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Perspectives from the Hmong Population on Type 2 Diabetes

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Abstract

The primary goal of the study was to determine perceptions the Hmong population has about Type 2 diabetes. Specific information to be gathered from the Hmong participants were: reactions after being diagnosed with Type 2 diabetes, knowledge and beliefs about medications, and how pharmacists can help them with their diabetes care. Learning the beliefs of this population related to Type 2 diabetes will help identify methods to improve diabetes care and education for Hmong patients. A focus group was conducted with Hmong participants with Type 2 diabetes to explore their perceptions and experiences with diabetes. There were 9 participants in the focus group which lasted approximately 90 minutes. The major themes were a misunderstanding of diabetes and its treatment, a reluctance to adhere to medications, a reluctance to change cultural diet, and the need for clear education from pharmacists. Participant recommendations for pharmacists were to improve their diabetes care by educating them about the condition, medication, and available treatments.

Introduction

Diabetes is becoming an epidemic in the US. The numbers of people that are diagnosed with Type 2 diabetes are increasing every year. Data from the 2011 National Diabetes Fact Sheet stated that of the 25.8 million children and adults in the U.S., 8.3% of the population has diabetes.¹

The Hmong represent a small Southeast Asian minority group that immigrated to the US at the end of the Vietnam War. According to the US Census 2005 American Community Survey data, the majority of Hmong live in California (65,345), Minnesota (46,352), and Wisconsin (38,814).² Due to the fact that the Hmong population comprises only a small amount when compared nationally, there has not been data available to show the statistics of Hmong patients diagnosed with Type 2 diabetes. The trend of Type 2 diabetes diagnosis in the Hmong has been increasing due to the adoption of a Western diet and sedentary lifestyle.²

Although Type 2 diabetes is strongly correlated with the increase in obesity due to diet and physical inactivity, other factors also contribute to this. The understanding and diagnosis of diabetes tends to be more difficult in non-Caucasian patients.³ It is particularly difficult in the Hmong population because they experience significant social and cultural changes that influence their diet, exercise, and mental health.³ The Hmong diet typically consists of white rice, noodles, fish, meat and green vegetables with pepper.

They tend to eat the same types of food at each meal with limited fruits or dairy products.² Their lifestyles have dramatically changed from the physical activity of working in the fields in their homeland (Laos/Thailand), versus a more sedentary lifestyle in the US. There are also challenges in providing care to these patients due to illiteracy, cultural differences, and distrust in health care providers and medication regimen.³ All these factors accumulate to cause poor medication adherence in the Hmong population.

Hmong people were not familiar with diabetes until they migrated to the US. The primary objective of this study is to find out what perceptions Hmong patients with Type 2 diabetes have about this condition. Secondary objectives include determining how and if perceptions were changed after being diagnosed with Type 2 diabetes, knowledge about medications, and how pharmacists can help them with their diabetes care. By identifying some of their key issues and concerns, this should improve pharmacists' ability to provide diabetes care and education in the Hmong community. It was determined by the researchers that a focus group, conducted in the Hmong language, would be the most effective method to obtain this qualitative information.

Methodology

Subjects

The subjects of this study were identified by either their community pharmacist or by a diabetes clinic coordinator. They were asked to participate if they had a diagnosis of Type 2 diabetes and were over 21 years old. With the participants' consent, their phone numbers were provided to the primary researcher to call, verify their participation and give additional information about the focus group. Participants received a phone call the day before the meeting as a

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reminder of the focus group and the location and time of meeting. The study was approved by the University of Minnesota IRB as exempt from full IRB review.

Design

This study was a focus group design, which is a form of qualitative research where questions are asked in an interactive group setting. Participants were asked about their perceptions, opinions, beliefs, and attitudes. Having a focus group conducted in the Hmong language was deemed as beneficial in the Hmong community because many patients cannot read English. Not only that, but many of them are not able to read and write in Hmong. Having a focus group allows patients to interact and generate information from each other, which will reveal concepts that no single participant would have thought of individually. Some advantages of doing a focus group study are that there is no discrimination against individuals who are not able to read or write, and it encourages participation.⁵

Each of the subjects were given both written and verbal information about the purpose of the study, their consent, and \$30 gift card to compensate them for their time after the meeting. The group met for approximately 90 minutes and discussed their knowledge of diabetes. The principal investigator led the focus group in the Hmong language. The format was informal and interactive. Questions included:

1. What do you know about Type 2 diabetes?
2. What are the risks of Type 2 diabetes?
3. What causes Type 2 diabetes?
4. What are your thoughts about treatment for Type 2 diabetes?
5. What were your reactions when your doctor said that you had Type 2 diabetes?
6. What lifestyle changes did you make when you found out you had diabetes?
7. How can pharmacists help Hmong patients with Type 2 diabetes?

