



The awareness levels, attitude and perception of people about diabetes

Chaudhary Muhamamd Juniad Nazar^{1*}, Armughan Ahmed², Muhammad Hammad Akhtar², Nadia Kareem³

Introduction

The British South-Asian people show poor level of knowledge in diabetes and have been discouraged to join educational sessions (1). These clear findings have resulted from a descriptive randomized control trial conducted by Hawthorne (1) in order to evaluate the effect of health education on the control of blood glucose level and knowledge of diabetes in British-Pakistani women with type 2 diabetes mellitus. This investigation was carried-out during 6 months. Two hundred people participated in this study. Interview questionnaires were asked to complete to the participants and also their blood samples were taken for measurement of HbA1c level at the beginning and the end of study. Topic guide was used for the focus group discussion and questions related to diabetic diet, diabetic complications, monitoring glucose level and services provided by diabetic clinics. Results of this investigation indicated, a significant change in knowledge and improvement in glycaemic control in intervention group. Men showed more improvement than women. Also literate women showed more improvement than illiterate women. Similarly, a qualitative study conducted in order to discover the experience and attitudes of primary care diabetic patients residing in a UK South-Asian community with most of the patients of Indian origin (2). Semi-structured interviews were carried out on the participants. The participants were recruited from two general practitioner practices in Leicester. The study involved 20 diabetic patients. 15 South-Asians (6 men and 9 women) and 5 Caucasians (3 men and 2 women) with one patient with type 1 diabetes and 19 type 2 diabetic patients. Results of the study indicated that, the South-Asian patients faced problems regarding diet aspect and showed little learning regarding diabetes, and were discouraged to join educational sessions. Strong family provide emotional support for participants, especially, patients who are native in South-Asia. South-Asian community seems to be at risk of health related anxiety and depressive illness as these participants were found to consult less frequently for anxiety and depressive. The study agreed with this as he conducted a cross sectional study to evaluate patient, and provider, reported psychosocial problems and bar-

■ Implication for health policy/practice/research/medical education

The British South-Asian people show poor level of knowledge in diabetes and have been discouraged to join educational sessions. Mild and severe hypoglycemia were seen less frequently in insulin-treated type 2 diabetes than have been reported previously in type 1 diabetes, the risk of hypoglycemia had positive relation with duration of diabetes and insulin therapy. Although impaired awareness of hypoglycemia was uncommon, it was associated with a higher incidence of severe hypoglycemia.

■ **Keywords:** Diabetes mellitus, Hypoglycemia, Hyperglycemia

riers to improved diabetes management. Face to face or telephone interviews were conducted with patients for diabetic patients and health care suppliers (3). Interviews were conducted in 13 countries belongs to Asian, Australian, European and North-American countries. The participants were randomly selected and were divided into three samples. First sample consisted of 5104 patients with type1 or type 2 diabetes. Second sample consisted of 2705 physicians (endocrinologists and diabetologists) and the third sample consisted of 1122 nurses. Forty percent of patients were experiencing psychological problems, however only 10% and 12% of patients with type 1 and 2 diabetes mellitus, respectively, were treated for this reason in the last 5 years. 60%-70% of providers reported psychological problems (including depression stress and anxiety) in their diabetic patients and 65%–75% providers informed that psychological problems in diabetic patients affected diabetes regimen adherence. 50%-69% of suppliers were able to identify psychological disorder and assess psychological needs while 40%-60% of them were able only to meet these needs and 40%-45% health care providers were able to identify as well as meet these needs. Results of the study indicated that diabetes-related distress and psychological problems are common among people with diabetes (2,3). The study suggested that many involved providers in the study were aware of the diabetes related psychological problems but did not have their self-confidence to evaluate these problems and to support these patients.

Received: 19 January 2016, Accepted: 12 February 2016, ePublished: 15 February 2016

¹Department of Nephrology, Shifa International Hospital, Islamabad, Pakistan. ²Department of Nephrology, Pakistan Institute of Medical Sciences, Pakistan. ³Department of Community Medicine, Nawaz Sharif Medical College, Pakistan.

