



Perceptions and Experiences of Healthcare Professionals Regarding Type 2 Diabetes Patient Education in Benin City, Nigeria

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Background: The prevalence of type 2 diabetes is on the increase globally, characterised by severe complications which pose a burden on individuals, healthcare professionals and society. The study aimed at exploring the perceptions and experiences of healthcare professionals towards type 2 diabetes patient education. **Method:** The approach utilised was an explorative descriptive qualitative research approach. A multi-disciplinary group of healthcare professionals comprising of nurses, dietitians and social workers, in two health institutions participated in the focus group discussions. The discussions were recorded, transcribed and analysed manually using Tesch (1990) descriptive approach. **Results:** The identified themes included the composition of patient education on type 2 diabetes, challenges encountered during the practice of patient education and recommendations by the healthcare professionals. **Conclusion:** The healthcare professionals' perceived that all healthcare professionals should be involved in patient education.

Keywords: *Experiences, Healthcare Professionals, Patients, Patient Education, Perception, Type 2 diabetes.*

Introduction

The prevalence of type 2 diabetes is on the increase globally with severe complications which continue to pose a burden on individuals, families and the world at large (World Health Organization (WHO), 2012). The effect of type 2 diabetes is disproportionately higher among the middle and low-income countries of the world and with more prevalence among the lower socio-economic group (International diabetes Federation (IDF), 2014). According to IDF (2014), the prevalence of type 2 diabetes in Nigeria can be described as a public health epidemic as the illness affects about 3.8 million people, and about 1.7 million are undiagnosed. The increase in the global prevalence of type 2 diabetes resulted in some

health organisations identifying collaborative care by multi-disciplinary healthcare professionals in partnership with the patients as effective management of the disease (WHO, 2012; American Diabetes Association (ADA), 2014).

A health care delivery system with effective primary health care could provide greater care to patients with diabetes through the use of teams which may include physicians, diabetes educators, nurses, dietitians and other categories of relevant health care professionals (Chinenye *et al.* 2019). Many countries in the developed world have adopted structured education with the active collaboration of health care professionals and type 2 diabetes patients (Ory *et al.* 2013) but

this is still a mirage in many developing countries including Nigeria. These patients should generally have initial care at the primary health centre but for poor utilisation of the health facility at this level (Abdulraheem *et al.* 2012) as a result of lack of human and material resources further increasing the burden of patients with type 2 diabetes. Subsequently, patients with type 2 diabetes get managed at the secondary or tertiary levels of care. These facilities are overwhelmed with various concerns which expose the patients with type 2 diabetes to poor support from the multi-disciplinary team of health care professionals in managing their illness.

The methods of decreasing the burden are changes in lifestyle such as healthy eating, increased physical activity, control of weight, reduction in the consumption of alcohol and smoking (Tuomilehto *et al.* 2011). Effective management and control of the disease can be attained through continuity of healthcare, patient education and self-management to prevent or reduce complications as well as enhancing the quality of life. Self-management education to improve knowledge and patients active participation in their care often comes from the viewpoint of the health care professionals rather than the sick patients (van Smoorenburg *et al.* 2019). Even though they initiate patient education, the healthcare professionals have difficulties in giving adequate information for the empowerment of these patients (Al-Alawi, Al Mandhari & Johansson, 2019). Studies have shown that self-management education dramatically improves the quality of life of patients with type 2 diabetes (Zheng *et al.* 2019; Mikhael *et al.* 2020).

Healthcare professionals use the traditional didactic education approach in passing information to patients with type 2 diabetes, without consideration for the patient's need and skills to be learnt (Olesen *et al.* 2020). In an attempt to empower patients with knowledge and skills to adequately manage type 2 diabetes through a multidisciplinary

approach it is essential to understand the perceptions, practices and experiences of health care professionals in the care of these patients.

An understanding of these perceptions and experiences could provide information on how the healthcare professionals can render patient-centred care tailored to the patients' needs through the collaboration of a multidisciplinary team of healthcare professionals with the active participation of the patient. The study, therefore, is aimed at exploring the perceptions and experiences of healthcare professionals towards type 2 diabetes patient education.

