Self-Management of Patients with Diabetes and Comorbid Depression at the St. John’s Well Child and Family Center

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Introduction

Diabetes is a serious health problem in the United States with an insidious onset that delays its diagnosis and management. Patients with diabetes usually experience serious short-term complications such as hypoglycaemia, but more disabling are the long-term complications including cardiovascular disease, neuropathy, nephropathy and retinopathy (1). It has been estimated that more than 50% of people with type 2 diabetes will die from cardiovascular disease (2). According to the International Diabetes Federation, 189 million individuals have diabetes worldwide (3). The United States ranks third in the world with an estimated 36 million people to be living with diabetes by the year 2030.

Top 10: Number of people with diabetes (20-79 years), 2010 and 2030

<table>
<thead>
<tr>
<th>COUNTRY/TERRITORY</th>
<th>2010 MILLIONS</th>
<th>COUNTRY/TERRITORY</th>
<th>2010 MILLIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 India</td>
<td>50.8</td>
<td>1 India</td>
<td>87.0</td>
</tr>
<tr>
<td>2 China</td>
<td>43.2</td>
<td>2 China</td>
<td>62.6</td>
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<tr>
<td>3 United States of America</td>
<td>26.8</td>
<td>3 United States of America</td>
<td>36.0</td>
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<tr>
<td>4 Russian Federation</td>
<td>9.6</td>
<td>4 Pakistan</td>
<td>13.8</td>
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<tr>
<td>5 Brazil</td>
<td>7.6</td>
<td>5 Brazil</td>
<td>12.7</td>
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<tr>
<td>6 Germany</td>
<td>7.5</td>
<td>6 Indonesia</td>
<td>12.0</td>
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<tr>
<td>7 Pakistan</td>
<td>7.1</td>
<td>7 Mexico</td>
<td>11.9</td>
</tr>
<tr>
<td>8 Japan</td>
<td>7.1</td>
<td>8 Bangladesh</td>
<td>10.4</td>
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<tr>
<td>9 Indonesia</td>
<td>7.0</td>
<td>9 Russian Federation</td>
<td>10.3</td>
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<tr>
<td>10 Mexico</td>
<td>6.8</td>
<td>10 Egypt</td>
<td>8.6</td>
</tr>
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</table>


Demographics

In 2011, 48.1% of residents of Los Angeles County reported that they were of Hispanic or Latino origin (4). Studies have shown that Hispanic and African-American patients in the United States have nearly two times the prevalence of type 2 diabetes as non-Hispanic whites (5-
7). According to the National Center for Chronic Disease Prevention and Health Promotion, Division of Diabetes Translation:

“Diabetes disproportionately affects Hispanics in the United States. Where Hispanics reside may be a key factor in how diabetes impacts their lives. Differences in access to quality health care, social and cultural factors, or the genetic makeup of the Hispanic population in a specific area may explain disparities in diabetes prevalence. When accounting for the different age distributions, the overall prevalence of diabetes among Hispanics was almost twice that of non-Hispanic whites (9.8 percent vs. 5.0 percent)” (5).

St. John’s Well Child and Family Center (SJWCFC) is located in the heart of Los Angeles and the demographic of its patients represent the city that it serves. Although the pathophysiology and treatment of diabetes is not different for a Hispanic diabetic as opposed to a White diabetic, differences in behaviors, cultures, and health beliefs have a significant effect on how patients understand their illness and engage in self-management. It is for these reasons that programs like the one established at SJWCFC need to account for these differences to improve diabetes self-management.

