



Published in final edited form as:

Glob Public Health. 2019 January ; 14(1): 135–146. doi:10.1080/17441692.2018.1444782.

Types and Sources of Social Support among Adults Living with Type 2 Diabetes in Rural Communities in the Dominican Republic

Deshira D. Wallace¹, Humberto Gonzalez Rodriguez¹, Elizabeth Walker², Hans Dethlefs³, Rachel A. Dowd³, Linda Filipi⁴, and Clare Barrington¹

¹Department of Health Behavior, Gillings School of Global Public Health, University of North Carolina, Chapel Hill, NC, USA

²Albert Einstein College of Medicine, Yeshiva University, Bronx, NY, USA

³Chronic Care International, Omaha, NE, USA

⁴Saddleback Diabetes Clinic, Laguna Hills, CA, USA

Abstract

Type 2 diabetes management hinges on various determinants, including the role of interpersonal relationships in self-management behaviours. The aim of this study was to explore the types and sources of social support received by adults in the diabetes diagnosis and self-management processes. We conducted qualitative interviews with 28 men and women at two rural clinics in the Dominican Republic and used a combination of narrative and thematic analytic techniques to identify key sources and types of social support in their diabetes experiences. Participants described three stages in their diabetes experience: diagnosis, programme-enrolment, and long-term management. During diabetes diagnosis, most participants described receiving no support. At the programme-enrolment stage, friends and neighbours frequently provided informational or instrumental support to get to the clinic. In long-term management, cohabiting partners provided the most support, which was often assistance with their diet. Our findings highlight the need to assess and leverage distinct types and sources of social support at different stages of the diabetes experience.

Keywords

social support; diabetes; qualitative; rural health; chronic disease management

Introduction

Latin America is undergoing an epidemiologic transition, going from a region with a high burden of infectious disease to one of increasing burden of chronic disease (Arredondo,

Corresponding Author: Deshira D. Wallace, Department of Health Behavior, University of North Carolina at Chapel Hill, 302 Rosenau Hall, 135 Dauer Drive CB7440, Chapel Hill, NC 27599, USA, ddwallac@live.unc.edu.

Disclosure statement

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

2016). Diabetes is one of the chronic conditions most affecting the region. The prevalence of type 2 diabetes in Latin America is increasing at an alarming rate, with estimates projecting an increase of 148% by 2030, or approximately 33 million individuals (West-Pollak et al., 2014). Diabetes is one of the top 10 causes of death in Latin America, and is of particular concern for rural populations where primary healthcare services are not equipped to manage chronic conditions (Caban-Martinez, 2012; Cruz et al., 2012; West-Pollak et al., 2014).

Diabetes self-management requires consistent access to healthcare services (Aponte, Boutin-Foster, & Alcantara, 2012). Therefore, examining how the social context affects diabetes self-management behaviours may inform diabetes management intervention efforts and improve diabetes outcomes, especially in rural regions with limited access to services. Diabetes self-management focuses on three primary behaviours: engaging in a healthy diet; regular exercise; and medication adherence (Haas et al., 2013). In addition to healthcare access, research suggests that social support from peers, family and providers is an important determinant of self-management behaviours (Baek, Tanenbaum, & Gonzalez, 2014; Karlsen & Bru, 2014). After diagnosis, family and friends may mobilize to assist the individual with the complexity of their condition (Dos, Santos, Alves, Oliveira, & Ribas, 2011). In both clinic and community settings, individuals with diabetes who have peer support are more likely to improve self-management behaviours compared to individuals without peer support (Fisher et al., 2015; Fisher et al., 2012; Koetsenruijter et al., 2016; Seidel, Franks, Stephens, & Rook, 2012). Karlsen and Bru (2014) found that constructive support (i.e., positive perception of support) from family and friends can facilitate diabetes self-management. Goetz et al. (2012) explored the experiences of social support in a primary care setting and found that social support from general practitioners and nurses was perceived as helpful for people with diabetes in order to improve diabetes control and support lifestyle changes. In addition, studies have shown the benefits of social support in patients with chronic conditions, specifically how it improves health outcomes; however, these positive effects are most pronounced when the patient and their network (i.e., family, friends, health providers) are “informed, motivated, prepared, and willing to work together” (Pruitt & Epping-Jordan, 2008).

