

# Implementation of a Culturally Tailored Educational Intervention for Hispanic Individuals Living with Type 2 Diabetes

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## Background/Problem Statement

- **Background:** The prevalence of diabetes in the Hispanic community is higher compared to other racial groups. Latinos have a prevalence of 12.5 % of diabetes compared to 7.5% prevalence in non-Hispanic white populations in United States (Philis-Tsimikas et al., 2022).
- **Significance:** Latinos are more likely to experience complications of T2DM (type 2 diabetes) as compared with non-Hispanic Whites (NHWs). Hispanics are 33% more likely than (NHWs) to die from diabetes and are twice as likely to be hospitalized for treatment of end-stage renal disease related to diabetes, as compared to non-Hispanic whites (OMH, 2021). Hispanics are also 30% more likely to experience a major amputation related to a diabetic foot infection than white Americans (Amputee Coalition, 2022).
- **Statement of the Problem:** A lack of knowledge exists among the adult Hispanic population living in the US about diabetes prevention and self-management, particularly regarding nutrition, physical activity, and the complications of uncontrolled diabetes. Diabetes also presents a high cost to individuals and communities.

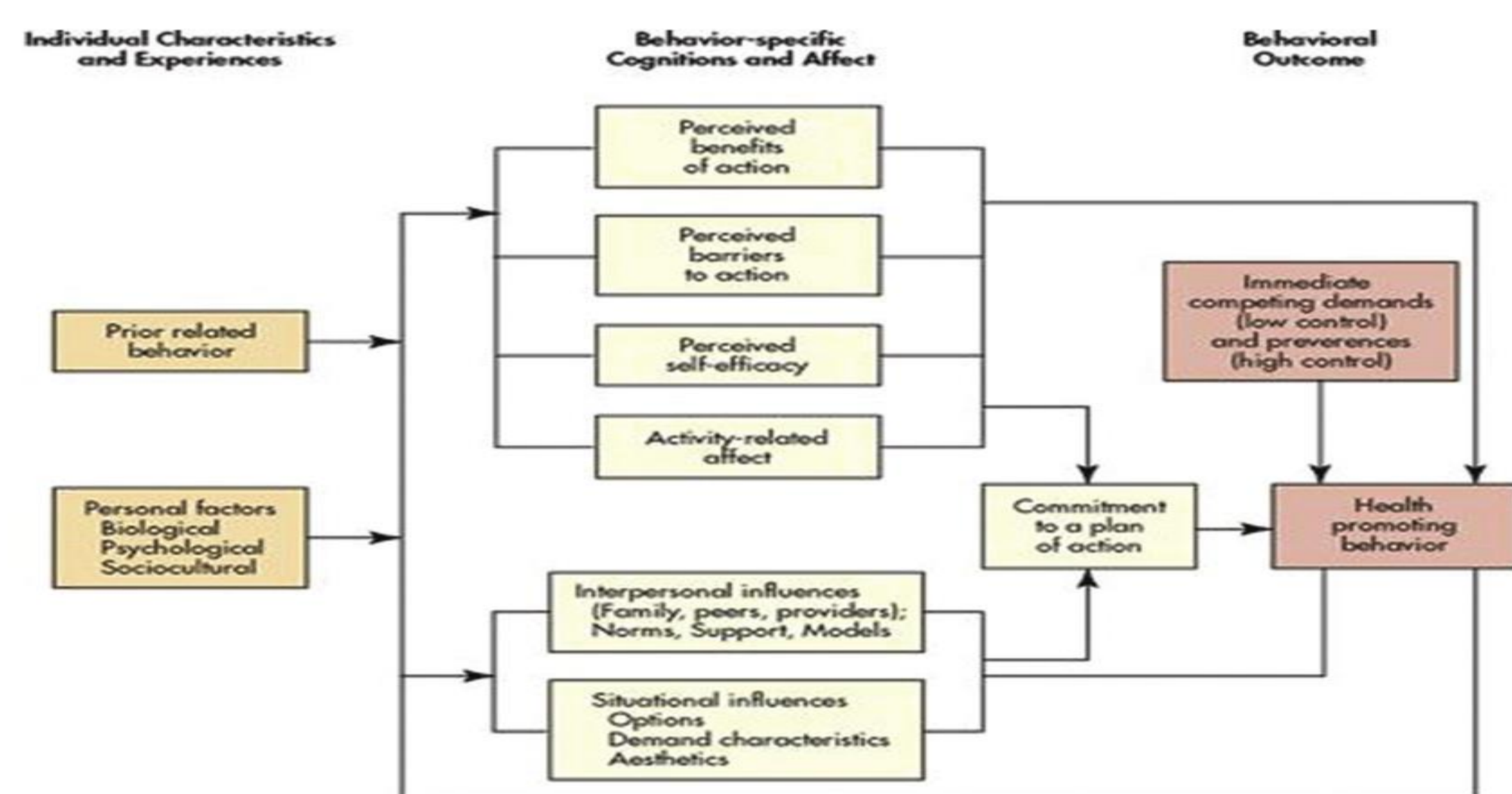
## Review of Key Literature

- It is expected that 55 % of Latinos born in the year 2000 most likely will develop diabetes during their lifetime (Morales et al., 2020).
- **Factors** that causes Hispanics to have a higher risk of developing diabetes are sociocultural influences, genetics, biology, behavior, psychology, society, and environment (Morales et al., 2020).
- **The costs** related to diabetes will increase from \$113 to \$336 billion by 2034 (Philis-Tsimikas et al., 2022).
- **Cultural and social factors** that influenced the risks of diabetes in Hispanics are intake of traditional foods high in fat and calories, that Hispanics are less likely to exercise compared to NWHs, and language barriers related to disparities in quality of care (Aguayo-Mazzucato et al., 2019).
- Kline et al. (2016) used a technology-based application called Sugar, Heart and Life (SHL) and **telenovelas** to teach Hispanics diabetes management that was culturally sensitive. The results of this study showed that SHL application was an effective method to educate Hispanics living with T2DM and that it was culturally sensitive and empowered individuals to follow a healthy lifestyle, a healthy diet, and to exercise (Kline et al., 2016).