**Diabetes and Depression**

Less known about diabetes is the increased risk for depression: the risk of depression is nearly doubled in individuals with type 2 diabetes (8). Comorbid depression in people with diabetes can pose as a severe threat to their quality of life (9). More disturbing is the effect of depression on all-cause mortality in people with diabetes as shown in Figure 1. Patients with both diabetes and depression have been shown to have worse glycaemic control (10), increased risk for the development of cardiovascular complications of diabetes and to have increased mortality rates (Figure 1) and higher health care costs (11-13). Even in the absence of a diagnosis of clinical depression, previous studies have demonstrated that depressive symptoms and heightened distress are associated with worse diabetes self-management and uncontrolled
diabetes (14). These findings suggest that in order to identify challenges that hinder the self-management of diabetes, patients with comorbid depression must be included to account for the effects of depression on diabetes self-management.

**Barriers to Diabetes Self-Management**

Diabetes care mainly consists of self-management by the patient. Diabetic patients have to regularly monitor their blood glucose levels, balance their food intake, engage in physical activities and adhere to their prescribed oral hypoglycaemic agents and/or insulin. The overall treatment goal is to prevent acute and chronic complications by adopting a balanced lifestyle that preserves their desired quality of life (15). Diabetes self-management education has many dimensions beyond just helping people monitor their blood glucose, or take their medication as prescribed. A person’s health status is dynamic and their needs for support change over time and cannot be met by their scheduled visits to the doctor where they may or may not receive the
proper counseling (16). Diabetes education needs to be an ongoing process (17) like the one established at the weekly Diabetes Class at St. John’s Well Child and Family Center (SJWCFC). While a large body of literature exists on diabetes education and its effectiveness, including several important quantitative reviews showing positive effects (18-20), these reviews do not identify the most effective form of diabetes education for specific populations like ones with comorbid depression and living in an underserved area. The findings of a recent meta-analysis showed that depressed patients with diabetes are less likely to adhere to diabetes self-care regimens than non-depressed patients (21).

Similar to other patients living with chronic diseases, diabetes patients are less concerned with clinical biomarkers (22) such as hemoglobin A1c, blood pressure, or lipid levels, but instead are more concerned with the effects of their disease on their emotional and mental health, and ultimately the strain the disease and its treatments will have on daily life (23). Furthermore, while there exists effective self-management for diabetes and effective psychotherapy for depression, integrating treatment of depression with diabetes care in busy primary care settings like a CHC presents its own challenges (24). Therefore, the population of patients with diabetes and comorbid depression who seek their health-care at a CHC like SJWCFC should be assessed for any obstacles that impede on the self-management of their diabetes. Results from focus group interviews like the one conducted at the St. John’s Well Child and Family Center (SJWCFC) could help personalize the care of this vulnerable group of patients.

**Intervention**

In this project, I conducted one 30-minute focus group interview with diabetic patients at the SJWCFC with comorbid depression. The purpose of the focus group interview was to learn about the perspectives of people living with diabetes and depression to identify the barriers that
exist in the self-management of their diabetes. The sessions began with an explanation of the purpose of the meeting. Participants were assured that their names would not be associated with the tape. A written consent form, including permission to audiotape was read aloud by the moderator and reviewed and signed by each participant. A bilingual Latino volunteer facilitated the focus group discussion. The following topics were addressed: What do you think is the cause of your Diabetes? What are some factors in your life that make it hard for you to control your Diabetes? What makes it easier for you to take care of your Diabetes? Where do you get the most information about your health in general? What kind of support would you like to help you manage your Diabetes? What changes would you like to see around you to help you manage your Diabetes? Data analysis was conducted by identifying key words and common themes that appeared throughout the interview.

Results

<table>
<thead>
<tr>
<th>Demographic characteristics of patients with diabetes and comorbid depression</th>
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<tr>
<td>Focus Group Size (number)</td>
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<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
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<tr>
<td>African American</td>
</tr>
<tr>
<td>Age (years – mean)</td>
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<tr>
<td>Age (years – range)</td>
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<tr>
<td>Unemployed</td>
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</table>

Perceived cause of Diabetes

Most participants responded that they had a genetic predisposition to diabetes through their
family history. Participants reported that most of their family members suffered from diabetes as well. In addition to the genetic risk factor, another commonly reported cause of diabetes was diet and nutrition. One woman stated that her lifestyle was the cause of her diabetes because she failed to manage her disease despite many warning signs including vision loss, dental problems, and urinary frequency.

