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Patient Education Models: Cost effective vs clinical effectiveness

Grace E Vanterpool MBE
Diabetes Nurse Consultant
Diabetes Integrated Care
Ealing

Contents

- NICE
- Patient education models
- Self management
- Care planning
- Evidence
- Clinical effectiveness
- Cost Effectiveness

NICE TA 60

- . Education is considered to be a fundamental part of diabetes care. People with diabetes, whether they are using insulin or other means of achieving glycaemic control, have to assume responsibility for the day-to-day control of their condition. It is therefore critical that they understand the condition and know how to treat it
- . Whether this is through an appreciation of the basis of insulin replacement therapy and its optimal use, or through lifestyle management, including nutrition and physical activity. :

NICE cont'd

- The aim of education for people with diabetes is to improve their knowledge and skills, enabling them to take control of their own condition and to integrate self-management into their daily lives

Goals of structured education

The ultimate goal of education is improvement in the following areas:

- .Control of vascular risk factors, including blood glucose, blood lipids and blood pressure
- .Management of diabetes-associated complications, if and when they develop
- .Quality of life

The National Service Framework for Diabetes proposes a 'supported self care service model' for diabetes and recognises the importance of education in facilitating self-management as the cornerstone of diabetes care.

Self management programmes

- Expert Patient lay led
- Long Term Care (LTC)
- Heart Manual
- Angina Manual

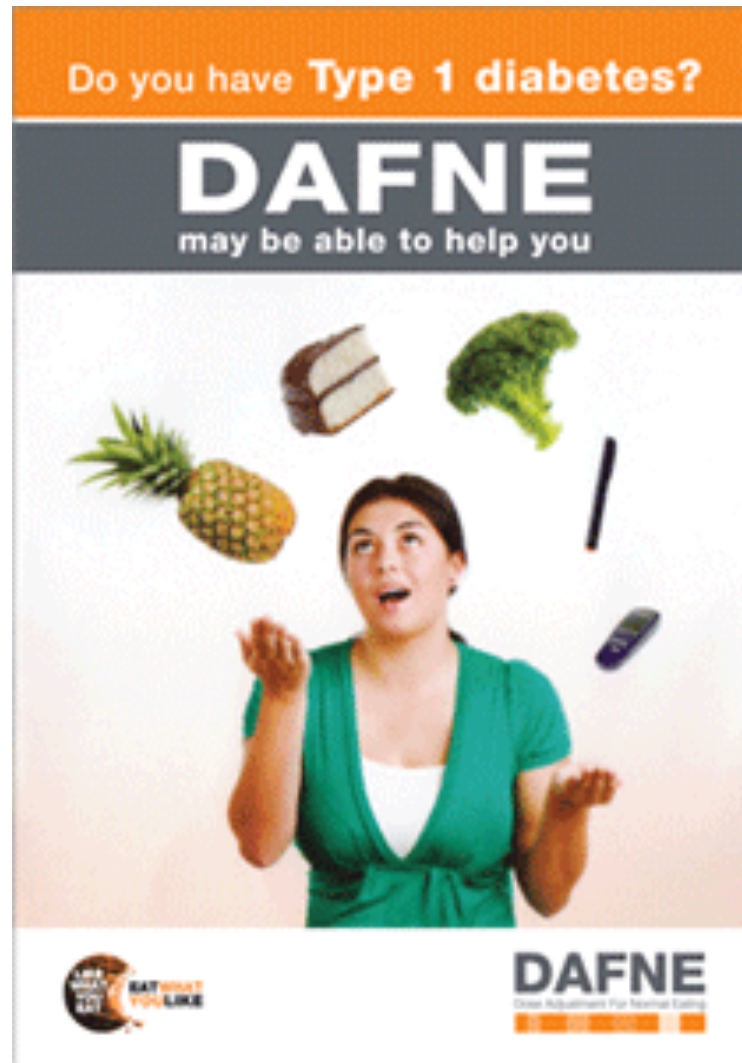
For consideration !!

- Most people with diabetes in England and Wales are offered education, at least at the time of their diagnosis;
- However, the length, content and style of educational options varies greatly between services;
- Some of the educational programmes offered are unstructured;
- Very few have been formally evaluated, and few individuals who deliver education have been formally trained for this purpose.



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DAFNE



N.B. Invokana® is not licensed for use in Type 1 diabetes

What is DAFNE?

- Dose Adjustment for Normal Eating (**DAFNE**) is a structured educational programme for people with type 1 diabetes that teaches individuals to adjust their insulin to match carbohydrate intake and lifestyle on a meal-by-meal basis, thereby allowing enhanced dietary freedom.

- 5 days of intensive training
- Delivered to groups of six to eight individuals on an outpatient basis.
- The programme is based on the Diabetes Treatment and Teaching Programmes, developed in Europe in the 1970s, and often referred to as the Geneva-Düsseldorf model of education.
- DAFNE was recognised as being both a treatment and an educational package

Clinical Effectiveness

- .Over 80% of participants met their goals
- .Over 95% of participants feel they benefitted from attending the course
- .0.5% average reduction in HbA1c for up to six years
- .Many participants have less hypoglycaemia

DAFNE Cost

- The cost of patient education for diabetes depends on the type of programme offered.
- Current estimates of cost range from £66 per person attending a diabetes centre-based teaching programme spread over three afternoons, to £545 for DAFNE

Bournemouth type 1 Intensive Education (BERTIE) Programme



N.B. Invokana® is not licensed for use in Type 1 diabetes

What is BERTIE?

BERTIE is a four week course for people with type 1 diabetes, which involves attending a 6-hour group education programme once a week for four consecutive weeks. The time between sessions is used for participants to put their newly-learned skills into practice.

- Developed in 1998 for patients with type 1 diabetes who struggled with erratic blood glucose levels and frequent hypos.
- There was a need for people to learn how to manage their diabetes in a way that fitted their lifestyle, while avoiding hypoglycaemia.

- BERTIE was modelled on the 5-day programme in Dusseldorf
- Benefits in spreading the course over a longer time period, to enable people to learn in their everyday life, rather than just in a classroom.

The Aims of the course are

- for participants to achieve their own goals relating to their diabetes
- for participants to learn how to adjust their insulin according to their lifestyle and not vice versa
- for participants to learn how diabetes can affect their health, and what they can do to stay healthy

BERTIE Program

- .Information on diabetes, how it is treated
- .Information on how it can affect health and how these effects can be avoided
- .How to recognise and count carbohydrates in food
- .How to work out background and meal-time insulin doses
- .A meal during each session to provide practical experience, including a meal out in the final session
- .Keeping records on food intake, blood glucose levels and insulin doses between sessions
- .Exercise between sessions to learn the effect on blood glucose levels

How has BERTIE changed since 1999?

- Higher emphasis on helping participants set their own goals at the start of each programme
- As the programme progressed to try and ensure it remains relevant to all participants

Social Learning Theory

- To work out their own solutions to problems (either individually or by discussion with fellow participants) rather than provide set solutions which may not work for an individual
- To try out different strategies for managing their diabetes, to find out what works best for them
- To learn from each others experiences

DOH & NICE criteria for diabetes patient education programmes

- A patient-centred philosophy
- A written curriculum
- Fully trained educators
- A quality assurance programme
- Regular audits

Who can attend BERTIE?

- Anyone over 16 with type 1 diabetes
- Patients motivated to learn more about how to manage their diabetes
- Patients on multiple daily injections (MDI), or someone who is willing to switch to MDI
- Anyone with type 2 diabetes who are treated with multiple-daily injections and who feel they would benefit from this approach

Spreading the word

- Over 40 centres in all parts of the UK offer a programme which is based upon BERTIE
- On line version of BERTIE
- www.b-dec.co.uk

Evidence

- 2 RCTs
- 2 CCT
- Further research is needed
- DAFNE dominates conventional treatment (that is, it is associated with more quality-adjusted life years and a net cost saving over 10 years £2679).
- DAFNE demonstrates cost saving after 4 years

Clinical Effectiveness

- over 80% of participants met their goals
- over 95% of participants feel they benefitted from attending the course
- 0.5% average reduction in HbA1c for up to six years
- Can reduce long-term complications by 15-20%
- Many participants have less hypoglycaemia

- Bournemouth Insulin Dose Adjustment Course
BIDAC for HCPs
- DAFNE
- XPERT
- DESMOND
- Train the trainer courses

Cost Effectiveness

- More difficult to prove because it takes time
- Reduction in ambulance call outs
- Reduction in admissions
- Reduction in long-term complication
- £10bn
- 80% of the NHS spend goes on diabetes and related complications
- Avoidable



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WEEK 1

WHAT IS DIABETES

What is Diabetes?

Metformin (Glucophage)
Reduces liver releasing glucose
Makes insulin more effective

Sulphonylureas eg Gliclazide (Diamicon)
Stimulates the pancreas
Rapid pancreas stimulation
Prandial glucose regulators

Acarbose (Glucobay)
Slows carbohydrate digestion

VERWEIGHT CELL
Insulin doesn't work properly = Insulin Resistance

NORMAL CELL
Insulin acts as a key, unlocks the cell door and lets glucose into the cell

Blood Vessel
10mmol/l (Stomach)
7mmol/l (Blood Vessel)
4mmol/l (Normal Cell)