After the group discussed questions 1-4, the moderator did provide some brief education answering participant's questions on these topics. The conversation was recorded to assure the accuracy of the data. After the meeting, the conversation was evaluated to find common themes throughout the discussion and the audio recording was transcribed in English for analysis by both authors.

Results

The focus group consisted of 9 first generation Hmong immigrants (4 males, 5 females) with a history of Type 2

diabetes ranging from 2 to 10 years. The ages ranged from 45 to 60 years old.

Knowledge Regarding Diabetes

What do you know about Type 2 diabetes?

One gentleman answered that he does not know much, which was why he decided to participate. Another had said: *"Diabetes is when your blood is too thick like from the salt and oil that you eat and so you're not able to sweat it off, so your sugar in the blood stays in your body. The sugar accumulates in the body and so your heart works really hard to try to get the sugar out of your body."*

The majority of participants did not understand the role of pancreas and insulin production in diabetes. Many also did not know the difference in the types of diabetes and asked for explanations as to what the difference was and what each of the different types of diabetes was called. A few of the participants had asked which type of diabetes was worse.

What are the risks of Type 2 diabetes?

More than 50% of the participants did not know the risks of diabetes such as blindness, kidney damage, neuropathy, and cardiovascular complications. A female participant shared that one of her co-workers had to have his foot amputated because of an infection. Participants requested information, such as how legs and the heart are affected with diabetes. One specific question was: *"I don't understand the mechanism of diabetes affecting the heart to cause heart attacks. I understand how it can cause complication for the eyes but I don't know how the heart is involved with high blood sugars."*

What causes Type 2 diabetes?

One participant stated *"I heard only fat people get Type 2 diabetes."* Another man had replied that it was from eating too many sweets and from drinking too much soda which overwork the pancreas. He went on to state that this leads to an imbalance of more sweets than insulin production and over time, the pancreas starts losing its function and that is why one gets high blood sugar. Most participants did not respond to this question.

Knowledge About the Treatment of Diabetes

What are your thoughts about treatment for Type 2 diabetes?

One participant asked how long they have to be on medications or if there was a cure for diabetes. Some had unique explanations for how the medications work: *"So what I understand is that when we take the medicine, the medicine is bitter which counteracts the sweetness and turns the sugars neutral."*

Several participants expressed concerns that taking medications indefinitely can lead to organ damage, especially the kidneys, because of the drugs accumulating in the body. *“So taking all of this medicine, have you learned if they cause kidney failure due to all the chemicals that you are putting in your body?”* This was a common rationale for not wanting to take these medications.

Another participant stated: *“I think that there are medications available that can fully cure someone, but if the manufacturers made those kinds of medications available, then they wouldn’t be able to make as much money.”*

Some of the patients took their medications as directed, while the others did not take medications as prescribed. Some quotes from participants were:

“I have had diabetes for 3 years and haven’t been taking medications on a regular basis. I feel that I am fine without my medicine.”

“I don’t feel that the medications help me, so I don’t take it as often. Only when I feel that I need it. And I just don’t want to take medicine for the rest of my life.”

“I do have western medicine but I have to admit, I do not take it regularly. Sometimes I forget, because I am not having pain or experiencing any side effects.”

There were mixed feelings within the group regarding Western medicine. The majority of them do believe that Western medicine works better than “Hmong medicine,” based on their experiences or what they have heard from others. One statement was: *“These Hmong places that sell medicine saying that it is for diabetes, it doesn’t work. I bought the powder where you mix it in liquid, tried it for a few days and it doesn’t work.”* Another participant talked about his experience with taking Hmong medicine while he visited Laos and said that it did not help him, leading him to truly believe in Western medicine. He stated that if he had not brought his pioglitazone, he would not have made it back home alive. His story included this quote: *“Exercise does not help me at all. One year I went to Laos, and I did a lot of exercising by walking around daily along with that, the sun was out and it was hot. I was sweating out a lot. But my blood sugars were still high!”* Despite this general belief in Western medicine, many of them were not taking medications on a regular basis. This was due to the fact that they were not experiencing pain or symptoms, so felt that they did not need treatment.