However, not all support is actually supportive, as described by Karlsen and Bru (2014), who found that non-constructive support (i.e., nagging, criticism) from health providers and family members was predictive of increased diabetes-related distress among Norwegian adults with diabetes. In a qualitative study, Low et al. (2016) found that a patient’s social network played a significant role in supporting self-management behaviours through the dissemination of information; however, how patients perceived this support depended on the quality of the relationship. Therefore, it is important to consider both quantity of supportive ties as well as the quality of these ties within the different contexts in which they occur (i.e., home, clinic, community).

While studies have explored the role of social support in diabetes self-management behaviours, there is limited research exploring the distinct types and sources of social support from and how it changes pre- and post-diagnosis, especially in Latin America. In addition, there are few studies using patient narratives to provide insight on the lived experience of illness as an everyday experience among people in a rural, Caribbean region.

Narratives can provide insight into culturally-relevant social realities for individuals (Mattingly & Garro, 2000). Illness narratives in particular can be analysed to understand how individuals perceive illness and help health professionals understand where to intervene to improve treatment and management. Given the culturally- and contextually-grounded nature of social support dynamics, the research question we explored was: what are the types and sources of social support across diabetes diagnosis and self-management experiences among rural Dominicans living with type 2 diabetes?

Methods

Setting

In the Dominican Republic approximately 11.2% of adults (20–79) are diagnosed with diabetes, about twice the world average of 6.4% (Cruz et al., 2012; PAHO, 2010). While the Dominican National Diabetes plan was developed to improve access to healthy foods, promote physical activity, and improve monitoring and surveillance of diabetes, this plan has not been consistently implemented, particularly in rural areas which have lower infrastructure investment (IDF, 2014). While the Dominican Republic, like the rest of Latin America, has undergone major urbanization a significant proportion (20%) of the population still reside in rural areas (World Bank, 2017). Among rural inhabitants in the Dominican Republic, about 50% live in poverty, which is higher than the national average of 30% (IFAD, 2014). These high poverty rates can affect access to healthcare services by impeding the ability to pay for transportation, consults, and treatment options (IFAD, 2014).

We conducted this study in two rural health clinics in the Cibao region of the Dominican Republic (FAO, 2015). One community health clinic was constructed by the Institute for Latin American Concern (ILAC) an international, collaborative healthcare and educational organization (ILAC, 2015a). The other clinic operated in a community centre donated at no cost by the local community. ILAC has had an active health programme in the province since 1989, anchored by a cadre of *cooperadores* (community health workers) tasked with improving the health for members of their communities through disseminating knowledge and coordinating health promotion initiatives (ILAC, 2015b). At each clinic, *cooperadores* and providers (physicians and nurses) were trained in diabetes care and self-management by a non-governmental organization, Chronic Care International (CCI; chroniccareinternational.org). Additional information regarding programme development is published elsewhere (Cruz et al., 2012). At the time of the study the CCI programme was in its fifth year of operation.

Approximately 900 patients with diabetes and/or hypertension were enrolled in the program, 400 covered by Clinic A and 500 covered by Clinic B. Each clinic utilized similar procedures to promote diabetes self-management to improve health outcomes. Enrolled patients received health education talks on engaging in a healthy diet and regular exercise, and medication adherence. Patients received free medical consultation and diagnostic testing with physicians, and free diabetes, hypertension and lipid lowering medications, as needed, provided by CCI.

Sampling and recruitment

Participants were at least 18 years of age, spoke Spanish, reported a confirmed diabetes diagnosis, and were enrolled in the CCI program. We intentionally sampled a balance of men and women from a variety of communities served by each clinic. The cooperadores initially facilitated recruitment by introducing the study to patients at the clinic and we invited volunteers to speak with us to learn more about the study. Subsequently, cooperadores aided in identifying potential participants in response to our eligibility criteria ($n = 2$). As we gained the confidence of the community, we screened and recruited the majority of the participants for a total of 14 participants at each clinic. We collected essential sociodemographic information at the beginning of each interview to characterize our participant sample. All participants were from the Cibao region and many were of low socioeconomic status. At both clinics, 8 of 14 participants were women. The majority of participants reported having a cohabitating partner (20/28). The average amount of time since diabetes diagnosis was 9 years for Clinic A and 10.5 years in Clinic B (Table 1)

