Insulin Perceptions of Adult Type 2 Diabetes Patients at Eastwood Health Center

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Introduction

• CDC: 29.1 million people with diabetes in US
• Texas: 1.8 million adults have diabetes
• High prevalence in underserved populations
  • 11.0% of adult Hispanic population in Texas has diabetes

• El Centro del Corazon:
  • 93.1% of patient population Latino
  • 9.6% of adult patient population has diabetes

• Purpose: understand the perceived barriers to insulin use
Background

• Type 2 diabetes
  • Risk factors and complications
  • Lowering HbA1c levels reduces risk for complications
  • Treatment: lifestyle factors (exercise, diet), oral hypoglycemics, INSULIN

• Insulin
  • Resistance by patients
  • Wounderberg, Lucas, Latour, and Scholte op Reimer (2011) reported that 50% of patients whose next step was insulin did not start treatment until 5 years after developing complications
  • “Psychological insulin resistance” (PIR)
Methodology

- Cross-sectional pilot study x3 weeks
- Setting: Eastwood Health Center
- Sample: Type 2 diabetes adult patients
- Measure: “Insulin Perceptions Questionnaire”
  - Self-administered
  - Qualitative and quantitative questions
- Procedure: Questionnaire distributed by medical assistants and front desk clerks
- Statistical analysis: SPSS
Results

Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>33</td>
<td>51.73</td>
<td>12.885</td>
</tr>
<tr>
<td>Time with diabetes (years)</td>
<td>11</td>
<td>8.6136</td>
<td>6.35744</td>
</tr>
<tr>
<td>Most current HbA1C</td>
<td>8</td>
<td>8.425</td>
<td>2.4870</td>
</tr>
<tr>
<td>Most current blood sugar</td>
<td>20</td>
<td>168.70</td>
<td>72.825</td>
</tr>
</tbody>
</table>

• Quantitative Data:
  • Statistically Significant Data: Questions 1, 8, 14, and 17
  • Spanish speakers:
    • higher positive insulin benefits perception
  • English speakers:
    • more strongly agreed that the use of insulin could lead to worse health status
    • insulin would make lives less flexible (statistically significant)
  • Negative correlation between the perceived benefits of insulin to the fears/discomforts and others perceptions

• Qualitative Data:
  • Spanish respondents: concerns regarding weight gain, fetal deformity, and future need for dialysis
Discussion

• Lack of reported HbA1c levels

• No link between acculturation and perceived insulin benefits

• Negative correlation between perceived insulin benefits to perceived fears/discomfort and others perceptions

• Limitations:
  • small sample size, disproportionately greater Spanish speaking group, literacy levels, monitor for completeness of survey

• Future Research:
  • Repeat study in larger sample size, assess other demographic variables like income and highest level of education
Recommendations

• Address PIR at an individual level
  • Ask about fears/concerns

• Education (insulin benefits)...
  • Clarify misconceptions
  • Videos while in waiting room, pamphlets, diabetes education class
  • Significance of HbA1c

• Introduce insulin early, before patient needs it
Conclusion

• Diabetes is an important and prevalent issue
• Improve education
  • Understanding
  • Insulin perceptions
  • Prevent complications
• Approach at personal level
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References


