The NSF for Diabetes: a health psychologist's perspective

Marie Clark

ARTICLE POINTS

1 Health psychology has the potential to improve healthcare if its principles are integrated into policy and practice.

2 A number of the standards in the NSF for Diabetes focus on specific psychological issues from health behaviour-change interventions in those at risk to training for healthcare professionals.

3 There is a growing body of work on the importance of psychological processes in determining health and illness behaviour.

4 Delivery of the standards will require innovation and a clear understanding of the ways that different professionals can work together to maximise health outcomes for people with diabetes.

KEY WORDS
- **Health psychology**
- **Behaviour-change interventions**
- **Symptom perception**
- **Treatment adherence**

Marie Clark is a Lecturer in health psychology at the University of Surrey, Guildford.

Introduction

Health psychologists are at the forefront of the development of theoretical approaches to understanding health behaviours at the individual and population level. The NSF for Diabetes standards document sets out 12 standards of healthcare that people with diabetes should expect. These standards explicitly and implicitly offer many areas of involvement for health psychologists. A number of the standards focus on very specific psychological issues. Diabetes services are faced with the challenge of delivering these important standards. This will require real innovation and a clear understanding of the ways in which different professionals, including psychologists, can work together to maximise health outcomes for people with diabetes.

Health psychology has considerable potential to improve healthcare if its principles are integrated into policy and practice. There are many health issues where a psychological perspective is relevant; diabetes is certainly one of these.

Over the past decade, health psychology has branched out from its social, clinical and psychophysiological roots and has started addressing problems of major public health importance, such as obesity, cardiovascular disease and diabetes. Examples where health psychology has made a significant contribution are: understanding and changing health behaviours; communicating about health, disease and risk; teaching healthcare professionals how to communicate effectively with patients; and understanding why some sectors of society have better health than others.

National and international health recommendations have increasingly acknowledged that the major health problems of the world (such as type 2 diabetes, obesity and cardiovascular disease) might be alleviated by changes in lifestyle and behaviour (DoH, 1999; US Department of Health and Human Services, 2000; World Health Organization Europe, 1999). Health behaviour research is not the exclusive domain of psychologists. However, health psychologists are at the forefront of the development of theoretical approaches to understanding health behaviours at the individual (Conner and Norman, 1996) and the population level (Fishbein and Guinan, 1996; Wardle et al, 1999). New methods and models of change have advanced the field of behavioural prevention and the development of individually tailored interventions (Clark and Hampson, 2001; Glasgow et al, 1996). Some of these methods and models use modern information technologies to deliver personalised behaviour-change advice on a wide scale at modest cost (Kreuter et al, 1999).

Health psychology and the NSF for Diabetes

National Service Frameworks (NSFs) were introduced in the last few years to define standards of best practice for the delivery of healthcare within the NHS for specific diseases or patient groups. The NSF for Diabetes began in early 2000. The standards for the NSF for Diabetes were published in England in December 2001, followed by the delivery strategy in January 2003.

The standards document sets out 12 standards of healthcare that people with diabetes should expect, and includes an analysis of the implications for planning and organising services. These standards explicitly and implicitly offer many areas of involvement and interest for health psychologists. A number of the standards focus on very specific psychological issues which are considered below.

Standard 1

Standard 1 sets out that:

'The NHS will develop, implement and monitor strategies to reduce the risk of developing type 2 diabetes in the population as a whole and to reduce the inequalities in the risk of developing type 2 diabetes'.

The aim of standard 1 is to reduce the number of people who develop type 2 diabetes. Recent research suggests that the overall incidence of type 2 diabetes in the population can be reduced by preventing or reducing the prevalence of excess weight and obesity, physical inactivity and central abdominal obesity in the general population, particularly in those groups at increased risk (Tuomilehto et al, 2001; Knowler et al, 2002). The compelling evidence for success in preventing or postponing type 2 diabetes should be viewed as a catalyst for promoting lifestyle modifications across society. Undoubtedly, population based public health efforts will be needed to encourage and support healthy lifestyles.