Reduces insulin resistance
Glitazones

Plaque Buildup on Artery Walls

15 5 2006

Glycated Haemoglobin

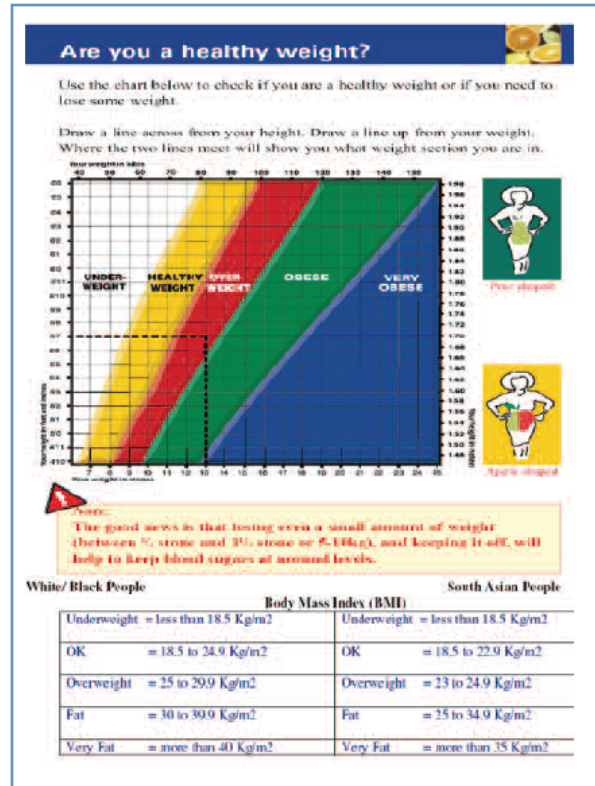


HbA1c 4% or 20mmol/mol



HbA1c 10% or 86mmol/mol

WEEK 2



Eatwell Plate



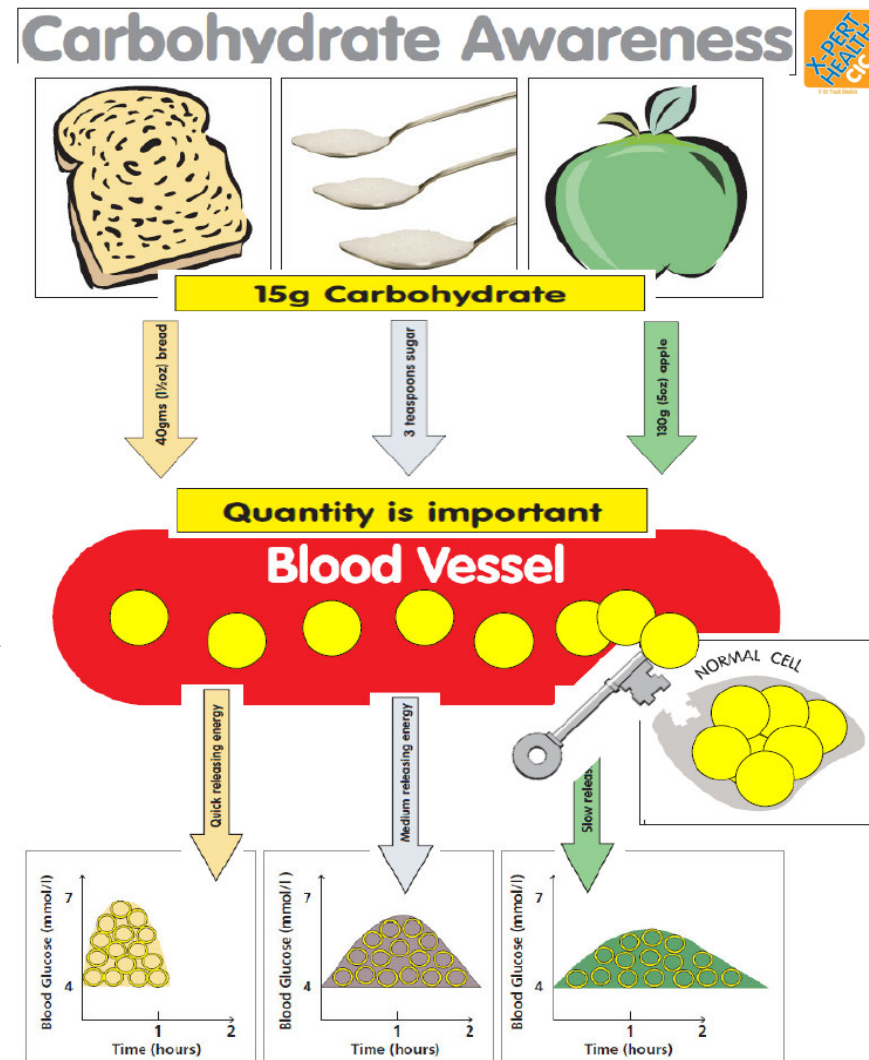
WEIGHT MANAGEMENT

WEEK 3

CARBOHYDRATE AWARENESS

Quantity is the **Key Strategy** for optimal glycaemic control

Quality offers additional benefits



WEEK 4

LOW Fat

LOW Saturates

HIGH Sugar

MED Salt

Healthier choice

Ok choice

less healthy choice



Guide to Food Labelling

A lot (per 100g)	A Little (per 100g)
15.0g of sugars	5.0g of sugars
20.0g of fat	3.0g of fat
5.0g of saturates	1.5g of saturates
3.0g of fibre	0.5g of fibre
1.5g of salt	0.3g of salt
0.6g of sodium	0.1g of sodium

Diabetes UK 2008

Understand Food Labelling



Take control of your health
www.xperthealth.org.uk

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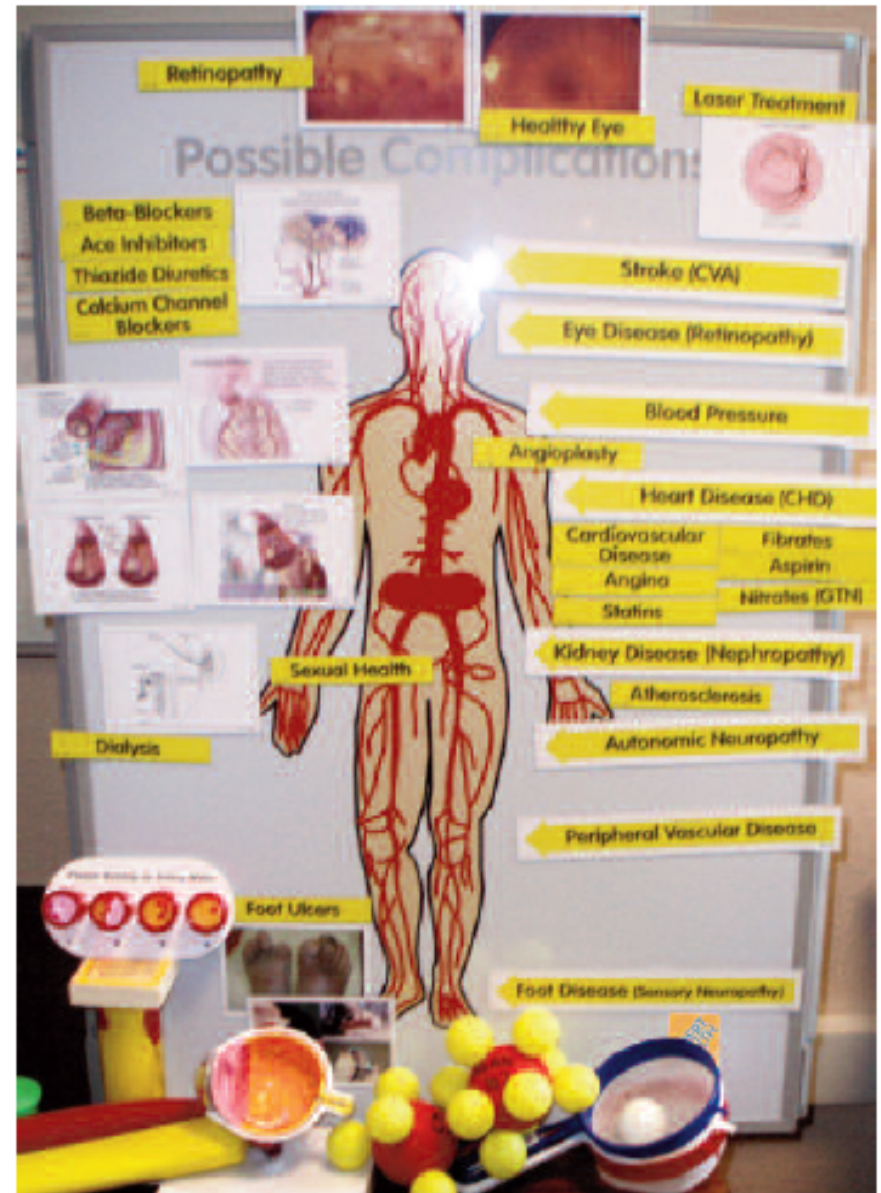
SUPERMARKET TOUR

WEEK 5

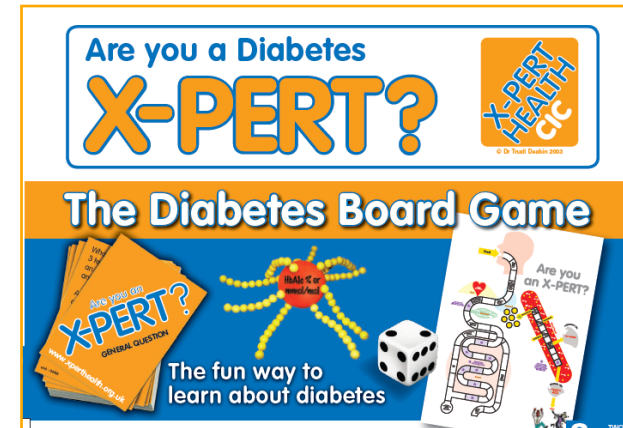
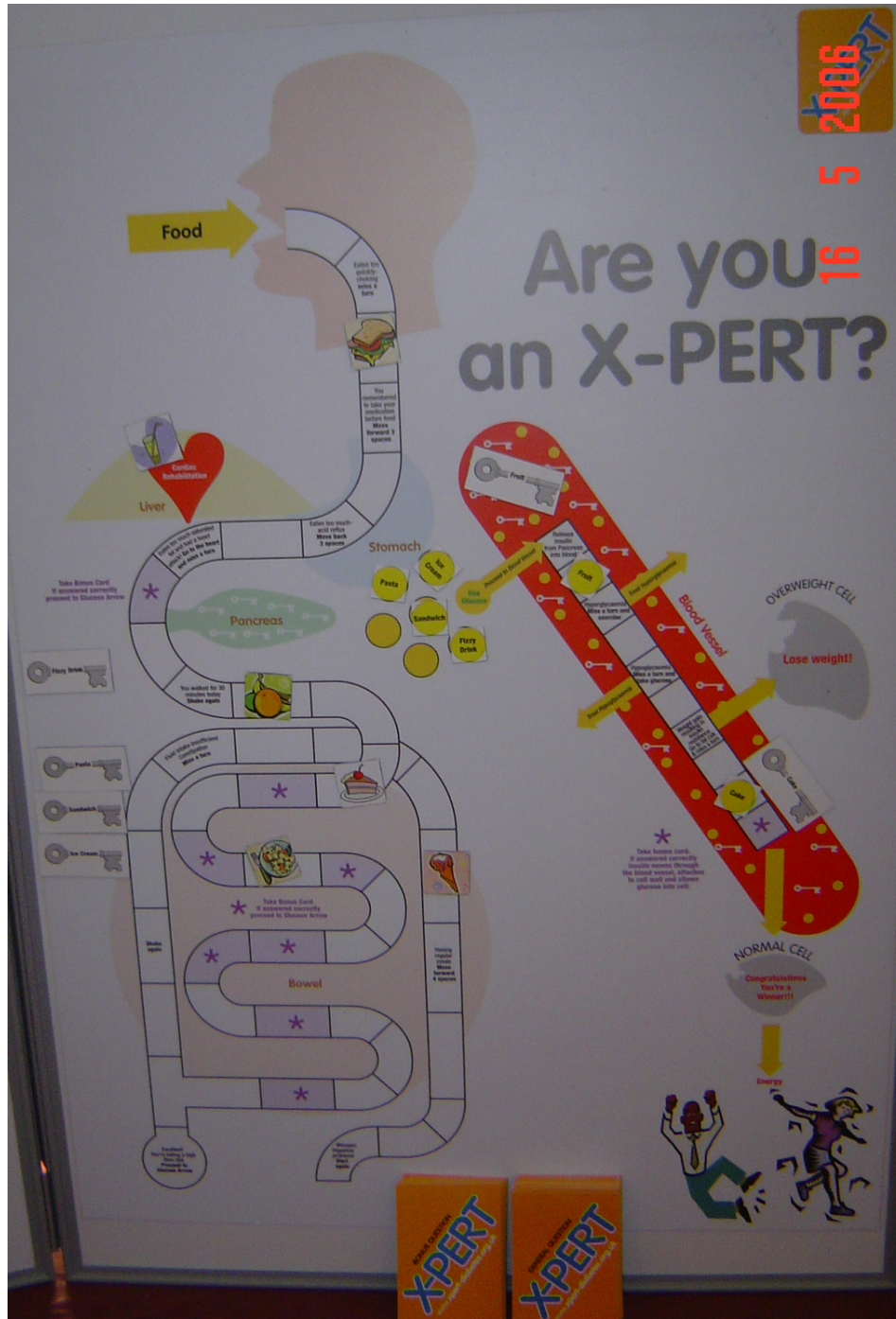
POSSIBLE COMPLICATIONS

This session is intended to be informative without being too alarming.

