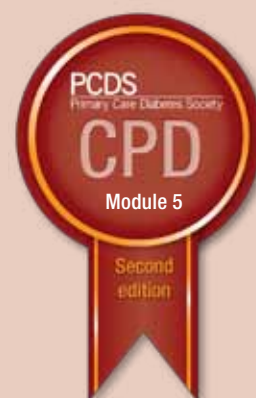


Supporting successful self-management in diabetes



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Marian Carey and Yvonne Doherty

The concept of self-management and its importance in diabetes care has long been recognised. However, for healthcare professionals working with people with diabetes, it can be challenging to identify the links between policy, evidence and practice that lead to the most effective self-care. The aim of this article is to highlight the driving NHS and Department of Health policies supporting self-management, discuss at greater length the two key evidence-based components of quality self-management support (structured education and care planning) and provide guidance for identifying evidence and exemplars of good practice which meet national guidance and recommendations.

In 2012, the National Audit Office estimated that over 3 million people in England had diabetes, a figure expected to rise by 23% by 2020. National prevalence of diabetes is currently in the region of 4.5%, and likely to be between 7 and 10% by 2020 (National Audit Office, 2012).

On this scale, the human and economic cost of this serious progressive disease is staggering, and deeply worrying for healthcare providers. It has been estimated that diabetes costs the NHS over £3.9 billion, of which in excess of £649 million is spent in primary care on diabetes medication alone (National Audit Office, 2012). Any increase

in demand on healthcare services has the potential to impact dangerously on capacity, even to the extent of having a deleterious effect on patient care. Such statistics only serve to highlight the fundamental importance of the concept of self-management to quality diabetes care, and the need to identify and implement effectively the active mechanisms which can successfully initiate and sustain it.

But what might this mean in practice to healthcare professionals (HCPs) providing services and support directly to people with diabetes? There are many existing initiatives to choose from that

Learning objectives

After reading this article, the participant should be able to:

1. Describe the concept and purpose of self-management in diabetes and how it might fit in a local diabetes care pathway.
2. Understand the role of structured education in supporting self-management.
3. Describe the core aspects of the care planning approach.

Key words

- Implementation
- Self-management
- Structured education

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Page points

1. Self-management is the way in which people with a long-term condition take care of themselves on a day-to-day basis.
2. Key leading practitioners during the 1970s and beyond recognised the importance of the individual's life as the context for diabetes care person's life situation.
3. Self-management in long-term conditions has been recognised in government health policy of the last 15 years as integral to effective care

could support self-management: psychological and emotional support, lay-led programmes, telephone support, communication skills training for healthcare professionals and people with diabetes, on-line forums and chat rooms – the list is seemingly endless. How might healthcare professionals identify the right approach for their patients, themselves and their organisations? After all, interventions supporting self-management can vary according to their philosophical framework, theoretical base and style of delivery, generalisability and cost.

What is self-management?

Put simply, self-management is the way in which people with a long-term condition take care of themselves on a day-to-day basis. By virtue of having a condition such as diabetes, individuals not only carry ultimate responsibility for their own well-being, but also directly experience its consequences, on a daily basis, and throughout their lives (*Box 1*). Only during the brief consultations with their doctor, nurse or other healthcare professional do they have the opportunity to share this responsibility with an informed clinician. Since it is daily actions and lifestyle choices that are the major determinants of diabetes progression, the success of self-management is one of the most significant predictors of long-term health (Wolpert and Anderson, 2001; Heller and Carey, 2011). Successful self-management, including diet, lifestyle and medication, is the chief means by which an individual can slow down or prevent the complications of diabetes – hypoglycaemic episodes, diabetic ketoacidosis, heart attacks, strokes, blindness, renal failure and lower limb amputation.

Self-management is not a new concept, although it may be currently enjoying a renaissance. As early as 1927, RD Lawrence, the founding father of the British Diabetic Association, referred to his patients learning the skills of “the diabetic life” with “thoroughness and self confidence” (Lawrence, 1927), a theme to which he repeatedly returned in subsequent writings. Key leading practitioners during the 1970s and beyond recognised the importance of the individual's life as the context for diabetes

care, emphasising the importance of holistic treatment, rather than treating in isolation and disconnected from the person's life situation (Carey et al, 2012a).

