

Analysis of the Major Causes of Diabetes in Burao City, Somaliland

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Abstract: This paper aimed at analyzing the major causes of diabetes among city dwellers in Burco. Diabetes has been cited as a chronic disease that is widespread not only in Burco but the rest of Somaliland. It is thought to be caused by poor feeding, increasing lifestyles imported by urbanization resulting into people preferring to eat processed food that is causing over-weight (obesity) among other cases. Mixed methods (involving questionnaires, interviews and participant observation) were used to gather primary data. Some of the research findings were as follows: The study found that there are two types of diabetes existing in Burco which are type 1 and Type 2(TM) of which the latter has claimed more lives but also worried the Burco populace so much. While a good number of people confirmed that they have seen or heard of diabetes disease or diabetic individuals, there are also some who are not even aware of the disease existence and this could mean that some people may be diabetic without knowing; we also found that diabetes is affecting young people that are below 19 years of age in Burco.

Keywords: Analysis, causes, diabetes, Burco, City, Somaliland.

I. INTRODUCTION

1.1 Background to the Study:

Diabetes is not just an individual country's problem that is causing pre-mature deaths. It is a global tragedy characterized by unprecedented complications. The available evidence states that "382 million people had diabetes worldwide in 2013, and by 2035, this was predicted to rise to 592 million. Eighty percent live in low- and middle-income countries, and of the total, more than 60% live in Asia, with almost one-third in China" (Guariguata, 2013 cited in Nanditha et al., 2016). This could imply that majority of the people are at high risk of contracting the disease. In a related study conducted in the United Kingdom, doctors confirmed diagnosis in diabetes increasing from 1.4 million to 2.6 million, ... estimating over four million people to have diabetes by 2025 (Diabetes UK, 2010). Diabetes mellitus has manifested itself through several symptoms in countries like USA and European continent such as; "... frequent urination, thirst, blurred vision, fatigue and recurring infections ..." (Davies et al., 2018). Almost every country in the world has various cases of diabetes and could be featuring in all age categories. In a related research, it was noted that the majority of individuals with diabetes in Africa "were reported to be less than 60 years of age with the highest proportion (43.2%) in people aged 40–59 years. Only 18.8% of diabetic individuals were 60–79 years of age, probably because of the relatively small proportion of people in this age group in Africa" (Peer et al., 2014). There could be limited data on African diabetic prevalence or case because it is likely that various cases of diabetic people are not identified or less studied and most especially among teenagers. For instance "about 4000 children under the age of 16 have diabetes" in Finland according to (Marian, 2011). The data available could be hardly unrepresentative of the total diabetes cases in the African continent.

Shocking findings from various researchers indicate that diabetes is complicating health of many people. An increasing prevalence of diabetes was cited in Africa almost a decade ago. Evidence estimated that 12.1 million people were living with diabetes in 2010 (Department of clinical Epidemiology cited in Hall et al., 2011). It is expected to rise by 23.9 million by 2030 (Abas, 2019). Countries like Ethiopia registered 20.2% people with abnormally elevated blood sugar

alongside 5.3 critically overt diabetic subjects in June 2006 (Mbanya, 2006 cited in Abas, 2019). The rapid rise in diabetes is said to be a result of economic development, changes in the life style and diet in Africa.

Somali communities in Somaliland suffer the worst diabetic tragedy. Some previous scholar identify two forms of diabetes and these are; Type 1 diabetes ... common among children and young adults, “characterized by a complete inability of the beta cells of the pancreas to produce insulin” (Tuula-Marja & Sirpa Kotisaari 2008, 11; Ann M. Coulston 2001, 441 cited in Marian, 2011); Type 2 diabetes (diabetes mellitus) with estimated 200,000 cases (Marian, 2011). Somaliland is a country whose health indicators are cited as the worst in Sub-Saharan Africa due unavailability of corporate governance as well as inadequate financial resources (Ismail, 2006 cited in Ahmed, 2019). Since diabetes disease comes as a result urbanization and adopting of diet from diaspora returnees as wells ignorance of eating nutritious food substances, changing life style is not likely to improve the health conditions of Somalis.

