



Ms Sandra Clarke (Barbados)

A qualitative exploration of perspectives on the medication adherence of adults 35-80 years with type 2 diabetes in Barbados



**THE PERSPECTIVES
OF
TYPE 2 DIABETICS 35 – 80 YEARS
ON THEIR MEDICATION ADHERENCE**
A Qualitative Exploration Research (2018)

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DEFINITIONS

Diabetes Mellitus Type 2 (DM2) - previously known as adult onset, is a chronic, metabolic disorder, which occurs when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces (WHO, 2016 and Volman et al., 2008)

Adherence - the extent to which patients take their medication with respect to timing, dose and frequency in correspondence with recommendations made by a health care provider (Cramer et al., 2005)

INTRODUCTION

Globally the prevalence of diabetes has increased within the past few decades

In 1980, 108 million people globally were living with diabetes a prevalence of 4.7% of the adult population

In 2014, 422 million people globally were living with diabetes, a prevalence of 8.5% of the adult population (WHO, 2016)

INTRODUCTION

In the Caribbean, Type 2 Diabetes was listed as one of the leading causes of death for the past 20 years (PAHO, 2013)

In Barbados, Type 2 Diabetes was listed as the number one cause of death in 2007 and 2008 and second in 2009

(BGIS, 2015)

WHO (2010), estimated the diabetic population in Barbados at 11, 000 in 2000 with a projected increase to 22, 000 by 2030

It is estimated that 5000 individuals are undiagnosed or at a high risk. Over 17% of individuals over 40 years are living with Type 2 Diabetes in Barbados (BGIS, 2015)

RESEARCH RELEVANCE

- Type 2 Diabetes has been a global public health problem. As populations change and economies develop, the prevalence of Type 2 Diabetes will increase
- There is paucity in the literature relating specifically to qualitative studies on Type 2 Diabetic adherence to medication in Barbados.
- To encourage further research on a larger scale or compliment existing studies
- Development patient centred strategies and interventions



RESEARCH QUESTION

**What are the perspectives
of adults 35 – 80 years with
Type 2 Diabetes in
Barbados with regards to
adherence to their
medication?**

AIMS AND OBJECTIVES

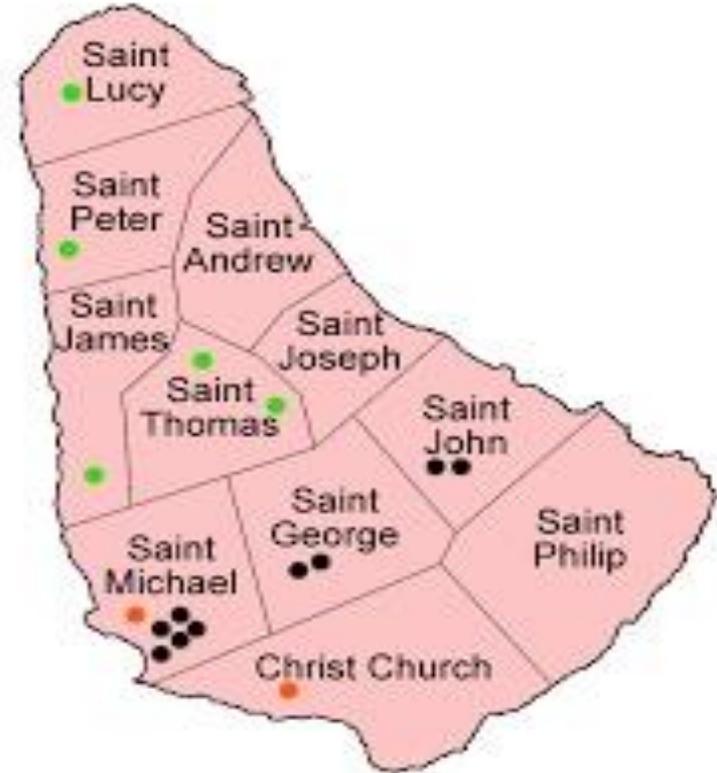
- **The aim of this study** to explore the perspectives of adults with Type 2 Diabetes on adherence to their medication
- To recommend tailored strategies to improve medication adherence
- To review literature on adults with Type 2 Diabetes regarding adherence to medication
- To explore and understand their perspectives and views
- To disseminate the findings of the study for the improvement of adherence to medication among Type 2 Diabetics