Integrated models of care (Wagner et al, 1996), which include the provision of timely, up-to-date medical screening and interventions, are essential to maintaining good health, but the person with diabetes is the one making the minute-by-minute decisions about his or her own health and condition. Despite the previous paucity of good-quality research studies, there is now a growing body of evidence demonstrating self-management support is effective. A recent review from the Health Foundation concludes that: “whilst the findings of individual studies are mixed, the totality of the evidence suggests that supporting self-management can have benefits for people's attitudes and behaviour, quality of life, clinical symptoms and use of health care resources” (de Silva, 2011).

Health policy, recommendations and quality standards for self-management

Self-management in long-term conditions has been recognised in government health policy of the last 15 years as integral to effective care, beginning with the Diabetes National Service Framework (NSF) in 2001 and 2002. Standard 3 of the NSF states that: “All children, young people and adults with diabetes will receive a service which encourages partnership in decision-making, supports them in managing their diabetes and helps them to adopt and maintain a healthy lifestyle. This will be reflected in an agreed and shared care plan in an appropriate format and language. Where appropriate, parents and carers should be fully engaged in this process” (Department of Health [DH], 2001).

The Standard recognises that users of health services have the right to be active partners in their care, that living with diabetes is not easy, and that “provision of information, education and psychological support that facilitates self-management is the cornerstone of diabetes care.” The Standard acknowledges that people with diabetes need to be empowered to have a choice in, and control over, their care, and that changing lifestyle ultimately means engaging in behaviour change.

The key interventions identified at the time of the report's publication to support such an approach were: structured education, personal care plans, and patient held/accessed records.

Since 2001, the Diabetes NSF has been influential in supporting a number of service improvements, with the DH publishing annual updates featuring examples of local initiatives inspired by the original report. In 2003, NICE conducted a review of structured education in diabetes (NICE, 2003), which stimulated fresh research into structured education in type 2 diabetes, including the development of the DESMOND (Diabetes Education and Self-management for Ongoing and Newly Diagnosed) Programme (Davies et al, 2008). This was followed by the 2005 joint DH/Diabetes UK Working Group into patient education, of which more in the following section (DH and Diabetes UK, 2005).

The final report of the NHS Next Stage Review (DH, 2008) espoused patients having more rights and control over their healthcare, postulating that greater control and choice facilitates patients taking more responsibility for their own health. Personal care plans and the responsibility on the NHS to facilitate informed patient choice were singled out as key interventions, especially for those with long-term conditions and multiple morbidities. The new 2010 White Paper, *Equity and Excellence: liberating the NHS*, which signalled the arrival of current NHS restructuring, reaffirmed a commitment to services which were centred on patients and carers – “no decision about me without me” – while driving forward an agenda of quality standards through NICE (DH, 2010). One of the earliest sets of such standards, the NICE Quality Standards in Diabetes (NICE, 2011), reiterated the crucial contribution of patient self-management to diabetes services, by placing the provision of structured self-management education in first place.

In the new NHS structures, with commissioning being located closer to communities being served, there are opportunities to raise awareness of the potential benefits of self-management, and integrate these into the diabetes care pathway in ways not previously

possible. The emergence of the regional Strategic Clinical Networks, with their goal of creating a more coherent and equitable approach to services for long-term conditions across a geographical region, may provide the necessary infrastructure to support actual rather than theoretical change.

In summary, an acknowledgement of the value of patient self-management in long-term conditions such as diabetes has consistently driven the philosophy and recommendations of UK health policy since 2001. In major policy documents and standards, personalised care planning, care plans and structured education are explicitly singled out as evidence-based mechanisms which support self-management, in some cases accompanied by toolkits and exemplars to support their practical adoption by local NHS organisations. They are, therefore, a valuable resource for an organisation or service looking to evaluate its performance against best practice, or planning service improvements or redesign.