1.2 Statement of the Problem

Research reveals that “diabetic individuals are three times more likely to require hospitalization for complications due to T2DM, including kidney failure, heart disease, limb amputation, and blindness” (Smyth & Heron, 2006 cited in Eberly, 2015). Diabetes is a chronic disease currently worrying the people in Burco. It has affected the young and the elderly in unprecedented numbers because they are told by medical personnel that this disease lasts for a life time. Diabetes prevalence is so high in Burco due to lack of dietary adjustments in various homes. The problem has further been worsened by underestimating physical exercise and over-consumption of processed imported foods since food production in Burco is non-existent. Consumption of drugs such as Khat and smoking are very common hence have multiplied cases of diabetes in Burco, In most cases, most of the people here are seriously hospitalized with the poorest quality of life alongside depression experiences that worry the entire host families. As a result these people suffer from psychological torture that leaves them without hope for the future.

This study intends to analyze the major causes of diabetes mellitus among the people living in Burco and further propose affordable measures that could be taken to improve the quality of life and reduce cases related to diabetes endemic. Specifically, it identifies dietary practices among Burco populace; asses the frequency of physical exercises among the people and the extent to which people are engaged in drugs consumption and evaluate community awareness on issues of diabetes.

2. METHODS AND MATERIALS

2.1 Study Area

The research was carried out in Burao city. Burao has a population of approximately 470,000 people; Burao City is found in Togdheer Region and second most populated district in Somaliland after the Capital, Hargeisa. We selected this city because we have lived and grown up seeing people being exposed to risk factors associated with diabetes mellitus. We have also seen many diabetic patients living miserable lives with very limited interventions.

2.2 Research Context

The somali people in Burco are very reserved. They perceive interaction with researchers in negative perspectives related to their culture and political safety. They do not like exposing their life experiences even when the intention of research is positive. During the study conduct, we were faced with challenge of data collection for a period of four weeks whereby most people were not ready or willing to participate in the study. Some potential respondents provided empty promises by failing to turn up for interviews at the agreed tie and place while others threaten us not to waste their time.

2.3 Research Design

Both qualitative and quantitative methods were used to interpret the primary data. Mixing methods help us to articulately analyse the contextual diabetes issues hindering the city dwellers and the bigger community of Burco.

3. SAMPLING TECHNIQUE

3.1 Sample Size

Due to the limitations mentioned in the context above, we managed to interact with only 25 participants in all the four sampled city locations in Burco. These people were accessible in five city locations namely; Farah Omar, Sheikh Bashiir, Mahamed Ali, Lihle and Plaza. Health Professionals as well as the city dwellers were involved in the study.

3.2 Convenient Sampling

According to published evidence, convenience sampling as a type of nonprobability sampling suggests that members of the target population meet certain criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate in the study (Dornyei, 2007 cited in Etikan et al., 2016). Influenced by the available sampling research, we were motivated to consider only the accessible.

4. DATA COLLECTION

4.1 Interviews and participant Observation

We used in-depth interviews to engage with health professionals to discover their experience on issues of diabetes in Burco. Boyce states that in-depth interviews “are useful when you want detailed information about a person’s thoughts and behaviors or want to explore new issues in depth” (2006). This method was important to us because it made the flow of interaction very convenient. All the health professionals we interacted with were relaxed and more than willing to share the depth of their diabetes experiences in Burco. Interviews go hand in hand with observation. When the interviews were going on, we observed the body language of participants.

4.2 Questionnaires

Questionnaires were distributed to the accessible city dwellers in the five places. This method was chosen due to its time saving advantage as well as convenience. According to some research methods scholar, “questionnaires may be distributed to the potential respondents by post, e-mail, as an online questionnaire, or face-to-face by hand” (Rowley, 2014). For this study, we distributed the questionnaires by hand and agreed with participants to fill them at their convenient time without our direct involvement. We were so lucky that all the accessible participants returned the filled questionnaires.

4.3 Data Analyses

The descriptive statistics such as frequencies, percentage tables and graphs were used for the analysis of primary data. SPSS computer software was used to enter, manage, analyze, and present the findings of this research. This software program was utilized because of the benefits offered, including functions and features, flexibility of design, simplicity, versatility and quick generation of analyses.

5. DISCUSSION OF RESULTS

5.1 Demographic Information

About 44% (n = 11) of the sample was male and 56% (n=14) of the sample was female. Thus, the study was female dominated as shown in table 1.

Table 1: Gender of Participants

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	11	44.0	44.0	44.0
female	14	56.0	56.0	100.0
Total	25	100.0	100.0	

Age of Participants

Table 2: Age of Participants

Years	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20...30	15	60.0	60.0	60.0
30...40	9	36.0	36.0	96.0
40...50	1	4.0	4.0	100.0
Total	25	100.0	100.0	

Majority of the participants that formed 60% were aged between 20-30 years old; followed by those between 30-40 while the least were aged 40-50 with the smallest percentage of 4.