For the primary care practitioner, detecting people who are at a high risk of developing diabetes and delivering effective lifestyle intervention to them is an immediate and difficult challenge. Research suggests that awareness of impaired glucose tolerance is low among primary care doctors (Wylie et al, 2002). This awareness needs to be raised and guidelines are needed for its management. It seems that general practitioners remain to be convinced that they have a role in attempting to reduce the incidence of type 2 diabetes by targeting interventions at people with impaired glucose tolerance.

Furthermore, widespread translation of the findings of type 2 diabetes prevention trials requires the changing of beliefs about primary prevention in those at the highest risk for diabetes. Diabetes prevention needs to be actively promoted in this population group.

It is essential that these challenges are met. Implementation of standard 1 will depend on the evaluation and development of effective, theoretically driven health behaviour-change interventions for people at risk or in those screened for evidence of early disease.

Standard 2

Standard 2 sets out that:

'The NHS will develop, implement and monitor strategies to identify people who do not know they have diabetes'.

The aim of standard 2 is to ensure that people with diabetes are identified as early as possible. Increased awareness of the symptoms and signs of diabetes among healthcare professionals and the general public can result in earlier identification and treatment of people with diabetes, and help to prevent the development of complications. Good practice needs to be based on an understanding of symptom perception and of the research on help-seeking behaviour, including the influence of factors such as delay in seeking help and threat minimisation. An understanding of the factors that influence the uptake and effects of screening will be important for delivering this standard.

Thus, the work of health psychologists, which examines how patients evaluate health threats by constructing their own representations or perceptions of the threat that in turn influences their patterns of coping, is central to implementation of this standard (Leventhal et al, 1997; Hampson et al, 1990).

There is a growing and influential body of psychological work on the importance of cognitive processes in determining the response to health screening and preventive initiatives in healthcare. It is clear that cultural factors shape both the appraisal processes and the behaviours chosen for controlling or dealing with the situation. In addition to representations of the threat, the individual will also draw upon their expectations and beliefs about the different behavioural choices, including adherence to treatment regimens.

Standard 3

Standard 3 sets out 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'.

The aim of this standard is to ensure that people with diabetes are empowered to

PAGE POINTS

1 Incidence of type 2 diabetes in the population could be reduced by preventing or reducing the prevalence of excess weight and obesity, physical inactivity and central abdominal obesity in the general population.

2 Detecting people who are at a high risk of developing diabetes and delivering effective lifestyle interventions is an immediate and difficult challenge for the primary care practicioner.

3 Implementation of standard 1 will depend on the evaluation and development of effective, theoretically driven health behaviour-change interventions for people at risk or in those screened for evidence of early disease.

4 An understanding of the factors that influence the uptake and effects of screening will be important for delivering standard 2.

5 The individual will draw upon their expectations and beliefs about the different behavioural choices, including adherence to treatment regimens.

PAGE POINTS

1 Significant proportions of people with diabetes do not understand key elements of their diabetes care.

2 A diagnosis of diabetes can lead to poor psychological adjustment, including self-blame and denial, which can create barriers to effective self-management and low self-esteem.

3 The needs of children and young people with diabetes as individuals within a family or family system and the role of their parents or carers and siblings in sustaining them from initial diagnosis through childhood to independence are key.

4 Rather than seeing a child's developmental stage as the main determinant of their thinking about health and illness, it is becoming clear that at any age or stage children can differ in their beliefs about health and illness.

enhance their personal control over the daily management of their diabetes in a way that enables them to experience the best possible quality of life. Evidence suggests that people who take on greater responsibility for the management of their diabetes have reduced blood glucose levels, no increase in severe hypoglycaemic attacks, a marked improvement in quality of life and a significant increase in satisfaction with treatment (Greenfield et al, 1988; Stewart et al, 1995; Williams et al, 1998).

However, for a number of reasons significant proportions of people with diabetes do not understand key elements of their diabetes care. In addition, a diagnosis of diabetes can lead to poor psychological adjustment, including self-blame and denial, which can create barriers to effective self-management and low self-esteem, and induce resistance to treatment and depression (Lustman et al, 2000; Peyrot and Rubin, 1997).

This is clearly an area with major opportunities for the input of health psychology. Implementation of standard 3 will have to be based on a good understanding of healthcare communication and decision-making, particularly in developing training for healthcare professionals to be able to work in this way. This work will also need to incorporate an understanding of the various psychological factors underlying treatment adherence and effective self-management in chronic illness.