Structured education

If people with diabetes are to be truly supported to initiate and sustain successful self-management, making lifestyle choices and living with diabetes in the way that maximises their quality of life as they perceive that to be, then structured education is integral to achieving this.

In the UK, structured education programmes are expected to meet national standards and criteria. Basic principles of good practice were first formulated by NICE in a 2003 Health Technology Appraisal (NICE, 2003) which recommended that programmes:

- Reflect established principles of adult learning.
- Be delivered in a group setting by a trained multidisciplinary team.
- Be accessible to the broadest range of people in a community setting.
- Promote active learning, personalised as far as possible to participants.

This report could not identify a programme for people with type 2 diabetes meeting its criteria, but did consider that the clinical and cost-effectiveness evidence for the DAFNE (Dose Adjustment for Normal Eating) Programme merited its recommendation for people with type 1 diabetes (DAFNE Study Group, 2002).

“Acknowledgement of the value of patient self-management in long-term conditions such as diabetes has consistently driven the philosophy and recommendations of UK health policy since 2001.”

Box 1. Case example.

John is a 47-year-old shift worker who was diagnosed with type 2 diabetes 36 months ago. He is married with 3 children (12, 15 and 18), all of whom live at home. John was diagnosed with type 2 diabetes as part of a screening initiative at his GP practice. He was not experiencing any symptoms at the time and struggled to accept he had the condition. He has been referred to a structured education programme, but has not attended, because of problems getting time off at work. He would rather his employers did not know he has diabetes, as he is afraid of this being used as an excuse to make him redundant in the current financial climate. The practice has recently adopted a care-planning approach, and as part of his diabetes care, John attended the practice last week for a blood test and other measurements. He has an HbA_{1c} of 64 mmol/mol (8%), blood pressure of 145/85 and total cholesterol of 3.7 mmol/L and weighs 117.4 kg (BMI, 33 kg/m²). John has been prescribed 500 mg metformin 2 times per day and is on losartan for blood pressure (100 mg at night) and simvastatin for cholesterol (40 mg at night). His medical record states he was given diet and lifestyle advice at diagnosis and 9 months ago. John has been sent a copy of his results, and a booklet explaining the care-planning appointment, with advice on how to prepare for the follow-up appointment today.

The consultation

John had forgotten his results and expressed concerns at the start about what the consultation would be like. The healthcare professional (HCP) discussed with John that the care planning way of working was new to them as well, and maybe they could give it a try together. They started by setting the scene and asking John whether he had any particular concerns he would like to discuss. John was unsure, so the HCP asked what he felt about his results. John expressed some concerns about his HbA_{1c} and that when he had compared it with the information he had received in the past he had realised that it was too high. The HCP checked if this was his main concern and John listed another, which was his ability to tolerate metformin and the problems that his needing to go to the toilet were creating for him at work. This early stage of the care-planning consultation is called “sharing stories” and allows the person with diabetes and the HCP to share their concerns. Then, the consultation moves to exploring and discussing, which use active listening skills to explore the main issues for the person; they are looking at the problem together as a team. In John’s case this allowed him to tell the HCP that he was missing his metformin some days and that he was really struggling to come to terms with diabetes, feeling that he didn’t want people to know as he felt he had “brought it on himself” and that was part of the reason he had not gone to the education programme.

They discussed John’s belief that diabetes was all his fault and they both acknowledged that he didn’t really know a great deal about diabetes. After asking permission, the HCP provided some information about the causes of diabetes. When they moved on to discuss John’s goals and action plan, John felt that the first step for him was to talk a little with friends and family about having diabetes and what it means to him. After that, he would return to arrange referral to a structured education programme.

The report led to growing awareness of the state of structured education in the UK, stimulating research initiatives based on determined grass roots support amongst healthcare professionals and people with diabetes, to address the gaps in evidence and service provision. In 2004, the Department of Health and Diabetes UK jointly convened an expert working group on patient structured education which built on the foundations of the NICE report to develop a set of key criteria for education programmes, complemented by a web-based tool by which organisations could assess their existing education programmes (DH and Diabetes UK, 2005). The key criteria required that a programme should:

- Have a philosophy, be evidence-based and with a specific aim and learning objectives.
- Have a written, structured curriculum, be theory-driven, person-centred, and supported by appropriate resources.
- Be delivered by trained educators with an understanding of education theory appropriate to their programme.
- Be quality assured.
- Be audited.