5.2 Marital Status

Table 3 indicates that most of the accessible participants were single (52%) followed by the married one equivalent to 40% (n=10). Only 8% (n=2) were divorced. It was expected that different social groups would be marked by variation in thoughts and perceptions of diabetes endemic.

Table 3: Marital Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid single	13	52.0	52.0	52.0
married	10	40.0	40.0	92.0
divorced	2	8.0	8.0	100.0
Total	25	100.0	100.0	

5.3 Education Level

A frequency analysis of Education Level indicated that 4% (n=1) were pre-Quran school and 12% (n=3) were high school, 28% (n=7) were diploma holders and 56% (n=14) were degree holders as shown below:

Table 4: Education Level

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Quran	1	4.0	4.0	4.0
High school	3	12.0	12.0	16.0
Diploma	7	28.0	28.0	44.0
Degree	14	56.0	56.0	100.0
Total	25	100.0	100.0	

The implication for targeting a mix of participants in Burco city was based on the view that diabetes does less discriminate depending on how well people expose themselves to physical exercise as well as eating proper foods.

5.4 Employment Status

Different education levels were also a point of concern to our study. We found Burco city comprised of thousands of unemployed or employed diabetes disease. For instance, it was found that at 40% (n=6) were employed, 20% (n=3) were self-employed, 33% (n=5) were unemployed and 7% (n=1) “others” did not disclose their employment status probably because most Somalis in Burco city tend to be reserved when it comes to economic issues that affect them directly.

5.5 Type of Diabetes Common in Burco

Both health professionals and the city dwellers in Burco were asked about the type of diabetes that are common in Burco. Different views were shared. For instance, with the exception of medical professionals, the city dwellers thought that “diabetes is diabetes” as two of the participants said. On the other hand, the former applied their professionalism and experience and then mentioned two types of diabetes which are a) Type 1 and Type 2 (DM). They also highlighted that Type 2 is more dangerous than Type 1 to human lives especially in Burco as it is caused by poor dietary practices as earlier supported by previous research. One could argue that community ignorance of such a chronic endemic that is believed to be widespread in Burco and the rest of Somaliland might be dangerously risky and could multiply mortality of most diabetic individuals. A lot of people may be already affected by Type 2 or 1 without knowing.

5.6 Whether City Dwellers have heard about Diabetes

Respondents were asked whether they had ever heard about diabetes. Majority (64%) (n=16) were quick to admit while 32% (n=8) were ignorant about it as indicated in table 6.

Table 5: Have you ever heard about diabetes

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	16	64.0	64.0	64.0
No	8	32.0	32.0	96.0
I don't know	1	4.0	4.0	100.0
Total	25	100.0	100.0	

In a region without fresh or that does not grow their own food but depend on processed foods from other countries, it is likely that many city dwellers may be already affected with diabetes without knowing. But, as we were passing close to one family home, we heard a man shouting at his neighbor as he told him “why don't you go to the relatives, do you think your diabetes can be healed without money?” Not having money or cases of poverty might have the power to depress diabetic and non-diabetic individuals in the same neighborhood.

Table 6: Getting to know about Diabetes

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Doctor	8	32.0	32.0	32.0
Teacher	9	36.0	36.0	68.0
Friend	7	28.0	28.0	96.0
Other	1	4.0	4.0	100.0
Total	25	100.0	100.0	

Most people in Burco city have heard about diabetes through various people. For instance, majority of the participants came to know about it from their teachers, probably in schools, thus representing 36%. The second largest numbers (32% heard about it from doctors and 7% from friends as well as 4% from other people. A disease such as diabetes which is said to be lasting for a life time gets many people worried and thus rising their knowledge about it.

Table 7: Ever Seen or Heard Someone Suffering from Diabetes

Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	6	24.0	30.0	30.0
No	8	32.0	40.0	70.0
May be	3	12.0	15.0	85.0
I don't know	3	12.0	15.0	100.0
Total	25	100.0		

Echoing in the ears of many and over-burdened by most people in Burco city, most of the research participants said they have never seen or obtained sad news of diabetic people. For example, 40% said. Yet, 30% confirmed they had seen them but 15% were not sure. 15% more of the participants did not even have answer for the question. It could however be noted that while diabetes prevalence may be easily identified, its symptoms may not be revealed quickly. This, leaving various mixture of people informed or uninformed about the disease.