ETHICAL APPROACH AND WELL BEING OF PARTICIPANTS

- Institutional Review Board of the University of the West Indies, Cave Hill Campus
- The Ministry of Health and Wellness Barbados
- University of Liverpool
- Information fact sheets were given to all participants
- Consent forms were signed
- Strick confidentiality and privacy
- Names and identities were coded

The Setting - Barbados

- Barbados is situated in the Caribbean
- 166 square miles and
- Has a population of 286 388 people
- Barbados is divided into eleven parishes, which have a mixture of both urban and rural communities
- One main public hospital
- Eight public primary polyclinics strategically located
- Public health care is free at delivery and funded by government taxation



SOURCE OF EVIDENCE

Review of Scholarly Literature

- No qualitative articles were found specifically relating to topic
- Qualitative studies were reviewed relating to the Caribbean, Caribbean participants
- 187 scholarly papers were reviewed
- 28 scholarly papers were referenced

Determinants of Medication Adherence

- Socio – economic disparities
- Psychological factors
- Knowledge and education
- Health systems communication and interaction

METHOD AND DESIGN

Project Approach - Interpretive and Social Constructivism

- Links were formed between the social world, health choices values and individual behaviours
- The approach was flexible and elicited clearer and subjective views

Project Design – Qualitative Exploratory

- Participants shared rich critical, in-depth subjective perspectives, and experiences linking their social world, to their values and behaviours (Mack, 2005 and Robert Wood Johnson Foundation, 2008)
- Several gaps were bridged as views were shared on adherence
- The design gave a voice to this public health issue

METHOD AND DESIGN

The Sample – Maximum Variation Purposive

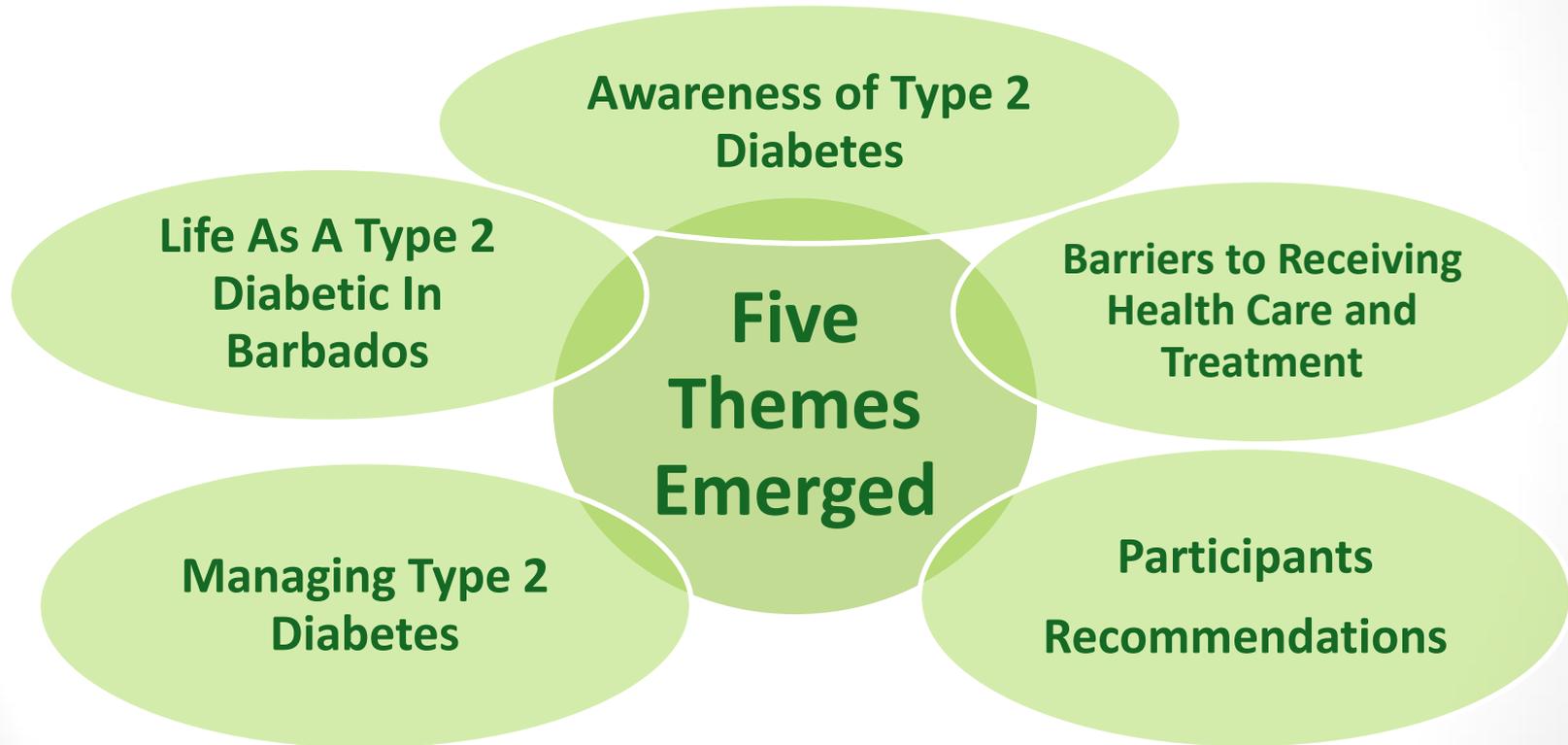
- Type 2 Diabetics on prescribed medication were randomly selected
- Participants were selected from across the island
- Men and women from various ages and socio – economic backgrounds
- All persons were willing to participate in the study when approached
- Eighteen persons were randomly approach throughout the main public clinics
- Sixteen persons were selected nine males and eight females