A full description of the standards can be found in *Table 1* (DH and Diabetes UK, 2005).

In a separate development to support the guidance in the Working Party report, a toolkit for organisations to self-assess local education programmes was set up, with the view that organisations wishing to strengthen existing local programmes could be supported to raise the quality of their programmes to meet the national criteria.

The evidence for structured education is currently growing year on year, confirming this type of intervention as an effective treatment option for diabetes. A number of programmes now established in the UK for both type 1 and type 2 diabetes, such as DAFNE (DAFNE Study Group, 2002), DESMOND (Skinner et al, 2006; Davies et al, 2008) and X-PERT (Deakin et al, 2006) meet national standards, and are supported by evidence. The DAFNE and DESMOND programmes have also published evidence of their cost-effectiveness (Shearer et al, 2004; Gillett et al, 2010). An organisation wishing to compare

approaches with a view to selecting a programme most suitable to the local population can now consult several reviews of the literature to identify potential programmes (Deakin et al, 2005; Heller and Carey, 2011; Carey et al, 2012b).

And now for a word... Empowerment

No exploration of self-management support or structured education can be complete without a discussion of the concept of empowerment. It is a term consistently used in many of the health policy documents referred to above. As an approach, it is frequently cited to be at the heart of several structured education programmes and self-management interventions.

The philosophy that underpins the approach was presented in 1991 (Funnell et al, 1991). The authors argued for a shift away from the traditional medical model of care where the HCP was seen to be the “expert” and the problem solver, and their goal was for the person with diabetes to “comply” with the recommendations provided. The empowerment approach suggested that a fundamental and conceptual shift in the relationship between the HCP and the person with diabetes was required. The key elements were: an emphasis on the whole person and their personal strengths rather than deficits, the person selecting their own learning needs, setting shared or negotiated goals, and decision making transferred to the person with diabetes who would also identify their barriers to self-care and their solutions. In this context, “failures” were seen to be problems to be solved rather than personal deficits and the practitioner’s role was to help the person to discover their own intrinsic motivators for change.

However, despite the term being extensively used and empowerment seemingly widely applied there does seem to be considerable confusion about the application of the approach. In the Darzi report (DH, 2008) patient empowerment equates to choice over care, such as the setting for a health appointment, or the provision of up-to-date and appropriate information. For the Patient Education Working Party (DH and Diabetes UK, 2005), empowering patients resides in a literal shift in the dynamic of power in the patient–HCP relationship, moving from a traditional

medical model, where the agenda and outcomes are dictated by the healthcare professional agenda, to a patient-centred model where the person with diabetes leads the discussion and is an active and equal contributor.

In many interventions empowerment is presented as something that is “delivered” to

Table 1. Criteria for structured education programmes
Reproduced with permission (DH & Diabetes UK, 2005).

Key criteria	Detail
Have a structured, written curriculum	<ul style="list-style-type: none"> ● Be person centred, incorporating assessment of individual learning needs ● Be reliable, valid and comprehensive ● Be theory-driven and evidence-based ● Be flexible and able to cope with diversity ● Be able to use different teaching media ● Be resource effective and have supporting materials ● Be written down
Have trained educators	<ul style="list-style-type: none"> ● Have an understanding of education theory appropriate to the age and needs of the programme learners ● Be trained and competent in the delivery of the education theory of the programme they are offering ● Be trained and competent in the delivery of the principles and content of the specific programme they are offering
Be quality assured	<p>The programme needs to be reviewed by trained, competent, independent assessors who assess against agreed criteria:</p> <ul style="list-style-type: none"> ● Environment ● Structure ● Process ● Content ● Use of materials ● Whether the programme has actually been delivered ● Evaluation and outcome information
Be audited	<p>Outcomes of the programme need to be audited, and may include:</p> <ul style="list-style-type: none"> ● Biomedical ● Quality of life ● Patient experience ● Degree of self-management achieved as a result of the programme

the person by the HCP, or a technique that can be applied as and when required. Although there is evidence to suggest that improvements in HbA_{1c} and self-efficacy can be achieved using empowerment (Greenfield et al, 1988; Anderson et al 1995; Williams 1998; Tang et al, 2012), misconceptions surrounding what it actually is have inevitably resulted in difficulties that concern investigating the impact of empowerment as an intervention.

