

## **Socio-cultural aspects of diabetes care: *Myths about diabetes in Qassim region, Saudi Arabia.***

**Layla Alhyas\* and Ailsa McKay.**

Department of Primary Care and Public Health, Imperial College London, United Kingdom.

Diabetes mellitus is a current and growing worldwide concern. It has a high and increasing prevalence, and is associated with high levels of morbidity and mortality. This has led to the establishment of international organisations to approach the problems caused by diabetes and other chronic diseases. These are now acknowledged as one of the 'top 6' Global Risks by the World Economic Forum (1). A 2006 UN resolution (61/225) called on Member States to implement strategies to manage the diabetes problem (2).

The prevalence of diabetes and high associated economic costs are a serious challenge to policy and planning in healthcare. The costs include those relating to morbidity, employment, productivity, premature mortality and use of health services (3). Studies such as the Diabetes Control and Complications Trial and The UK Prospective Diabetes Study have demonstrated that effective management can help prevent the disabling and costly complications of diabetes (4 - 6). Despite, however, mobilisation of great efforts against the disease, target outcomes have not been met, internationally. A Swedish survey, for example, reported in 2001 that only 34 % of people with type 2 diabetes had good metabolic control (HbA1c < 6.5 %; 7). Grant *et al* (8) reported, in 2005, a 34 % attainment of HbA1c levels < 7 % in the USA, and a 2006 Australian study of 3, 286 records of patients with diabetes showed approximately 48 % had HbA1c > 7 % (9). With evident difficulty meeting the 'standardised' (inter-)national targets, the vogue (in some countries/guidelines)

has moved towards individualised care and outcome targets (e.g. 10). Similarly, despite the co-ordination of management efforts from the highest international levels, it has been increasingly appreciated that strategies against global health problems should be locally targeted to be optimally effective – perhaps most conspicuously in the case of HIV management (e.g. 11, 12).

In this trend, Sharaf *et al* (this volume; 13) have undertaken to determine the 'myths and misconceptions' surrounding diabetes in a region of Saudi Arabia (the country estimated to have the 3<sup>rd</sup> highest prevalence of diabetes in the world; 14). Often, it is local health beliefs, trends in education and other socio-cultural dimensions that are considered the most variable aspects of a geographically widespread health issue, and thus these are considered relatively important issues when aiming to provide optimal individualised (or at least relatively locally targeted) care. Thus, studies such as those of Sharaf *et al* can provide the knowledge about these factors that allows healthcare professionals to in turn provide the necessary education and care for the successful treatment of the particular patient. This is an increasingly important and relevant issue as medicine is practised in an ever more globalised environment.

Although Sharaf *et al* do not establish the most predominant misconceptions, or those with greatest impact on health outcomes, nor establish that the 'misconceptions' they identify are limited to the particular population or region studied, they do highlight some that may

be of relatively high relevance to this population. For example, the 3<sup>rd</sup> and 4<sup>th</sup> most frequently believed of the various investigated 'myths' were that 'some types of dates do not increase sugar level' and 'honey intake does not increase sugar level', particularly relevant given that populations of the Gulf region consume relatively large amounts of dates and honey. Islam recommends some special foods, including honey and dates. It is believed that they can treat many diseases, and serving dates with coffee is a symbol of hospitality in this region.

However, the most striking results of Sharaf *et al* – the 1<sup>st</sup> and 2<sup>nd</sup> most frequently believed 'myths' – are misconceptions that have been identified as common in other cultures and countries. The most common misconception reported was that 'consuming sugar causes diabetes'. As the authors note, Rai and Kishore (15) report similar findings from India, and an American Diabetes Association survey suggests that roughly 32 % of US Americans believe the same (16). The second most common myth identified in the Saudi study was that 'people with diabetes should avoid sweets'; again, this belief seems to be common among US Americans (16-17). Although perhaps we might forgive some of these 'misconceptions' as misunderstood responses to relatively generalised statements about diabetes, the various studies do probably suggest that education about diabetes is grossly suboptimal regardless of geography. Relatively poor outcomes of diabetes care have been associated with factors

including ineffective education, misconceptions about the condition, lack of support, lack of patient involvement and inadequate knowledge (18, 19). This want of education, and the suggested scale of misconception about the condition, is a public health disaster.

We have recently systematically reviewed the management of type 2 diabetes in the states of The Co-operation Council for the Arab States of the Gulf, and our investigation revealed not a single (reported, audited) public health intervention. Although the situation is less severe in some regions, these studies seem to demonstrate that, quite apart from a need for locally tailored, (culturally-relevant education programmes, there is a need for cross-cultural education at the most basic levels. Certainly, such education may be more successfully delivered if sensitive to local cultural issues, but we are so far *unable* to suggest that with regard to diabetes education, the most efficient way to achieve a reasonably enhanced understanding of the disease and its management would be to design specialised programmes for each of the regions requiring of intervention. This, itself may be another myth.

It is important that we are aware that we – as much as those we aim to de-mystify – are entangled in myths. Myths are born of ignorance. They fill the gaps our knowledge leaves. We are reliant on studies such as those of Sharaf *et al* to demonstrate these gaps.

-----

available from: <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N06/507/87/PDF/N0650787.pdf?OpenElement>  
 3. UAE National Diabetes Committee (2009) National Diabetes Guidelines: United Arab Emirates 2009 [Internet] © Copyright UAE National Diabetes Committee – 2009 [accessed July 2010]. Available from: [http://api.ning.com/files/ea\\*n3CjPcop5Q6](http://api.ning.com/files/ea*n3CjPcop5Q6)

## References

1. Global Risks 2010: A Global Risk Network Report, World Economic Forum, January 2010, © 2010 World Economic Forum.
2. United Nations (2006) Resolution adopted by the General Assembly (61/225) [Internet; accessed October 2010]

- 7eNk7zezTA0YSWmi3W8oaX-u83VXdAuAoVxHEd\*11avY5m2D3oH7iTv88WMPiWgPIetrHBb7Bj4HNFgvF6/NationalDiabetesGuidelinesUAE.pdf
4. The Diabetes Control and Complications Trial Research Group. (1993). "The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus." *N Engl J Med.* 1993 Sep 30; 329(14):977-86.
  5. UK Prospective Diabetes Study (UKPDS) Group (1998) Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). *Lancet.* 353: 837–853.
  6. UK Prospective Diabetes Study (UKPDS) Group (1998) Effect of intensive blood-glucose control with metformin on complications in overweight patients with type 2 diabetes (UKPDS 34). *Lancet.* 352: 854–865. | PubMed | ISI |
  7. Lundman B., Engstrom L., Kallioinen M. Quality assurance in diabetes care; a population-based study. *Practical Diabetes Int* 2001; 18 (4): 126-129
  8. Grant RW, Buse JB, Meigs JB (2005) Quality of Diabetes Care in U.S. Academic Medical Centers: Low rates of medical regimen change. *Diabetes Care.* 28; 337-442.
  9. Wan Q, Harris MF, Jayasinghe UW, Flack J, Georgiou A, et al. (2006) Quality of diabetes care and coronary heart disease absolute risk in patients with type 2 diabetes mellitus in Australian general practice. *Qual Saf Health Care.* 15:131-135.
  10. National Institute for Health and Clinical Excellence (2008) The management of type 2 diabetes (update) (Clinical guideline 66) [Internet]. © 2010 National Institute for Health and Clinical Excellence [accessed October 2010]. Available from: [www.nice.org.uk/CG66](http://www.nice.org.uk/CG66)
  11. World Health Organisation Regional Office for South-East Asia (2007) National Aids Programme Management: Module 4: Targeted HIV prevention and care interventions [Internet] © World Health Organisation 2007 [accessed October 2010]. Available from: [http://www.searo.who.int/LinkFiles/Publications\\_NAP\\_Module\\_4.pdf](http://www.searo.who.int/LinkFiles/Publications_NAP_Module_4.pdf)
  12. World Health Organisation Technical Reference Group (2005) Toolkit for targeted HIV/AIDS prevention and care in sex work settings [Internet]. © World Health Organisation 2005 [accessed October 2010]. Available from: <http://whqlibdoc.who.int/publications/2005/9241592966.pdf>
  13. Sharaf FKH, Naeem Z, Mohaimeed AA, Sawaf MN. Prevailing myths and misconceptions about diabetes mellitus in Qassim region of Saudi Arabia. *Annals of Alquds Medicine* 2010; 6: xx-xx
  14. International Diabetes Federation (2009) IDF Diabetes Atlas, 4<sup>th</sup> ed. (c) International Diabetes Federation, 2009.
  15. Rai M, Kishore J. Myths about diabetes and its treatment in North Indian population. *International journal of diabetes in developing countries* 2009; 29 (3): 129-132.
  16. American Diabetes Association: Multiyear movement rallies Americans to combat rising incidence, common myths of disease that strikes every 20 seconds [internet]. Alexandria VA; 2009 [accessed Oct 2010]. Available from: <http://www.diabetes.org/for-media/2009/america-earns-failing-adm-sd-2009.html>
  17. American Diabetes Association: Diabetes myths [Internet]. [accessed Oct 2010]. Available from: <http://www.diabetes.org/diabetes-basics/diabetes-myths/>
  18. Cooper, H., Booth, K., Fear, S. and Gill, G. (2001) Lessons from chronic disease patient education. *Patient Education and Counselling*, 44, 107–117
  19. H.c. Cooper, K.Booth, G.Gill. Patients' Perspectives on Diabetes Health Care Education. *Health Education Research* 2003; 18 (2): 191-106.

\*Corresponding author: [l.alhyas08@imperial.ac.uk](mailto:l.alhyas08@imperial.ac.uk) .