Data collection

All data were collected by three bilingual members of the research team and the protocol was approved by the University of North Carolina, Chapel Hill Institutional Review Board (IRB 15–1007). The senior author has been connected to the region for over 20 years and served as principal investigator of the study. The first and second authors were graduate research assistants, both of Latin American descent, who resided in-country for 8 weeks to conduct the interviews (June – July 2015). While this work was done with input from the non-governmental organization, it was conceptualized and executed independently and findings were then shared to inform future programming. Prior to data collection, we informed all potential participants of the study aims and obtained oral informed consent. Interviews were conducted in private spaces in the clinics and a neighbouring community centre, or participants' homes, if requested. Interviews lasted 30–90 minutes. Interview guides included questions on the patient's community context, diabetes experience, and CCI programme experience. We offered all participants hygiene packets (lotion, soap) equivalent to 200 Dominican pesos upon completing the interview (US\$ 4.50). After interviews, we wrote field notes to facilitate iterative analyses and interpretations.

We audio-recorded all interviews and our team together with two Dominican transcriptionists transcribed all interviews verbatim in Spanish. One of the Dominican transcriptionists, a university-educated psychologist, had extensive experience transcribing research data. We trained and reviewed the work of the other local transcriptionist, who was a university-educated Dominican woman from one of the participating communities. We reviewed transcripts against the original audio to ensure fidelity was maintained. All transcriptions were analysed in Spanish.

Analytical Approach

We conducted an inductive, data driven analysis of the data using both connecting and categorizing approaches (Maxwell & Miller, 2008). According to Maxwell and Miller (2008) connecting approaches involve identifying relationships among parts of text over space and time. Conversely, categorizing strategies involve identify themes or categories

based on comparisons of similarities and differences independent of time and place (Maxwell & Miller, 2008). We first used a connecting approach by writing summaries of patient narratives of their diabetes experience. Re-assembling narratives provided both order and context to each patient's diabetes journey. In the process of writing these narratives, we identified that social support was a salient theme throughout participant's experiences. We used Heaney & Israel's (2008) definition of social support as 'aid and assistance exchanged through social relationships and interpersonal transactions', to guide our analysis. We followed their categorization of four types of support: emotional, instrumental, informational, and appraisal, defined in Table 2.

Based on these definitions and type of support, we then developed matrices to organize text by types and sources of social support at specific stages of the patient's diabetes journey, as described in the interviews. These stages were: (1) diabetes diagnosis, (2) diabetes programme enrolment, and (3) long-term management.

Next, we developed a codebook comprised of descriptive codes using the four types of social support. Additionally, our codes for sources of social support were peers (with and without diabetes), family, and clinical staff. All coding was conducted using ATLAS.ti (Version 7). Categorizing the different types of social support as well as the sources of this support in ATLAS.ti facilitated systematic comparisons across participants. In addition, we constructed a summary matrix of types and sources of support to identify patterns within each stage, which aided in comparing and contrasting narratives of lived experiences with diabetes for participants in the study (Miles & Huberman, 1984).

Results

We identified types and sources of support across the three stages of the diabetes journey. Below we describe how social support evolved from the diabetes diagnosis, enrolment, and long-term management stages.

Stage 1: Diabetes Diagnosis

We defined the diabetes diagnosis stage as the period when the participant learned that they had diabetes. We found two paths for the diabetes diagnosis: (1) indirectly through co-occurring illness; and (2) directly through support from friends and neighbours.

Most participants (15/28) described learning about their diabetes indirectly through a routine check-up or going to medical appointments for other conditions. One participant, Ana, learned she had diabetes after undergoing surgery to remove a benign tumour. In preparation for the surgery her doctor ran a glucose test that confirmed her diabetes diagnosis.

Fewer participants (13/28) described the path of direct support for diagnosis from friends and neighbours. Appraisal support from friends and neighbours regarding perceived changes in the participant's physical appearance was the most common form of social support across narratives. Juan, a 53 year-old male living with diabetes for 10 years, described how a neighbour encouraged him to seek care because he looked ill and *seco*, which translates to dry and is used to refer to someone who has lost excessive weight.

...She told me, 'you're sick, your clothes are loose and falling off of you.' I agreed. I had a t-shirt that I no longer fit in. Dry, I was getting drier, [...to the point that] a man told others 'be fearful of that man, he could have AIDS.' And I heard that, you see? I went to my partner and told her that I felt ill. After that a neighbour took me to the see a good doctor to see about my condition where the doctor then tells me, 'sir, you are a diabetic.'