Materials and Methods

An exploratory, descriptive qualitative research approach was applied. The study was conducted in two health care institutions in Benin City; one tertiary and the other secondary. The health institutions were purposively selected. The Research Review Committees of the two health institutions provided ethical approvals for the study. The nurse managers approved the study after being informed of the objectives. At the outset of each focus group discussion, the researcher reiterated the purpose and process of the study, and participants were informed of their right to withdraw from the study at any time. Written consent was obtained to indicate a willingness to participate in the study. Thereafter oral consent was obtained before the use of the audiotape. The participants were given serial numbers for easy identification, confidentiality and description of participants in the presentation of results.

The sample consisted of 35 healthcare professionals (HCPs) involved in the care of patients with type 2 diabetes. Sampling was purposive to select a range of healthcare professionals including nurses, dietitians and social workers to capture their perception and experiences of patient education on Type 2 diabetes. The inclusion criteria were that the healthcare professionals had worked with patients with type 2 diabetes, with more than six months of experience and were interested

in the study. Focus group discussions guided by a few interview questions provided the data on the perception and experiences with the patient education. The focus group discussions meetings consisted of 6-8 healthcare professionals made up of nurses, dietitians, and social workers. The social worker was included in the study due to shortage and limited access to the clinical psychologist the social workers were involved in the psychosocial needs of the patients. The identification form used in the collection of socio-demographic data consisted of information on age, qualification, profession, marital status, years of experience, years of working at the unit. The focus group discussions took place within the health facilities at a place that was comfortable and free from any form of distractions. The researcher reiterated the objectives and process of the study to the participants at the onset of the discussion. Five focus group discussions/groups were held at different sessions, respecting the conveniences of each group. Each discussion lasted approximately 50-60 minutes and was audiotaped. The discussion continued until saturation was reached.

Data were transcribed verbatim immediately after each focus group discussion to enhance an understanding of issues discussed and gaps; this directed the subsequent discussions. The analysis involved the use of Tesch's (1990) descriptive coding technique which consisted of eight steps of guidance for the coding process (Creswell, 2009). Data was read severally to immerse self in the data, increase understanding and make participants the focus of analysis. The identified similar topics were clustered after consideration of their relatedness to the perceptions and experiences of patient education. The researcher refined similar topics to generate themes and similar codes were grouped to form categories.

Results

The findings showed that there were twenty-three (23) participants from the tertiary health institution, which consisted of 17 nurses, 3

dietitians and 3 social workers. Health care professionals from the secondary health care institution were 12, consisting of 9 nurses, 1 dietitian and 2 social workers. The mix of healthcare professionals was 29 females and six males - the categorisation of their number of working years since graduation was between 2 years and 35 years.

Three themes emerged from the analysis of the data which included some recommendations on a new model of rendering health education. Corresponding categories were identified.

Composition of patient education on type 2 diabetes

Typically, providing education to patients with type 2 diabetes plays a significant role in the effective self-management of diabetes. Patients do not only acquire information but skills were also acquired, which shaped their day- to day- management of the illness. The goal of patient education is to enable them to achieve glycaemic control and quality of life devoid of complications.

Participants in patient education on type 2 diabetes: The HCPs had a good perception of the importance of the education and those who should be involved in teaching it. They felt all health care professionals should be involved, which is perceived as a caring responsibility and not leaving the job for a particular group. Some of the participants commented that:

"all care professionals are expected to be involved, the doctors, the nurses. It is the duty of the nurses on the ward to give health talk to the patients with diabetes..." (Nurse 7)

"Anyone that has a service to render to patients with diabetes should be involved in patient education. Everybody should be involved in giving health talk to these patients because of the peculiarity of their problem..." (Social worker 1)

"Every care provider within the hospital setting: the doctors, nurses, dieticians, social workers are expected to teach the patients

with diabetes depending on the problems ...”
(Social worker 4)

Traditional patient teaching was practised at the health facilities, giving health education to these patients was seen as the sole duty of the nurses. However, a participant felt there was a need for change:

“We should try new methods, especially in the clinic. In the outpatient clinics, we could organise health talks to patients with diabetes where patients will listen to healthcare professionals and also share their views by discussing what they heard outside the hospital to advise on what to do. New approaches may be more...” (Nurse 25)

