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Abstract: *In the year 2000, Migrant Health Services, Inc. began utilizing Diabetes Lay Educators (DLEs) as a way to improve the health status of Hispanic migrant farmworkers with diabetes. The purpose of this case study was to provide insight into the perceptions of one DLE and characteristics she needed to achieve positive client outcomes. These characteristics included a strong internal desire to help this population, a knowledge base, and advocacy skills needed to work between two cultures.*

Key Words: *Diabetes, Diabetic Lay Educator, Hispanic Migrant, Farmworker*

DIABETES LAY EDUCATOR CASE STUDY: ONE WOMAN'S EXPERIENCE WORKING WITH THE HISPANIC MIGRANT AND SEASONAL FARMWORKERS

There are certain people in a community who others turn to for care, advice, information, and support as a remedy for some of the barriers encountered in our present health care service delivery system (Eng & Young, 1992). These individuals are known by various names, such as community health workers, community health advisors, community outreach workers, lay health workers, promotoras, and lay educators (Zuvekas, Nolan, Tumaylle & Griffen, 1999). According to the Centers for Disease Control and Prevention (1994), a community health worker has been defined as a trusted and respected community member who provides links between health-related services and persons in the community. Roles for these individuals include identifying and recruiting people in need, serving as counselor to people who know and trust them, and fulfilling the role of educator-organize (Eng & Young 1992).

In 2000, Migrant Health Services, Inc. (MHSI) diabetes program implemented the use of Diabetic Lay Educators (DLEs), who conducted support group meetings and provided diabetes education in Minnesota and North Dakota from April to September. From October through March, when the DLEs returned to their homes in southern Texas, they continued to conduct support group meetings and made home visits as needed to their migrant clients (Heuer, Hess, & Klug, 2004).

The role of the Hispanic DLEs identified in this program model consisted of language interpretation, case management, advice, and advocacy offered from an intra-cultural perspective. DLEs scheduled, convened, and moderated diabetes support group meetings where professional health care providers disseminated educational information. DLEs conducted home visits where they 1) individualized and reinforced the application of information disseminated at the prevention clinics and support group meetings and 2) facilitated follow-through on recommendations and referrals made at the diabetes cluster clinics (Heuer et al., 2004).

Although lay educators are used extensively in the health care field, there is little research available that describes what characteristics are perceived as being important for this type of educator to achieve positive client outcomes. The purpose of this case study was to gain insight into the perceptions of one DLE and the characteristics she needed to achieve positive client outcomes. The data provided researchers insight to the characteristics Maria, (a pseudonym for the woman who participated in this case study), believed were important to be a successful diabetes lay educator.

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METHODS

Design

A larger study was completed in 2005 that explored the perceptions of DLEs working with Hispanic migrant farmworker populations in Minnesota, North Dakota, and Texas. From this larger study, a single case study emerged based on Maria's perceptions. This qualitative research design was chosen to capture the in-depth meaning of one participant's experiences (Nieswiadomy, 1998).

Permission to undertake this study was granted by the University of North Dakota's internal review board in collaboration with MHSI. The participant had the right to withdraw at any point without impact on her employment as a DLE.

Participant

The participant for this case study was Maria, a 29-year-old Hispanic woman who was married with two children and had been migrating from Texas to the Red River Valley all of her life. She was diagnosed with diabetes three years ago. Maria had been a DLE with MHSI since its conception in 2000. She sought out knowledge on a continuous basis and participated as a peer educator and mentor for other DLEs. She had represented the DLE Program as a guest speaker at a variety of regional and national health care conferences. In addition, Maria advocated for the farmworker population and the lay educator program in community and political settings.

Data Collection

Five qualitative interviews were conducted utilizing a semi-structured interview guide with open-ended questions. Maria was asked to discuss her experiences as a DLE in providing support and education to Hispanic migrant farmworkers who traveled between Minnesota, North Dakota, and Texas. This type of interview allowed the researcher to use such skills as reflection, clarification, requests for examples and, description and the conveyance of interest through listening techniques to gather data (Jasper, 1994). The third author conducted the tape-recorded interviews, with each interview lasting between 60 to 90 minutes. All of the interviews were conducted at Maria's place of employment. For each interview, she was compensated with a $20.00 gift certificate from a local merchant.

