Type 2 Diabetes Mellitus: A Lifestyle Modification Program in a Rural Clinic

Ndidiamaka Udeh DNP, FNP-BC

No Affiliation to Disclose

ABSTRACT

Abstract: A diabetic lifestyle modification protocol (DLMP) was implemented for patients diagnosed with T2DM in a clinic in Antelope Valley which improved patients' adherence to the diabetic plan of care through standard holistic nursing care based on current evidence. Positive outcomes include increased patient and provider engagement and participation in care, as well as the desire of providers to continue the DLMP protocol and expand implementation.. Project results also showed a decrease in body mass index (BMI), waist circumference, and reduced weight.

Purpose: To Improve provider prescription rates for gym membership and diabetic nutrition class.

To establish structure physical activity program for patients attending the clinic.

To encourage T2DM patients to be active participant in their plan of care.

Guide indications for specialty referrals.

Guide provider assessment of BMI, weight, and waist circumference.

Methodology: Following a needs assessment, a DLMP was developed, and audited 20 charts of adults pts with T2DM in a rural community clinic.

Results: The results of this project further revealed an improvement in increased providers' prescription for gym and nutrition class participation after the implementation of the protocol which is an indicative of active engagement to the DLMP intervention.

The results showed an improved weight loss with *p value of* .02, reduced waist circumference of *p value* of .000, two-tailed, and lowered BMI with mean decrease score of 5.45 with 95% confidence interval ranging from 4.52 to 6.38 *as* statistically significant.

The results revealed improvement in attendance in the gym and nutrition class after the implementation of the protocol which indicates the protocol was effective.

Demonstrated that active participation in physical exercise and maintenance of balanced nutrition studiously can improve the BMI and reduce waist circumference in T2DM.

Implications for Practice: Will be used as a tool for providers to utilize in order to promote positive health outcomes of T2DM population at the rural clinic in the Antelope Valley

This project will improve future healthcare for T2DM patients by developing DLMP protocol focused on improving the management of T2DM through increased physical activity and diet modification at the rural clinic.

Will improve patient care and result in improved patient outcomes.

Will address maintenance in adherence of diabetic care and autonomy in diabetic self-care which is essential in maintaining health, preventing diabetic complications, and reduction in long-term mortality.

PURPOSE

Project Purpose: Improve provider prescription rates for gym membership and diabetic nutrition class, and guide provider assessment of BMI, weight, and waist circumference of patients with Type 2 Diabetes Mellitus in a rural community clinic in Southern California.

Proper review of charts, and identification of weight , BMI, and dietary perceptions, eating behaviors, and food preferences specific to this target population will provide the foundation for future tailored interventions aimed at reducing the prevalence of obesity and improving Type 2 diabetes Mellitus epidemic..

T2DM care has been standardized through protocols, guidelines and clinical targets. However, the most important choices affecting the health of a person are made by the individual, not by health professionals [1, 3, 4, 5, 6.].Therefore, the patient's view on self-management such as diet modification is considered essential in T2DM care.

Incorporates core nursing values: Patient-centered

- Focus on each patient's uniqueness
- Value individual needs, preferences, and emotions
- Maintaining and improving patient's quality of life [1, 2, 3, 4, 5, 6.]

BACKGROUND

Type 2 DM is a chronic illness with global implications and a prevalence reaching epidemic proportions-a prevalence of obesity, sedentary lifestyle, and diets high in carbohydrate, sugar, and saturated fat [1, 3, 4, 5, 6.]

The associated management complexities of T2DM threaten to overwhelm the acute care-oriented healthcare system and individual primary care providers. Although national guidelines and standards of care for T2DM management are readily available; the management of patients in ambulatory practice remains unsatisfactory [1, 3, 4, 5, 6.]

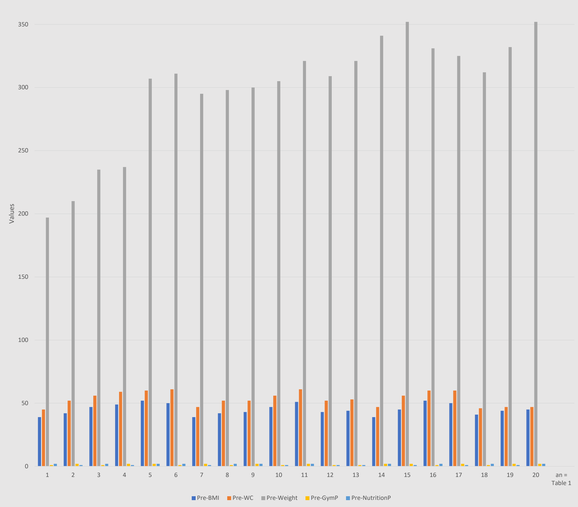
The mainstay of treatment for T2DM is a healthy diet, and other lifestyle modifications, such as increasing physical activity..