In an attempt to clarify these issues Anderson and Funnell (2010) set out to dispel some of these misconceptions and re-establish an understanding of the approach. They conclude that

empowerment “does NOT involve convincing, persuading, ‘empowering’ or changing patients (or getting them to change).” This way of working recognises the person’s fundamental role in the management of his or her own condition. The practitioner’s role is to facilitate the person to become more confident, knowledgeable and autonomous in self-management, by helping the individual to access his or her own innate ability to manage diabetes (*Box 1*). It does not mean that practitioners cannot raise concerns and explore the consequences of some of the decisions individuals may make, but they do need to recognise that the ultimate choice lies with the person with diabetes (*Table 2*). Empowerment, therefore, is not a technique or a strategy but a way of being with a person. When practitioners truly acknowledge that it is the people with diabetes who ultimately manage the daily minute-by-minute decisions that affect their health, they can provide the right environment for individuals to explore their barriers to self-management, beliefs about the condition, their feelings about having diabetes and the goals that are important to them. Many would argue that this approach should be at the heart of any intervention that sets out to support self-management.

People with diabetes attending dynamic, effective structured education based on a philosophy such as that outlined above can be initiated into, and given a good start in, self-management, but this cannot be sustained over time unless it is complemented by an equally dynamic and effective relationship between the individual and the key HCPs involved in the diabetes journey. Such is the purpose of care planning.

Care planning

The Diabetes NSF Standard 3 set out to transform clinical consultations and education from a “meeting with an expert” to “a meeting of experts”. Emphasis was placed upon a personalised, shared approach to the individual’s care. This was supported by a report from the Department of Health and Diabetes UK Care Planning Working Group (2006) which defined care planning as “a process which offers people active involvement

Table 2. Discussion about common barriers to engaging in a supporting self-management approach.

Challenges that have been described by HCPs	Another way of thinking about the challenge
<i>“I am not doing my job properly if I don’t tell my patient everything about diabetes”</i>	What does it feel like for the person with diabetes to be given lots of information at any one time? How likely is someone to remember and act upon information that may not be personally relevant at that time? Evidence suggests information alone does not impact on behaviour change and “constructivist” models of learning suggest that information exchange should take place in a learning conversation rather than being delivered to the person.
<i>“At the end of the day, my colleagues expect me to show an improvement in the biomedical data (QOF) for the patients I see”</i>	There is a great deal of pressure to meet any targets including QOF. It creates a dilemma; the goals of the practitioner and patient may not be the same. Do people go away and change because we have told them to? Are people more likely to work towards goals that fit with their values and beliefs and are intrinsically motivating?
<i>“Patients expect me to tell them what to do—and may be used to being told what to do”</i>	Sometimes individuals will ask you what they should do especially when they are newly diagnosed. Can you really know what is the “right” decision for that person? Might a discussion around their dilemmas help them to clarify what is right for them? This is not to take away from your expertise in diabetes, but the person is an expert in their own life.
<i>“I don’t have time to work like this”</i>	It can feel that these types of conversations take longer to have than a more traditional approach. However, you might ask yourself is it time efficient not to be discussing the real challenges people face when it comes to self-management?

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.”

Key drivers for care planning came from multiple health policy documents including “Our Health, Our Care, Our Say” (DH, 2006), which stated that by 2010 everyone with a long-term condition should be offered a care plan. It is now Standard 3 in the NICE Quality Standards in Diabetes (NICE, 2011) and the Royal College of General Practitioners (RCGP) have accepted it into professional quality standards (RCGP Clinical Innovation and Research Centre, 2011).