**Perceived Barriers to Self-Management**

Food was a commonly cited barrier to the participants’ self-management of their diabetes. One man expressed that “it is hard to say no” and another said the hardest thing for him was “wanting to eat like everybody else- cake, pie.” One participant confessed that it was a daily struggle for him and explained that each day was like “fighting against yourself….denying stuff you shouldn’t eat.” Another identified barrier that was reported among all participants was the stress in their lives. The participants quoted below demonstrate the every-day stressors that people with diabetes and comorbid depression face:

- Stress makes diabetes harder. I am worried because I have to see the doctor and have to pay for the visit when I have no money.

- My life has been okay. The only thing that stresses me out is that I live alone…the economy has been bad, so I have no money and this stresses me out [too].

- I have a tooth problem and I can’t pay for that service- this stresses me out.

- There are many medical problems that I can’t pay for- also dental. I need glasses, and I need to fix my teeth, and to wear proper shoes. But I have no money and cannot pay for these services.

- I can’t afford to get medical supplies for my diabetes like syringes or lancets. My Glucose Meter is broken and I asked to exchange it, but they told me I need to purchase another one.

Participants struggled with other medical issues including high blood pressure and high cholesterol. One woman revealed that she was losing her sexuality and didn’t want to be with her
husband anymore. This led to marital stress that hindered her control of her diabetes. Many focus group participants expressed that sometimes, family members made it difficult to manage their diabetes by bringing soda and greasy stuff home. One man expressed that it was like “bringing poison” home and he, like the other participants, struggled to abide by his diabetic diet in these circumstances. One woman was emotional when she said “My kids make it hard. I’m the only one diabetic and have to deny food all the time. I have to cook for everybody and nobody is supportive of my diet.”

Another issue that was raised by most focus group participants was the stress they had from being unemployed. One participant stated, “This is the main thing why we’re getting stressed- if you’re working, you most likely have insurance and not worrying about getting your medication and paying for it.” A commonly cited experience among participants was discrimination in the workforce: “When I fill out the application, they turn me away because of my age.” Besides being discriminated by age, many were turned down employment opportunities because they lacked citizenship status in this country. Some even reported the fear of being deported: “We’re afraid to see Immigration Services on the streets and be arrested.”

Factors that Make Self-Management Easier

Participants generally agreed that the support they received from their family members and the weekly diabetes class at St. John’s has served as one of the biggest factors in making self-management easier. One participant stated that her family helped tremendously in her recovery when she suffered vision problems because of her diabetes. Most participants related to her story as they experienced similar support when they suffered complications from their diabetes. One woman reported that she was the only diabetic at home and despite this she said, “when I cook everybody is willing to eat what I cook.” Many of the participants were thankful and grateful to
St. John’s for hosting the weekly Diabetes Class. One woman said, “Since I got here, this clinic has been helping me. Before I got here my glucose level was 850 and when I went to see my doctor my urine was 1000. After medication and exercise, I feel better.” Most focus group participants reported to have a wake-up call from witnessing family members suffer devastating effects due to the lack of control their family members had over their diabetes. The statement below is a reported experience by one of the participants:

My dad passed away 2 years ago from diabetes. [This was] a really good experience to help my brothers and sisters to lead a better life. This was a very good experience because when my dad was dying, he was on dialysis and lost his kidney function. My dad passing away was helping the whole family control their diet and start consuming healthy food.

Another woman reported a similar experience of her father dying, which motivated her mother and herself to “straighten out” their lives. The participant quoted below describes how Church and her community were what helped her: “When I go to Church, I feel like I’m healthy…I have the strength to keep going day by day. When you feel better inside (spiritually), the rest will follow.”