Theoretical developments in health psychology have provided a number of models which attempt to explain patients' health-related decisions in terms of perceived values and expectancies, and response selections based on these (Rosenstock, 1988; Ajzen, 1980). Research that applies these models to medication adherence gives some evidence that patients' initial decisions about treatment are influenced by their beliefs of the need for treatment and perceptions of the associated benefits and risks (Hampson et al, 1996, 1995).

Standards 5 and 6

Standards 5 and 6 focus on achieving a high quality of care for children and adolescents with diabetes, and a smooth transition from paediatric to adult services. The aim of these standards is to ensure that the special needs of children and young people with diabetes are recognised and met, thereby ensuring that when they enter adulthood, they are in the best of health and able to effectively manage their own day-to-day diabetes care. Children and young people with diabetes are subject to all of the usual pressures and pleasures of physical, emotional and social development. Their needs, as an individual within a family or family system, and the role of their parents or carers and siblings in sustaining them from initial diagnosis through childhood to independence are key.

Health psychology offers many important insights into children's perceptions of and responses to illness, as well as into the ways families cope with illness. There is increasing awareness of the importance of the child's own experience and the realisation that children develop accurate, functional accounts of illness-related events (Eiser et al, 1990; Bearison and Pacifice, 1989). Rather than seeing a child's developmental stage as the main determinant of their thinking about health and illness, it is becoming clear that at any age or stage, children can differ in their beliefs about health and illness.

These insights into children's understanding can be used for developing health education campaigns and in the delivery of effective healthcare. Parents can and do play a crucial role in providing information and support, as well as behavioural models. Rather than regarding children as emerging but imperfect versions of adults, we need to understand them as self-regulating individuals who are capable of making decisions and choices on the basis of their own representations of health threats and illness.

As with any self-regulatory process, there is a need to examine the role of the immediate and broader social and cultural contexts in order to understand children's health and illness behaviour. Development of interventions that address practical diabetes management issues, provide a forum for support and guidance and help children, adolescents and their families cope with the illness and manage it more effectively will therefore be central to implementation of these standards. Importantly, psychological studies point to a greater need to integrate

young people's perceptions of risks into health education programmes. Risk perceptions may in fact be important contributors to risk behaviour (Whalen et al, 1994).

Conclusion

While the above standards are the most obvious that have implications for health psychology, a number of the other standards clearly offer interesting opportunities as well. Diabetes services are now faced with the challenge of delivering these important standards. The NSF for Diabetes provides the clinical priorities on which the health service should initially concentrate and strongly encourages working across professional and organisational boundaries. Delivering on this requires real innovation and a clear understanding of the ways in which different professionals, including psychologists, can work effectively together to maximise health outcomes. Diabetes is one of the most costly and burdensome chronic diseases of our time and is a condition that is increasing in epidemic proportions throughout the world (King et al, 1998). We all need to consider new ways of working together.

The NSF for Diabetes offers a unique opportunity for individuals with diabetes to finally get the diabetes care they deserve. The extent to which the NSF standards are implemented and the research priorities become a reality will ultimately depend on the availability of funding. Since sufficient new money to implement the standards and promote new research is clearly essential, but not immediately evident, concern arises as to whether this will remain just a paper exercise. If this does happen, then there is every reason to suspect that this unique opportunity of ensuring that people with diabetes finally get, not only the physical and medical but also the psychological healthcare that they deserve, will be lost. ■

Ajzen I, Fishbein M (1980) *Understanding attitudes and predicting social behavior*. Prentice Hall: Englewood Cliffs, NJ, USA

Bearison DJ, Pacifici C (1989) Psychological studies of children who have cancer. *Journal of Applied Developmental psychology* **5**: 263–80

Clark M, Hampson SE (2001) Implementing a psychological intervention to improve lifestyle self-management in type 2 diabetes. *Patient Education and Counseling* **42**: 247–56

Conner M, Normal P (1996) *Predicting health behaviour*. Open University Press, Buckinham

Department of Health (1999) *Saving lives: our healthier nation*. DoH, London

Department of Health (2001) *National Service Framework (NSF) for Diabetes: Standards Document*. DoH, London