The focus of education given by HCPs to patients with type 2 diabetes: Patients present different problems based on their experiences and needs. Type 2 diabetes demands continual monitoring of the patients by healthcare professionals, and every aspect of the curriculum specified by the guideline for Diabetes Management in Nigeria is tailored to the needs of the patients. According to some of the participants, the diet was the main focus of education given to these patients with type 2 diabetes

“...I like giving talks more on the diet because when patients with type 2 diabetes come they do not know much about their diet, so I like to tell them more about what to eat, how and when to eat...” (Nurse 20)

“I discuss diet during counselling with my patients, and I give a diet sheet to any patient with type 2 diabetes, but there is the problem of negligence. In most cases, patients do not keep the diet sheet, so the instruction does not guide them, you see them coming up with uncontrolled diabetes. They need continuing education...” (Dietitian 4)

The management of diabetes which entails dietary moderation also emphasised the quality, quantity and timing of meals to control the glycaemic level effectively. A

participant echoed the problem of quantity of food patients are expected to consume with regards to the measurement of food:

“When you ask patients to eat little quantity, they do not comply, as there is no means of measuring the quantity. They complained that the quantity is too small. They eat what is of satisfaction to them and this invariably affects their sugar level...” (Nurse 27)

The essence of health education given to patients with type 2 diabetes: The essence of patient education is to enable patients to have an insight into their illness. Different approaches are utilised in imparting on them to improve their knowledge and perception of type 2 diabetes. Patients learn that wellness rather than illness is the main purpose for the management; therefore, they can live a quality life without or with delayed complications through adequate daily self-management. Some of the participants illustrated their essence of teaching the patients as follows:

“...we try to give information on causes of diabetes and changes that have occurred in their bodies due to diabetes...” (Nurse 3)

“...we give health talk on type2 diabetes to help the patient know their problem and how to manage to curtail the problem...” (Nurse 22)

“...The essence of giving health talk to patients with diabetes is for the patients to manage their health at home...” (Social worker 1)

HCPs support medications and dietary management to patients with type 2 diabetes: Patients with type 2 diabetes are managed with medications and diet, complaint to medication and dietary management is required to reduce complications. HCPs support can assist in this regard. Participants' experiences showed how they have interacted with patients to motivate achieving compliance with medications and diet:

“Some find it cumbersome taking drugs every day, and we tell them to see your drugs as your food and keep it close to you when you

eat to take it accordingly; also you can have your drugs with you and still pray..." (Nurse 6)

"I encourage them to see their drugs as multi-vitamins also many people are on drugs, so they are not alone..." (Dietitian 4)

Patients could grow weary of adhering to their diets due to either attitude to the disease, negative influences, the monotony of diet and many other factors. Continuous motivation through education by health care professionals and families is needed to overcome this:

"...as we know they need to eat right to enable them to manage with the disease. Diabetes needs a lot of encouragement and teaching to cope with it..." (Nurse 24)

Challenges Encountered During Patient Education on Type 2 Diabetes.

Various factors were identified by the participants as challenges to the effective teaching of patients with type 2 diabetes. These factors were related to health care professionals and patients.

Shortage of human resources: A majority of participants agreed that there is the shortage of human resources. Nurses have been at the forefront of giving patient education in the health institutions; therefore, they lamented on the lack of human resources which has not only affected the quality but time spent with the patients:

"For some time now we have not been able to continue with patients teaching due to shortage of manpower..." (Nurse 20)

"health education cannot be your priority when you are alone in a shift..." (Nurse 21)

"... shortage of manpower, the environment is not very comfortable, so how do you help somebody when you have stressed yourself, it takes extra grace for you to do that..." (Nurse 3)

Participants identified patients' related factors as challenges they encountered in the course of providing patient education which they affirmed as the most considerable influence on the management of type 2 diabetes. These include non-adherence to treatment, lack of financial resources, the attitude of the patients and cultural and religious practices.

Non-complaint with teaching by the healthcare professionals on self-management: patients are expected to engage in self-management daily to have effective control of their glycaemic level. Participants described their perceptions regarding this factor:

"I see compliance as one of the major problems..." (Nurse 3)

"We have many problems with the patients as some of them are not ready to comply at all, even as we intensify the health talk...." (Nurse 8)

A participant opined that

"Compliance with their dietary education is a problem they only follow their dietary modifications when they start experiencing some symptoms and complications..." (Dietitian 1)

A contributing factor to non-compliant is the duration of illness. Type 2 diabetes is a lifelong chronic illness, but with an understanding and insight into the disease process and management, sustenance of adherence could be lifelong. Diabetes may be asymptomatic, but that does not signify healing which some of the patients misunderstood as healing, thereby, abandoning their management.