*Corresponding author: Chaudhary Muhamamd Juniad Nazar, Email; dr.cmjnazar@live.co.uk

A study conducted to explore the awareness level and attitude of general practitioners regarding to impaired glucose tolerance in this study. The 26 (18 male and 8 female) general practitioners were recruited for focus groups from primary care centres in North-East of England. Eight participants (6 men, 2 women) were selected from a health authority for the semi structured interview (4). Before each focus group and semi structured interviews, participants completed a questionnaire that made to evaluate their knowledge of the clinical significance and prevalence of impaired glucose tolerance. The results of the study indicated that 16 out of 34 (47%) participants have not being aware of the risk of impaired glucose tolerance, leading to type 2 diabetes, and 21 participants have not being aware of the high risk of cardiovascular disease with impaired glucose tolerance. In addition, about 50% of the participants have no idea of number of patient with pre-diabetic hyperglycemia registered with their practice, and 13 participants predicted the prevalence of pre-diabetic hyperglycaemia to be less than 1%. Also, the general practitioners were uncertain about managing and following up of these patients. Similarly Henderson et al (5), conducted a retrospective cohort study with the aim to determine incidence of hypoglycaemia during the preceding year in people with insulin-treated type 2 diabetes, and to determine how much low awareness of hypoglycemia have importance in these patients. A total of 215 people attending outpatient clinic of department of diabetes, royal infirmary of Edinburgh, were included in this study. 157 (73%) of them had experienced hypoglycemia since commencing insulin, the frequency of which increased with duration of diabetes and of insulin therapy.

Conclusion

Of the 157 people with a history of hypoglycemia, only the 13 (8%) individuals have history of decreased awareness of hypoglycemia, had experienced a nine-fold higher incidence of severe hypoglycemia than those with normal

awareness. Thirty-two individuals (nearly 15%) had experienced 60 episodes of severe hypoglycemia, while hypoglycemia incidence for the entire groups were estimated 0.28 episodes/ patient/year. Mild and severe hypoglycemia were seen less frequently in insulin-treated type 2 diabetes than have been reported previously in type 1 diabetes, the risk of hypoglycemia had positive relation with duration of diabetes and insulin therapy. Although impaired awareness of hypoglycemia was uncommon, it was associated with a higher incidence of severe hypoglycemia.

Authors' contribution

The authors contributed to the manuscript equally.

Conflicts of interest

The authors declared no competing interests.

Ethical considerations

Ethical issues (including plagiarism, data fabrication, double publication) have been completely observed by the authors.

Funding/Support

None.

References

1. Hawthorne K. Effect of culturally appropriate health education on glycaemic control and knowledge of diabetes in British Pakistani women with type2 diabetes mellitus. *Health Educ Res.* 2001;16:373-81.
2. Stone M, Pound E, Pancholi A, Farooqi A, Khunti K. Empowering patients with diabetes: a qualitative primary care study focusing on South Asians in Leicester, UK. *Fam Pract.* 2005;22:647-52.
3. Peyrot M, Rubin RR, Lauritzen TF, Snoek JD, Matthews R, Skovlund SE. Psychosocial problems and barriers to improved diabetes management: results of the Cross-National Diabetes Attitudes, Wishes and Needs (DAWN) Study. *Diabetic Med.* 2004;22:1379-85.
4. Wylie G, Hungin AP, Neely J. Impaired glucose tolerance: qualitative and quantitative study of general practitioners' knowledge and perceptions. *BMJ.* 2002;324:1190.
5. Henderson GC. The diabetic brain during hypoglycemia: in the midst of plenty of lactate. *Diabetes.* 2013;62:3024-6.

Please cite this paper as: Nazar CMJ, Ahmed A, Akhtar MH, Kareem N. The awareness levels, attitude and perception of people about diabetes. *J Renal Endocrinol.* 2016;2:e01.

Copyright © 2016 The Author(s); Published by Nickan Research Institute. This is an open-access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.