The case for change was driven not only by policy, as described earlier, but also by a body of evidence that questioned the traditional approach, as well as user feedback, which

described over 50% of people who had seen an HCP as not being encouraged to self-care. Even fewer, only 23–58% (DH, 2005), reported having a discussion about their personal goals.

Fundamentally, care planning has two components: the process of the consultation (specifically the interaction and relationship that develops between the HCP and the person with diabetes), and the “output” of the consultation (i.e. the agreed goals and action plan). Being prepared for the consultation by either having their biomedical results or an agenda setting prompt or being aware that the consultation will have a different style has been found to encourage patient activation, engagement and biomedical outcomes (Greenfield et al, 1988) and is core to the care-planning experience.

Both patients and professionals will come with their own “stories” or agendas, which are openly acknowledged and shared. The exploration of each other’s stories allows priorities and concerns

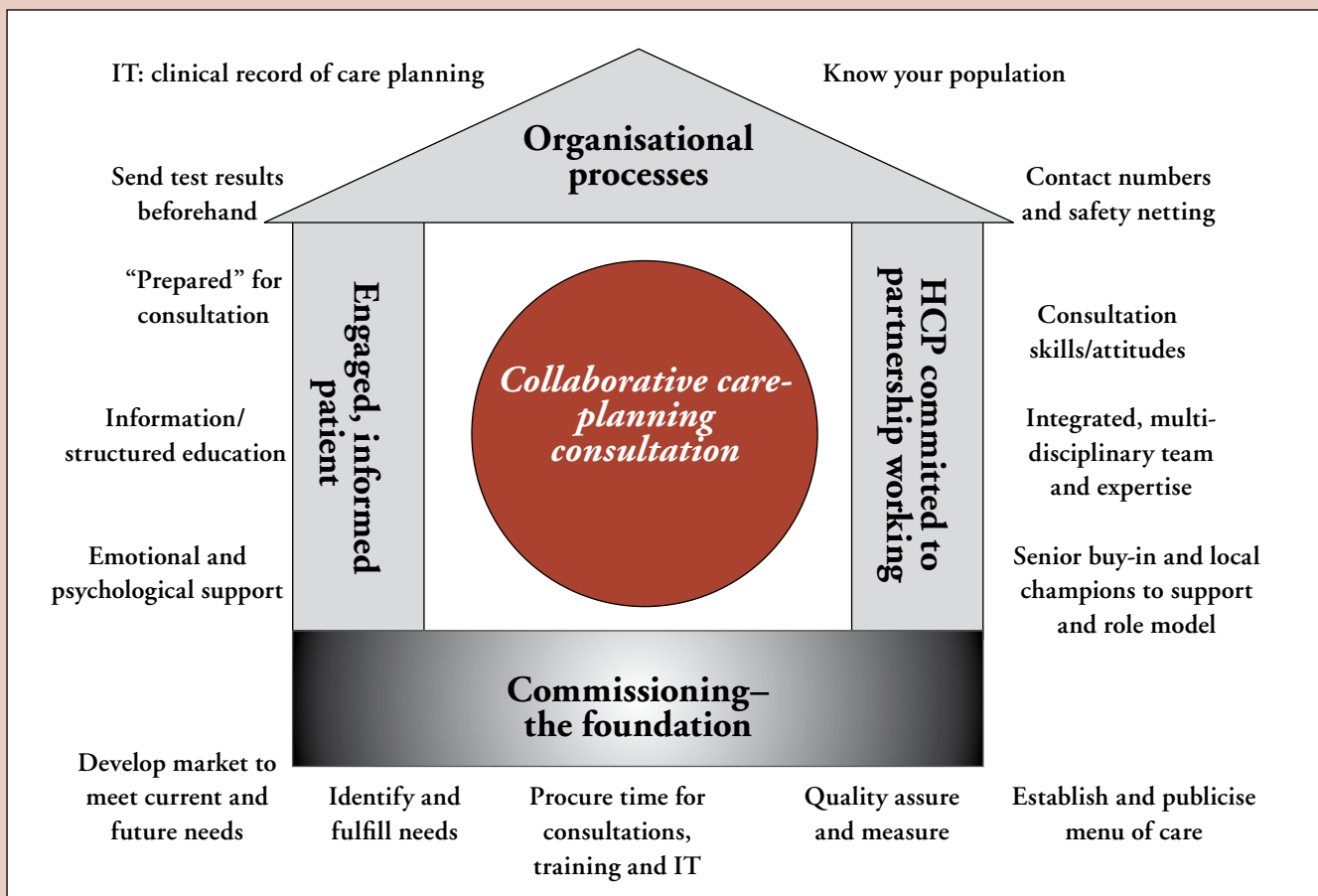


Figure 1: Year of Care House Model (NHS Diabetes, 2011; reproduced by kind permission of the Year of Care Partnerships).

“A consultation that supports autonomy, explores barriers and challenges and is an experience of working together to achieve a plan will be more beneficial than a consultation focussed on the final piece of paper and driven by the healthcare professional’s agenda.”

to emerge and be discussed. It is from this conversation that the person and practitioner in partnership decide upon the goals that are important to the person with diabetes. Personally relevant goals that are congruent with the person’s values and aspirations are more likely to have the desired outcomes for that individual. Behaviour change interventions that support self-efficacy and goal setting and facilitate a detailed action plan have been shown to be more beneficial with improved outcomes (Gollwitzer, 1999; Darker et al, 2010; Olivarius et al, 2001).

This is the “doing of” care planning (the verb) rather than the piece of paper representing the completed care plan at the end of the meeting (the noun). It is believed that it is the “doing” that is important. A consultation that supports autonomy, explores barriers and challenges and is an experience of working together to achieve a plan will be more beneficial than a consultation focussed on the final piece of paper and driven by the HCP’s agenda.

Year of Care

