Bidel S, Lindstrom J, Jousilahti P (2004) Coffee consumption and risk of type 2 diabetes mellitus among middle-aged Finnish men and women. *Journal of the American Medical Association* **291**: 1213–19

GERIATRICS

Guidelines for the care of older people with diabetes

Readability	✓ ✓ ✓ ✓
Applicability to practice	✓ ✓ ✓ ✓
WOW! factor	✓ ✓

1 The California Healthcare Foundation/ American Geriatrics Society Panel recently published guidelines on improving care for older people with diabetes.

2 Some aspects of the guidelines have not been examined in controlled clinical trials.

3 This article summarises the guidelines, indicating which are based on expert opinion and which are evidence-based.

4 The article highlights the need for practitioners to apply approaches to care that consider the level of function of the individual, their needs and wishes, and those of their family.

5 Three useful tables outline the guidelines and the evidence-base for the points made.

6 Microvascular complications of nephropathy, neuropathy and retinopathy are discussed in the light of the recommendations.

7 Data presented in the guidelines relating to geriatric syndromes of depression, cognitive impairment, urinary incontinence, falls, pain and polypharmacy are outlined.

8 The authors conclude that quality of life is the primary goal for healthcare in older people with diabetes.

Olson DE, Norris SL (2004) Diabetes in older adults. Overview of AGS guidelines for the treatment of diabetes mellitus in geriatric populations. *Geriatrics* **59**: 18–25

BRITISH MEDICAL JOURNAL

OHAs may improve memory in diabetes

Readability	✓ ✓ ✓
Applicability to practice	✓ ✓ ✓
WOW! factor	✓ ✓ ✓ ✓

1 The researchers examined the association of type 2 diabetes with baseline cognitive function and decline over 2 years, and focused on women living in the community and the effects of treatments for diabetes.

2 Women aged 70–81 who had been registered nurses completed the baseline interview (n = 18 999); after 2 years, 16 596 had completed follow-up interviews.

3 Assessments included cognitive status, verbal fluency and delayed recall of a 10 word test.

4 At baseline, women with type 2 diabetes scored worse on all cognitive tests than women without diabetes.

5 Women on oral hypoglycaemic agents (OHAs) performed similarly to those without diabetes, and women taking no medication had the poorest performance.

6 Women with type 2 diabetes have increased odds of poor cognitive function and decline, but use of OHAs may ameliorate risk.

Logroscino C, Kang JH, Grodstein F (2004) Prospective study of type 2 diabetes and cognitive decline in women aged 70–81 years. *British Medical Journal 328*: 548–551