5.7 Family Members visit a doctor for diabetes Treatment

A good number of the participants we interacted with confirmed they are currently living with one or two family members that are diabetic. That is why 48% (n=12) told us in table 8 that some of their family members are undergoing treatment which means that they visit doctors. The smallest number represented by 12% (n=3) said they do not check with the doctor 12% (n=3) while 8% were not even remembering whether they ever or never visited any health worker.

Table 8: Family Members ever visited a doctor for diabetes Cases

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	12	48.0	60.0	60.0
	no	3	12.0	15.0	75.0
	maybe	3	12.0	15.0	90.0
	I don't know	2	8.0	10.0	100.0
Total		25	100.0		

5.8 Knowledge of diabetes Symptoms on Human Beings.

The city dwellers we interacted with, shared similar views on the potential symptoms of diabetes that they normally observe on victims. Some of the symptoms they mentioned; abnormal thirst and dry mouth, frequent urination, lack of energy and extreme tiredness, constant hunger, sudden weight loss and blurred vision. Some medical professionals pointed out obesity as one of the major symptoms of diabetes and that this continuously observed among the under 18 children as well as adult men and women. One could ask unanswered questions challenging obesity and weight loss. If someone has to lose weight and the other one has to abnormal weight, it might leave most city dwellers wondering if the two signs are a definition of a diabetic individual.

5.9 Campaigns on Diabetes Awareness.

The chronic nature of diabetes cannot be treated without preventive campaigns in Somaliland and particularly Burco city. 50% (n=5) of our respondents talked of frequent television programs against diabetes. 30% (n=3) said they were not aware of any awareness campaigns but 20% (n=2) said such campaigns could be existing because they often see diabetic patients flooding in health centers for treatment purposes. One could argue that prevalence of diabetic visibility in Burco city may only addressed through a wider community outreach. The fact that many people in Burco city own a TV set, it is most likely they easily access medical advice through national television and radio station.

5.10 Method used to inform members of the community on diabetes.

Government and Non-Governmental organizations use various communication channels are used in Burco to inform community members about the dangers of diabetes. All our respondents were asked where they get information regarding this endemic as most of them told us that they use social Medias such as Facebook, WhatsApp, imo and viber. Some mentioned that they diabetes information is shared by friends on these social media apps. Very few respondents said they get information from television as already mentioned in the section above. Others like to communicate with their friends and clients by telephone. It is important to note that the availability of cheap or affordable internet from the existing telecommunications as well as accessibility to smart phones market within Somaliland cities simplifies national as well as community interaction. Spreading the message about diabetes scourge is largely made possible with people engagement with social media.

5.11 Efforts of Government and International Organizations on Diabetes

Most of the Burco city dwellers blamed government and international organizations for ignoring diabetes endemic. For instance 60% of the respondents expressed their worries over government's limited intervention. The 40 percentage of the respondents sweet-talked government and international organization interventions. It appears they are not comfortable with the discriminative interventions that target some clan diabetic victims while ignoring diabetes cases from other clans. The discriminative efforts of government if they exist are most likely to worsen the disease.

5.12 Major causes of diabetes in your community in Burco community.

Participants were asked whether they know the causes of diabetes as some of them attributed it to family history. In fact five of the city dwellers each from the sampled city locations expressed their thoughts of diabetes as hereditary. Others attributed it to weight increase, old age as well as infection. Different views or thoughts about a disease could determine how serious interventions may be, in line with individual monitoring or national interventions.

5.13 Major health complications faced by Diabetic Patients

There are worries regarding the complications associated with diabetes. While there are some people in Burco city who are unaware about the prevalence of the disease, more and more people worry about the long term effects of diabetes on human beings; "I am worried my uncle might die of diabetes soon, before he became blind, he had been suffering from kidney disease," a sad-looking teenager said. It appears complications of this nature are present among the majority of Burco populace and might require strategic interventions made a combined efforts of the community, individual patients, private sector as well as government.

6. CONCLUSION

Diabetes is chronically dangerous in Burco city. Its prevalence is undeniably harmful as diabetic individuals and their family members worry of complications related to it, such as; vulnerability to blindness, over-weight, changing lifestyles regarding consumption of processed foods as mentioned in the background section. Diabetes is likely to be more harmful in cases where there are some people in Burco who are ignorant about its prevalence, cause and effect relationship. Most people's worries are worsened by limited and discriminative interventions perceived pointed at government and international agencies whose programs and projects might be deviating from accountability and transparency which are both principles of good governance. It has always been said that where there is a will, there is a way. Therefore, awareness of diabetes as a risky and dangerous disease with severe health complications, could be avoided or minimized if transparent interventions are made between people, government and international agencies.

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