Year of Care, an innovative project funded by the DH, engaged with three pilot sites and 12 health communities during 2008–2011 to explore the components that were needed to support a truly collaborative care-planning consultation. There is evidence to suggest that this consultation cannot take place in isolation. Systems and organisational processes are required to ensure that the HCP can remain committed to partnership working and for the person with diabetes to be engaged and informed about his or her condition. Three pilot sites (NHS Tower Hamlets, NHS Kirklees and Calderdale, and NHS North of Tyne) were identified to test out and explore this model to ensure all the necessary processes required were identified. Year of Care developed a model based on a “house” which acts as both a metaphor and a visual commissioning toolkit. It highlights that all four elements of the house are required to ensure that care-planning consultations that are truly collaborative can take place (*Figure 1*).

A key element of Year of Care is that it has championed a two-visit approach which

separates the tasks of the consultation, such as collecting Quality and Outcomes Framework data, from the conversation about supporting self-management. It makes sense that in order to be engaged and informed individuals will arrive already knowing their most up-to-date test results. They will have attended a “data collection” appointment, usually with a healthcare assistant, prior to the care-planning consultation and these results will have been fed back in a meaningful way, usually written/printed, and by post. The feedback on this approach has been very positive both by practitioners and by patients (Doherty et al, 2012). The fundamental shift required to engage in this approach from the practitioner’s perspective is supported by a national training programme that has been well evaluated. All elements of the consultation and the training have a theoretical underpinning and evidence base that can be accessed by the interested reader (Doherty et al, 2012).

The training also supports the organisational changes that are required to support care planning, such as receiving results beforehand and linking people to self-management education. In some areas taking on a Year of Care approach has required an entire service redesign, but the improvements in team work, surveillance and systems for delivering care have achieved improved outcomes for services. In Tower Hamlets, London, patient-reported involvement in care increased from 52% to 82% and in diabetes care, the organisation went from being one of the lowest achieving areas to the highest reported in England with 72.4% of people with type 2 diabetes receiving all nine key care processes (NHS Diabetes, 2011). Finally, none of this can be achieved without a robust mechanism for the continuing commissioning of services, the foundations of the “house”.