Many of the participants felt that these medications made their body weak. One participant had stated that medication

response depends on the individual because everyone’s body is different, and some may experience side effects with certain medications and some may have better success with other medications. A few participants thought that taking medications for the rest of their life was unnecessary and could not find a purpose for that.

Some who refused or did not like the thought of taking medicine life-long commented: *“Well if it is my time to go, then it is my time to go.”* After explaining about the potential risks of diabetes, a few of the participants agreed that: *“We will be taking medications for the rest of our lives to be able to live to see another day. And without medications, we will die sooner, so might as well take them daily like what the doctors say so we can live longer.”*

Reactions to the Diagnosis of Diabetes

What were your reactions when your doctor said that you had Type 2 diabetes?

Many participants stated they were angry and worried after they were diagnosed with Type 2 diabetes. One participant said he was worried, did some research, and asked his physicians questions but he never really understood the concept until he spoke with a Hmong pharmacist. The Hmong pharmacist was able to explain diabetes and how his medication works in terms that he was able to understand. The participants who stated they were angry after the diagnosis were upset because they did not want to have a medical condition that required them to take medications. This meant they would spend more money on medications and would need to see their doctors more frequently. In addition, they were concerned about changing their diet.

Almost all of the participants stated that they had only gone into the clinic 3-4 times prior to diagnosis. One of the participants stated that Hmong patients generally do not go in for their yearly check-ups until something harmful has happened which makes it necessary to see their physician. One participant was diagnosed with diabetes when he went in for an eye exam: *“I didn’t know that I had diabetes until I was starting to lose vision in one of my eyes.”* Another went into the physician’s office because his brother kept insisting that he go in for a check-up. He eventually went in and got his blood tested. He said that his blood sugar was over 700 mg/dL and the physician refused to let him leave the office, even though he felt fine and did not have any symptoms of hyperglycemia. He was monitored and medicated while at the physician’s office until it lowered a bit. Since then, he has been on medications for diabetes.

What lifestyle changes did you make when you found out you had diabetes?

A few of the patients said that exercise and medications helped lower their blood sugar after the diagnosis. Another participant said that he has not done much exercising and has been losing weight yearly. More than 50% of participants knew that the traditional “good” Hmong food is not healthy for them (i.e. sticky rice, rice, pho, curry noodle, tri-color) and know that they must cut back for their health. Participants agreed that this is difficult for them, and this was nicely summarized by the participant who stated: *“I was sad about cutting back on food. When I don’t eat my usual diet, I get hungry.”*

Role of the Pharmacist in the Care of Diabetes Patients
How can pharmacists help Hmong patients with Type 2 diabetes?

Participants offered lots of advice for pharmacists. They stated it would be helpful if pharmacists could explain how the medication works in the body in order to lower blood glucose. It was recommended that pharmacists also explain the purpose of the medication and what will happen if they do not take the medications. They like having a list of their medications with the indications, directions, and a picture of the medication. They want to know about side effects and what they can do if they cannot tolerate the medication. In addition, many said that a session like this focus group was helpful in learning about diabetes. One of the participants who utilizes a Hmong pharmacy stated: *“I have been going to this pharmacy and I find it helpful when they have a picture of my pill and say what it is for, side effects, and how to take it.”*

They recommend pharmacists call patients reminding them to pick up their medication. They suggest that when calling patients, patients should be told the indication for the medication. Participants identified that education can help convince Hmong patients to take their medications. One participant stated: *“A lot of times when I pick up my medicine, I am not told what it’s for or why take it, so I just don’t take them after a bit.”* They suggested that pharmacists should educate on the risks of diabetes and the importance of taking medications regularly, in addition to educating them on side effects associated with the medications. Many have heard of bad experiences from friends and family with certain medications, and they are worried that those experiences will happen to them. Specifically, one participant stated: *“The Hmong need to be educated so they are convinced so they’ll be motivated to take their medications.”* Pharmacists can help them understand their medication and make sure they take the medication as prescribed.

Discussion

There continues to be a need for education in the Hmong population about diabetes. The perceptions and beliefs discussed in this focus group can be summarized in the following major themes: misunderstanding of Type 2 diabetes and treatment, a reluctance to be adherent to medication, a reluctance to change cultural diet and the need for clear education from pharmacists.