METHOD AND DESIGN

Data Collection – Semi Structured Interviews

- All semi structured interviews were conducted by the researcher
- Interviews were 30 – 40 minutes duration
- Interviews were all audio-recorded and transcribed verbatim by the researcher
- Field notes were taken to capture nonverbal communication
- ***Thematic content analysis*** was used to identify patterns and highlight similarities relating back to the research question

FINDINGS



AWARENESS OF TYPE 2 DIABETES

Beliefs and views. Most participants had a basic understanding of Type 2 Diabetes after diagnosis

Physical and mental effects. All participants reflected on the complications and effects of Type 2 Diabetes

Knowledge. There was limited knowledge on medication among participants

- *“here in Barbados Type 2 Diabetes is a common disease...so there is a lot of information in the newspaper and on the TV”*
- *“ my grandmother and mother had diabetes and I would hear all the horror stories on how bad it is, about all the amputations...”*
- *“ I stop taking the medications I heard it affects your manhood”*

LIFE AS A TYPE 2 DIABETIC

Making individual choices.

Self-management choices were critical for most participants

Family support. All the participants reiterated the importance of support from family, friends

Lifestyle changes. The impact of diabetes caused lifestyle changes. Side effects were a major issue for most participants

- *“everyone is different, and you can’t tell people what to do, sometimes I take the medication sometimes I don’t”*
- *I hate taking the medication because it makes me feel sicker than the actual diabetes”*
- *“for me strength, will power, and the support of my family helped me ..., especially during my rough days”*
- *“it calls for lifestyle change...some days you are good, some days you are bad”*

MANAGING TYPE 2 DIABETES

Impact of treatment. Medication for Type 2 Diabetes is readily available

Most of the participants had a basic knowledge of alternative remedies

Health care. Participants compared communication between health providers

- *“I always wanted to know what is the purpose of the meds, I took it for years and never could understand what it does”*
- *“I use the fruit tree leaves more than the medication, and my blood sugar remains constant” “I am drinking a bush tea called neem”*
- *“depending on which doctor I see I get an explanation about medication and changes sometimes I don’t...”*

BARRIERS TO RECEIVING TREATMENT

Financial limitations. All participants received positive care. Changes in doctors caused a break in doctor patient relationship. Private Diabetic specialist approach

Sources of information. Participants gathered they information from all available sources e.g. social media, internet, TV

- *“she went through everything even the medication”*
- *“I had a doctor for years and he knew me good, but now he gone and new ones coming”*
- *“my doctor talk to me clearly, I had a good relationship with him...now my doctor change too”*
- *“he would talk to you when you call, I can even wats app them”*
- *“You Tube helps me as well, it shows me what to do and what not to do”*
- *“information always in the newspaper and on the TV”*

PARTICIPANTS RECOMMENDATIONS

Education. All participants recommended an increase of educational programmes

Healthcare. Some participants recommended an improvement in the health team

Health promotion. Billboards along the highway, flyers, messages from health team