Conclusion

Whilst acknowledging the place of many opportunities and strategies for supporting self-management, such as those mentioned in the introduction section, it is important to identify the importance of structured education and care planning as approaches with the potentially

greatest impact on successful self-management. These two complementary interventions are supported by the strongest evidence base, and offer the best opportunities for developing the informed patient – confident, knowledgeable and equipped to develop self-management skills for life with their diabetes. ■

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Online CPD activity

Visit www.diabetesonthenet.com/cpd to record your answers and gain a certificate of participation

Participants should read the preceding article before answering the multiple choice questions below. There is ONE correct answer to each question. After submitting your answers online, you will be immediately notified of your score. A pass mark of 70% is required to obtain a certificate of successful participation; however, it is possible to take the test a maximum of three times. A short explanation of the correct answer is provided. Before accessing your certificate, you will be given the opportunity to evaluate the activity and reflect on the module, stating how you will use what you have learnt in practice. The new CPD centre keeps a record of your CPD activities and provides the option to add items to an action plan, which will help you to collate evidence for your annual appraisal.

1. What is the PREDICTED percentage increase in the national incidence of diabetes by 2020? Select ONE option only.
 - A. 10%
 - B. 25%
 - C. 33%
 - D. 100%
 - E. 200%
2. In addition to structured education, which ONE of the following is a KEY evidence-based component of quality self-management support? Select ONE option only.
 - A. Care planning
 - B. Home blood glucose monitoring
 - C. Home urine glucose monitoring
 - D. On-line cognitive behavioural therapy
 - E. Self-directed reading
3. In which decade did the concept of “self-management” for people with diabetes FIRST gain academic support? Select ONE option only.
 - A. 1890s
 - B. 1920s
 - C. 1950s
 - D. 1960s
 - E. 1980s
4. According to 2003 NICE criteria, which ONE, if any, of the following structured education programmes is recommended for people with type 1 diabetes? Select ONE option only.
 - A. DAFNE
 - B. DESMOND
 - C. DENNIS
 - D. X-PERT
 - E. None of the above
5. According to 2003 NICE criteria, which ONE, if any, of the following structured education programmes is recommended for people with type 2 diabetes? Select ONE option only.
 - A. BERTIE
 - B. DAFNE
 - C. DESMOND
 - D. X-PERT
 - E. None of the above
6. According to national guidance, which ONE of the following is NOT a key criterion required of a structured education programme? Select ONE option only.
 - A. Be cost-effective and delivered with minimal administrative support
 - B. Be evidence-based with a specific aim and learning objectives
 - C. Be delivered by trained educators with an understanding of education theory
 - D. Be theory-driven, person-centred and have a written, structured curriculum
 - E. Be quality assured
7. Empowering people with diabetes has been shown to REDUCE which ONE, if any, of the following? Select ONE option only.
 - A. Blood pressure levels
 - B. HbA_{1c} levels
 - C. Hospital admission rates
 - D. Incidence of myocardial infarction
 - E. None of the above
8. According to recent evidence, which ONE of the following, if any, BEST describes the meaning of an “empowerment approach” to structured diabetes education programmes? Select ONE option only.
 - A. Convincing a person of the best advice
 - B. Changing a person’s opinion
 - C. Getting better glycaemic control
 - D. Persuading someone to take his or her medication regularly
 - E. None of the above
9. According to the 2005 Department of Health survey, what approximate percentage of people with diabetes who had seen a healthcare professional had NOT been encouraged to self-care? Select ONE option only.
 - A. <5%
 - B. 10%
 - C. 20%
 - D. 33%
 - E. 50%
10. The “Year of Care” project was a 2008–2011 Department of Health initiative. According to this project, for people with diabetes, which of the following BEST describes “a two-visit approach” to structured primary care consultations? Select ONE option only.
 - A. Blood tests being taken at a separate visit to subsequent blood pressure and foot care assessments
 - B. Seeing a healthcare assistant first and a practice nurse second
 - C. Seeing a practice nurse at the first visit and a doctor at the second
 - D. Separating the tasks of the consultation from the conversation about supporting self-management
 - E. When the person with diabetes has a scheduled follow-up appointment with a specialist nurse 2 weeks after seeing the doctor