

Peer support as a strategy for effective management of diabetes in India

Sreedevi Aswathy, Ambika G. Unnikrishnan¹, Sanjay Kalra², Kamalamma Leelamoni

Departments of Community Medicine, and ¹Endocrinology and Diabetes, Amrita Institute of Medical Sciences, Amrita Vishwa Vidyapeetham, Ponnepkara P.O., Kochi, Kerala, ²Department of Endocrinology, Bharti Hospital and BRIDE, Karnal, Haryana, India

THE INCREASING TRIUMPH OF THE DIABETES EPIDEMIC

According to recent estimates, the number of adults living with diabetes in the world has increased to 366 million, representing 8.3% of the global adult population.^[1] Eighty percent of people with diabetes live in low-and middle-income countries,^[1] with India contributing 30 million to the total.^[2] This is expected to increase to nearly 60 million by 2017.^[2] Type 2 diabetes accounts for 80% of all cases of the disease and drives the vast majority of the health and economic burden attributable to diabetes.^[3] Diabetes caused about USD 465 billion in health care expenditures in 2011. The landmark U.N. general assembly in 2011 met to discuss the prevention and control of non-communicable diseases (NCDs). It was pointed out that NCDs are responsible for more deaths than all other causes.^[4]

THE RESOURCE CHALLENGE

Given India's limited resources, it is important for health policy-makers to prioritize their targets, amongst the ever-widening list of health conditions that are important public health problems. As public health experts and endocrinologists, we have to think of the best possible way to tackle metabolic disease. We need health care strategies, which are effective, yet low cost, and which involve all stake holders.

On the surface, India is a resource-poor country. Looking at the health manpower situation in India, there are only 0.60 doctors for 1000 people, 0.8 nurses and 0.47 midwives for 1000 people, which adds up to 1.86 health workers for 1000 people. Moreover, most (73.6%) of the doctors and specialists are in urban areas serving 26.4% of the population.^[5] The health care systems have also evolved around the concept of infectious disease, and they perform best when addressing patients' episodic and urgent concerns.^[6] In this setting, chronic diseases like diabetes, which require continued care, may not receive the attention that they deserve.

An opportunity in a threat!

However, is India really resource poor? Do we not have a large number of people with diabetes and their family members, who can be taught disease-management behavior necessary for improved metabolic control? Yet, in the current context, patients and their families are the most undervalued assets in the health care system.^[6] Given the shortage of medically trained human resources, and the ubiquitous, chronic nature of diabetes, it is imperative to reorient health care of chronic conditions like diabetes around the patient and family. This brings forth a counter-intuitive hypothesis – the very burden of large numbers of subjects with diabetes in India may indeed unlock a solution to the disease itself! This contrarian view would literally translate the old adage that in every threat lies an opportunity.

CHALLENGE OF SELF-MANAGEMENT

Diabetes is a chronic disease and also complex as far as the changes that the individual has to make and as far as learning new skills like monitoring of blood, injecting insulin etc., are concerned. Meeting the needs and demands of individuals with chronic diseases is the biggest challenge for health care providers.^[7] The challenge for patients is how to obtain the necessary skills to effectively manage their diabetes on a day-to-day basis.^[8]

Access this article online	
Quick Response Code:	Website: www.ijem.in
	DOI: 10.4103/2230-8210.107790

Corresponding Author: Dr. S. Aswathy, Department of Community Medicine, Amrita Institute of Medical Sciences, Amrita Vishwa Vidyapeetham, Ponnepkara P.O., Kochi, Kerala, India. E-mail: draswathygopan@gmail.com

The issue of self management is important for those with chronic disease, as it is they who are responsible for day-to-day management. Self management requires access to a variety of resources, including services provided by professionals and support for the initiation and maintenance of healthy behavior from lay experts.^[9] Therefore, it is important to develop and evaluate low-cost strategies that build on available resources to empower patients.^[6] In India also, the need to involve the patients as active educated partners in their management has been understood.^[10] Patients with an acute disease need only to seek good care and comply with a short-term treatment plan whereas patients with a chronic illness have no cure. They only seek to have treatment goals that are managing symptoms and adapting to change for an optimal quality of life.^[11] A study on determinants of medical outcomes in USA showed that it was the patient-related factors that were responsible for variability of HbA1c to the extent of 98%,^[12] which again emphasizes the unique and valued outcome of behavioral change, which requires time and then must be maintained for a lifetime.^[8]

A POTENTIAL SOLUTION

Growing evidence from around the world suggests that when patients receive effective treatments, self-management support and regular follow-up, they do better.^[6] Evidence also suggests that optimal outcomes occur when there is a partnership among patients and families, health care teams and community supporters.^[6] If this takes the form of empowerment at the community level by a group of lay people who can provide experiential support, it has the potential of helping people to adopt suitable behavior for the control of diabetes. It is in this light that we write this editorial on the potential of peer support in the management of diabetes.

