

The Development of a Dietary Resource for Black, Asian and Minority Ethnic Communities in the UK to Facilitate the Improved Understanding of the Carbohydrate Content of their Traditional Foods

J St John¹ and Salma Mehar^{2*}

¹GP with Special Interest in Diabetes

²Diabetes Specialist Dietitian, Northwest London Diabetes Transformation Programme

*Corresponding author:

Salma Mehar, Consultant Dietitian, NW London Diabetes Transformation Programme Strategy and Transformation Team, NHS North West London Collaboration of Clinical Commissioning Groups 3rd Floor, 15 Marylebone Road, London, NW1 5JD, UK

Submitted: 01 Feb 2020; Accepted: 05 Feb 2020; Published: 17 Feb 2020

Abstract

Diabetes is a national and global health issue. Dietary information is fundamental to the information that a person living with Diabetes needs in order to self-manage their condition. Carbohydrates are the food group that can exert the maximum effect on the blood glucose levels and so it is important for people living with Diabetes to have awareness of the carbohydrate content of the food that they are eating.

Black Asian and minority ethnic (BAME) Communities are at increased risk of developing Type 2 Diabetes, they develop it at a younger age and so are more exposed to the disease burden of this condition, being more at risk of the complications associated with Diabetes.

A comprehensive, culturally relevant food resource illustrating the carbohydrate content of traditional foods eaten by BAME communities did not exist and so these communities that are at increased risk of Type 2 Diabetes did not have access to the same information as the wider population living with Diabetes in the UK. Two healthcare professionals working in diabetes clinics in Northwest London aimed to address this discrepancy and designed culturally relevant booklets demonstrating the carbohydrate content of traditional foods illustrated as sugar spoons to give a simple, visual representation of the carbohydrate content of the traditional foods. A pilot study of this newly designed dietary resource was conducted with the aim of examining if use of this resource improved the participants knowledge, understanding and ability to estimate the carbohydrate content of commonly eaten traditional foods.

Use of the booklet resulted in improved knowledge, understanding and ability to estimate the carbohydrate content of traditional foods eaten by BAME participants attending a diabetes Clinic in Northwest London. Demonstrating that the use of a culturally specific intervention resulted in improvements for BAME communities with Type 2 Diabetes.

Introduction

Identifies the aim of the research

Diabetes is a major National and Global health challenge. The prevalence in England in 2013 over 4% and it has been rising since the later part of the 20th Century [1]. People from the Black, Asian and minority ethnic (BAME) populations are up to six times more likely to develop Diabetes compared to their Caucasian contemporaries, which meant that BAME communities comprised a significant proportion of the people living with, and at risk of developing Diabetes in England [2].

Dietary advice is fundamental to the guidance given to someone at the diagnosis of Diabetes or Non-diabetic Hyper glycaemia (NDH), and

continues to underpin the ongoing management of these conditions. It can help to prevent, or delay the onset of Diabetes in those who are at risk of developing the condition and also aids in the control of the condition [3, 4]. The traditional food of BAME communities has a tendency to contain a preponderance of Carbohydrates and this is the food group that can exert the maximum effect on blood glucose levels [5].

The risk of complications of Diabetes is increased in Black Asian and Minority Ethnic (BAME) groups. A cross-sectional study conducted in North-West London for over twenty years, has found that African and Caribbean and South-Asian people with Diabetes are 2.5-3 times more likely to suffer with Strokes, than their Caucasian counterparts

who also have Diabetes; and in the South-Asian population, there is also an excess risk of coronary heart disease [6].

Given the increased prevalence, incidence, morbidity and mortality of Diabetes in these communities, it is vitally important that healthcare professionals ensure that the advice given to people with Diabetes from the BAME Communities is both relevant and appropriate. The NICE (National Institute for Care and Excellence) guidance's for Diabetes has repeatedly recognised the importance of personalised, culturally relevant and culturally specific interventions in any health promoting activities to maximise patient self-efficacy and empowerment and also improve clinical outcomes. A review of culturally competent interventions found that "any structured intervention, tailored to ethnic minority groups by integrating elements of culture, language, religion and health literacy skills, produced a positive impact on a range of patient-important outcomes" [7].

Two Healthcare professionals working with minority Ethnic groups identified a lack of culturally relevant dietary resources for BAME communities living with, or at risk of developing Type 2 Diabetes and worked to develop an educational, pictorial, dietary booklets for people from BAME groups. The aim was to inform the communities about the Carbohydrate content of the traditional foods that they were eating and to enable them to make informed food choices.

Methods

Describes the methods applied, study design and the all the details regarding the selection and of the participants of the study

This pilot project involved the development and design of culturally relevant booklets with information about the carbohydrate content of foods commonly eaten by 3 BAME communities who were the most prevalent in attendance at a diabetes clinic in Northwest London. The Carbohydrate content of the foods in the booklet was represented as the sugar spoons equivalents, to enable the participants to have a simple visual representation of the Carbohydrate content of commonly eaten foods with the aim of trialing this method to see if it enabled a better understanding and knowledge of the carbohydrate content of the food. Three culturally specific dietary booklets were designed and based on Gujarati, Caribbean and Pakistani foods and formed the basis of the dietary instructions and the intervention.