Juan's neighbour played a critical role in this stage by appraising Juan's health through her perception of his weight loss. This was a common theme across patient narratives at this stage, with both men and women describing how shirts and pants fit loosely, and women further describing how they lost their curves, a potential side effect of hyperglycaemia (Arnold, 2005). However, as seen in Juan's case, appraisal alone was not sufficient for seeking a diagnosis. It was his neighbour also providing instrumental support by accompanying him to seek care that facilitated a diagnosis.

Participants also discussed how the cooperadores would encouraged them to get screened for diabetes should acute complications present themselves, as described by Hector, a 68-year-old who had been living with diabetes for almost 15 years.

Years ago I often visited one of the cooperadores who would serve me lightly-sweetened coffee. I would add more sugar to it, but they would warn me not to make my coffee overly sweet as it was harmful to my health. Years later I started to feel unwell so the cooperador told me to get my blood sugar checked out.

While most participants described getting diagnosed through an indirect process, appraisal and information support served as a catalyst to get participants to seek out medical care for a then unknown condition.

Stage 2: Enrolment in the Program

Compared to the diabetes diagnosis stage, themes of support were more salient among participants at the enrolment stage, particularly informational and instrumental support from friends and neighbours to get to the clinic. Some of these friends and neighbours were enrolled in the CCI programme and provided information on how to get to the clinic and services provided. Participants also described instances where friends who were not enrolled in the programme increased their awareness of it after the participant's diagnosis. Participants described friends and neighbours providing instrumental support such as accompanying them to their initial or ongoing appointments and/or providing transportation services. Pedro, a 53 year-old male, living with diabetes for three years, shared that a neighbour from his community took him to his first appointment at the CCI clinic and provided Pedro and others ongoing support with transportation,

How did I first get here? The man sitting in the waiting room brought me. He found out about this program and invited a group of us to go with him. Every month a few of us go in his bus for our appointments.

Pedro's experience highlights the combination of informational and instrumental support as critical for reducing barriers for programme enrolment.

In addition to informational and instrumental support from friends and neighbours, referrals from physicians and cooperadores also facilitated the enrolment process. Cooperadores played a key role in disseminating diabetes-related information and increasing awareness of the diabetes programme in their communities. A few participants learned about the diabetes programme through the outreach done by cooperadores at community meetings in nearby towns (4/28). Participants also described hearing about the programme from providers at other clinics, as Maria describes below,

I started here because I used to get checked out in a distant part of the province. Then, I went to a public clinic and heard about a diabetes centre from the staff. That is how I learned about the programme and that's how I came here.

For Maria, and other patients, informational support from healthcare workers raised awareness of the CCI programme and facilitated their enrolment.

Although support from friends, neighbours, and health providers was important in this stage it was not ubiquitous. Discussions of support from friends and neighbours, in particular, were gendered. While most men we interviewed described receiving support to enrol from friends and neighbours who had diabetes (9/12), few women did (4/16). Women were more likely to report support either from cooperadores (3/16) or report no support at all in their decision to enrol (9/16).

Stage 3: Long-term Management

In this stage, participants mentioned new sources of social support in addition to the friends discussed in the first two stages. Particularly, cohabitating partners were often the primary supporters mentioned by participants when asked 'who supports you with your diabetes?' Partners played many roles, sometimes as a source of emotional support such as being available for participants to talk to when needed. Partners also provided instrumental support by buying recommended foods, preparing meals, monitoring their medication schedule, and with transportation to appointments. For example, Carlos described how his wife supports him in his diabetes self-management by keeping track of his medication schedule and with his diet,

Yes, my wife supports me with my treatment. She'll give me what I can or should eat [for my diet]. If I can't eat something she does not prepare it.

Carlos' description of spousal support as a means of self-managing diabetes is similar to many of the narratives provided by our male patients. However, this pattern did not hold for women. Women had the primary responsibilities of the home such as domestic work and preparing family meals, even when those meals were not part of their recommended diet. Maintaining the same level of responsibilities they had before having diabetes coupled with reporting little support in the home led to narratives depicting stress and frustration. Below Rosa, a 52 year-old female living with diabetes for three years, described having limited support at home and how it affected her physically.

No one supports me, no one. How do I say this, even if I feel bad no one pays attention. Not even my sisters come to visit and lend me a hand. But God gives me strength, because no one else helps me. What happens is that when my sugar levels

go up, I cannot sleep well and sometimes I get scared. Sometimes my family does things I don't like, which makes me feel ill, like I have high blood pressure. I don't know. Listen, those who have diabetes have to be careful and so they need someone who will support them so that they feel better.

