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# Diabetic Education in an Uninsured Patient Population

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#### Introduction

Patient education is an important factor in the management of Type 2 Diabetes. Successful outcomes are causally related to proper patient education. Many times, patients are left with more questions than answers about their newly diagnosed condition. According to the Center for Disease Control and Prevention (2020), 34.1 million Americans over the age of eighteen have been diagnosed with Type 2 Diabetes. This equates to 13% of the adult population in the United States.

Health care providers play a key role in chronic disease management. As a result of practicing in a rural primary clinic, diabetes management arises daily. There is a huge need for proper, personalized Type 2 Diabetes patient education for the underinsured and non-insured patient. Prevention of chronic comorbidity complications depends on the education provided as well as the patient adherence to the diabetic regimen that is advised. To have successful outcomes for the newly diagnosed diabetic patient, education must be provided. When a patient is underinsured or uninsured, they are unable to have their patient education paid for by the insurance company.

The scope of this proposed change in the delivery of diabetes patient education is relevant to primary health care providers who manage underinsured/uninsured diabetic patient population. There should be a change in how primary care providers assess the educational needs as well as financial status in this high-risk patient population. As stated by the CDC (2020), uninsured adults with diabetes are less likely to receive the proper standard of care, including regular glucose monitoring and preventive check-ups for their eyes and feet. This can lead to a greater risk of hospitalization and an increased risk of chronic disease and disability.

#### Literature Review Summary

Interpretations in this literature review are varied, depending on the type of research completed. The literature proves that patient education does improve patient quality of life and decrease the complications of Type 2 Diabetes. Implications of this literature show that Type 2 Diabetes affects many people in the United States. Improving the patients' quality of life while preventing the devastating consequences of Type 2 Diabetes should be the focus for any health care provider caring for the diabetic patient. There are many factors that may affect the outcomes and quality of life in the diabetic patient. The answer to the question proposed is that patient education does make a significant difference in the management of Type 2 Diabetes. The research leads to the conclusion that there is a lot more needing to be learned regarding the patient education of Type 2 Diabetes. Self-management in the diabetic patient is a crucial factor when managing this chronic disease. Many of the articles were causally related to self-management. The impact of diabetes education on self-care and A1c levels shown significant improvement.

Health care professionals must utilize all the necessary prevention strategies to help improve patient outcomes. I have implemented this research in my daily practice. Stressing the importance of patient education is essential to be a competent health care provider. Much of the literature proves that proper patient education in the uninsured/underinsured patient population will show a decrease in daily blood glucose levels leading to a reduced A1c. There were several levels of awareness and support regarding distributed health literacy in patients with Type 2 Diabetes. Social networks are a huge influence in the management of Type 2 Diabetes. Understanding the health literacy of the diabetic patient is a principal factor when mastering patient education.

#### Project Methods

The purpose of this project was to evaluate the effectiveness of proper diabetes education to underinsured/uninsured patient population with a new diagnosis of diabetes. The setting was in a rural, primary care clinic about 20 minutes south of St. Louis with a rising poverty level. IRB information is not applicable for this project.

#### **Evaluation**

This project evaluated of twenty uninsured/underinsured, newly diagnosed Diabetic patients with an A1c of 6.5 or greater. These patients were asked to monitor blood glucose levels at least daily and record the readings. A patient education PowerPoint was shown to each patient on their initial office visit at time of diagnosis. A scheduled follow up call at the end of week one and then every two weeks from initiation until ninety-one days after the first A1c reading for the patient to report their blood glucose readings. Then at or on day ninety-one, another A1c would be obtained and recorded.

The project implementation phase was twelve weeks plus one day. An Excel spreadsheet was used to record the reported blood glucose levels of the subjects. Patient education is provided via a Power Point presentation during an office visit. The patient's A1c was recorded for a starting point during week one. The ending A1c was recorded after ninety-one days. These two levels will be used to evaluate the effectiveness of the patient education that was provided.

During the telephone encounters with patients, there was time allotted for any further questions or concerns related to their Diabetes management. Upon completion of the blood glucose readings and A1c, the difference between the two readings of A1c was evaluated to prove the effectiveness of proper patient education.

There were several lessons learned during the implementation and completion of this project. The average beginning A1c for this group of twenty patients was 10.7. The average ending A1c reading was 8.6. This was a significant drop in A1c readings for this patient population. This project shows that proper patient education can reduce a patient's A1c and may lower the risk of developing complications from unmanaged diabetes.

Limitations of this project were noted. There are several levels of awareness and support regarding distributed health literacy in patients with Type 2 Diabetes that should be evaluated before providing education. Understanding the health literacy of the diabetic patient is a key factor when mastering patient education. Financial restrictions provided a huge barrier to providing proper patient education. There were some patients who were unable to afford Diabetic monitoring supplies. This was the reason that several patients declined participation in the project. Some patients were advised of local resources that could be utilized in obtaining monitoring supplies.

Self-management practices of the diabetic patient are crucial for preventing complications. Individual strategies should be addressed in the initial office visit. Being able to devise individualized strategies is important to incorporate challenges as well as motivations. Patients need to be held accountable for their actions in managing their newly diagnosed diabetes. Patients should be able to integrate diabetes education, medication regimen and dietary changes to have a more successful understanding of the diabetes self-management. Self-management includes daily blood glucose monitoring and medication compliance.

#### Impact on Practice

The immediate impact at the clinical site was that of implementing proper patient education by all providers. The power point that was used during this project is utilized by most all providers at this clinic location. The predicted long-term impact of this project is that of the power point and project results will be distributed throughout the additional eight family practice clinics. Due to this project, the entire group will be implementing a Diabetes patient education protocol and template to provide reminders to providers as well as evaluating the educational readiness of patients. The only alteration to this project would be to apply this to insured Diabetic patients throughout the clinics.

#### Conclusions

A brief synopsis of this patient education project is as follows: The average beginning A1c for this group of twenty patients was 10.7. The average ending A1c reading was 8.6. This is shown as a 2.1 reduction in A1c readings. This small number has been shown to provide a stark difference in a recently diagnosed Diabetic patient. Small steps begin to add up.

Recommendations for future efforts based on this project are implement this type of patient education using social media and phone apps to record blood glucose readings. This would provide a visual way for the patient to be able to evaluate their blood glucose readings and see how their choices effect their readings

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