Analyzing the Effect that Living Arrangements have on Control of Diabetes Mellitus

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GE-National Medical Fellowships, Primary Care Leadership Program
Health Care Center for the Homeless Orlando, FL
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Introduction

Health Care Center for the Homeless
NCQA Patient-Centered Medical Home- Level 2

Celebrating 20 yrs of service!
Background

Why Diabetes...Living Arrangements...Research?

Diabetes is a major cause of heart disease and stroke, and continues to be the leading cause of kidney failure, nontraumatic lower-extremity amputations, and blindness among adults, aged 20–74 (National Diabetes Fact Sheet, 2007).

Homeless people suffer from significant levels of morbidity and mortality, but there is little evidence that homelessness has a direct adverse effect on health outcomes.
Research Objective

- Analyze variance in hemoglobin A1C levels to improve glycemic control
  - *Housing Status
  - Gender
  - Ethnicity
  - Race
Obtained demographics from diabetic patients whose date of last visit was between June 2011-May 2013.

Recorded hemoglobinA1C levels.

SPSS:
- Frequency tables for demographics and for demographics within two housing categories
- Independent Samples T-Tests for demographics and for demographics within two housing categories
- Analysis of Variance (ANOVA) tests for race and for race within two housing categories
## Results

### Housing Status

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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<td>78.2</td>
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<td>121</td>
<td>21.8</td>
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<td>Homeless</td>
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<tr>
<td>Total</td>
<td>555</td>
<td>100.0</td>
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### Gender

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### Ethnicity

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# Results Cont’d

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</table>
Mean Hemoglobin A1C Levels - Housing Status

Housed: 8.40
Homeless: 8.73

Mean difference NOT statistically significant (p = .136)
Results Cont’d

Mean Hemoglobin A1C Levels - Gender

Mean difference NOT statistically significant (p = .128)

Mean Hemoglobin A1C Levels - Gender

Mean differences were NOT statistically significant (p = .143 housed/ p = .898 homeless)
Results Cont’d

Mean Hemoglobin A1C Levels - Ethnicity

Mean difference was NOT statistically significant (p = .175)

Mean Hemoglobin A1C Levels - Ethnicity

Mean differences were NOT statistically significant (p = .275 housed/ p= .498 homeless)
Mean difference was NOT statistically significant (p = .172)
Mean Hemoglobin A1C Levels - Race

Mean difference was NOT statistically significant
\( (p = .063 \text{ housed} / p = .759 \text{ homeless}) \)

Mean Hemoglobin A1C Levels - Race

Mean differences were NOT statistically significant
\( (p = .063 \text{ housed} / p = .759 \text{ homeless}) \)
Discussion

- No statistically significant difference in mean hemoglobin A1C between homeless and housed patients, nor across gender, race, and ethnicity.

- When homeless and housed (housing status) were used as categorical controls, no statistically significant difference was found between the aforementioned demographics.

- Data Collection: Quest Diagnostics vs. Florida Hospital

- Endocrinology Referrals

- Access to services at main clinical site

- Promising Diabetic Profile
Acknowledgements

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Dr. Brown, Assistant Professor/Advisor, Meharry Medical College
GE-NMF Primary Care Leadership Program
Health Care Center for the Homeless Staff & Patients
Questions/Comments