Rosa described her desire for support and the emotional and physical repercussions in not receiving it. Among the few men who did mention limited support long-term management, it was usually a lack of emotional support from a cohabitating partner.

Additionally to partners, other family members were mentioned as sources of support such as older children, parents, and extended family. Similarly to partners, extended family members provided transportation to appointments, ensured medication and diet adherence, and the provision of material resources.

In this stage, participants also highlighted the role of support from cooperadores, who are tasked with not only supporting diabetes care and medication, but also delivering health talks on the importance of diabetes self-management strategies to all participants and the community at large. These health talks were often referenced in the interviews as a form of informational support to learn how best to manage their condition. Cooperadores also provided emotional support by showing that they cared about their participants through actively listening to their successes and challenges. David, a 59-year-old male living with diabetes for nine years, described how having the option to speak with cooperadores and providers helped him feel better and feel cared for.

Before I came here I felt that everything was crashing around me. Some of us feel like we're drowning in a cup of water because we do not find someone to talk to about our problems. But now I can talk to the cooperadores...to the doctor, and I feel better.

Participants provided examples of also physicians served as sounding boards for issues related to their diabetes and their day-to-day stressors. Moreover, physicians were in private offices, which may have provided an environment where participants could discuss sensitive topics more freely such as stress and sexual health. Of note, men felt more comfortable discussing sexual health matters, such as concerns with diabetes-related erectile dysfunction with the physicians than with the cooperadores. This could be because two of the physicians were men, whereas seven out of the eight cooperadores were female. Carlos discussed how he had a conversation with a doctor about how diabetes plays a role in his sexual health.

For men, we can suffer from a problem with (sexual) relations. I spoke with the doctor when I had a problem [erectile dysfunction]. He told me what I need to do to control my sugar otherwise I won't get better.

Often men who expressed concerns about sexual health described discussing problems with sexual performance with physicians, which served as motivation to improve their self-management behaviours. In addition to sexual performance, men also discussed being motivated to adhere to their self-management to remain active at work. It is important to note that not all interactions with physicians elicited positive responses. Some participants described being chastised for not maintaining blood sugar control. For some, this served as

motivation to reassess and change behaviours to ensure blood sugar control in the future. For others, these critiques were demoralizing and frustrating.

Support from friends and neighbours was less salient in the long-term management stage than the support from partners and providers. One exception was in regards to eating or purchasing food in public spaces, as described by 57-year-old, Miguel,

Miguel: I have a good friend that when we go out to eat, he argues with me about what I can eat. He tells me, 'no you can't eat this and that, because it's harmful.'

Interviewer: And when he says that, how does that make you feel?

Miguel: Good, because he's looking out for me.

For Miguel, having a friend who ensured that he adhered to his diet was appreciated and helped him adhere to his self-management regimen.

The long-term management stage was characterized by instrumental and emotional support from family, especially partners. Healthcare providers and cooperadores provided informational and instrumental support to help participants manage their diabetes. Friends and neighbours were less salient in this stage compared to the diagnosis and programme enrolment stages. Although participants reported a greater variety of social support sources in this stage, participants also described the negative effects of limited or no support to manage their diabetes.

Discussion

For this study we aimed to explore the types and sources of social support received by adults in the diabetes diagnosis self-management processes. We assessed types and sources of social support through the diabetes diagnosis, programme enrolment and long-term management stages among men and women in two rural community clinics in the Dominican Republic and found that the types and sources of social support varied at each stage. We also found that experiences with social support were gendered.

At the diagnosis stage, we found that most participants learned about their diabetes indirectly, at an annual check-up, a community screening, or at a consult for another health problem. Social support was least salient at this stage compared to the enrolment and long-term management stages. Consistent with our data, Chary and colleagues (2012) conducted a qualitative study and reported that a significant proportion of diagnoses among indigenous Guatemalans with type 2 diabetes were incidental (26%). This finding highlights an opportunity to increase informational support through community-based health education to raise awareness about diabetes screenings. While some participants in our study were diagnosed through community-wide screenings, given that most were diagnosed indirectly, there is an opportunity to increase awareness of diabetes and improve prevention efforts through working with corner stores (*colmados*) to improve diabetes-recommended food options and by developing patient-led community gardens to increase access to fruits and vegetables for patients and their families.

