[Working title] **Assessing the effectiveness of a clinical pharmacist intervention in improving diabetes outcome in high-risk individuals with diabetes**

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**Abstract**

Purpose:

Methods:

Results:

Conclusion:

**Introduction**

* T2DM is a major public health problem
* T2DM health outcomes in high-risk populations
	+ Barriers in this population (medication adherence, self-care rituals)
* Effectiveness of educational interventions
	+ Pharmacist interventions
* Specific Aims
	+ 1-Compare adherence to medication between high-risk diabetic patients that received or did not receive clinical pharmacist MTM
	+ 2- Compare patient clinical health outcomes (HbA1C, blood pressure, cholesterol, renal health )

**Methods**

Design

Sample- (source of sample, subject eligibility, inclusion/exclusion criteria)

Measures-(IV= MTM; DV= medication adherence, glycemic control (HbA1C), BP, lipids, renal function)

Analytic Plan-Mann-Whitney tests for nonparametric data 2-group comparisons were employed due to violations of normality in continuous dependent variables. For the first analysis, group differences in dependent variables were compared between the MTM group and non-MTM. Pearson chi-square test was used to determine group differences in categorical dependent variables.

**Results**

Descriptive

Major Outcomes

* Medication adherence (p<.0001)
	+ MTM group - 64.6%
	+ Standard care - 9.8**%**
* HbA1c levels (p<.0001)
	+ MTM – 7.52
	+ Standard care – 10.59
* Cholesterol management
	+ Reduced LDL-Chol in MTM group (89.3 v 118.5 [p<.05])
	+ Reduced triglycerides in MTM group (172.9 v. 252.5 [p<.05])

**Discussion/Conclusion**

* *Summary of key findings*
	+ MTM group had a significantly higher rate of medication adherence than standard care group.
	+ MTM group had a better health profile as demonstrated by clinical outcomes (lower HbA1C, LDL, triglycerides) than standard care group
* *Bridge findings to relevant work*
	+ Briefly discuss prior work that reports similar and dissimilar findings
	+ Significance of improved clinical measures (HbA1C and cholesterol levels) in T2DM populations
* *Emphasize ways current work enhances prior work*
	+ Results set the stage for larger prospective studies and RCT educational interventions
	+ Informs community health by helping to advance the scientific community’s understanding of diabetes self-management in high-risk populations
	+ Provides information on multiple clinical health outcomes (HbA1C, BP, cholesterol, renal health) important in T2DM
* *Highlight limitations*
	+ Small sample size
	+ Retrospective case-control design- ( design is limited to associations, cannot demonstrate causation)
	+ Lack of standardized MTM protocol and documentation

**Implications and/or Recommendations for Practice**

* Next step of study is to further examine improved clinical outcomes and develop a standardized data recording tool for MTM that can be used in clinical practice
* MTM data capturing tool can be used to manage a range of chronic conditions

**Acknowledgements**

**References**

**Tables**

**Table 1. Sample/ Demographic Characteristics According to Group Allocation**

|  |  |  |
| --- | --- | --- |
|  | MTM | Non-MTM |
|  | n=50 | n=50 |
| Age, years  | 57 ± 9.8 | 50 ± 13.7 |
| Sex, male  | 28% | 56% |
| Race/ Ethnicity (n[%]) |  |  |
| Caucasian  | 29 [58%] | 20 [40%] |
| Black | 12 [24%] | 19 [38%] |
| Hispanic/Latino |  7 [14%] | 5 [10%] |
| Other | 9 [18%] |  9 [18%] |
| BMI, kg/m2 | 36.3 ± 9.2 | 32.8 ± 8.1 |

Note: Mean±SD; BMI=Body mass index

**Table 2: Medication Adherence and Clinical Health Outcomes by Group Allocation**

|  |  |  |
| --- | --- | --- |
|  | MTM | Non-MTM |
|  | n=50 | n=50 |
| Medication Adherence (%)  | 64.6% | 9.8% |
| HbA1C (%)  | 7.5 ± .42 | 10.6 ± 2.1 |
| Systolic Blood Pressure | 138.7 ± 22.1 | 139.3 ± 20.73 |
| Diastolic Blood Pressure | 73.3 ± 12.4 | 73.3 ± 13.7 |
| HDL | 47.7 ± 9.4 | 45.1 ± 13.1 |
| LDL | 89.3 ± 31.2 | 118.5 ± 82.6 |
| Triglycerides  | 172.9 ± 75.1 | 252.5± 168.2 |
| Creatinine  | 1.02 ± 0.7 | 1.05 ± 1.1  |

Note: Mean±SD; HbA1C= glycated hemoglobin; HDL=high density lipoprotein; LDL= low density lipoprotein

**Figures**

**Legends**