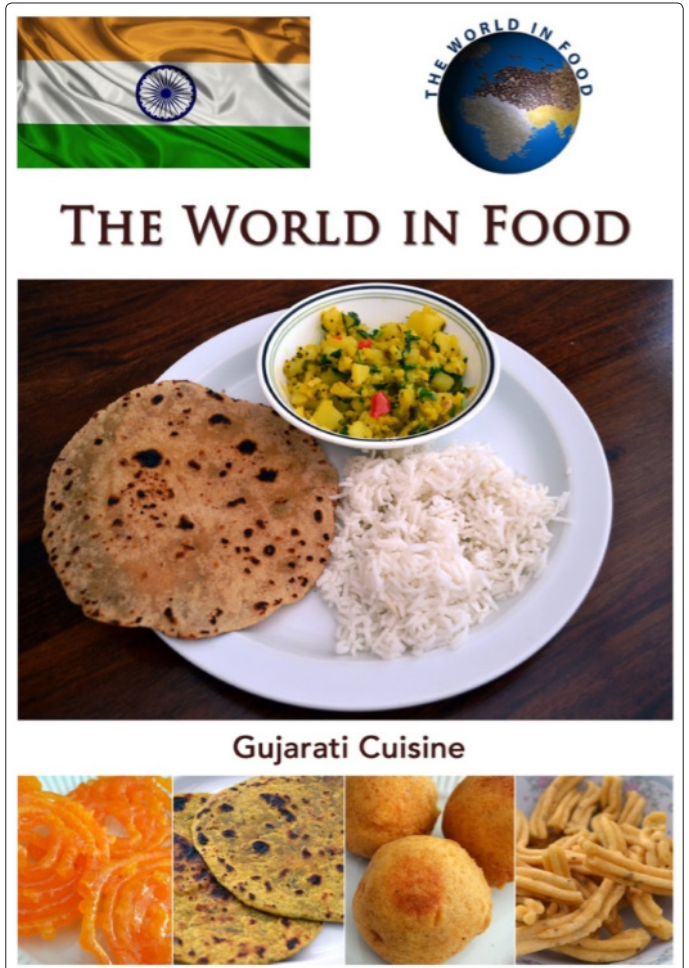
The participants were adults with Type 2 Diabetes, diagnosed within the previous 6years and attending an intermediary, integrated diabetes Clinic in North West London between February and March 2017 who were invited to participate in the pilot study. A questionnaire was administered by researchers before, and after the participants appointment with a Dietician. The intervention involved the Dietician using the picture based, culturally relevant, newly designed booklet depicting foods commonly eaten by these (BAME) communities. Data was analyzed using IBS SPSS statistics version 24. We employed McNemar statistical test to test for the difference in responses pre, and post the intervention

Results

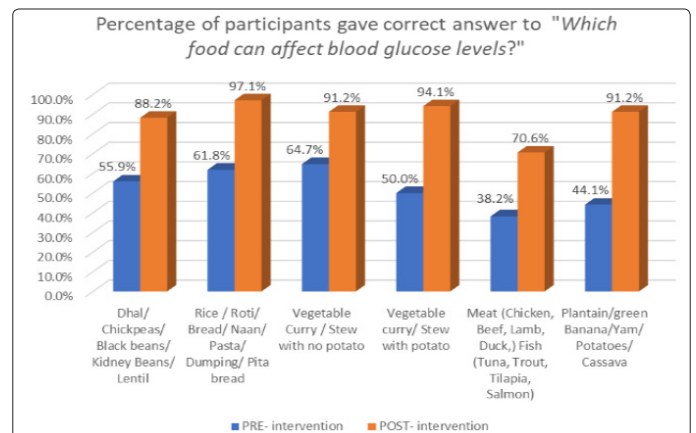
Provides information regarding the results of the research

There were 34 participants of a Black, Asian or minority ethnic origin included in the Study (Chart 1). The majority (52.9%) of the participants did not recall receiving any dietary education prior to their attendance at the clinic. In 76.5%, of those that had received dietary education, this had not been culturally relevant. The results

showed a consistently statistically significant improvement in the understanding of Carbohydrates in BAME people with Type 2 Diabetes (Chart 1). Their knowledge of the culturally relevant, carbohydrate foods that can affect blood glucose was significantly improved by the dietary intervention. There was significant improvement in the participants ability to recognise Carbohydrate foods and to estimate how much Carbohydrate is in the food or snacks they commonly eat following the intervention.



Appendix 1: Image of the prototype for the World in Food – Gujarati



Appendix 2: Chart 1

are needed to ascertain how using a tool such as this resource, that illustrated the carbohydrate content with a simple representation of the carbohydrate content, would aid the understanding of the Carbohydrate content of food for the wider majority community living with Diabetes and how it would impact their self-management of their condition.

References

1. Key facts Diabetes; <http://www.yhpho.org.uk/default.aspx?RID=185796>.
2. Health and Social Care Information Centre (2006) Health Survey for England 2004: health of ethnic minorities 2006: 72.
3. Diabetes Prevention Program Research Group (2002) Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *N Engl J Med* 346: 393-403.
4. Diabetes Prevention Program Research Group (2009) 10-year follow-up of diabetes incidence and weight loss in the Diabetes Prevention Program Outcomes Study. *Lancet* 374: 1677-1686.
5. G Leung, S Stanner (2011) Diets of minority ethnic groups in the UK: influence on chronic disease risk and implications for prevention. *Nutrition Bulletin* 36: 161-198.
6. Tillin T, Forouhi NG, McKeigue PM, Chaturvedi N (2006) The Role of Diabetes and Components of the Metabolic Syndrome in Stroke and Coronary Heart Disease Mortality in U.K. White and African-Caribbean Populations. *Diabetes Care* 29: 2127-2129.
7. P Zeh, HK Sandhu, AM Cannaby, JA Sturt (2012) The impact of culturally competent diabetes care interventions for improving diabetes-related outcomes in ethnic minority groups: a systematic review. *Diabetic Medicine* 29: 1237-1252.
8. Mehar S, St John J, Cheyette C, Balolia Y (2019) *Carbs & Cals WORLD FOODS*. 1st ed. Gt Britain. Chello Publishing Limited.

Copyright: ©2020 Salma Mehar. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.