Among those who did receive support, most mentioned friends and neighbours as providing both information and instrumental support. In contrast, long-term management we found that family, particularly cohabitating partners, were important sources of support. Partners often provided instrumental support with their diet and medication adherence and also provided some emotional support. Past qualitative studies conducted in the United States, Australia, and Guatemala reported that family support, particularly from spouses, was the strongest predictor of medication adherence and physical activity (Chary et al., 2012; Glasgow & Toobert, 1988; Trief, Ploutz-Snyder, Britton, & Weinstock, 2004).

Granovetter's (1973) theory of the 'strength of ties' is a helpful framework for interpreting these findings. Individuals can have strong ties characterized by frequent and more intensive interactions (i.e., spouse, partner) as well as weak ties characterized by limited interactions and lower intensity (i.e., friends, neighbours), or no ties (Uhlir, 2011). Granovetter (1973) noted that there are advantages to having weak ties, primarily when considering how critical they may be in the diffusion of information or ideas. In this case, friends and neighbours diffused information about the CCI diabetes programme that participants' strong ties were not aware of. It is noteworthy, that at the diagnosis phase, these weak ties included both individuals who were living with diabetes as well as those who were not. In contrast, the strong ties, or family members who provided day-to-day instrumental and emotional support, were critical in the long-term management stage. The strength of ties framework can be helpful in assessing the types and sources of support available to individuals within their communities and kin networks, in order to maximize the most effective type and source of support at each stage in the diabetes journey.

Moreover, Newton-John et al. (2016) distinguishes between social support and social control. Social support defined as actions aimed to encourage or facilitate a behaviour (i.e., reminding to take medication); whereas, social control aims to correct for what is perceived to be suboptimal management of a behaviour, such as regulating intake of non-recommended foods (Newton-John et al., 2016). In our study, participants spoke positively about having friends provide both social support and social control. They described having a friend who both encouraged positive behaviours and chastised them for poor behaviours. Of note, family, friends and neighbours who provided support at different stages mostly did not have diabetes, which is interesting given the fairly robust literature on the central role of support between people living with diabetes (Fisher et al., 2012). Overall, support by peers with diabetes was underutilized within the context of diabetes self-management, both within and outside of the clinic setting. Recent studies have found favourable results such as increased emotional support, increased ability to cope with stressors, and increased adherence to self-management behaviours among those who receive support from peers who have diabetes (Shaya et al., 2014; Vissenberg et al., 2016). Leveraging diabetes programme participants as peer leaders in their communities can improve informational, instrumental and emotional support for ongoing self-management behaviours. It can also aid in decentralizing support from the clinic to the community setting, potentially reducing the burden of providing these types of support on cooperadores and providers.

Providers and cooperadores were cited as important sources of informational support. Many participants appreciated listening to health talks by the cooperadores to learn more about

self-management behaviours. Participants discussed cooperadores providing crucial informational and instrumental support for diagnosis through community screenings; however, participants spoke of little support from cooperadores beyond the clinic walls in the long-term management stage. This finding highlights a missed opportunity to reinforce the trust and support dynamics established with cooperadores in the clinic context to home visits and community groups.

Like friends and neighbours, health professional delivered feedback to participants that was akin to social control. Participants' perspective of social control, such as getting reprimanded for insufficient dietary control, varied. Most participants had a positive perception of social control; however, there were instances where patients perceived these interactions negatively. Newton-John et al. (2016) distinguished these two reactions as perceived positive and perceived negative social control. The authors concluded that the effects of social control are likely to be context specific and whether or not a person with diabetes reacts positively or negatively is dependent on a number of factors such as non-involvement in the patient's self-management behaviours by family or friends (Newton-John et al., 2016). This finding is also supported by results from Karlsen and Bru (2014) such that providers may respond in a way that is "perceived less supportive" (i.e., non-constructive) by people who exhibit struggles with their diabetes. Training providers in diabetes self-management programs on assessing the dimensions of social control that work best for their patients, or understanding how patients perceive provider support as constructive or non-constructive, may improve patient-provider communication.

Across all stages we found gender differences in the social support experiences. Consistent with previous studies, women consistently reported less social support in their diabetes than men (Eriksson & Rosenqvist, 1993; Mansyur, Rustveld, Nash, & Jibaja-Weiss, 2016). Research suggests that spouses who do not have diabetes can actually undermine their partner's self-management behaviours, which is consistent with our data (Newton-John et al., 2016). Low levels of social support have been linked increased risk of depression and other mental health conditions, which in turn has been linked to affecting diabetes control (Anderson, Freedland, Clouse, & Lustman, 2001). A recent trial adopting a diabetes-depression care-management model for Latinos with diabetes successfully reduced the number of patients reporting moderate or severe depression and increased overall satisfaction with care (Wu, 2014). Even without incorporating a diabetes-depression model in a curriculum, studies have found that addressing mental health concerns among patients will improve physical health outcomes (Gonzalez, Fisher, & Polonsky, 2011; Newton-John et al., 2016). Furthermore, improving receipt of social support among Latina women with diabetes has been shown to be much more effective at improving their ability to manage their condition compared to Latino men (Mansyur et al., 2016). This may suggest developing gender-specific programming to improve social support and address potential mental health concerns among both men and women with diabetes in the programme.

Limitations

This study has several limitations. The sample was drawn from a clinic population; therefore, these participants may be more engaged in their diabetes management than the

general population. The sample was comprised mostly of older adults, skewing our average age around 56 years. How their experiences reflect those of younger patients, particularly young adults, is a question for further exploration. We did not elicit an exhaustive list of all sources of support at each stage but rather probed on those that were mentioned by the participants. While our approach most likely reflects the individuals that are most salient to participants, it is possible we missed some other sources and/or types of support. An egocentric social network inventory methodology could be useful to further explore the composition and structure of these networks.

Conclusions

Social support manifests itself differently depending on the stage of the diabetes experience. Understanding the types and sources of support available and required can help in the development of community and clinical interventions for individuals with diabetes. Assessing social support in individuals within the context of diabetes stages can assist healthcare providers and public health practitioners to more effectively target social support as an important determinant of health-seeking and self-management behaviours.

Acknowledgements

The authors thank the members of the CCI programmes staff, health providers, cooperadores, and patients for their participation in their study.

Funding

This work was supported by the Summer Research Grant awarded by the Institute of African American Research and the Carolina Global Initiative at the University of North Carolina at Chapel Hill.

Biographies

Deshira D. Wallace, MSPH, is a doctoral candidate at the University of North Carolina Gillings School of Global Public Health, 302 Rosenau Hall #CB7440, Chapel Hill, North Carolina, USA.

Humberto Gonzalez Rodriguez, MPH, Study Coordinator at the University of North Carolina Gillings School of Global Public Health, 302 Rosenau Hall #CB7440, Chapel Hill, Chapel Hill, North Carolina, USA.

Elizabeth A. Walker, PhD, RN, CDE is a Professor of Medicine at the Albert Einstein College of Medicine, 1300 Morris Park Avenue Belfer Bldg, #705, Bronx, New York, USA.

Hans Dethlefs, MD, is the President of Chronic Care International in Omaha, Nebraska, USA.

Rachel A. Dowd, BSN, is a Registered Nurse and certified diabetes educator at Chronic Care International in Omaha, Nebraska, USA.

Linda Filipi, BSN, RN, CDE, is a Registered Nurse and certified diabetes educator at Saddleback Memorial Hospital, 24451 Health Center Dr, Laguna Hills, California, USA.

Clare Barrington, PhD, MPH, is an Associate Professor at the University of North Carolina Gillings School of Global Public Health, 302 Rosenau Hall #CB7440, Chapel Hill, Chapel Hill, North Carolina, USA.

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TABLE 1 –

Participant Characteristics: Diabetes and Hypertension Clinics (CCI), Dominican Republic, June-July 2015

	Clinic A Participants (n=14)	Clinic B Participants (n=14)
Age, y, mean (range)	56.5 (37-76)	56.5 (26-79)
Education, mean (range)	5 (0 – University)	4 (0 – 8)
Self-reported years with Diabetes, mean (range)	9 (1 - 20)	10.5 (<1 - 50)
Gender		
Females	8	8
Males	6	6
Marriage Status		
Cohabiting Partner	12	8
Widow(er)	1	4
Separated	1	1
Single	0	2

TABLE 2 –

Types of Social Support

Emotional support	Provision of empathy, love, trust, and caring.
Instrumental support	Provision of tangible aid and services that directly assist a person in need.
Informational support	Provision of advice, suggestions, and information that a person can use to address problems.
Appraisal support	Provision of information that is useful for self-evaluation (constructive feedback and affirmation).

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