Short term complications
Long term complications
Living with diabetes



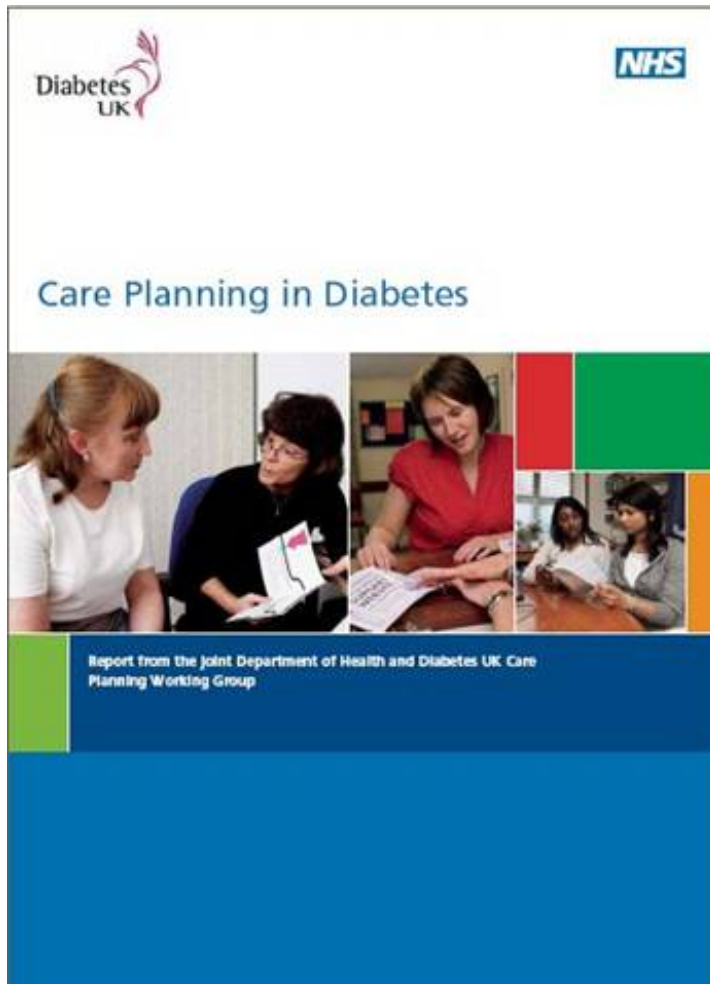
WEEK 6



Designed to recap on main messages. It's fun and helps to increase skills, knowledge & confidence in making informed decisions regarding diabetes self-management.

X-PERT Game

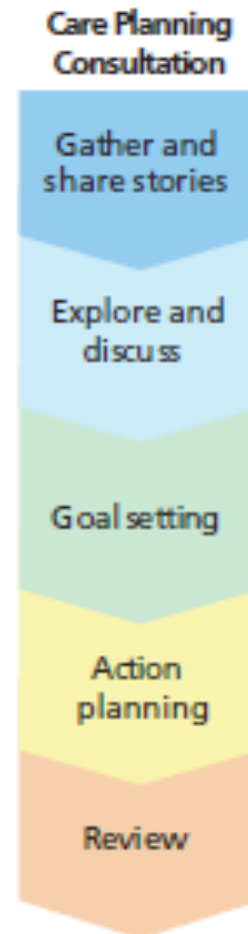
Care Planning



“an approach which offers people active involvement in deciding, agreeing and owning how their diabetes will be managed. It aims to help people with diabetes achieve optimum health through a partnership approach with health professionals in order to learn about diabetes, manage it and related conditions better and to cope with it in their daily lives.”

Care Planning with the Empowerment Model

- **Identify your main concern**
- **Explore that concern**
- **What can I do?**
- **What am I going to do?**
- **Is it working?**



X-PERT Educator Role

- Engage
- Facilitate
- Enable

Care Planning Lifestyle Experiment

- Final 20-30 minutes of each weekly session
- Diabetes Health Profile
- Not didactic in nature
- Informed decisions
- Small steps
- Confidence building

Diabetes Health Profile	RESULT	DATE												
Height m (ft inch)														
Weight Kg (st lb)														
BMI (Kg/m ²) weight for height measure	■ 18.5 to 24.9 = healthy ■ 25 to 29.9 = overweight ■ More than 30 = obese													
Waist Size (cm)	<table border="0"> <tr> <td></td> <td>Men</td> <td>Women</td> </tr> <tr> <td>■ Healthy - less than:</td> <td>94</td> <td>80</td> </tr> <tr> <td>■ Increased risk:</td> <td>94-102</td> <td>80-88</td> </tr> <tr> <td>■ Greater risk - above:</td> <td>102</td> <td>88</td> </tr> </table>		Men	Women	■ Healthy - less than:	94	80	■ Increased risk:	94-102	80-88	■ Greater risk - above:	102	88	
	Men	Women												
■ Healthy - less than:	94	80												
■ Increased risk:	94-102	80-88												
■ Greater risk - above:	102	88												
Blood Glucose (mmol/l)	Pre-meal: between 4 - 7 2 hrs after meal: less than 8.5 (Type 2) 9.0 (Type 1)													
HbA1c (%) (Average blood glucose)	Normal: less than 6.3% or 45 mmol/mol ■ 6.5-7.0% or 48 to 53 mmol/l ■ 7.0-7.5% or 53 to 59 mmol/l ■ Above 7.5% or 59 mmol/l													
Blood Pressure (mmHg)	■ Below 130/80 ■ Below 140/80 ■ Above 140/80													
Total Cholesterol (mmol/l)	■ Less than 4.0 ■ Less than 5.0													
HDL (mmol/l) (good cholesterol)	■ Men: 1.0 or above ■ Women: 1.2 or above													
LDL (mmol/l) (bad cholesterol)	■ Less than 2.0 ■ Less than 3.0													
Triglycerides (mmol/l)	■ Less than 1.7 ■ Less than 2.3													
10-year heart attack and stroke (cardiovascular [CVD]) risk percentage	Over the next 10 years..... ■ CVD risk less than 10% ■ CVD risk between 10 to 20% ■ CVD risk over 20%													
ACR (mg/mmol) (albumin : creatinine ratio)	■ Men: Less than 2.5 ■ Women: Less than 3.5													
Prescribed Diabetes Medication	<u>Types</u>	<u>Dose</u>												

*If you have Type 1 diabetes or there is any damage to the kidneys, eyes or blood vessels in the brain the national target for blood pressure is below 130/80.

Traffic Light coding: ■ = National Target
 ■ = Do I need to take action to improve this result?
 ■ = What could I do to reduce my health the risk?

N.B. It is important to discuss personal targets with your diabetes team.

Improve my blood glucose levels

Are you:

- eating too much?
- eating at regular times?
- eating too many sweet foods?
- a sensible body weight?
- taking your medication correctly?

Do you need extra/ different medication?

Can you increase your physical activity level?

Lose weight

- Do you do enough activity?
- Is your diet too fatty?
- Are your portion sizes too big?
- Do you eat regular meals?
- Do you drink too much alcohol?

Lower my triglycerides

Lower your blood glucose levels!

Are you eating too many sweet foods?

Drink less sweet liquids – including unsweetened juice!

Watch your alcohol intake!

Try to eat oily fish once or twice a week!

Are you overweight?

Try to be active!

I WANT TO.....



Lower my cholesterol level

Do you

- eat too much fatty foods?
- eat enough wholegrains?
- do you eat enough fruit & vegetables?
- take your medication?
- need medication?

Are you overweight?

Do you do enough activity?

Lower my bad cholesterol (LDL)

(LDL)

Watch the amount of fatty foods you eat!

Maintain a sensible weight!

Increase your physical activity!

Increase my good cholesterol (HDL)

Do you take enough exercise?

Do you need to lose weight?

Can you lower your triglycerides?

if you are a drinker, a **small** amount of alcohol can help!

Lower my blood pressure

Are you

- adding salt to your meals?
- eating too many salty foods?
- drinking too much alcohol?
- eating enough fruit and vegetables?
- taking enough low fat dairy foods?
- overweight?
- taking your blood pressure medication?

Do you need medication/ extra medication?

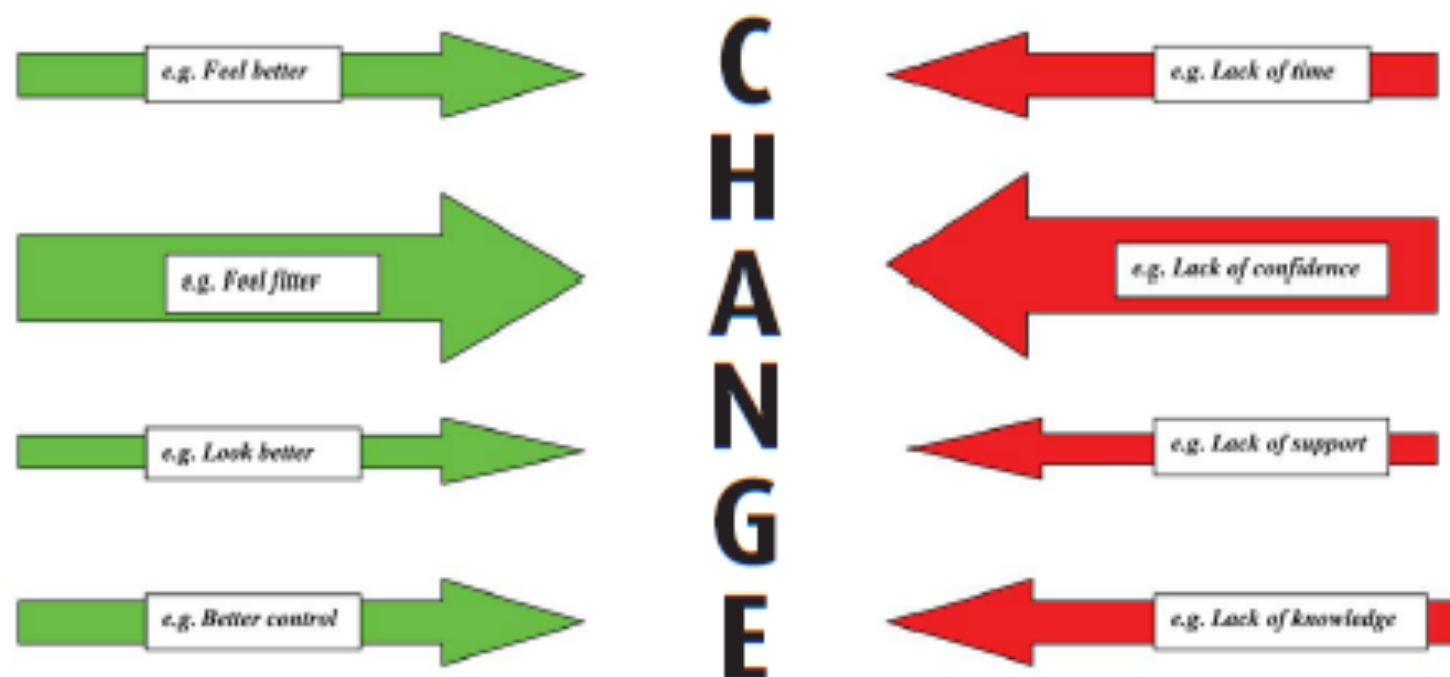
Do you smoke?