Misunderstanding of Diabetes and Treatment

The majority of these patients thought that diabetes is due to having thick blood that cannot circulate well throughout the body which can disrupt the blood flow and make one feel weak. Many were upset about having to take medications for the rest of their lives, and believed that there should be a method to cure the disease. Several did not know the purpose of taking these medications to help control their glucose to prevent future complications. Some had stated that these complications are true and shared stories of their friends and family members with complications from diabetes. As with any patient population, these patients are impacted by their personal medication experience and the experiences of the friends and family around them.

Reluctance to be Adherent to Medications

There seemed to be a great concern in regards to taking medications for diabetes. The Hmong patients in this group were reluctant to take medications every day for the rest of their lives. They were concerned about organ damage, especially in the kidneys and liver, because of the accumulation of chemicals in the body. All these concerns, if not addressed appropriately to these patients, can lead to non-adherence. Some spoke about not taking medications because of the cost and felt it was difficult to spend money when they were not having any symptoms. They felt that they did not need to spend money and take any medications if the medications were not going to cure them. There was a lack of trust in Western medication with a few of the participants, as some believed medications existed to cure the disease but were not being made available due to loss of profits.

Reluctance to Change Cultural Diet

Participants in this focus group voiced sadness and an unwillingness to change their diet. The Hmong diet traditionally consists of high carbohydrates, including sticky rice and curry noodles. The majority of the participants understood that these foods can increase blood glucose, and they also understood that their typical portion sizes were too much. However, it was clear that they are comfortable with their diet and these food choices bring satisfaction. Importantly, although the Hmong diet may be specific to their

culture, these feelings of reluctance to change diet are not limited to Hmong patients.

Need for Education from Pharmacists

As the participants expressed, pharmacists can play an important role in educating Hmong patients about diabetes and its treatment strategies. They need to be educated so that they will be more motivated to take their medications daily. Frequent courtesy calls to the patients to pick up their medications for diabetes and reasons to take the medications will help with compliance. It is important to educate Hmong patients on the side effects and what to do if they are not able to tolerate the medications.

The participants in the focus group expressed that they learned a lot from the session, each other, and each of their experiences with diabetes. They were all comfortable with talking about diabetes and asked questions appropriately. The participants expressed that education about diabetes and their medications was the key to compliance. Their lack of understanding about diabetes is a reason why many chose not to take medications or seek treatment. Many did not know about the risks of having diabetes and how complications were related to high glucose. After learning about the risks of diabetes, many were convinced from each other's stories, and encouraged each other that they need to take their medications, exercise, and keep their blood sugars controlled.

Strengths of this study were that the primary researcher was bilingual and was able to communicate with the participants fluently. In addition, being the same ethnicity may have allowed the participant to feel more comfortable in sharing their opinions. The limitation of the study was that this was just one focus group for approximately 90 minutes and saturation was unable to be reached with one focus group.

Overall, some of the beliefs and conceptions regarding diabetes may be unique to the Hmong population. However, the reluctance for adherence to medications due to safety concerns, and the reluctance to make dietary changes are not unique to the Hmong culture. By appreciating the patients understanding and explanation for their diabetes, pharmacists can best tailor the education in a manner to improve adherence.

Conclusion

Hmong patients will benefit from significant education on Type 2 diabetes in order to encourage medication adherence. In this focus group, the Hmong participants indicated that the lack of understanding about diabetes in many participants led to lower compliance and less desire for lifestyle changes.

Pharmacists can help these patients by educating them about diabetes and their medications. Their understanding of diabetes will motivate them to seek help and remain compliant with their medications. In addition, more studies should be completed with this population to increase understanding of the barriers to reaching quality clinical outcomes and the most effective methods to overcome those barriers.

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References

1. American Diabetes Association. *Diabetes Statistics*. <http://www.diabetes.org/diabetes-basics/diabetes-statistics/>. Last accessed 10/26/2012.
2. Stratis Health. Hmong in Minnesota. <http://www.culturecareconnection.org/matters/diversity/hmong.html>. Last accessed 10/26/2012.
3. Culhane-Pera K, Peterson KA, Crain AL, et al. Group visits for Hmong adults with Type 2 diabetes mellitus: a pre-post analysis. *J Health Care Poor Underserved*. 2005;16(2):315-27.
4. U.S Census Bureau (2000). *Table DP-1. Profile of general demographic statistics for Minnesota: 2000*. Washington, DC: Government Printing Office. <http://www.census.gov/prod/cen2000/>
5. Kitzienger J. *Qualitative research. Introducing focus groups*. *BMJ*. 1995;311(7000):299-302.