

# Anishinaabeg Path to Knowledge

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## Introduction and Problem

There are many causes of health care disparity among vulnerable populations. Native American people with diabetes need sufficient self-care knowledge to manage their diabetes effectively. Most diabetes education programs do not use a Native American perspective.

In order to prevent complications of diabetes, the advanced practice nurse must perform quality improvement projects to improve self-management of diabetes among the Native American population. The project site, an urban family practice clinic, does not have a cultural diabetes education program for Native American people with type II diabetes. A cultural diabetes education program was implemented to improve knowledge and self-care using Talking Circles led by a family nurse practitioner among the Native American population.

## Purpose of the Project

The purpose of the project was to impact the knowledge and self-care of diabetes among the Native American population using Talking Circles for diabetes type II education. The project introduced Talking Circles for diabetes education among Native American patients in a family practice urban clinic setting in Wisconsin.

## Clinical Questions

Q1: What is the knowledge and self-care of diabetes among the Native American population at the urban primary care clinic?

Q2: How does using a culturally competent intervention help increase patients' knowledge and self-care of type II diabetes? In urban Native American adults diagnosed with type II diabetes, does the utilization of a Talking Circles with diabetes education compared to traditional group diabetes education improve patient self-care behaviors in eight weeks.

## Theoretical Framework

The project used Leininger's Theory of Culture Care to serve as the foundation of the use of using Talking Circles for diabetes education among the Native American population in Wisconsin.

## Variables

Consented participants attended six Talking Circle diabetes education sessions led by an advanced practice nurse. A demographic questionnaire and a Diabetes Knowledge Tool (DKT) questionnaire were completed at the first session. Participants completed a post-questionnaire after the sixth session. Participants were contacted by telephone to complete two open-ended questions one week after the sixth session.

## Data Analysis

### Methods of data collection

- Demographic questionnaire used to help determine characteristics of the population will be given at the first session
- Diabetes Knowledge Test to assess patient's knowledge of diabetes.
- Two open-ended questions to assess and collect the patient's perspective of the Talking Circle Session

### Data analysis

- The questionnaires were collected and analyzed to determine the effectiveness of the Talking Circles.
- The 2 open-questions was used to improve self-care behaviors among Native American patients with type II diabetes and prediabetes after identifying knowledge and awareness's gaps regarding diabetes

## Descriptive Data

### Sample

The sample included people who are residents of Wisconsin that are Native American and attend the clinic.

### Knowledge Change

The post-test questionnaire after the sixth Talking Circles session showed participants improved significantly in questions regarding diabetes diet, foods that are high in carbohydrates, A1c measurement, home glucose testing, effects of exercise on blood sugar, signs of hypoglycemia and treatment, signs of hyperglycemia and treatment.

### Self-Care Change

Participants reported Talking Circles improved their understanding by learning about type II diabetes.

## Results

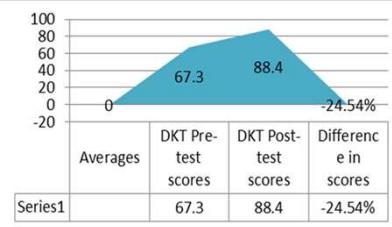
### Demographic

- The demographic data results demonstrated that participant's check their blood glucose level 0 to 3 times per day.
- Participants reported taking their medication as directed by their health care provider (HCP).
- The data showed that all six participants routinely have diabetes examinations.
- Data from the demographic questionnaire showed some participants had received prior diabetes education.

### DKT Results

- The DKT pre-scores had a range from 34.7% to 91.3%.
- The DKT post-scores had a range from 76.9% to 100%.
- The pre-test average was 67.4% while the post-test average was 88.4%, a difference of 24.54%.
- Both p values were less than the significance level 0.05, signifying the effectiveness of Talking Circles with advance nurse-led diabetes education among Native American patients with type II diabetes

## Results (cont.)



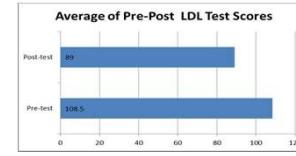
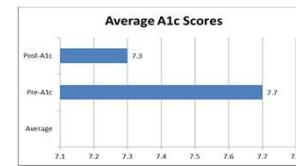
### Talking Circles Themes

- Some significant expressions from the participants experience after the Talking Circle sessions included feelings of inspiration, understanding, and support.
- The participants expressed enjoying meeting new people when they participated in the Talking Circle sessions.
- Participants expressed participating in the Talking Circle created a pleasant, healing environment that allowed them a feeling of freedom to discuss the diagnosis of diabetes.
- Participants expressed a desire for continued Talking Circle sessions and asked to be contacted when another Talking Circle session is initiated.

t-Test: Paired Two Sample for Means

	Post-test	Pre-test
Mean	88.4	67.36666667
Variance	95.528	384.0866667
Observations	6	6
Pearson Correlation	0.749708832	
Hypothesized Mean Difference	0	
df	5	
t Stat	3.714310331	
P(T<=t) one-tail	0.006896574	
t Critical one-tail	2.015048373	
P(T<=t) two-tail	0.013793148	
t Critical two-tail	2.570581836	

## Extra Data Results



## Discussion

- Results showed that using advanced practice led Talking Circles sessions for diabetes education among Native American people was effective at an urban family practice clinic in Wisconsin.
- There was a significant difference in the DKT pre-test and post-test scores. The most significant score was 34.7% to 78.3%, a difference of 55.68%.
- The total number of themes created from the two open-ended questions was ten themes.
- An important theme revealed the patients' self-care awareness increased according to their responses.

## Project Limitations

### Limitation

- Limited number of participants for the project
- Adding the participant's goals at the beginning of the project

### Weaknesses

- A limited number of participants for the project
- The project recruited for one week only
- This may have led to the decreased number of patients interested in participating in the project.

## Recommendations for Future Projects and Practice

- There is a need for practice change to occur regarding type II diabetes education. HCPs and managers should consider the population ethnicity when establishing diabetes education programs.
- More research is needed in order to understand the Native American patient's perspective of type II diabetes.
- Healthcare facilities should explore strategies to impact the knowledge and self-care of patients with type II diabetes.
- Health literacy should always be considered when health care providers are serving patients. Regardless of ethnicity, all HCPs should be aware of their patients' literacy level.

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