Take time to relax!

Making changes to your lifestyle is not easy. When you are ready to make a change it can be helpful to plan how you will reach your goal. Thinking about the things in your life that are helpful and the things that are unhelpful will make it easier for you to plan changes.

Things that will HELP me reach my goal

Things that will STOP me reaching my goal

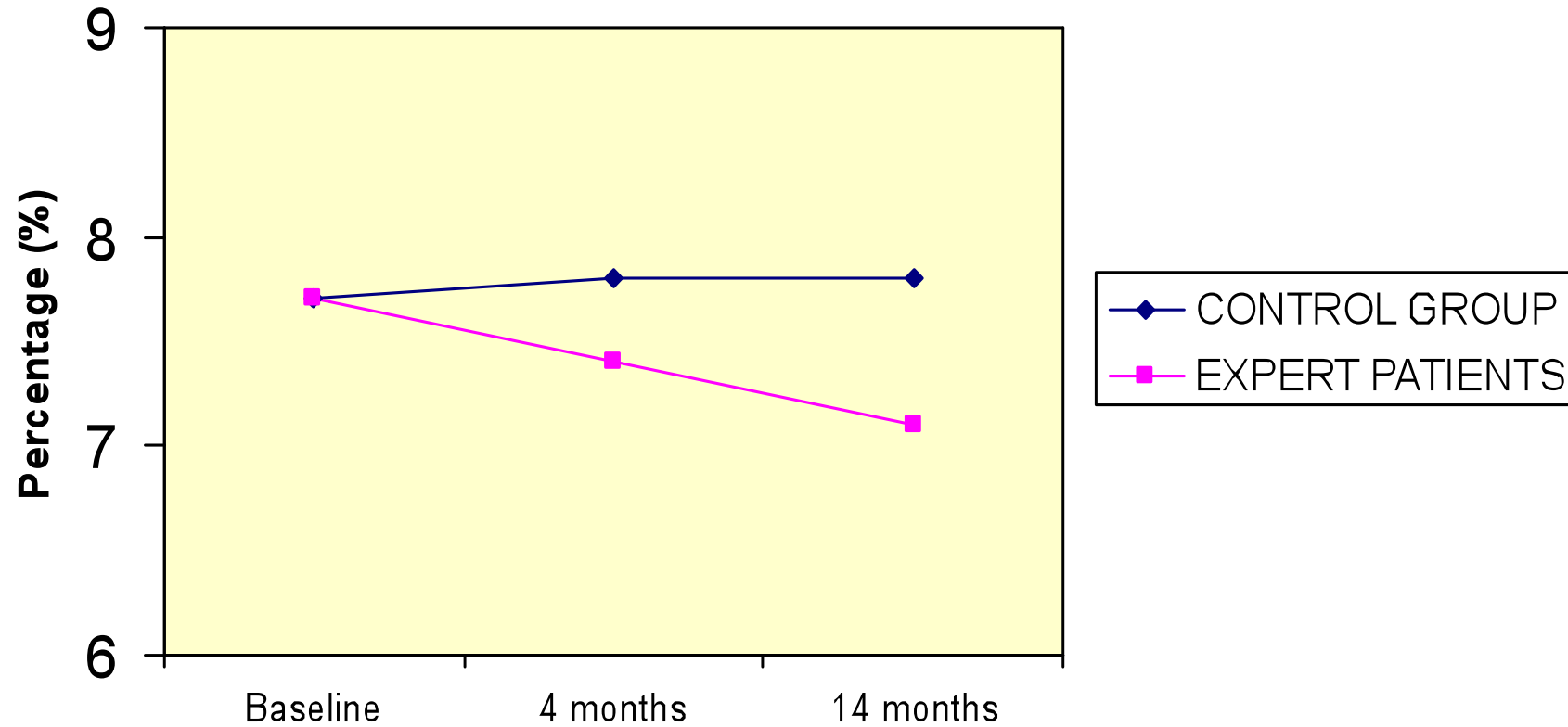


- 1) Can you add any things that will help you reach your goal?
- 2) Can you think of any ways to make one or more of the helpful things more important to you?
- 3) Can you remove any things that will stop you from reaching your goal?
- 4) Can you think of any ways to overcome the things that stop you reaching your goal?

Clinical Effectiveness

- ✓ Randomised controlled trial
- ✓ National Audit

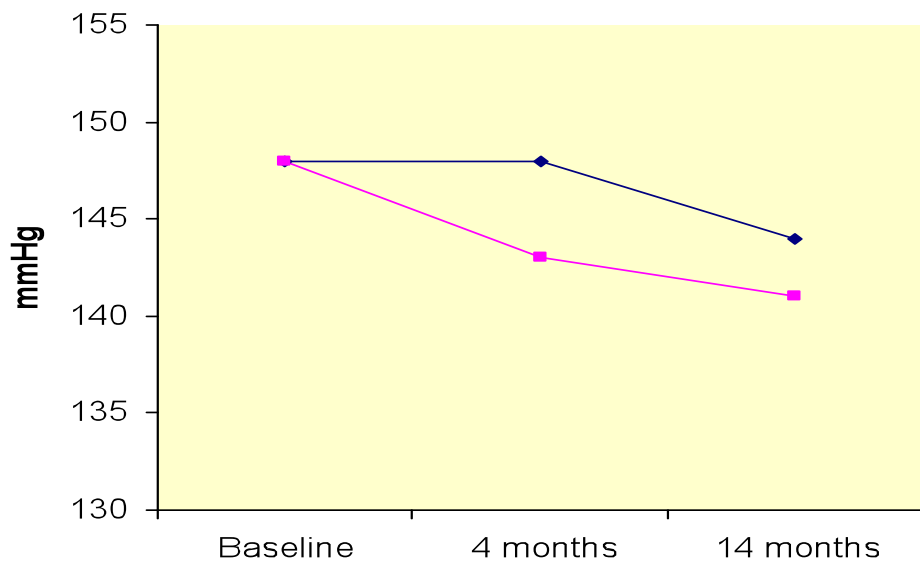
Glycated Haemoglobin (HbA1c)



aDifference 0.4%, 95% CI: 0.1% to 0.7%

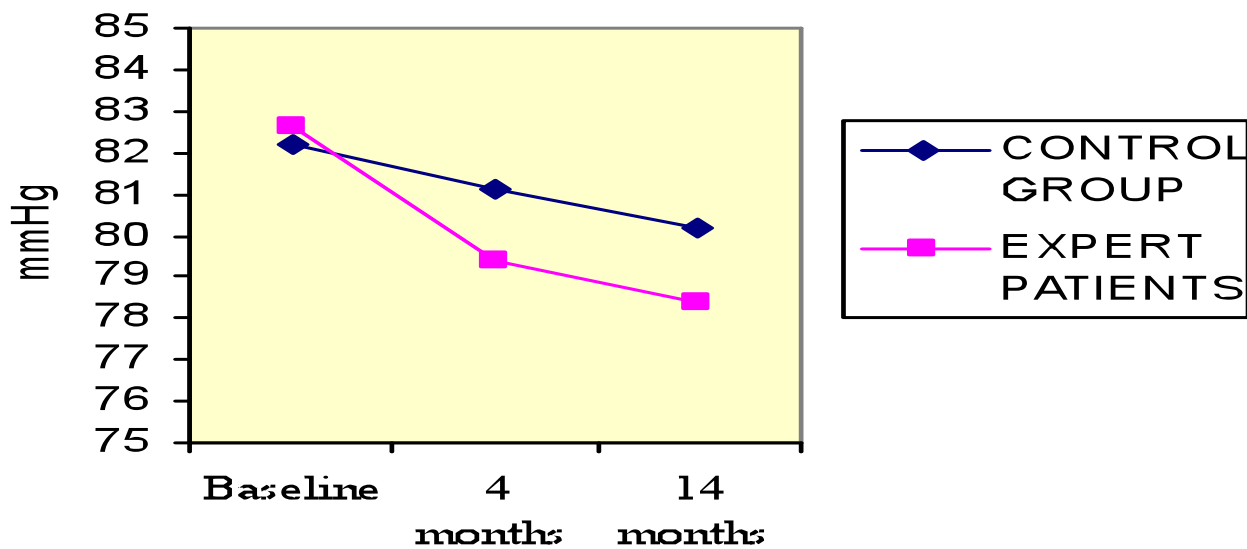
bDifference 0.7%, 95% CI: 0.3% to 1.0%

Systolic Blood Pressure

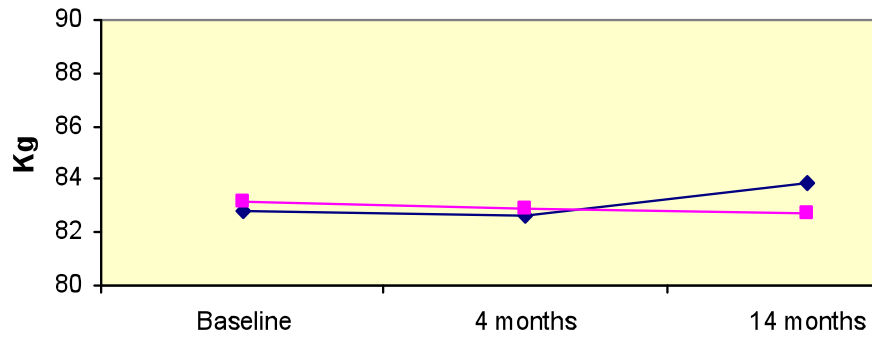


*Difference 5 mmHg,
95% CI: 0 to 9 mmHg

Diastolic Blood Pressure

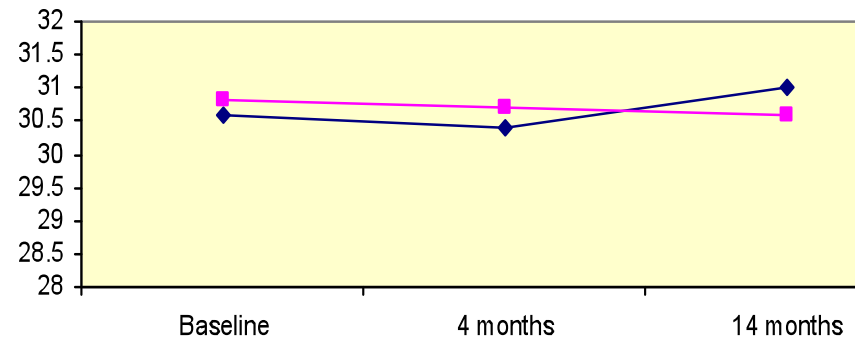


Body Weight

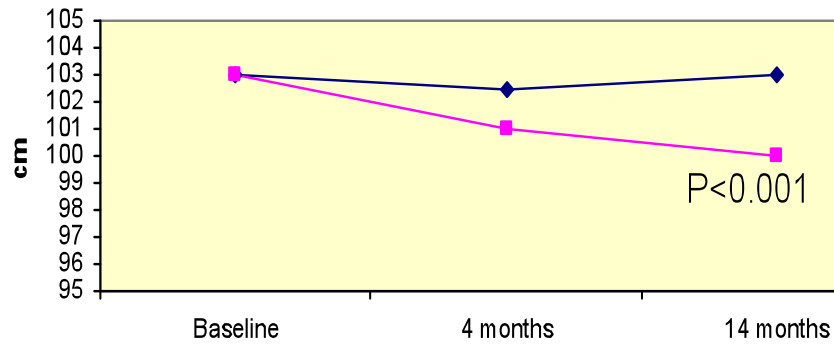


◆ = Control group
■ = Expert patients

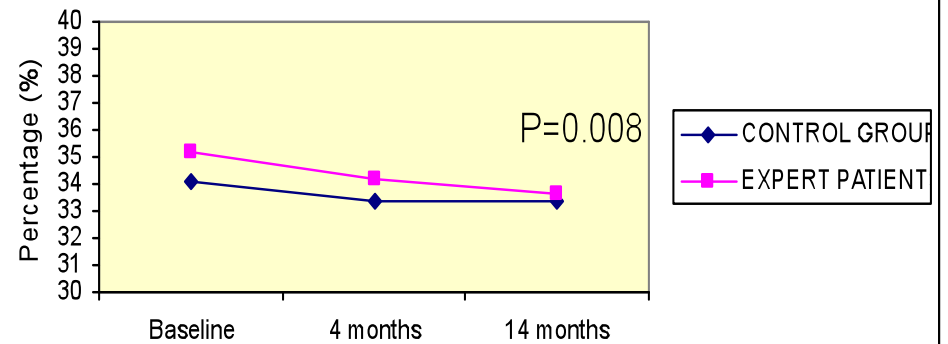
Body Mass Index (BMI)