"One of the problems we have with patients diagnosed with type 2 diabetes is that when they comply with the teaching for a short time, and they found that they are much improved, feel that their problem is over, they return to their former habits..." (Dietitian 4)

The social support system could have a strong influence on patients with chronic illness because of the effect on the patients as well as their significant others.

"...but they do not comply as some of them do not believe in what you tell them; instead, they believe what others tell them and lead them astray..." (Nurse 20)

Lack of resources: economically, diabetes could be described as costly. Financial resources are regularly spent on medications, diet and materials, which are enormous, especially among the lower socio-economic group. A majority of the participants reiterated financial resources as a factor mitigating against health education:

"...these patients with diabetes have financial problem and so how to get resources to feed, buy their drugs become a problem the problem of the poor economic status of the patients cannot be overlooked..." (Social worker 1)

"There is the problem of poverty, and many of the patients are poor and so cannot afford the care and lack materials needed for the care..." (Social worker 2)

Patients' attitude towards care of type 2 diabetes: Individuals' attitudes could influence the acceptance of patient education on self-management of type 2 diabetes. The attitude of patients was of concern to the participants who had various experiences with the patients towards their management:

"... the patients get angry and aggressive saying 'you mean I should not drink so what should I do?' The men feel since they do not go out with women nor smoke, so what else should they do now apart from drinking, so it is a lifestyle problem..." (Social worker 1)

"...patients with typ2 diabetes are adamant; some will tell you that if they do not eat pounded yam, they are not themselves..." (Nurse 8)

A patient's attitude to the diagnosis and self-management of type 2 diabetes is crucial as it determines the acceptance and complaint to management. Experiences showed that:

"...patients come back worse than their previous state of health as such most of them do not make it. Some patients will even say it to your face that they cannot stop some habits or rather prefer to die instead of complying..." (Dietitian 2)

"...but some patients say they prefer to die than complying and as such you see them coming for admissions frequently or even with complications..."(Nurse 2)

Cultural and religious practices influence acceptance of patient education: The acceptance of the teaching by patients with type 2 diabetes is affected by their cultural and religious beliefs and practices. Their belief of the efficacy of natural remedies and traditional concoctions further puts their health in jeopardy.

"...in this era of different herbal drugs flocking the market patients with diabetes use these drugs in the guess for cure and end with complications such as kidney complication or the other. We try to advise them to keep off these things to no avail..." (Nurse 6)

"...when they go out somebody tells them 'wash bitter leaves and drink' without telling them the quantity, they comply with it..." (Nurse 4)

Diabetes is a lifelong disease that has defiled medical cure, but according to traditional beliefs system, all diseases have a cure through the use of herbs and incantations:

"Our cultural belief has a way of dictating how we see things, so what we do is to try and tell them that diabetes is not any form of witchcraft, they should see their doctor and take their drugs with the diet..."(Nurse 7)

..." they always depend on what people tell them, as most people claim to be tradomedical personnel. They encourage them to

all sorts of herbs without thinking of the consequences on the patient's health..." (Dietitian 4)

The patient's cultural beliefs may affect illness perception, management and health-seeking behaviour. Many patients believe in the supernatural God who can heal all manner of diseases. A participant said:

"...we attribute many things to witchcraft, and a lot of them believe that somebody somewhere is responsible for their condition, another thing is they run from one church to another, thinking it is spiritual, demonic and this will determine their illness behaviour..." (Social worker 1)

Recommendations from healthcare professionals on patient education

Suggestions on how their present method of patient education and management could be changed include using collaborative care by a multi-disciplinary team of health care professionals were:

"...we need to have a forum whereby every first Friday of each month we invite all the patients with HCPs in attendance and give health talk to the patients as well as demonstrate some of what we teach, and we may need to follow the patients up at home..." (Dietitian 4)