- *“we need programmes that would reach out to these young people...make them understand that being a diabetic is not an easy journey...”*
- *“diabetic specialist in polyclinics”*
- *“I feel billboards can help remind people to take their medication and that diabetes kill”*

RECOMMENDATIONS FOR ADHERENCE

POLICY

- Medication
- Best Practices
- Efficacy of Treatment
- Holistic Health Care
- Research and Current Data

PRACTICE

- Patient Centered Care
- Affordable Treatment
- Standardize Practice
- Support From a Multidisciplinary Team

RESEARCH

- Research with all Stakeholders
- Research on effects of medication
- Research on prevalence
- Research on best practices

SUMMARY

This information can be used by multiple stakeholders for the development of tailored policies, strategies and programmes

Social and cultural approaches are needed for behaviour change. The health system alone cannot significantly improve the health of the population without a cohesive partnership

The social cognitive theory promotes that if the focus is on self – management, it gives the individual a sense of control and empowerment (Green, 2014)

The Tannahill Model (2009) suggest that in taking a holistic health approach and incorporating a multidisciplinary team will positive outcomes for our diabetics.

REFERENCES

- Barbados Government Information System (BGIS). (2015) *Preventing and Controlling Type 2 Diabetes*. [Online]. Available from: www.gisbarbados.gov.bb (Accessed: June 18, 2016).
- Cramer, J. A. (2004) 'A Systematic Review of Adherence with Medications for Diabetes', *DiabetesCare*, 27(5). [Online]. Available from: <http://care.diabetesjournals.org/content/27/5/1218.long> (Accessed: May 5, 2017).
- Green, J. and Thorogood, N. (2014) *Qualitative Methods for Health Research*. 3rd ed. London: SAGE.
- Hennis, A., Wu, S.-Y., Nemesure, B., Li, X., Leske, M. C. and Barbados Eye Study Group (2002) 'Diabetes in a Caribbean population: epidemiological profile and implications.', *International journal of epidemiology*, 31(1), pp. 234–9. [Online]. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/11914326>. (Accessed: August 1, 2017).
- Mack, N., Woodsong, C., Macqueen, K., Guest, G. and Namey, E. (2005) *Qualitative Research Methods: A Data Collector's Field Guide* [Online]. Available from: <https://www.fhi360.org/sites/default/files/media/documents/Qualitative%20Research%20Methods%20-%20A%20Data%20Collector%27s%20Field%20Guide.pdf> (Accessed: March 31, 2017).
- Pan American Health Organization (PAHO). (2013). *Annual Report of the Director* [Online]. Available from: <http://www.paho.org/annual-report-d-2013/index.html> (Accessed: October 30, 2016).

REFERENCES

- Robert Wood Johnson Foundation. (2008) 'Maximum Variation Sampling' [Online]. Available from: <http://www.qualres.org/HomeMaxi-3803.html> (Accessed: March 31, 2017).
- Shaw, J, E., Sicree, R, A. and Zimme, P, Z. (2010) 'Diabetes Atlas Global estimates of the prevalence of diabetes for 2010 and 2030' *Diabetes Research and Clinical Practice journal*. (87) 4–14. [Online]. Available from: www.elsevier.com/locate/diabres (Accessed: August 1, 2017).
- Smith, R. (2012) 'Why a Macroeconomic Perspective Is Critical to the Prevention of Noncommunicable Disease' *Science*. Vol 337. [Online] Available from: <https://pdfs.semanticscholar.org/2c44/b4126818def768e35086e79c4d72d12e0fac.pdf> (Accessed: January 18, 2018).
- Volman, B., Leufkens, B., Stolk, P., Laing, R., Reed, T. and Ewen, M, M. (2007) 'Direct costs and Availability of Diabetes Medicines in Low-income and Middle-income Countries', *World Health Organization Geneva Health Action International*, (2). [Online]. Available from: <http://digicollection.org/hss/documents/s18387en/s18387en.pdf> (Accessed: September 23, 2017).
(Accessed: August 17, 2017).
- World Health Organization (WHO). (2016) *Health education: theoretical concepts, effective strategies and core competencies* [Online]. Available from: http://applications.emro.who.int/dsaf/EMRPUB_2012_EN_1362.pdf (Accessed: June 11, 2015).

THANK YOU FOR LISTENING

*When you pay attention to
the beginning of the story,
you can change the whole
story. For the better.”*

Ralfi Cavoukian