**Suggested Changes and Perceived Needs**

Participants were very eager to have a nutritionist that would not only counsel them on a proper diet in accordance with their diabetes, but one that was accommodated to their culture. It came to no surprise that many of the participants reported the challenges they faced in modifying the Latino diet consisting of a high fat content and high carbohydrate load. A general need the participants reported was the need for increased mental services and psychotherapy. The current structure of the weekly diabetes class the participants attend regularly lacks counseling provided by a professional mental health counselor. One woman expressed that her diabetes was psychologically challenging since she had to accept the fact that she would have this disease all
her life. One participant reported the need for jobs as he said, “If we get money, money will be
gone. But jobs will keep the money supply [for us].” Most participants agreed that a needed
change was for St. John’s to have more “flexible services.” One participant expressed a feeling
of helplessness when she said, “We need to get glasses and medication in a better way.
[Especially] when we have no money.” Another suggested change the participants recommended
was an expanded pharmacy. One participant stated, “The pharmacy is too small and is running
out of medication. We end up going to the [other] pharmacy to get it ….and [have to] pay high
price, [but] sometimes we have no money.” Besides external changes, one participant noted the
need to make changes internally through motivation and will: “We need to make the changes,
and to have the motivation to be good everyday.”

**Conclusion**

Data from this focus group discussion demonstrated that the weekly diabetes class held at
St. John’s Well Child and Family Center (SJWCFC) is an effective model and one worth
replicating for the self-management of diabetes within patients who have comorbid depression.
Most focus group participants identified that food and stress were one of the greatest barriers that
existed in the management of their diabetes. The stress these patients face is reflective of people
living in underserved areas including financial instability, unemployment, and insufficient
coverage for their medical needs.

The participants in this study proposed increased mental health services at SJWCFC that
tailored to their needs as diabetic patients with depression. Nutritional counseling was very
important to the focus group participants as they struggled with their cultural diet that is high in
fat, sugar, and calories. This study suggests that in addition to holding a nutritional seminar
during the weekly diabetes class, Community Health Centers like St. John’s could host
“Supermarket Tours.” A trained Nutritionist/Registered Dietician could offer educational tours around local supermarkets for diabetic patients and invite their family members to these events in an effort to raise awareness among relatives as to how they could support their diabetic loved ones. Another way for Community Health Centers to engage their diabetic patients in improved self-management is to host periodic Job Fairs and Mock-Interview sessions. It is without a doubt that the employment of these patients is critical to their quality of life. The participants of this focus group felt that by securing a job, they could eliminate a myriad of the life stressors they face including affording basic health needs like dental work, glasses and proper foot-wear.

It is important to consider that the present study was limited by a small sample size and few male recruits. In addition, the age range of the participants was marginal and thus, this study could not be generalized to larger populations of Hispanic/Latinos living with diabetes and depression. Nonetheless, the results of the focus group interviews conducted in the present study highlight the perspectives of people who are usually unaddressed in current research regarding the self-management of diabetes. Based on the present findings, it appears that St. John’s is on the right track in supporting its patients with diabetes and depression. However, much work needs to be done to ensure that the barriers that currently impede self-management in diabetics with depression are eliminated and the existing health disparities among this vulnerable group of patients are reduced.

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Practitioner Lisa Cederblom, as well as on the administrative level as I interviewed senior management of St. John’s Well Child and Family Center (SJWCFC) including President and CEO, Jim Mangia, CFO, Liz Meisler, and Board Chair, Marion Douglas. I would also like to thank Nomsa Khalfani, Chief of Policy & Support Services at SJWCFC, for her guidance and support as she helped orient me to the different aspects that affect a CHC and how it can transform into being a voice for the community it serves. Finally, I would like to acknowledge and extend my heartfelt gratitude to Dr. Louis C. Frayser who has been a source of guidance and encouragement throughout this entire process. His commitment to diabetes and to his patients is inspirational and his love for medicine is absolutely contagious.

References:


