

# The Existing Model and Future Directions in Diabetes Patient-Education

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Studies both in advanced societies and developing nations indicate a high prevalence of diabetes. They also indicate a rising trend. Patient education constitutes a major component of the treatment of diabetes mellitus.

Modern medicine and scientific research has led to an explosion of knowledge in the field of diabetes. It is the transfer of this knowledge to the individual with diabetes, that the education is all about. This depends on effective educational programmes and well trained diabetes educators.

The importance of patient education has been known and emphasized as early as the late eighteenth century. In the early 1920's Dr. E. P. Joslin stated that the diabetic who knows the most lives the longest. According to the WHO "Education is the corner-stone of diabetic therapy and vital to the integration of the diabetic into society". Both these statements have proved to be right over the years. Many patient education programmes are implemented in developed societies [1,2]. According to Jarvell, education is as important as insulin, oral drugs and proper food for people with diabetes[3].

The educational approach has undergone a change from the traditional, authoritative prescribing to a more informal, interactive type [4]. The diabetic plays an active role and is able to make decisions, learn practical skills for the treatment and be continuously involved in the day to day management of diabetes.

There are a number of studies which have demonstrated how diabetes education can promote selfcare, metabolic control and emotional well being[5]. Besides knowledge and self care, education can bring about long term cost benefits. Studies by Miller and Goldstein[6], Davidson[7] and Assal[8] have shown how education has helped in the reduction of foot problems, hospitalizations and amputations.

The diabetes education programmes should be combined with counseling and psychological intervention if they are to be really effective. According to Keith Nicholas, psychological care will enhance educational and medical

intervention[9]. Behaviour oriented patient education has been shown to be more potent than just didactic lectures[10].

There are a few studies from India which have highlighted the effectiveness of patient education. One study done on NIDDM, diverse in socio-economic status, literacy and language showed that there was not only a gain in knowledge but also improvement in HbA1 and diet adherence on follow up in the study group[11].

Another study assessed the background knowledge of diabetes mellitus in diabetic patients. This study gave an insight into the areas of diabetes related knowledge which need to be strengthened [12]. A prospective study on children with IDDM and their family members showed that knowledge systematically provided would be retained and consolidated. Knowledge and practical skills improved on follow up which was attributed to the experience gained[13].

There are specific challenges in patient education in the developing societies [14]. High rate of illiteracy, low socio-economic status, multilingual, multiethnic social conditions, and superstitions pose a distinct challenge in developing a single format of education content and delivery. The problem is felt more in the delivery aspect of educational programme.

Over the years we at the Diabetes Research Centre, Chennai have developed a structured education programme. This programme is available for the out-patients as well as the in-patients.

The in-patients and their attendants are met individually. Individualised diet service during their stay in the wards, diet counseling, group discussion, exercise programme and in-house video programmes are provided during their stay. This enables them to develop practical skills.

At the out-patient department the patients are first exposed to a formal didactic lecture. The family members of the diabetic subjects are also advised to attend this. This is important when there are children with IDDM, where the parents need to be educated.

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The didactic lecture is done in two languages – the local language and English. Various aspects of diabetes are clearly discussed. Visual aids (slides) and the black board are routinely used for effective communication. The lecture is followed by a question and answer session during which a free flow of discussion is allowed.

After this, there are special sessions for training in insulin injection techniques, glucose monitoring and foot care. Individualized counseling is also done on a one-to-one basis in the diet department.

All the sessions are conducted by qualified dieticians and patient educators who have undergone training at the centre. From our experience we have learnt that training of patient educators involves a number of aspects, such as recruitment of personnel with an appropriate aptitude and potential to develop teaching skills. Besides knowledge, the educator should also possess, some other qualities like pedagogic abilities, communication skills and motivating skills.

Training materials should include all aspects of diabetes mellitus and can be imparted through lectures and practical exercises.

The diabetes population as indicated by epidemiological studies, is ever increasing. The diabetics in our country live not only in big cities but also in small towns and villages. Majority of them do not have access to specialized centres, where proper diabetes education programmes are available today. Therefore, the ideal programme should be one that takes diabetes education to every single diabetic in India. Although, this is not easily achievable, there is an urgent need to develop a structured diabetes educators' training programme and train a large number of diabetes educators.

Our aim is that diabetes education should fulfill certain objectives and the diabetic should be able to

1. Understand diabetes and its management.
2. To develop practical skills and be able to analyse and relate facts, make decisions and take appropriate action. eg. adjusting insulin dosage or making the right food choices.
3. To develop a positive attitude and have self confidence.
4. To be able to live a healthy and active life by reducing hospitalization due to complication of diabetes.

## REFERENCE

1. Krousbein P, Schoiz v. Muhihanser I, Jorgens V. Treatment and education of NIDDM in the practice of physician. *Diab. Res. Clin. Pract.* XII Congress of IDF Ab 830, P 320.
2. Beggon Mp, Cregan D, Drurry MI. Assessment of the outcome of an educational programme of diabetes self-care. *Diabetologia.* 1982;23:246-51.
3. Jarvell J. Education is as important as insulin, oral drugs and proper food for people with Diabetes. *Practical Diabetes Int.* 1996;13 : 142.
4. Assal JP. The Diabetes Educational study Group of the European Association for the study of Diabetes: 15 years devoted to improving patient management. Geneva:Diabetes Education Study Group of EASD, 1994.
5. Rubin RR, Peyrot M, Saudek CD. Effect of Diabetes Education on self care, metabolic control and emotional well being. *Diabetes Care.* 1989; 12 : 673-9.
6. Miller LV, Goldstein BA. More efficient care of diabetic patients in a country hospital setting. *N. Engl J Med* 1972; 286 : 1388-91
7. Davidson JK ed. *Clinical Diabetes Mellitus.* Stuttgart : Thieme, 1991.
8. Assal JP, Albeanu A, Peter-Riesch B, et al. Cout de la formation du patient atteint d'un diabetes sucre: effect sur la prevention des amputations. *Diabete Metab* 1993;31 : 307-13.
9. Nichols K. Diabetes education and psychological care. *Practical Diabetes International.* 1996; 13 : 83-5.
10. Mazzuca SA et al. The Diabetes Education Study; a controlled trial of the Effects of Diabetes Patient Education. *Diabetes Care.* 1986; 9 : 1 – 10.
11. Shobhana R, India P, Ramachandran A, Mohan V, Premila L, Viswanathan M. Effectiveness of patient Education in a multilingual, multiliterate population *J. Med. Ass. Thailand.* 1987; 70 : 219-22.
12. Shobhana R, Premila L, Shyamala P, Mohan V, Ramachandran A, Viswanthan M. Assessment of background knowledge of diabetes mellitus in diabetic patients. *Jour. Diab. Assoc. India.* 1987 ; 29 : 70-3.
13. Shobhana R, Rama Rao P, Vijay v, Snehalatha C, Ramachandran A. Diabetes Education session for young IDDM probands and their family members in a developing country. An evaluation *Pract. Diabetes Int.* 1997; 14 : 123-5.
14. Ramachandran A, Mohan V. Shobhana R and Viswanathan M. Challenges in patient education in India, *IDF Bulletin* 1985; 30 : 18.