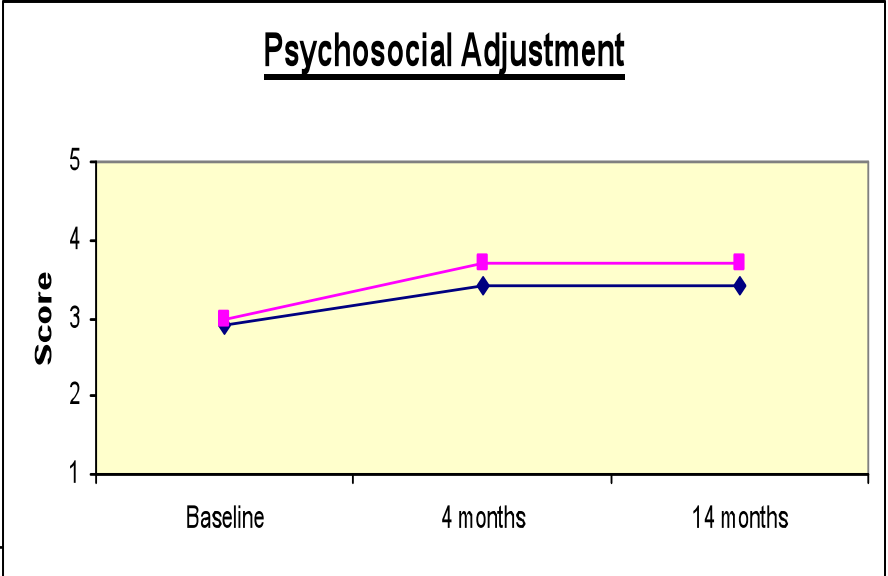
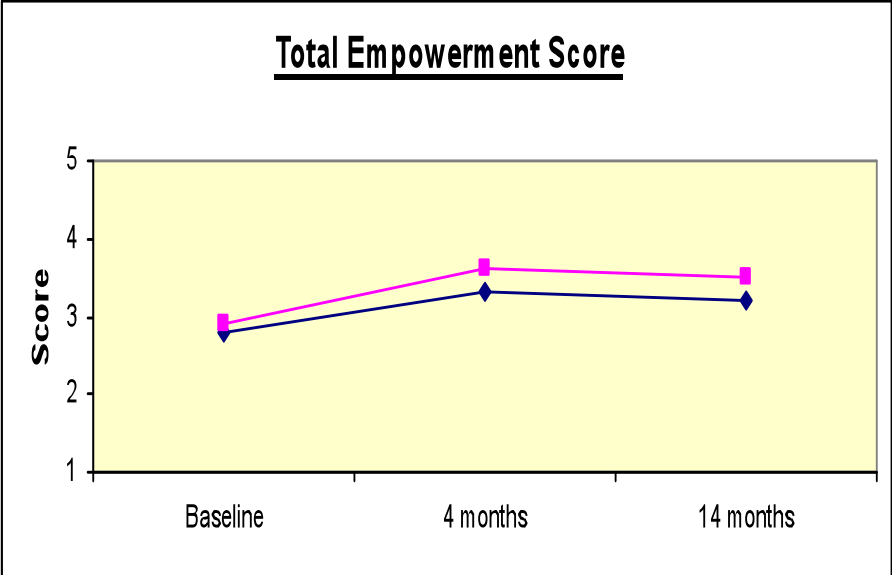
Waist Circumference



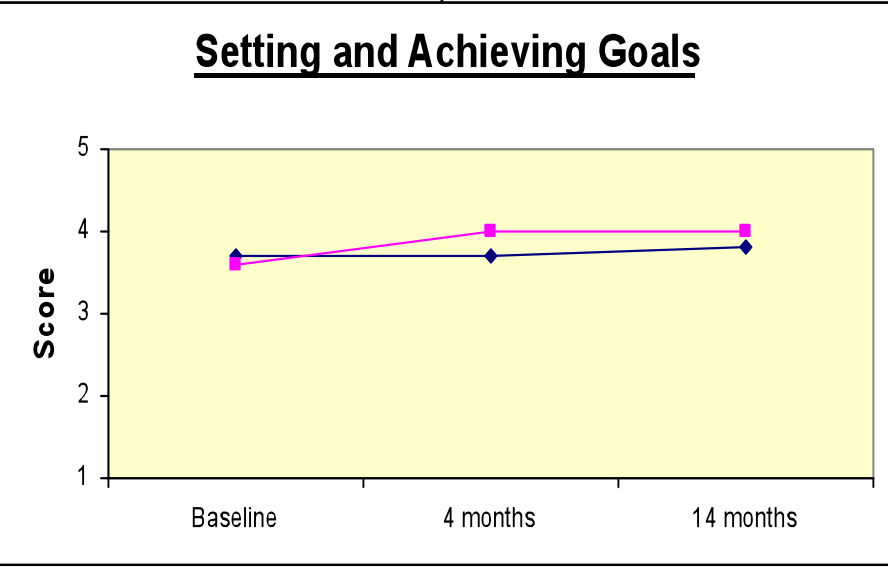
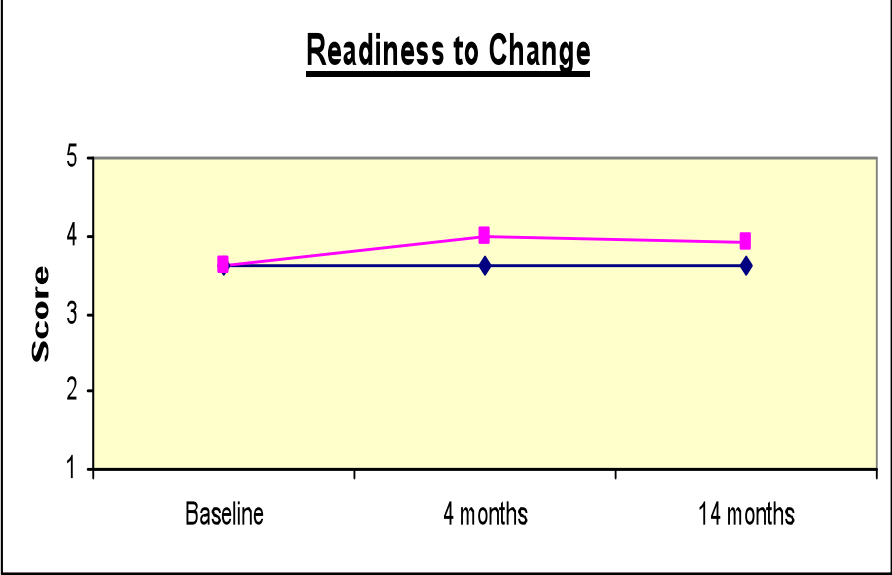
Body Fat



**Diabetes Empowerment Scale developed by Anderson et al,
Michigan Diabetes Research and Training Centre**



◆ = Control Group ■ = Expert patients



Audit Summary

Summary – all audit standards (based on the results from the randomised controlled trial) have been met

- 1) Excellent attendance score – 95% attend at least one session and 81% four or more sessions (better attendance than routine clinic appointments).
- 2) Patient evaluation score 94%.
- 3) Increased empowerment score by 24% post education programme and by 32% at 1 year.
- 4) Improved diabetes control (HbA1c 0.5%) at six months and (HbA1c 0.6%) at 1 year.
- 5) 2kg weight loss at six months, 2.7kg weight loss at 1 year.
- 6) 1.1 cm waist circumference reduction at 6 months, 2.4 cm reduction at 1 year.
- 7) 2 to 4 mmHg reduction in diastolic and systolic blood pressure.
- 8) Reductions in total, LDL and VLDL cholesterol whilst maintenance of the beneficial HDL cholesterol.

X-PERT makes a difference.....it's cheap at £12 to £26 per patient.....can we afford not to deliver it?

The annual cost of diabetes treatment

The yearly cost of treating one diabetes patient can be extremely high:

- Metformin = **£31**
- Generic gliclazide = **£168**
- Glitazone = **£373 - £634**
- Insulin = **£780**
- Average bed stay = **£215 per day**, so an average four-week stay = **£5,805**
- First amputation = **£6,536**
- Dialysis = **£22,224**

Diabetes is a costly condition taking up 10% of NHS expenditure. The cost of X-PERT is little in comparison. The X-PERT Programme has also been shown to decrease the requirement for diabetes medication and reduce the risk of secondary complications. Thus, it has potential to be an immense cost saving initiative for the NHS

Cost of X-PERT Structured Patient Education – 6 week programme

£51 to £65 *including* admin & HCP time

£16 to £26 *excluding* admin & HCP time

Just 14 hours of structured patient education makes real a difference!



