

Diabetes in the Vulnerable Population

Chair: *Sheerin Eyre*

Issues in the Management of Diabetes in Youth of Three Caribbean Countries: The Caregivers' Perspective

Shelly McFarlane¹, Owen Bernard², Anthony Castillo³, Claudin Mathurin⁴, Marshall Tulloch-Reid¹

¹*Epidemiology Research Unit, Tropical Medicine Research Institute, The University of the West Indies, Kingston, Jamaica, ²Diabetes Association of Jamaica, ³Belize Diabetes Association and ⁴St Lucia Diabetes and Hypertension Association*

Background: The Management of Diabetes in Youth (MODiYouth) is a World Diabetes Foundation (WDF) funded project that focusses on issues affecting the optimal management of diabetes in youth aged 0–24 years in Jamaica, Belize and St Lucia. As part of its mission to establish a database of youth (0–24 years) with diabetes in Belize, St Lucia and Jamaica, develop culturally appropriate guidelines for the management of diabetes in Caribbean youth and to help provide better support for youth with diabetes, we wanted to learn more about the impact of diabetes on the lives of those affected by the disease and their caregivers.

Method: Six focus group discussions were conducted in Belize, Jamaica and St Lucia at the beginning of the project and at the end of the first year. Structured guides for the caregiver, the child and the young adults were used to direct the discussions.

Results: The caregivers reported having a relative with diabetes, so the condition was not unfamiliar to them; however, the diagnosis of diabetes in the child still came as a shock as they thought diabetes was “an old man’s disease”. The family structure had to be adjusted to deal with meal changes, work related disruptions and increased expenditures for the household. Caregivers believed that their child had to be treated differently which impacted the behaviour of the youth. Children reported that they could not talk to their caregiver about their condition and felt isolated, “different and hopeless”. They did not feel they would live to be normal adults. The changes in lifestyle for both the caregiver and youth caused increased tension and stress in the household making it difficult to maintain the balance in management needed.

Conclusions: Diabetes was stressful in both the youth with diabetes and their caregivers. A structure that supports the family as a unit could help to alleviate the impact of diabetes on the family.

Expanding Diabetes Care for the Elderly in Small Caribbean States: A Cayman Islands Pharmacy-based Initiative

Todd Jefferson, David Pellow

Cayman Pharmacy Group, Cayman Islands

The Cayman Islands has a population of approximately 55 000 persons. The prevalence rate for diabetes is 43 per 1000. The Professional Pharmacy in Grand Cayman instituted a Diabetes Education Service for its clients that is led by a Clinical Pharmacist. Internationally, pharmacy-led interventions or clinics for persons with chronic illnesses have been shown to improve that quality of life of these persons in a cost-effective way. The Cayman Islands initiative includes medication delivery and counselling and diabetes education classes that address the four core pillars of self-management: monitoring, medication, nutrition and activity. The programme’s key goal is to empower the patient to become actively involved in the management of the chronic illness and to gradually make sustainable lifestyle and behaviour changes which reduce the risk of diabetes complications and co-morbidities.

The preliminary results to date are promising: clients have reported improvements in knowledge and behavioural changes across the four pillars of diabetes self-management. This fledgling effort is to be expanded with monitoring and evaluation services provided by the College of Health Sciences, University of Technology, Jamaica through its Health Research Translation Unit (HERTU). This collaboration between the private sector and academia is a good model for sharing resources, marketing the expertise within the University and providing value added services to private entrepreneurs who wish to improve or refine their health services. Ultimately, the users of health services will benefit.

The Downward Spiral – Diabetes and the Low Level Literate Adult Population

Ellen Campbell-Grizzle

Diabetes education is a critical component of disease management. The most compliant patients understand the nature of their illness and the extent to which adherence to medication regimen, testing and lifestyle changes are critical to successful disease outcomes. The capacity to understand information given by healthcare providers using written or oral communication is deterred by poor levels of patient literacy. Although healthcare professionals might assume that explanations given to patients and caregivers are understood, low level literate adults are particularly challenged to decode such health instructions. Faulty actions with fatal consequences have ensued. This paper is presented in the context of health literacy. Print materials related to diabetes education taken from physicians' offices, pharmacies and clinics are examined for low level literacy applicability. We hypothesize that low level literacy leads to information-poor patients, causing a downward spiral in disease management. This spiral is a continuum that can be corrected by appropriate and culturally relevant interventions.

Chemical Profile of a Common Dietary Supplement Used in the Management of Diabetes: Risks and Potential Benefits

Janet Campbell-Shelly¹, Shelliesia Arnold¹, Keniesha Ashley¹, Holly Banton¹, Karonie Chambers¹, Ann-Marie Smith², Yvonne Bailey-Shaw²

¹College of Health Sciences, University of Technology, Jamaica and ²Scientific Research Council, Jamaica

As the incidence of diabetes increases, more individuals are exploring the use of complementary and alternative medicines (CAM) in its management. The use and effectiveness of the products are also of interest to clinicians. It is important that healthcare providers be aware of the various dietary supplements that are available on the market and also the therapeutic and adverse effects. In Jamaica, several herbs, teas and concoctions are used alone or in combination with conventional medicines in an attempt to control blood sugar. Numerous claims have been made about the benefits of these supplements.

A chemical analysis of the major components of two commonly used dietary supplements, A and B, was done. The aim of the research was to compare the components to the manufacturer's formulation and to determine if the components present can support the claims made by the manufacturer. Chemical analyses of vitamin C, antioxidants, polyphenols, flavonoids, sugars and pre-biotic components were conducted. The results revealed that the 0.586 mg/5 mL of vitamin C present in one of the products (product A) is not enough to support the manufacturer's claim of 50% of the daily required amount. The polyphenol component was inconsistent in both products and ranged from 9.32 mg/g to 18.82 mg/g in Product A and 16.63 mg/g to 27.54 mg/g in Product B. The antioxidant component, like the polyphenol component, was also inconsistent. The total sugars showed consistency across both products ranging from 23.75% to 26.00%. The flavonoid component of Product A also showed consistency (24.64 mg/g to 28.02 mg/g), which was not so with Product B (26.47 mg/g to 53.22 mg/g). The pre-biotic contents in both products were able to promote the growth of good bacteria (*L. fermentum*).

Based on the findings, it was concluded that the dietary supplements, A and B, showed consistency in some instances but significant inconsistency in others.