Needs Assessment of clinic patients with T2DM (n = 20)

METHODS

- Following a needs assessment, a DLMP was developed, and audited 20 charts of pts with T2DM in a rural community clinic.
- Theoretical Framework: Transtheoretical Model of Change.
- Perceptions Assessed: Provider prescription rates for gym activity and nutrition class, Diabetes control, weight, need for change, access to dietary resources, support, dietary and interventional preferences.
- Data Analysis: Paired t-test, Chi square test, Descriptive statistics.

RESULTS



Support: 100% perceived as adequate

Intervention preferences: Assistance from healthcare providers in making healthy dietary and lifestyle changes (ex: prescription for gym and nutritional class, educational sessions and handouts).

DEMOGRAPHICS

Ethic Group	Males	Females
Caucasians	1	0
African Americans	3	5
Filipinos	1	1
Hispanics	4	5
Total (n = 20)	9	11

CONCLUSIONS

Type 2 diabetes mellitus management remains a challenge for health care providers and the health care system in general. Recommended care for T2DM has shifted over the past decade to an approach that is more patient centered. When the diagnosis of T2DM has been established, providers should intentionally give prescription for gym and nutrition class, assess patient perceptions and seek out patients' preferences for diet, exercise, intervention [1, 3, 4, 5, 6.] .

REFERENCES

1. American Diabetes Association Standards of Medical Care in Diabetes. (2017). Promoting health and reducing disparities in populations. *Diabetes Care*; 40 (Suppl. 1): S6-S10

2. Asuzu, C. C.; Walker, J. R.; Williams S. J.; & Egede, E. L. (2017). Pathways for the relationship between diabetes distress, depression, fatalism and glycemic control in adults with type 2 diabetes. *Journal of Diabetes and Its complications;* 31:169-174.

3. Avedzi H. M., et al.(2016). *Examining diet-related care practices among adult with type*

diabetes: A focus on glycemic index choice

4. Dincer, S. et al. (2017). Effects of a regular exercise program on life quality of patients with type 2 diabetes mellitus. *Turkish journal of sports medicine.*

5. Dyson, A. P.; Kelly, T.; Deakin, T. (2013). Diabetes evidence-based nutrition guidelines for the prevention and management of diabetes. *Diabetic Medicine*, 28:1282-1288

6. James, J. C., Andrew, S. R., Charles, F. S & Annie, N. (2016). Diagnosis and Management of diabetes: synopsis of the 2016 American Diabetes Association standards of medical care in diabetes. Ann *Intern Med*; 164:542–52.10.7326/M15-3016.

Type 2 Diabetes Mellitus: A Lifestyle Modification Program in a Rural Clinic

Ndidiamaka Udeh DNP, FNP-BC

No Affiliation to Disclose

ABSTRACT

Abstract: A diabetic lifestyle modification protocol (DLMP) was implemented for patients diagnosed with T2DM in a clinic in Antelope Valley which improved patients' adherence to the diabetic plan of care through standard holistic nursing care based on current evidence. Positive outcomes include increased patient and provider engagement and participation in care, as well as the desire of providers to continue the DLMP protocol and expand implementation.. Project results also showed a decrease in body mass index (BMI), waist circumference, and reduced weight.

Purpose: To Improve provider prescription rates for gym membership and diabetic nutrition class.

To establish structure physical activity program for patients attending the clinic.

To encourage T2DM patients to be active participant in their plan of care.

Guide indications for specialty referrals.

Guide provider assessment of BMI, weight, and waist circumference.

Methodology: Following a needs assessment, a DLMP was developed, and audited 20 charts of adults pts with T2DM in a rural community clinic.

Results: The results of this project further revealed an improvement in increased providers' prescription for gym and nutrition class participation after the implementation of the protocol which is an indicative of active engagement to the DLMP intervention.

The results showed an improved weight loss with *p value of* .02, reduced waist circumference of *p value* of .000, two-tailed, and lowered BMI with mean decrease score of 5.45 with 95% confidence interval ranging from 4.52 to 6.38 *as* statistically significant.

The results revealed improvement in attendance in the gym and nutrition class after the implementation of the protocol which indicates the protocol was effective.

Demonstrated that active participation in physical exercise and maintenance of balanced nutrition studiously can improve the BMI and reduce waist circumference in T2DM.

Implications for Practice: Will be used as a tool for providers to utilize in order to promote positive health outcomes of T2DM population at the rural clinic in the Antelope Valley

This project will improve future healthcare for T2DM patients by developing DLMP protocol focused on improving the management of T2DM through increased physical activity and diet modification at the rural clinic.

Will improve patient care and result in improved patient outcomes.

Will address maintenance in adherence of diabetic care and autonomy in diabetic self-care which is essential in maintaining health, preventing diabetic complications, and reduction in long-term mortality.

PURPOSE

Project Purpose: Improve provider prescription rates for gym membership and diabetic nutrition class, and guide provider assessment of BMI, weight, and waist circumference of patients with Type 2 Diabetes Mellitus in a rural community clinic in Southern California.