## Theoretical Framework

[https://www.researchgate.net/figure/Penders-health-promotion-model-framework\\_fig1\\_341042204](https://www.researchgate.net/figure/Penders-health-promotion-model-framework_fig1_341042204), retrieved on November 2, 2023

### Pender Health Promotion Model



## Methods

**Setting:** Progreso Latino which provides community resources to low-income people in the area of Pawtucket and Central Falls, RI.

**Participants:** Graduate nursing student who is a Certified Diabetes Outpatient Educator, 10 to 15 participants who have diabetes or are at risk of developing the disease, and 1 to 2 staff members from Progreso Latino.

**Educational Intervention:** A five session, culturally tailored educational program emphasizing diabetes prevention, healthy culturally appropriate foods, and exercise using Latino music, telenovelas, and lasting 45 minutes per session.

**Pre and Post Survey:** Questionnaire before and after the program.

**Data Collection:** It will be analyzed and measured.

**Displaying and Reporting Data:** Use of bar/line graphs regarding participants' weights and glucose levels to measure changes.

## Outcomes to be Measured

- **Short Term:** Participants will demonstrate increased knowledge of diabetes pathophysiology, complications, and healthy lifestyle in the pre/post test following the program.
- **Medium Term:** Participants will demonstrate engaging in a healthy lifestyle, exercising at least 30 minutes a day for at least 5 days a week and eating a diet high in fruits, vegetables, and whole grains for 3 to 5 years after completing the program
- **Long Term:** Participants will report glucose, A1C levels, and weight within recommended range and continued healthy lifestyle activities 7-10 years after completing the program.

## Clinical Support Resource

El Camino: A Roadmap for Nurses to Facilitate Positive Outcomes for

Hispanic Adults Using a Cultural Tailoring Approach



### How Can Nurses Culturally Tailor Education to Hispanic Patients Living with Diabetes?

- Use culturally specific and culturally sensitive diabetes intervention strategies such as designing educational sessions that incorporate cultural beliefs, traditional diet, and the use of storytelling and telenovelas.
- Educate patients to embrace their traditional foods, but to modify the portions and distribution of lean protein, carbohydrates, fats, and fiber by using "the plate method" (fill 1/2 of the plate with vegetables, 1/4 of the plate with lean protein, and the other quarter with low fat carbohydrates).
- Encourage patients to increase the amount of fiber consumed and to reduce the consumption of saturated fats, processed carbohydrates, and concentrated sugars.
- Promote culturally appropriate, fun physical activity including dancing and walking clubs and advise patients to move as much as possible even if only for a short amount of time with the goal of exercising at least half hour daily most days.
- Educate patients using a positive approach with motivators that patients value such as the importance of preventing complications of diabetes in order to remain independent, to retain the ability to take care of their families, and to enjoy a healthy quality of life.
- Be aware of, identify, and reduce cultural differences and language barriers in diabetes education that might prevent Hispanic patients from understanding diabetes related knowledge and engaging in a health-promoting lifestyle.
- Maintain a resource file to respond to housing, nutrition, and other social determinants of health needs of patients.
- Refer patients to community resources using a "warm hand-off" with a phone call or email to facilitate their getting the resources that are available for low-income/bilingual/monolingual Hispanics.

## Projected Impact of Project

1. 80 % of the participants will participate in all 5 sessions which will result in healthier habits that will improve their health.
2. Participants will demonstrate improved positive lifestyle changes regarding diabetes prevention and management by following a healthier diet and exercising regularly.
3. Nurses will develop skills and cultural sensitivity when providing care for Hispanics at risk for or living with diabetes.
4. Nurses will advocate for policies that will improve the health and health care of the Hispanic population.
5. Scientific research will be conducted to investigate the genetic and cultural components that affect Hispanics living with diabetes.
6. The Hispanic population will be more aware and informed regarding diabetes prevention.
7. The Hispanic population will learn to reduce T2DM risk and complications and to improve the outcomes of their diabetes by engaging in healthy habits.

## Implications for Advanced Practice

- **Practice:** Advanced practice population health nurses (APHNs) should develop and implement evidence based chronic disease programs that are relevant and meaningful to diverse populations, including Hispanic populations living with T2DM.
- **Policy:** APHNs should: 1. Advocate for SDOH resources such as affordable housing, living wage, safe neighborhoods, and access to quality health care for Hispanics living with T2DM. 2. Advocate for diverse workforce initiatives (i.e. increased number of bilingual diabetes educators and nurses) to provide improved communication and care for diverse populations.
- **Education:** APHNs should be health literacy champions, teaching nurses and diabetes educators' techniques to culturally tailor teaching including integrating Hispanic foods, Latino music, and ethnic traditions to promote healthy nutrition and exercise, reduce stress, and promote positive outcomes for Hispanics living with T2DM.
- **Research:** APHNs should obtain grants and conduct research to explore the most effective teaching strategies to promote healthy behaviors in diverse populations living with chronic illness including Hispanics living with T2DM.

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