"there is a need for improvement in healthcare services; policy should be put in place for the management of diabetes in the healthcare setting..." (Nurse 13)

"There is a need to form a diabetic club and also build a centre for them where patients can come together and interact, to help each other and prevent the increase..." (Nurse 21)

Discussion

The main themes of this present study deal with the composition of HCPs who participate in giving education to patients with type 2 diabetes challenges experienced during their interactions with the patients and recommendations for a change in the method of patient education. The result revealed that

the participants saw the need for every HCP to participate in teaching patients with type 2 diabetes. This is similar to the report of other studies from Nigeria, Brazil and Norway where participants requested the use of a multidisciplinary team approach against the traditional approach which involved only the nurses or physician (Ojobi et. al., 2017; Iquize et al., 2017, Sørensen, 2020). The multidisciplinary team approach is consistently recommended by Diabetes Associations globally (Diabetes Association of Nigeria (DAN), 2019; American Diabetes Association (ADA), 2014) in the provision of education to patients with type 2 diabetes. Studies in China and Nigeria have reported the positive effect of using a multidisciplinary team of HCPs on glycaemic control and coping with the disease by patients with type 2 diabetes (Ni et al., 2019; Afemikhe & Chipps, 2015). The result of the study indicates that healthcare professionals are sensitive to their attitude to patient education and want a modification of their practice by involving other healthcare professionals. Type 2 diabetes is a chronic disease that requires reinforcement of information by HCPs in order to maintain quality of life. The focus of the health topics taught during patient education was on the diet. This is supported by a study that reported that HCPs lay more emphasis on dietary control in the care of patients with type 2 diabetes (Jackson et al., 2014). This could be as a result of the level of knowledge of the HCPs regarding the content of patient education. Studies have shown that HCPs displayed a low level of content of patient education on type 2 diabetes (Abazari et al., 2012; Oyetunde & Famakinwa, 2014).

The challenges experienced in the study were issues related to the HCPs such as shortage of human resources. This is in tandem with studies in Iran and Oman by Al-Alawi et al. (2019) and Abazari et al. (2012) who found a shortage of HCPs as affecting the timing and quality of health education. The shortage is a global problem that affects both public and private health institutions (Booyesen & Schlemmer, 2015). Lack of human resources

could affect the workload of the HCPs and reduce the quality of care to the patients. HCPs in this study indicated that they were saddled with various challenges which are related to the patients. Among these are lack of finance, cultural and religious beliefs and poor attitude to the care of type 2 diabetes. This is in agreement with a study in Mexico by Whittemore *et al.* (2019) which identified lack of resources, cultural beliefs and lack of family support to the patients with Type 2 diabetes as perceived challenges described by HCPs and patients with type 2 diabetes. A systematic review of studies in Nigeria on diabetes also supported the findings from this study as it was reported that lack of financial support and failure of family support were associated with non-compliant to prescribed regimes and activities (Bosun-Arije *et al.* 2019). A significant influence on patients' non-compliant in this study is the social support as indicated by the various roles family members play in an attempt to either find the cause or cure for diabetes. Studies have shown that the social support system and attitude of members of the society play a significant role in determining the self-management of patients with type 2 diabetes (Parajuli *et al.* 2014; Afemikhe, 2018). A change in the method of health education that would engage patients and relations actively in their care could motivate and sustain behaviour change regarding self-management of diabetes. Complaint to self-management enhances the positive outcome of diabetes which is cost-effective (Odnoletkova *et al.* 2014) as it reduces both financial and psychological burden on patients, family and society.

Conclusion

Healthcare professionals perceived that all professionals who participate in the care of patients with type 2 diabetes should partake in patient education. The majority of the HCP focused their health education on diet. The challenges the HCP are saddled with are shortage of human resources and non-complaint to teaching as a result of patients related factors. It was recommended that there

is a need to change the present practice of patient education to a multidisciplinary method.

Recommendations

Training and retraining of HCPs on patient education on type 2 diabetes are essential to enhance healthcare professionals' knowledge and proficiency. Patients' participation in their care is important to change their attitude as well as improve their self-management care. The clinical management of type 2 diabetes is evolving and becoming more structured; therefore, there is a need for an improved method of patient education that will enhance multidisciplinary collaboration.

Conflict of Interest: The authors have no conflict of interest

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