Data Analysis

The data analysis process, which has been used by authors Lausch, Heuer, Guasasco, and Benjamin (2003), was utilized in this study as well. All transcripts were reviewed for correctness and then checked for accuracy against the audiotapes. Maria spoke English so there was no need for translation of the interviews. Minor adjustments were made when necessary to ensure the accuracy of the transcriptions. Working as a team, the researchers developed an initial codebook. After several in-depth discussions, some necessary revisions were made to insure conformity and credibility (Rubin & Rubin, 1995). The next stage consisted of reading the transcripts several times. Validity and reliability were confirmed when the researchers identified similar recurrent concepts independent of one another. These data were organized into categories in which specific themes emerged.

FINDINGS

Maria's experiences generated data from which the researchers identified six major themes. These themes included: prevalence of diabetes in Maria's life, internal desire to become a lay educator, knowledge of diabetes, strategies to increase client participation, changes in client behavior, and satisfaction as a DLE.

Prevalence of Diabetes in Maria's Life

According to Zuvekas and others (1999), community health workers (e.g., lay educators) are effective in their communities when they possess shared life experiences. In Maria's lifetime, she has had extensive experiences with the management and treatment of diabetes. She has many extended family members with this chronic illness:

> *In my family, pretty much, um, in my dad's family I have 17 uncles and aunts, 14 of them are all diabetics. My grandparents, both of them were diabetics on both sides.*

Throughout her life, she also witnessed the severity of this chronic disease. When talking about her grandfather, she described the complications of poorly treated diabetes,

> *They had to actually...cut off a piece of it [gangrenous leg]...because of the diabetes, being so high, he had leg problems and foot problems. He also had heart problems and kidney problems.*

In addition, Maria shared that her grandmother "passed away with heart problems" that were related to her diabetes and at one point, her father's diabetes was so serious that his physician was considering putting "him on dialysis."

When the researcher initially started the interviews, Maria was not diagnosed with diabetes. She was subsequently diagnosed a year later and felt that she was "pretty lucky" as she was "diet controlled right now."

Maria also expressed great concern for her children and their potential for being diagnosed with diabetes:

> *To be very honest, I don't think there would be a way that we could say for them [her children] not to get it, but if we can help them, if in case they do get it, um, how to protect themselves and how to be careful with diabetes. Cause I am pretty sure like our family has such a high risk, one day, even though they take care of their diet, if they are already going to get the diabetes, they will get it.*

Internal Desire to Become a Lay Educator

Knowledge of self-care practices are necessary if lay health advisors are expected to provide emotional and instrumental support to people in need (Eng & Young, 1992). Maria understood the importance of self-managing her diabetes to prevent further complications. Thus, she was able to share this knowledge with clients on a more personal level. This was driven by her internal desire to help other clients with diabetes as reflected in the following statement; "I thought it would be like a goal for me to accomplish something to help more diabetics and because my whole family has it and I would like to learn more about it."

Since she had been diagnosed with diabetes, she also understood the emotional aspects related to diabetes which she addressed:

> *I've noticed when you work with diabetics, a lot of them don't want to listen to you, but if they have someone to talk to, whether it's silly things, whatever, it makes them feel better. Because when you're diabetic, you have a whole lot of stress. And you sometimes don't tell anybody and just keep it all to yourself. So if you could just have somebody who you don't see everyday at your house, you could even have a phone call with them for even a half hour, that would help them. But they at least need somebody to hear them.*

Maria used the noun "I" when describing her internal desire to help those with diabetes. She stated:

> *"I want them to get better services."*
> *"I want to teach them."*
> *"I don't stop there. I always try to get them into their clinic, contact their doctor."*

This DLE had the internal desire and motivation to work with her clients. Maria was not concerned with personal gain as indicated by her comment; "It is not going to benefit me or anything, but it is going to benefit them, that they are actually getting help for what their needs are."

Knowledge of Diabetes

Community health workers (e.g., DLEs) can be most effective if they are members of the community being served (Zuvekas et al., 1999). The health promoter model developed by Pfizer Health Solutions also recommended that health education and guidance will be better received from a member of the community who speaks a person's native language rather than from a health care practitioner who may have little understanding of the culture or language (Author Unknown, 2003). Maria was Spanish speaking and served a population of migrant clients who traveled to Minnesota and North Dakota from Texas. Thus, she was very knowledgeable about the population she served and was a member of this community in the broadest sense.

Training by MHSI Diabetes Program staff provided Maria with the knowledge base necessary to be successful. DLEs had two intense days of training at a diabetes center in northern North Dakota. They received information on the etiology of diabetes, how to take blood pressures and blood sugars, along with nutrition education. The DLEs received ongoing support from the Diabetes Program Coordinator. Each DLE then attended a day-long monthly update session for the next three months. Included in these subsequent training days was content on how to successfully lead a support group meeting.

Maria believed that "her training went really well." She had a clear understanding of hyper and hypoglycemia and was able to advise the clients "what to do when they are low or high." She also expressed that she was confident in her ability to "take blood pressures" and she was "also [able to do] glycohemoglobin's (A1c's), too." "The blood sugar and pressures [training] went really well." Maria stated that she had "everything she needs [in her travel bag]" and she had "this book that tells you about the different things with prescriptions [medications and side effects], that they [clients] have." She was also able to distribute:

> *... [educational materials] fliers to our families and told them to look at them and what they can eat. And that helped them a lot, like they were like I can eat this many carbohydrates, and so this is what I can eat for this meal. And before they thought that was it for the whole day. So by learning that, it helped us to bring this to our clients.*

The training also provided information on what services were available to the Hispanic migrant population. For the most part, when the migrant farmworkers are in Minnesota and North Dakota, clients were referred to MHSI satellite nurse-managed health centers or community providers for the health care they required. While in Texas, Maria explored the availability of health care services and social services.

Maria also possessed a knowledge base on the culture of western healthcare services. As stated before, she had a personal and family history of diabetes. Many of these cases were treated within the western medical system. She understood the culture of the medical clinic and if the "doctor is trying to hurry up." Maria described this 'hurried' education regarding nutrition in the following quote:

> *He [the doctor] tells them I don't want you to eat this and that, um, they won't, you know. Because they think the doctor has told them to do this...they get so nervous, because the doctor told them no, you know, what I want you to stay away from...meats, they won't eat any meats.*

For example, Maria recognized the difficulty one client had in comprehending the information provided to him and she intervened by:

Actually showing him this...this, is what it means [food serving size models] and actually wrote it down and showed him this is what it is. He understood better and that makes you feel good because it is not staying away from the meats that is going to be healthy, it is having them in the right amounts.

This DLE had a keen sense of effective communication with the Hispanic population:

Cause our culture, I know, we are very sensitive you know...if I say 'well you just don't care, do whatever you want', there is a different way you can say it, and [white] people don't know that by saying it two different ways, or if you say, 'let's try it this way', maybe it will help you better. It depends on the words that you use, that is how you make the clients feel. But, if you say something, it could be the slightest word that you will not think of [that will] offend them, it will. And they say I don't really want to go back to that person and I don't want to go to your support meetings because of that. And it all has to do with your staff that works with people with diabetes. And, as long as you get them to understand and make them feel, I care about you and I care about your diabetes, let's take care of you, they'll come back.

Maria had a personal awareness of what it was like to live with diabetes on a daily basis. In addition, it was the specific training on diabetes that gave her the tools in which to implement the specific DLE program goals. She was able to respect the similarities and differences between the two cultures. This DLE, who served as a community member, facilitated understanding between the cultural world of the Hispanic migrant farmworker and western medical services.

Strategies to Increase Client Participation

In this case study, the combination of a strong internal desire to help others along with a strong knowledge base became instrumental in Maria's ability to assume the role of advocate and to know what strategies worked best in group meetings. Her advocacy was evident when she stated:

So they [clients] recognize [DLE] and it makes it nice, because at least I am trying to help them out and I tell them 'don't be embarrassed if you have it one day, or anything' because of course, a lot of people are ashamed of having diabetes. And now, [they are] actually coming out and saying 'hey, I am diabetic'. You know a lot of people would say, 'no I don't want anybody to know', and now they are saying, 'hey this is not a disease this is an illness and not only I have it, but everybody else has it'.

She strengthened this statement with her comment, "And that is why, as a DLE, I never stop."

Two specific goals of this DLE were to increase client attendance and participation in diabetes support group meetings. She was the driving force that motivated the population to utilize existing regimens of care (Eng & Young, 1992). Maria's strategies to increase client attendance included mailing fliers, telephone calls, home visits, and notifying clients that she was their DLE:

"I send them [fliers] to the [Migrant] Head Start or go to the district and find them, the people who are migrant farmworkers...I telephone contact and just go to their homes."
"Every time I am going to have a meeting I send them fliers...I call them a day before."
"...if I'm driving by...I'll just stop and say, 'hey, don't forget...we are having a support group meeting this day'."

Once Maria had her clients in attendance at the support group meetings, she used methods that she believed increased client participation. One of the methods she found very successful was allowing the participants freedom to express their thoughts and feelings as indicated in the following quote:

When you go to a support group meeting and actually hear their ideas and comments to each other. My goal was getting [them] there, they go to interact with other people, and this is how we're going to succeed. We like them to communicate with each other. Sometimes it's better if we don't just teach them all the time, but if they have another diabetic tell them, between them, and actually have a talk than me just preaching to them and communicating. And, it's worked out that way actually.

Offering small incentives also proved successful for client recruitment and participation:

I always try to provide my clients, at least, a bottle of water when I have my support group meetings. Some kind of fruit...I always give them like a door prize to say, this is what you got because you learned. Or if we're talking about [foot care] I always provide them with a pair of socks and say 'this is the kind of sock you are suppose to wear to better comfort you'.

Incentives offered by Maria were utilized to reinforce the educational component of the support group meetings.

Maria's efforts went one step further when she asked her clients what would be of interest to them at their group meetings. Maria believed that by:

Actually asking the client what they wanted to know and hear, what they wanted to discuss, what [guest speakers]... they would want to talk to them. Something that they were interested to know as a group.

Maria served to improve the understanding of diabetes among the people it most affects, the clients and their families. It was evident that she promoted the well being of her clients.

Changes in Client Behavior

Evident in the data collected was the perception that clients were experiencing positive outcomes from the services the DLE provided. These included an increase in knowledge about diabetes by both the patient and the family, increased attendance at support group meetings, and increased communication between clients with diabetes. This quote reflected the experiences of one patient and their family:

So that makes you feel good, so now you are saying this is a family thing, it's just not dad's problem or mom's problem, it is everybody. And it make you feel good when the mother says, 'I am really happy you said that, my son understands now that when his dad is upset or grouchy it is not because it's him, it's because of his diabetes is high. So it makes him feel good'.

Attendance at support group meetings was largely influenced by the fact that the DLE called her clients. She "always had at least from 9 to 13, 14 clients. I never had less than that." "By doing home visits we (DLE) would get up to...20 people" to the support group meetings. Once the clients were at the support group meetings, clients were given the opportunity to discuss their diabetes with each other. This resulted in "more communication between our diabetics" where "they express themselves, they say, 'hey this is something new that we have learned'." Maria's efforts enhanced patient knowledge of diabetes in general and how they could improve their care.

Satisfaction as a DLE

There was a sense of job satisfaction when Maria talked about her patient's successes. When she witnessed a husband supporting his diabetic wife and helping her with the foods she should eat, this "made me [DLE] feel good." After a group meeting, clients praised the diabetic educational efforts indicating that, "if it wasn't for you people trying to do better for some of us...", there would be little assistance for this population. This made the DLE "feel good, you know, that you have been doing a change."

The DLE also stated that she was recognized within her community as a knowledgeable person who could assist those with diabetes. In one case, a client came to her with a high blood sugar and obviously needed a clinic visit. She told the patient:

I can get you into a clinic and notify them. Hey, I'm, I'm, Maria, and I work for Migrant Health as a DLE. I have a client here that I've been monitoring his blood sugars...and stuff like that. And sometimes doing that helps the client get in faster than themselves trying to get in.

Maria had effectively opened communication between herself and her clients. They trusted her enough to come to her with personal requests knowing she would try to do everything she could to assist them. Clients told her, "She [DLE] goes out and looks for services for you. She doesn't just leave it at that. You know and they'll come to you." Clients also stated, "[They] go out of their way to tell you, 'hey, I would really like to come [to the support group], but this is going on'." It was evident that she was respected as a lay educator when clients told her they would be missing meetings.

DISCUSSION

The results of this case study demonstrated there were characteristics that Maria believed helped her to fulfill her role as a DLE. The researchers made the following conclusions:

1. Maria had a distinct internal desire to help others with diabetes. This was based on the fact that she had this chronic disease, had a large number of extended family with diabetes, and was fearful that her children would get the disease due to a strong genetic predisposition.
2. Working with western health care providers and having the lived experience of a migrant farmworker with diabetes, provided Maria the background to effectively address the health care needs of this population.
3. Maria's training and education in diabetes provided her with the knowledge base on which she based her role as a DLE.
4. Maria had been an advocate and implemented strategies for client recruitment that were effective in increasing client numbers at support group meetings.
5. Marie believed she was perceived as a respected member of her community who would have assisted those who had health care needs related to their diabetes.

From the above conclusions, Maria was a role model for the MHSI Diabetes Program. The characteristics she possessed should be considered when recruiting future DLEs.

This case study reflected the perceptions of one lay educator who provided insight into the characteristics that made her an exemplary DLE. Maria had a strong internal desire, knowledge base, and skills to work with migrant farmworkers who had diabetes. These qualities had an interdependent relationship that led to positive patient outcomes. Because of this, Maria was seen

as a leader and advocate in her community. The results of this study are the impetus for the authors to continue research on the perceptions of other DLEs working with migrant farmworkers.

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