- **HCPs NOT**
(DAWN2 STUDY
- **CLINICAL**
(KHUNTI ET AL
- **SEEN AS**
- **NOT CO**
INTEGR

Stamp

Desmond

Age

D.o.B

Title, Forename, Surname & Address

Please don't stamp over the box

Number of day's treatment
N.B. Ensure dose is stated

Endorsements

NHS Number:

DESMOND structured Education Dose:
One course to be completed for greater
self management

Your Results

Blood Pressure	
Cholesterol	
HbA1c	

Signature of Prescriber

Date

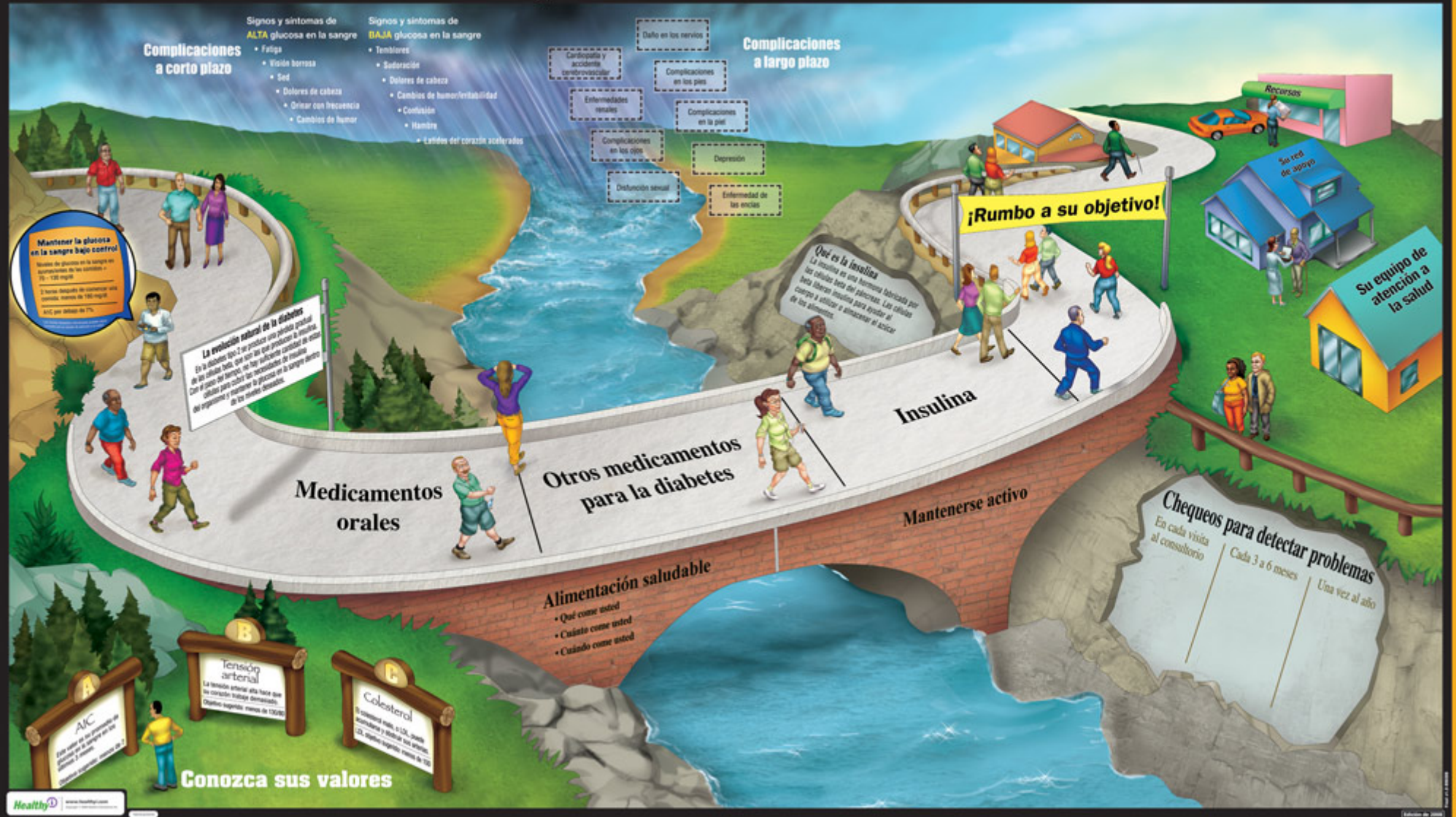
For dispenser
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Prescs.
on form

NHS

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Other Examples



An infographic titled "Advice on Diabetes" with a red header. It contains seven rows of advice, each with an icon and a brief explanation:

- Eat healthy food:** Aim for 7 portions of fruit or veg a day.
- Exercise regularly:** Aim for 30 mins brisk walking a day.
- Don't smoke:** Smoking increases heart and lung problems.
- Control your weight:** Being overweight increases heart problems.
- Plan your journeys:** Keep glucose and monitor in your car.
- Don't drink too much:** Alcohol lowers blood sugar.

At the bottom, there is a logo for "Widgit Health" and a small version of the "Alphabet Strategy" pyramid.

Discussion Point

- What do you think is needed to improve the uptake of diabetes education?
- Take 2 minutes to discuss this with person next to you

Dallosso et al. BMC Family Practice 2012, 13:18
http://www.biomedcentral.com/1471-2296/13/18

BMC Family Practice

Open Access

STUDY PROTOCOL

Does self monitoring of blood glucose as opposed to urinalysis provide additional benefit in patients newly diagnosed with type 2 diabetes receiving structured education? The DESMOND SMBG randomised controlled trial protocol

BMJ

RESEARCH

Delivering the diabetes education and self management for ongoing and newly diagnosed (DESMOND) programme for people with newly diagnosed type 2 diabetes: cost effectiveness analysis

M Gillett, research fellow in health economics and decision sciences; S Dixon, reader in health economics; M Gillett, research fellow in health economics and decision sciences; M J Campbell, a Brennan professor of medical statistics; S Heller, professor of clinical medicine; K Khunti, professor of diabetes medicine; T C Skinner, associate professor; M J Davies, professor of diabetes medicine.

This article describes the DESMOND intervention in cost effective even when compared to the control group.

Abstract

Objectives To assess the cost effectiveness of the diabetes education and self management for ongoing and newly diagnosed (DESMOND) intervention in people with newly diagnosed type 2 diabetes.

Design We undertook a cost effectiveness analysis using data from a 12 month randomised controlled trial and a cost model, modelled long term health care costs and quality adjusted life expectancy. The model included the costs of the intervention and the costs of the control group. We used current best practice to estimate the cost of the intervention and the costs of the control group.

Setting Primary care in the UK.

Intervention A diabetes education and self management programme for people with newly diagnosed type 2 diabetes.

Comparison Usual care.

Main outcome Mean incremental cost per quality adjusted life year (QALY).

Results The mean incremental cost per QALY was £1775, the 95% confidence interval (CI) was £1175 to £2375.

Short Report

'Educator talk' and patient self-management in the DESMOND (Diabetes Education and Self-management for Ongoing and Newly Diagnosed) randomised controlled trial

T. C. Skinner, M. E. Carey*, S. Craddock†, H. M. Dallosso*, H. Daly*, M. J. Davies*, Y. Doherty*, S. Heller†, K. Khunti** and L. Oliver† on behalf of the DESMOND Collaborative.

Abstract

Aims To determine whether differences in the amount of time and delivery of education relate to the degree of change in participants' reported health self-management behaviours.

Method Educators trained to facilitate and non-didactic in their approach to education were allocated to either the intervention or control group. To estimate the amount of time education was delivered during different sessions, a pilot work using the revised Illness Perceptions Questionnaire (IPQ), Illness Perceptions Questionnaire (IPQ), participant completed measures of perceived duration of education.

BMJ

RESEARCH

Effectiveness of a diabetes education and self management programme (DESMOND) for people with newly diagnosed type 2 diabetes mellitus: three year primary care

Kamlesh Khunti, professor of primary care diabetes and vascular medicine; Laura J Gray, lecturer of population and public health sciences; Timothy Skinner, director rural clinical school; Marjan E. Carey, research assistant; Harriet Fisher, research assistant; Helen Dallosso, research statistician; Simon Heller, professor of clinical diabetes; Melanie J Davies, professor of medical medicine.

Abstract

Objective To measure whether the benefits of a single education and self management programme for people with newly diagnosed type 2 diabetes mellitus are maintained over 3 years.

Results HbA_{1c} levels at three years had decreased in both control and intervention groups.

Downloaded from bmj.com on 21 February 2008

BMJ

Effectiveness of the diabetes education and self management (DESMOND) programme for people with newly diagnosed type 2 diabetes: cluster randomised trial

M J Davies, S Heller, T C Skinner, M J Campbell, M E Carey, S Craddock, H Rayman, K Khunti and on behalf of the Diabetes Education and Self Management for Ongoing and Newly Diagnosed Collaborative

BMJ published online 14 Feb 2008
doi:10.1136/bmj.39474.922025.BE

Updated information and services can be found at: <http://bmj.com/cgi/content/full/bmj.39474.922025.BE>

These include:

References
This article cites 52 articles, 23 of which can be accessed free at: <http://bmj.com/cgi/content/full/bmj.39474.922025.BE1/BIB1>

Rapid responses
1 online articles that cite this article can be accessed at: <http://bmj.com/cgi/content/full/bmj.39474.922025.BE1/otherarticles>
2 rapid responses have been posted to this article, which you can access for free at: <http://bmj.com/cgi/content/full/bmj.39474.922025.BE1/rapidresponses>

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Notes

Abstract

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Design We undertook a cluster randomised controlled trial comparing the DESMOND intervention with usual care in 13 general practices in England. The intervention group received a structured education programme for people with newly diagnosed type 2 diabetes. The control group received usual care.

Setting 13 general practices in England.

Intervention A structured education programme for people with newly diagnosed type 2 diabetes.

Comparison Usual care.

Main outcome Mean HbA_{1c} at 3 years.

Results Mean HbA_{1c} at 3 years was significantly lower in the intervention group compared with the control group.

Diabetes Research and Clinical Practice 95 (2012) 298-336

Diabetes Research and Clinical Practice

International Diabetes Federation

Multifactorial intervention in individuals with type 2 diabetes and microalbuminuria: The Microalbuminuria Education and Medication Optimisation (MEMO) study

W. Crasto, J. Jarvis, K. Khunti, T.C. Skinner, L.J. Gray, J. Brelvi, J. Troughton, H. Daly, I.G. Lawrence*, P.G. McNally*, M.E. Carey*, M.J. Davies*

Abstract

Aims To determine whether tighter cardiovascular risk factor control with structured education in individuals with type 2 diabetes (T2DM) and microalbuminuria benefits cardiovascular risk factors.

Method Participants from a mid-range population, recruited from primary care and specialist clinics were randomised to intensive intervention with structured patient education (MEMO) or standard care (SC). Primary outcome was change in HbA_{1c} at 18 months. Secondary outcomes: change in blood pressure, total cholesterol, albuminuria, proportion reaching risk factor targets, modelled cardiovascular risk score.

Results Mean (SD) age and diabetes duration of participants were 61.5 (10.9) and 11.5 (9.3) years, respectively. At 18 months, intensive intervention showed significant improvements in HbA_{1c} (7.10 vs 7.80, p < 0.001), systolic BP (129/116 vs 136/111 mmHg, p < 0.001), total cholesterol (2.08 vs 2.18, p < 0.001), and albuminuria (2.08 vs 2.18, p < 0.001). Secondary outcomes showed significant improvements in HbA_{1c}, systolic BP, total cholesterol, and albuminuria. Proportion reaching risk factor targets was significantly higher in the MEMO group compared with the SC group.

Diabetes Research and Clinical Practice 95 (2012) 298-336

Diabetes Research and Clinical Practice

International Diabetes Federation

Original Article: Education and Psychological Care Biomedical, lifestyle and psychosocial characteristics of people newly diagnosed with Type 2 diabetes: baseline data from the DESMOND randomised controlled trial

K. Khunti, T. C. Skinner*, S. Heller†, M. E. Carey*, H. M. Dallosso† and M. J. Davies* on behalf of the DESMOND Collaborative

Abstract

Aims To describe the characteristics of newly diagnosed people with Type 2 diabetes (T2DM) and compare these with those in England and Scotland.

Methods Baseline data of participants recruited to the DESMOND randomised controlled trial conducted in 13 sites across England and Scotland were used. Biomedical measures and questionnaires on psychological characteristics were collected within 4 weeks of diagnosis.

Results Of 1109 participants recruited, 824 consented to participate (74.3%). Mean (SD) age was 59.3 (±12.2) years and 54.3% were male. Mean HbA_{1c} was 8.1 (±2.3) and did not differ by gender. Mean body mass index (BMI) was 30.8 (±6.0) and 69% of women and 64% of men were obese (BMI ≥ 30 kg/m²). Percentages reporting recreational physical activity (≥3 times/week) and moderate smoking (10-20 cigarettes/day) were 16.0% and 16.0%, respectively, and were lower in women. Symptomatic insulin (≥3 times/week) and moderate smoking (10-20 cigarettes/day) were 16.0% and 16.0%, respectively, and were lower in women. Symptomatic insulin (≥3 times/week) and moderate smoking (10-20 cigarettes/day) were 16.0% and 16.0%, respectively, and were lower in women. Symptomatic insulin (≥3 times/week) and moderate smoking (10-20 cigarettes/day) were 16.0% and 16.0%, respectively, and were lower in women.