Proper review of charts, and identification of weight , BMI, and dietary perceptions, eating behaviors, and food preferences specific to this target population will provide the foundation for future tailored interventions aimed at reducing the prevalence of obesity and improving Type 2 diabetes Mellitus epidemic..

T2DM care has been standardized through protocols, guidelines and clinical targets. However, the most important choices affecting the health of a person are made by the individual, not by health professionals [1, 3, 4, 5, 6.].Therefore, the patient's view on self-management such as diet modification is considered essential in T2DM care.

Incorporates core nursing values: Patient-centered

- Focus on each patient's uniqueness
- Value individual needs, preferences, and emotions
- Maintaining and improving patient's quality of life [1, 2, 3, 4, 5, 6.]

BACKGROUND

Type 2 DM is a chronic illness with global implications and a prevalence reaching epidemic proportions-a prevalence of obesity, sedentary lifestyle, and diets high in carbohydrate, sugar, and saturated fat [1, 3, 4, 5, 6.]

The associated management complexities of T2DM threaten to overwhelm the acute care-oriented healthcare system and individual primary care providers. Although national guidelines and standards of care for T2DM management are readily available; the management of patients in ambulatory practice remains unsatisfactory [1, 3, 4, 5, 6.]

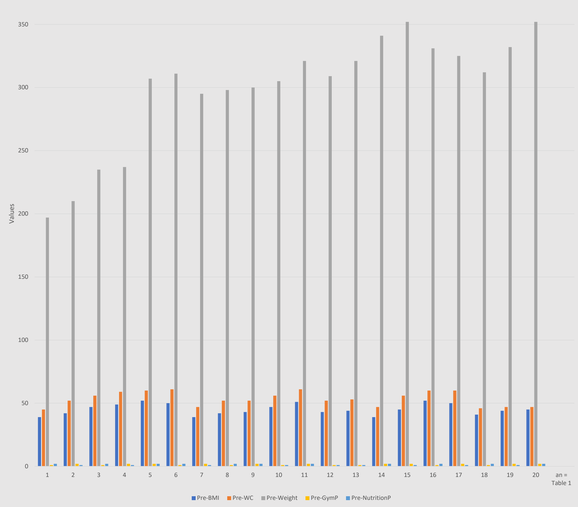
The mainstay of treatment for T2DM is a healthy diet, and other lifestyle modifications, such as increasing physical activity..

Needs Assessment of clinic patients with T2DM (n = 20)

METHODS

- Following a needs assessment, a DLMP was developed, and audited 20 charts of pts with T2DM in a rural community clinic.
- Theoretical Framework: Transtheoretical Model of Change.
- Perceptions Assessed: Provider prescription rates for gym activity and nutrition class, Diabetes control, weight, need for change, access to dietary resources, support, dietary and interventional preferences.
- Data Analysis: Paired t-test, Chi square test, Descriptive statistics.

RESULTS



Support: 100% perceived as adequate

Intervention preferences: Assistance from healthcare providers in making healthy dietary and lifestyle changes (ex: prescription for gym and nutritional class, educational sessions and handouts).

DEMOGRAPHICS

Ethic Group	Males	Females
Caucasians	1	0
African Americans	3	5
Filipinos	1	1
Hispanics	4	5
Total (n = 20)	9	11

CONCLUSIONS

Type 2 diabetes mellitus management remains a challenge for health care providers and the health care system in general. Recommended care for T2DM has shifted over the past decade to an approach that is more patient centered. When the diagnosis of T2DM has been established, providers should intentionally give prescription for gym and nutrition class, assess patient perceptions and seek out patients' preferences for diet, exercise, intervention [1, 3, 4, 5, 6.] .

REFERENCES

1. American Diabetes Association Standards of Medical Care in Diabetes. (2017). Promoting health and reducing disparities in populations. *Diabetes Care*; 40 (Suppl. 1): S6-S10

2. Asuzu, C. C.; Walker, J. R.; Williams S. J.; & Egede, E. L. (2017). Pathways for the relationship between diabetes distress, depression, fatalism and glycemic control in adults with type 2 diabetes. *Journal of Diabetes and Its complications;* 31:169-174.

3. Avedzi H. M., et al.(2016). *Examining diet-related care practices among adult with type*

diabetes: A focus on glycemic index choice

4. Dincer, S. et al. (2017). Effects of a regular exercise program on life quality of patients with type 2 diabetes mellitus. *Turkish journal of sports medicine.*

5. Dyson, A. P.; Kelly, T.; Deakin, T. (2013). Diabetes evidence-based nutrition guidelines for the prevention and management of diabetes. *Diabetic Medicine*, 28:1282-1288

6. James, J. C., Andrew, S. R., Charles, F. S & Annie, N. (2016). Diagnosis and Management of diabetes: synopsis of the 2016 American Diabetes Association standards of medical care in diabetes. Ann *Intern Med*; 164:542–52.10.7326/M15-3016.