PEER SUPPORT

What is peer support? Peer support has been defined as the support from an individual with experiential knowledge based on a sharing of similar life experiences or prevention plans in daily life.^[13] In simple words, people with diabetes could be chosen to educate other patients with diabetes. The role of a peer supporter is in assisting day-to-day disease management, providing emotional and social support, linkages to clinical care and a proactive, flexible attitude towards fellow patients.^[14] Peer support is an alternative for empowering the patient, which has been tried out in the Western countries as a means to reinforce self management i.e., the lay experts. WHO has acknowledged peer support as a low cost, flexible intervention with promise, though further studies are necessary to understand the various ways in which it can be used.^[15] There are many models

of peer support; face-to-face self-management program, peer leaders/coaches/mentors, community health workers, telephone-based peer support and web-and email-based peer support.^[16] Effective self management can often be short lived.^[17] Peers can provide leadership and can serve as role models for sustained behavioral change.^[18] A long-term peer support program, supported by public policy and assisted with a sustainable revenue model could certainly provide value to patients with diabetes.

The evidence for peer support

Peer advisers in diabetes in United Kingdom were found to be effective in the provision of one-to-one psychosocial support and advice on self management. Peer support may provide the vital link that converts conventional, passive treatment into a dynamic, active patient empowerment that inspires the patient to self management, in partnership with the health care provider.^[19] If studies prove the effectiveness of peer groups in India, the future may see the emergence of a Diabetes Peer Support Program that is actively implemented in the community.

As an example of how peer support was effective in bringing about desirable change in HbA1c and lipid profile is the Mexican-American study.^[20] Here the natural leaders from among the patient population were trained. Awareness of the myths, beliefs and cultural remedies in vogue helped them to tackle the cultural beliefs that interfered with optimum self management. There was a significant decrease in HbA1c by the fourth month (-1.7% , $P=0.001$) and this was maintained at the 10th month also, though in the control group HbA1c decreased between baseline and 4th month and values regressed back towards baseline by 10th month.^[20] Similarly a reciprocal peer support also reported better HbA1c levels as compared to the other group.^[18] Some other studies have not had an effect in reducing HbA1c.^[21-23] A cluster randomized study in UK found it feasible to implement a peer-support system though it was not found to be useful in improving biophysical and psychosocial outcomes,^[24] indicating that further research is necessary. In our country too, using appropriate community-based resources, it might be possible to emulate the success achieved by developed nations in chronic disease self management.

BIDIRECTIONAL BENEFITS

In addition to studies examining the effectiveness of peer support on the recipient of the intervention, there is literature on the effects for the provider (i.e., the peer supporter). There are beneficial effects of being a peer supporter, or providing support to other individuals diagnosed with a similar condition.^[25,26]

Higher levels of social support are associated with better chronic care.^[18] In India with its strong cultural and social fabric, the support that a sick person gets is extraordinary. This can at times be a burden if the perceptions of the visitors are colored by illiteracy, myths etc., To the knowledge of the authors, experiential support has not been considered as a form of support to patients with diabetes in India. It is probably the right time we considered this after according appropriate training to these expert patients. Many a times we come across knowledgeable patients who have understood their disease process and are coping well with it. The expertise of these patients could be utilized by making them into peer-support leaders, after imparting a short and formal training. It is time to ascertain the clinical benefits of such a program. However, a cautionary note – there should be an ongoing program for evaluation and monitoring of the work done by the peer-support team in close coordination with the health care provider. Finally, periodic re-training and continuing health education programs are important to empower these patients, so that they can impart top-class diabetes education. The legal, economic and regulatory implications for the functioning of such a program should also receive a careful assessment before its wider adoption and implementation.

SUMMING UP ON PEER SUPPORT FOR DIABETES

Thus, we suggest that peer/community support can be a candidate for community-based management programs in tackling the burden of type 2 diabetes. It is increasingly important to develop and evaluate low-cost interventions like these, as they build on available resources and can empower patients for better self management and behavioral change.^[16] Peer/community support is a potential intervention that is not resource intensive. If studies prove the effectiveness of peer group, the future may see the emergence of a Diabetes Peer Support Program that is actively implemented in the community.

REFERENCES

1. International Diabetes Federation. IDF Diabetes Atlas, 5th ed. Brussels, Belgium: International Diabetes Federation; 2011. Available from: http://www.idf.org/diabetes_atlas. [Last accessed on 2012 Oct 1].
2. Kutty BM, Raju TR. New vistas in treating: Insight into a holistic approach. *Indian J Med Res* 2010;131:606-7.
3. Tom Y, Melanie JD, Peter EH, Kamlesh K. Diabetes prevention-a call for action. *Indian J Med Res* 2011;134:579-82.
4. Available from: <http://www.un.org/en/ga/ncdmeeting2011/>. [Last accessed on 2011 Jul 30].
5. Govt. of India, Annual report 2005-06. Ministry of Health and Family Welfare. Mohfw, Goi. New Delhi: 2006.

6. WHO. Innovative care for chronic conditions. Building blocks for action. Global report. WHO, Geneva. 2002.
7. Wagner EH, Austin BT, Davis C, Hindmarsh M, Schaefer J, Bonomi A. Improving chronic illness care: Translating evidence into action. *Health Aff* 2001;20:64-78.
8. Margaret MC, Colin PB, Tony OS, Ivan JP. Self care strategies in people with diabetes: A qualitative exploratory study. *BMC Endocr Disord* 2009;9:6.
9. Fisher EB, Brownson AC, O'Toole ML, Shetty G, Anwur VV, Glasgow RE. Ecological approaches to self-management: The case of diabetes. *Am J Public Health* 2005;95:1523-35.
10. Kalra S, Unnikrishnan AG, Skovlund SE. Patient empowerment in endocrinology. *Indian J Endocrinol Metab* 2012;16:1-3.
11. Paula S, Dori S. Shifting to the chronic care model may save lives. *Nephrol News Issues* 2008;22:28,30,32.
12. Peter WT, Martina M, Leonard EE. Estimating physician effects on glycaemic control in the treatment of diabetes. *Diabetes Care* 2008;31:869-73.
13. Dennis CL. Peer support within a health care context: A concept analysis. *Int J Nurs Stud* 2003;40:321-32.
14. Renee IB, Edwin BF. Peers for progress: Promoting peer support for health around the world. *Fam Pract* 2010;27:i62-8.
15. Peer Support Programmes in Diabetes. Report of a WHO consultation, 5-7 November 2007. Geneva: World Health Organization, 2008:41. Available from: http://www.who.int/diabetes/publications/Diabetes_final_13_6.pdf. [Last accessed on 2012 July, 20]
16. Michele H. Overview of peer support models to improve diabetes self: Management and Clinical outcomes. *Diabetes Spectr* 2007;20:214-21.
17. Fisher EB, Boothroyd RI, Coufal MM, Baumann LC, Mbanya JC, Rotheram-Borus MJ, *et al.* Peer support for self-management of diabetes improved outcomes in international settings. *Health Aff* 2012;31:130-9.
18. Heisler M, Vijan S. Peer support: An inexpensive, effective approach to diabetes management. Diabetes control with reciprocal peer support vs Nurse care management: A randomised trial. *Ann Intern Med* 2010;153:507-15.
19. Bakshi A. Experiences in peer to peer training in diabetes mellitus: Challenges and implications. *Fam Pract* 2010;27:140-5.
20. Athena PT, Adelaide F, Chris W, Linda CG, Leticia LO. Peer led diabetes education programs in high risk Mexican Americans improve glycaemic control compared with standard approaches. *Diabetes Care* 2011;34:1926-31.
21. Lorig K, Ritter PL, Villa FJ, Armas J. Community based peer-led diabetes self management: A randomised trial. *Diabetes Educ* 2009;35:641-51.
22. Norris SL, Chowdhury FM, Van Le K, Horsley T, Brownstein JN, Zhang X, *et al.* Effectiveness of community health workers in the care of persons with diabetes. *Diabet Med* 2006;23:544-56.
23. Bakshi AK, Al-Mrayat M, Hogan D, Whittingstall E, Wilson P, Wex J. Peer advisers compared with specialist health professionals in delivering a training programme on self management to people with Diabetes: A randomised controlled trial. *Diabet Med* 2008;25:1076-82.
24. Smith SM, Paul G, Kelly A, Whitford DL, Shea EO, Dowd TO. Peer support for patients with type 2 diabetes: Cluster randomised controlled trial. *BMJ* 2011;342:d715.
25. Schwartz CE, Sendor M. Helping others help oneself: Response shift effects in peer support. *Soc Sci Med* 1999;48:1563-75.
26. Arnstein P, Vidal M, Wella-Federman C, Morgan B, Caudill M. From chronic pain patient to peer: Benefits and risks of volunteering. *Pain Manag Nurs* 2002;3:94-103.