ELSEVIER

Patient Education and Counseling 66 (2008) 369-377

Diabetes education and self-management for ongoing and newly diagnosed (DESMOND): Process modelling of pilot study

T. Chas Skinner, M. E. Carey*, Sue Craddock*, Heather Daly†, Melanie J. Davies†, Yvonne Doherty*, Simon Heller†, Kamlesh Khunti*, Lindsay Oliver* on behalf of the DESMOND Collaborative

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Psychology & Health

Comparison of illness representations dimensions and illness representation clusters in predicting outcomes in the first year following diagnosis of type 2 diabetes: Results from the DESMOND trial

T. Chas Skinner, M. E. Carey*, S. Craddock†, H. M. Dallosso†, M. J. Davies*, Y. Doherty*, S. Heller†, K. Khunti*, on behalf of the DESMOND Collaborative

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Chronic Illness

<http://chi.sagepub.com>

Diabetes education and self-management for people newly diagnosed with type 2 diabetes: a qualitative study of patients' views

Elizabeth Ockleford, Rachel L. Shaw, Janet Williams and Mary C. Chronic Illn 2008, 4: 28
DOI: 10.1177/1742395307086673

The online version of this article can be found at: <http://chi.sagepub.com/cgi/content/abstract/4/1/28>

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Diabetes Research and Clinical Practice 95 (2012) 298-336

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Diabetes Research and Clinical Practice 95 (2012) 298-336

Diabetes Research and Clinical Practice

International Diabetes Federation

Effectiveness of a diabetes education and self management programme (DESMOND) for people with newly diagnosed type 2 diabetes mellitus: three year primary care

Kamlesh Khunti, professor of primary care diabetes and vascular medicine; Laura J Gray, lecturer of population and public health sciences; Timothy Skinner, director rural clinical school; Marjan E. Carey, research assistant; Harriet Fisher, research assistant; Helen Dallosso, research statistician; Simon Heller, professor of clinical diabetes; Melanie J Davies, professor of medical medicine.

Abstract

Objective To measure whether the benefits of a single education and self management programme for people with newly diagnosed type 2 diabetes mellitus are maintained over 3 years.

Results HbA_{1c} levels at three years had decreased in both control and intervention groups.

Diabetes Research and Clinical Practice 95 (2012) 298-336

Diabetes Research and Clinical Practice

International Diabetes Federation

Effectiveness of a diabetes education and self management programme (DESMOND) for people with newly diagnosed type 2 diabetes mellitus: three year primary care

Kamlesh Khunti, professor of primary care diabetes and vascular medicine; Laura J Gray, lecturer of population and public health sciences; Timothy Skinner, director rural clinical school; Marjan E. Carey, research assistant; Harriet Fisher, research assistant; Helen Dallosso, research statistician; Simon Heller, professor of clinical diabetes; Melanie J Davies, professor of medical medicine.

Abstract

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INVOLVING PEOPLE WITH DIABETES

NHS Walking Away from Diabetes
Preparing for Walking Away

NHS
The SUCCESS Structured Education Programme:
Educator Curriculum




NHS **Desmond**
SUPPORTING MY CARE



Desmond
Preparing to be a DESMOND Lay (non-HCP) Educator
Workbook and Development Log


NHS
TWO WEEK CPAP DIARY

My Risk Factors



a Safer Ramadan COLLABORATIVE

Let's Prevent Diabetes




NHS National Institute for Health Research
MAKING A DIFFERENCE

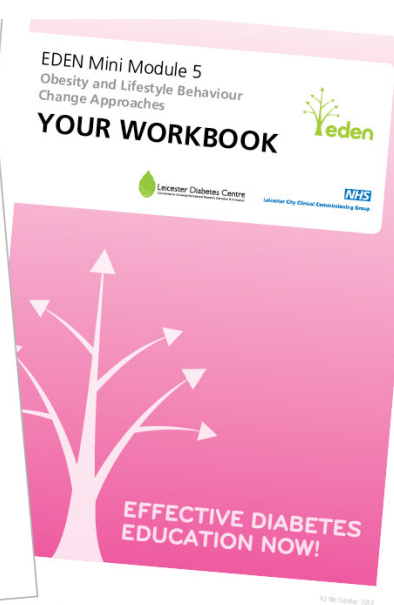
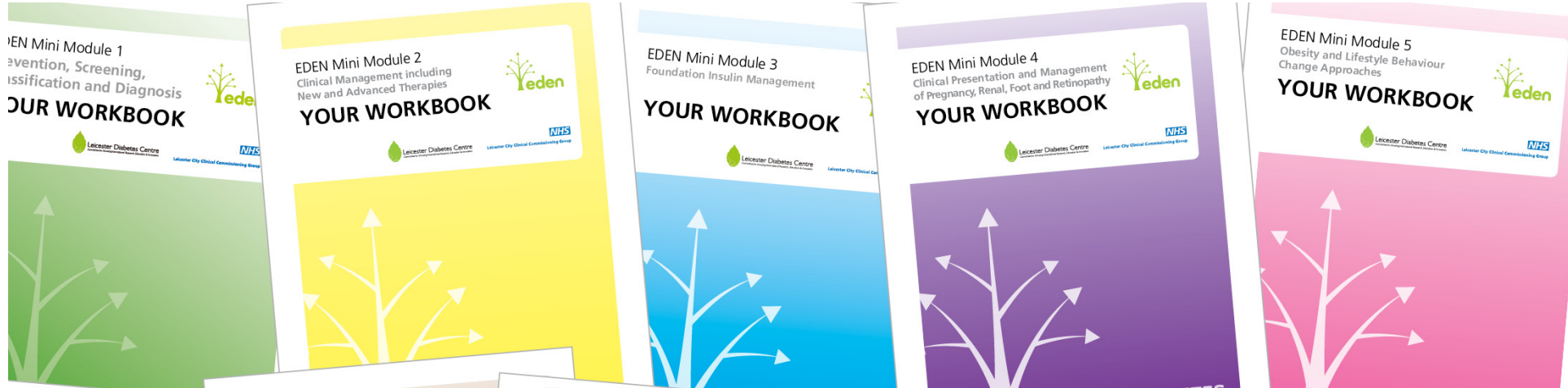


...able consumption is associated with lower risk of type 2 diabetes
...w and meta-analysis on fruit intake and incidence of type 2 diabetes
...y, Jaqqui Troughon, Kamlesh Khurli, Melanie J Davies.
...centre.org.uk

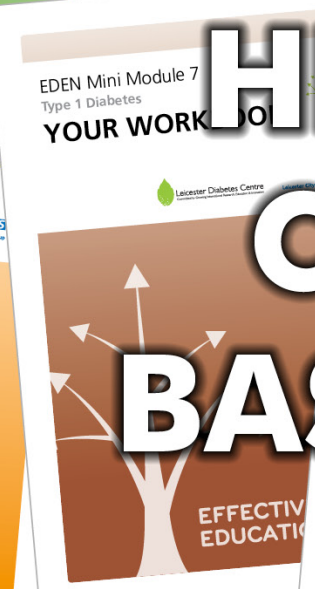
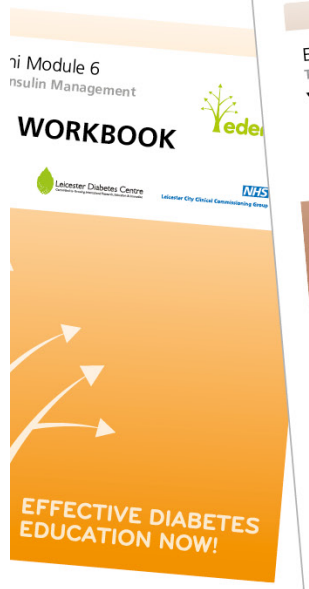


Let's Prevent Curriculum
Developing Structured Education for Self Management
www.letspreventdiabetes.org.uk
© Let's Prevent Diabetes 2009





HIGH QUALITY COMPETENCY BASED TRAINING



Education for GPs, Practice Nurses and Health Care Assistants

Study day provided through the EDEN project for city practices to include:

- ✓ A competency based session that will enhance your confidence in foot examinations and assessment
- ✓ Information on the footcare pathway and secondary care
- ✓ Provide high quality footcare to patients with diabetes

EDEN Study Day
DIABETES AND THE ELDERLY

We are inviting Qualified Nurses working in the Community Sector who have an interest in this client group to attend an extensive one day training programme.

- ✓ Competency based sessions that will inform and increase confidence, knowledge and skill in caring for elderly clients with diabetes
- ✓ Gain confidence in the management and treatment of blood glucose levels, aiming to reduce the risk of hypoglycaemia and avoid hospital admissions
- ✓ Managing diabetes in clients with dementia
- ✓ End of Life Care recommendations

There are 24 places available on each study day for each date, please book your place as soon as possible.

Foundational study day:
Monday 16 September 2013
Thursday 26 January 2014

Advanced study day:
Monday 28th October 2013
Thursday 20 February 2014

Time: 09:00 - 16:00
Venue: Leicester Diabetes Centre (LDC) Leicester General Hospital

Contact: eden@hls.co.uk with your name, surgery details including practice code.

Please remember to book a place on both days to complete the training!

EDEN Study Day

FOOTCARE EDUCATION FOR GPs, PRACTICE NURSES AND HEALTH CARE ASSISTANTS PROVIDING FOOT ASSESSMENTS

Study day provided through the EDEN project for city practices to include:

- ✓ A competency based session that will enhance your confidence in foot examinations and assessment
- ✓ Information on the footcare pathway and secondary care
- ✓ Provide high quality footcare to patients with diabetes

EDEN Study Day
Effective use of GLP1 Therapy in Primary Care: An Update

Key note speaker: Professor Melanie Davies

Following on from our previous successful GLP1 training events, we are inviting GPs and Practice Nurses working across the city and county to attend an update session on the current use of GLP1 therapy. The key speaker is Prof. Melanie Davies followed by a practical workshop provided by Community GPs.

What does the training provide?

- ✓ Latest clinical evidence on GLP1s including the newer therapies
- ✓ The use of GLP1s with basal insulin
- ✓ Meet Leicester Medicine Strategy Group members to prescribe GLP1s in primary care
- ✓ Practical Workshop including pen devices and patient support materials

This is a City and County wide event to enable all practices to provide GLP1 therapy in practice to ensure a place on this training, please book early.

Date: Wednesday 27th January 2014 or Wednesday 19th March 2014
Time: 08:00 - 2:00 (Food is served from 18:00 - 18:30 for a prompt 19:00 start)
Venue: Leicester Diabetes Centre (LDC) Leicester General Hospital
Contact: eden@hls.co.uk with your name, surgery details including practice code

EDEN Study Day

POLYCYSTIC OVARY SYNDROME (PCOS) AND PREVENTION OF DIABETES

We are inviting GPs and Practice Nurses to attend a half day education session on PCOS and Prevention of diabetes. Polycystic Ovary syndrome is a common reproductive condition in women of a reproductive age. These women have a higher risk of diabetes and cardiovascular disease.