Eiser C, Eiser JR, Lang J (1990) How adolescents compare AIDS with other diseases: implications for prevention. *Journal of Pediatric Psychology* **15**: 95–103

Fishbein M, Guinan M (1996) Behavioural science and public health: A necessary partnership for HIV prevention. *Public Health Reports* **111** (Suppl 1): 5–10

Glasgow RE, Toobert DJ, Hampson SE (1996) Effects of a brief office-based intervention to facilitate diabetes dietary self-management. *Diabetes Care* **19**: 835–42

Greenfield S, Kaplan SH, Ware JE, Yano EM, Frank H (1988) Patients' participation in medical care: effects on blood sugar control and quality of life in diabetes. *Journal of General Internal Medicine* **3**: 448–57

Hampson SE, Glasgow R, Toobert DJ (1990) Personal models of diabetes and their relations to self-care activities. *Health Psychology* **9**: 632–46

Hampson SE, Glasgow RE and Foster LS (1995) Personal models of diabetes among older adults: relation to self-management and other variables. *Diabetes Educator* 21: 300–7

Hampson SE, Glasgow RE (1996) Dimensional complexity of representations of diabetes and arthritis. *Basic and Applied Social Psychology* **18**: 45–59

King H, Aubert RE, Herman WH (1998) Global burden of diabetes 1995-2025: prevalence, numerical estimates, and projections. *Diabetes Care* **21**: 1414–31

Knowler, WC, Barret-Connor E, Fowler SE (2002) Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *NEJM* **346**: 393–403

Kreuter M, Farrell DW, Olevitch L and Brennan I (1999) *Tailored health messages: customizing communication with computer technology*. Erlbaum: Mahwah, NJ, USA

Leventhal H, Benyamini Y, Brownlee S et al (1997) Illness representations: theoretical foundations. In: Petrie KJ, Weinman JA (Eds) *Perceptions of Health and Illness*. Harwood Academic Publishers: 19–45

Lustman PJ, Anderson RJ, Freedland KE, de Groot M, Carney RM, Clouse RE (2000) Depression and poor glycemic control: a meta-analytic review of the literature. *Diabetes Care* **23**: 934–42

Peyrot M, Rubin RR (1997) Levels and risks of depression and anxiety symptomatology among diabetic adults. *Diabetes Care* **20**: 585–90

Rosenstock IM, Strecher VJ, Becker MH (1988) Social learning theory and the health belief model. *Health Education Quarterly* **15**: 175–83

Stewart M, Brown J, Donner A et al (1995) *The impact of patient-centred care on patient outcomes in family practice (Final report)*. Canada: Center for Studies in Family Medicine, University of Western Ontario

Tuomilehto J, Lindstrom J, Eriksson JG et al (2001) Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. *NEJM* **344**: 1343–50

US Department of Health and Human Services (2000) *Healthy people 2010*. Washington, DC: US Department of Health and Human Services

Wardle J, Farrell M, Hillsdon M et al (1999) Smoking, drinking, physical activity and screening uptake and health inequalities. In Gordon D, Shaw M, Dorling D, Davey-Smith G (eds) *Inequalities in Health*. Policy Press, Bristol: 213–39

Whalen CK, Henker B, O'Neill R et al (1994) Optimism in children's judgments of health and environmental risks. *Health psychology* **13**: 319–25

Williams GC, Freedman ZR, Deci EL (1998) Supporting autonomy to motivate patients with diabetes for glucose control. *Diabetes Care* **21**: 1644–51

World Health Organization Europe (1999) *Health 21 - Health for all in the 21st century*. WHO Regional Office for Europe, Copenhagen

Wylie G, Hungin APS, Neely J (2002) Impaired glucose tolerance: qualitative and quantitative study of general practitioner's knowledge and perceptions. *BMJ* **324**: 1190–5

PAGE POINTS

1 There is a need to examine the role of the immediate and broader social and cultural contexts in order to understand children's health and illness behaviour.

2 Psychological studies point to a greater need to integrate young people's perceptions of risks into health education programmes.

3 The NSF for Diabetes provides the clinical priorities on which the health service should initially concentrate and strongly encourages working across professional and organisational boundaries.

4 The extent to which the NSF standards are implemented and the research priorities become a reality, will ultimately depend on the availability of funding.