The education will provide:

- ✓ An understanding of PCOS and some of the underlying mechanisms of the disease
- ✓ An overview of the use of Metformin in prevention of diabetes in PCOS
- ✓ An opportunity to develop and share ideas about the lifestyle management option for women with PCOS

There are 24 places available. Please book early as places are a premium!

Date: Thursday 20th March 2014 (8.00am session)
Time: 12:00-16:00 (Lunch will be provided between 12:00-12:30)
Venue: Leicester Diabetes Centre, (LDC) Leicester General Hospital
Contact: eden@hls.co.uk with your name, surgery details including practice code

Health Care Assistants Diabetes Training

Following the previous successful delivery and evaluation of our new 2 day training programme in diabetes for health care assistants, we are now able to offer further places for those who have not previously attended. We are offering:

- 1 day foundation training
- 1 day advanced training

Delegates are requested to complete both the foundation and advanced study days.

What does the training provide?

- ✓ Develop your knowledge and understanding in diabetes, risk factors and management
- ✓ Develop your skills and confidence in teaching blood glucose monitoring to patients
- ✓ Support the multi-disciplinary team in providing aspects of care on feet, insulin, weight management and lifestyle modification
- ✓ Build your existing skills around annual review

This is a part of the EDEN Project

EDEN Study Day

A SAFER RAMADAN PROFESSIONAL AWARENESS DAY

We are inviting GPs & Practice Nurses working in the City CCS to attend on how to achieve a "Safer Ramadan" for your patients.

- ✓ There will be a presentation about Ramadan, fasting and fasting
- ✓ Case Studies
- ✓ Practical session on food choices, avoid alcohol and improve fibre

Thursday 26th March 2014 (Evening Session)
18:00 - 21:00 (Food will be provided between 18:00 - 18:30)

Thursday 26th April 2014 (Afternoon Session)
12:30 - 15:00 (Food will be provided between 12:30 - 13:00)
Venue: Leicester Diabetes Centre (LDC) Leicester General Hospital

Effective use of GLP1 Therapy in Primary Care: An Update

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Date: Thursday 19th September 2013
Time: 08:00 - 2:00 (Food is served from 18:00 - 18:30 for a prompt 19:00 start)
Venue: Leicester Diabetes Centre (LDC) Leicester General Hospital
Contact: eden@hls.co.uk with your name, surgery details including practice code

NEW DIABETES QOF POINTS Structured Education, Dietary Review, Erectile Dysfunction

We would like to invite GPs and Practice Nurses to attend support sessions with the new diabetes QOF initiative.

Delegates can attend 1, 2 or all 3 sessions

- Session 1 Structured Education for diabetes "What's all the fuss about?" Dr Manan Gargy

Purchasers and providers should incentivise good management in early disease in order to optimise quality of life for those people with diabetes.

Individualising care needs to be personalised to all aspects of the needs of the person with diabetes, not simply chasing glycaemic, blood pressure, or lipid targets.

It is the duty of that team to establish realistic shared goals and a contract in order to achieve these objectives.

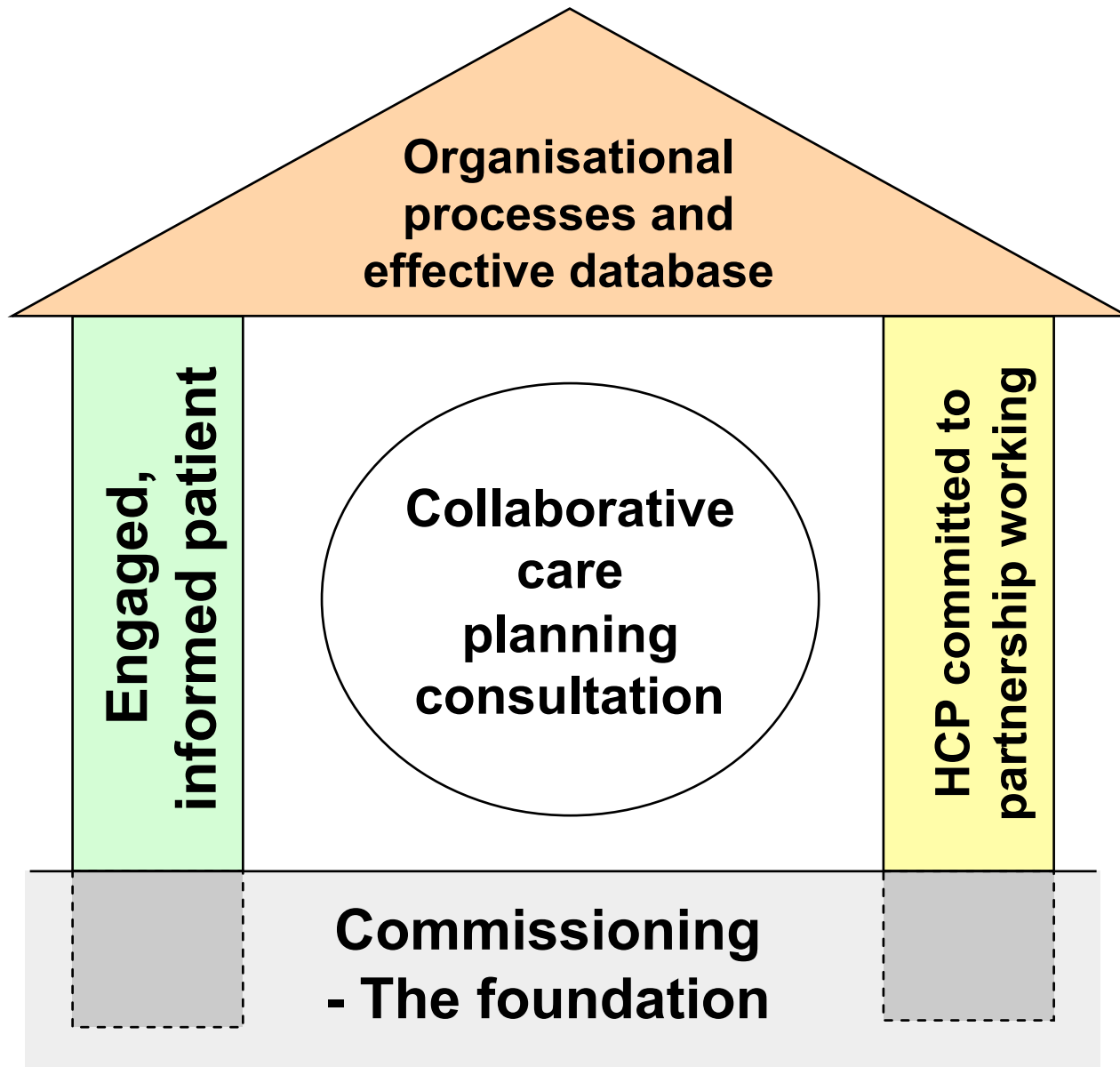
The health outcomes for people with diabetes are a function of the communication between the HCPs and people with diabetes acting as a team.



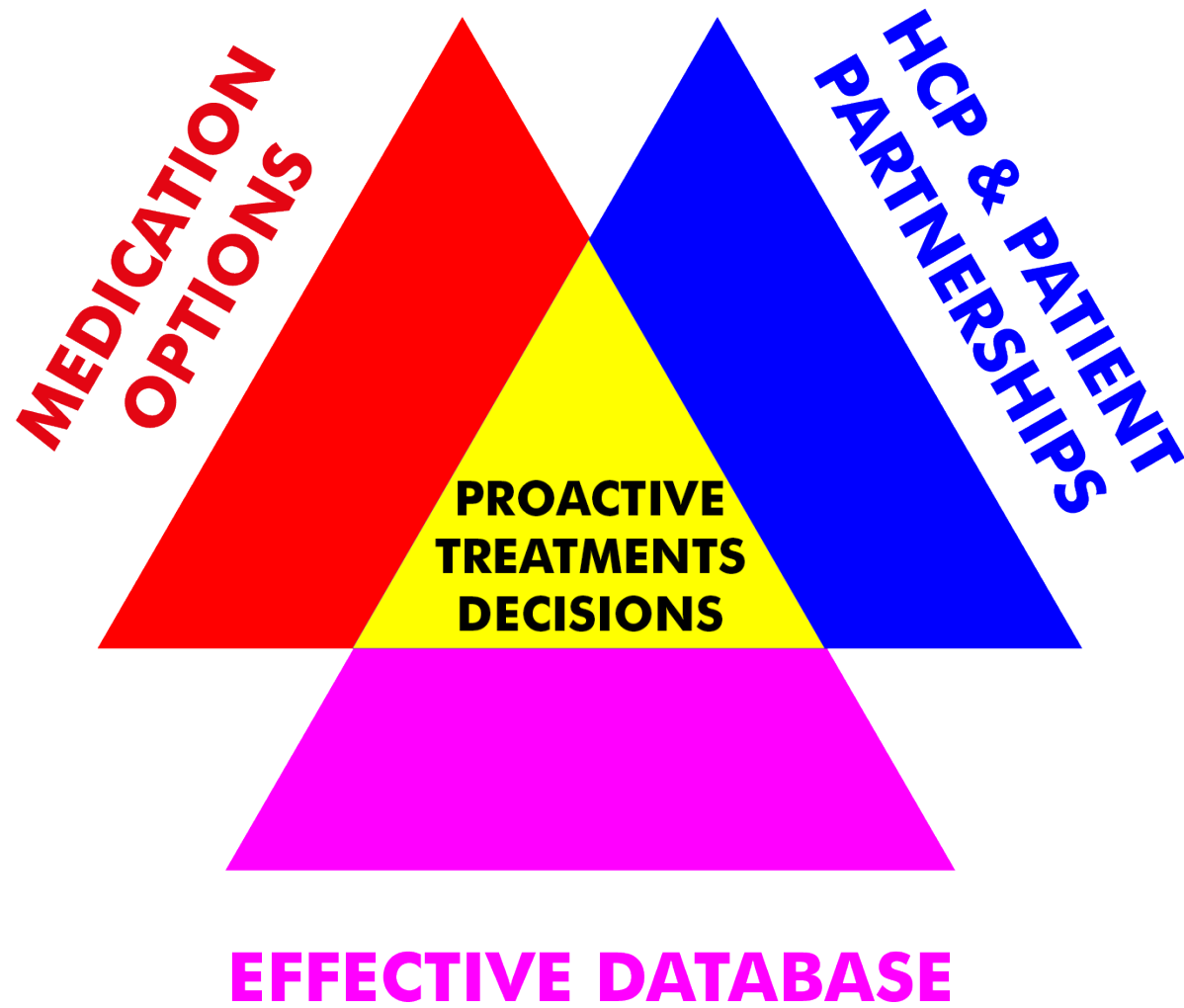
Why Diabetes Self Management Education helps patients ?

- Pro-active patient
- Engaged in their own care
- Knowledgeable
- Shared and informed decision making
- Behaviour change and action planning a key components
- Group interaction increases self efficacy
- Impact on concordance









Summary

- We discussed the importance of patient education models and reviewed what NICE has to say
- We know that they work and they are both cost effective and clinically effective over time **but we need to do more research.**
- We need more integrated systems and processes across the NHS
- Greater access to patient education



if
you think
education
is
expen\$ive,
try ignorance

- Derek Bok

Education is **NOT**
preparation for life;
EDUCATION
IS LIFE
ITSELF.

~*John Dewey*

WWW.POSITIVEMOTIVATION.NET



References

