Comparative Clinical & Qualitative Outcomes from Two Diabetes Mellitus Self-Management Curricula featuring a Promotora

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Comparative Clinical & Qualitative Outcomes from Two Diabetes Mellitus Self-Management Curricula featuring a Promotora
Nyann Biery, MS; Robert Motley, MD; Francigna Rodriguez, BS; Edgar Maldonado, MD; Abby Letcher, MD; Cathy Coyne, PhD
Lehigh Valley Health Network, Allentown, Pennsylvania

Background:
- Diabetes affects vulnerable populations disproportionately.
- Because of ethnic predisposition, Latinos are over-represented when it comes to type 2 diabetes and some of its complications.
- Known barriers to self-management education include lack of ADA certified educators, insurance status, lack of language congruence and early stage of change.
- Within chronic care, growth in self-management knowledge, skills and motivation facilitates productive interactions with primary care clinicians and should lead to improved outcomes.
- The lack of insurance coverage, unhealthy behaviors, and low patient activation also contribute to ethnic disparities in diabetes care.

Purpose of Study:
- To compare two diabetes self-management education curricula utilizing a Promotora with Latino patients in Allentown, PA.

Education Program Design:
- Prospective case series utilizing clinical data, surveys, and focus group feedback.
- 5 Urban, community-based primary care practices in a regional health network.
  - 2 Family Medicine Residency based
  - 1 Family Medicine Practice
  - 1 Internal Medicine Residency based
  - 1 Internal Medicine Practice
- Family Medicine 6-week curriculum
- Internal Medicine 12-month curriculum

Patients:
- Type II Diabetics, age >18
- Spanish-speaking
- Selected by primary clinician or via disease registry and willing to enroll within the research.
- Recruitment to small group, facilitated curriculum based on location.
- Referred back to primary clinician at conclusion of program.

Curriculum:
- 6-week
  - Revised “Aprendemos de Salud”
  - Promotora facilitated
- 12 month CDS
  - Revised Diabetes Empowerment Education Program
  - Practice based, Promotora assisted
- 12 month LVPP
  - Revised Diabetes Empowerment Education Program
  - Promotora facilitated

Results:

<table>
<thead>
<tr>
<th>Site</th>
<th>6-week Program</th>
<th>6-month CDS</th>
<th>12-month LVPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Enrolled in Class</td>
<td>119</td>
<td>85</td>
<td>82</td>
</tr>
<tr>
<td>N Enrolled in Class</td>
<td>134</td>
<td>52</td>
<td>82</td>
</tr>
<tr>
<td>N Dropped</td>
<td>33</td>
<td>30</td>
<td>44</td>
</tr>
<tr>
<td>Mitchell (12/13)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site (study site)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blinded</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N Opt-in Research</td>
<td>84</td>
<td>39</td>
<td>71</td>
</tr>
<tr>
<td>N Opt-in Research</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduated</td>
<td>79.8%</td>
<td>43.5%</td>
<td>46.5%</td>
</tr>
<tr>
<td>Graduated (n=64)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Follow-up Survey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Have Insurance</td>
<td>46.4%</td>
<td>89.7%</td>
<td>74.6%</td>
</tr>
<tr>
<td>% Have Insurance (n=64)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Doing Diabetes Care (Stage of Change)*</td>
<td>21.6%</td>
<td>25% (n=84)</td>
<td>33% (n=39)</td>
</tr>
<tr>
<td>% Doing Diabetes Care (Stage of Change)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Depression (PHQ-9) pre</td>
<td></td>
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</tr>
<tr>
<td>% Depression (PHQ-9) pre</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Depression (PHQ-9) post</td>
<td>14% (n=64)</td>
<td>21% (n=14)</td>
<td>7% (n=28)</td>
</tr>
<tr>
<td>% Depression (PHQ-9) post</td>
<td></td>
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<tr>
<td>% Depression (PHQ-9) post</td>
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<tr>
<td>% Depression (PHQ-9) post</td>
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</tbody>
</table>

Conclusions:
- Participation in language-congruent diabetes self-management program improves outcomes.
- The Promotora is effective in delivering educational content and is helpful in identifying and helping patients to overcome some barriers to enrollment.
- Dropout rates are relatively high. Length of curriculum may influence dropout rate.
- For program completers, longer immersion may translate to better clinical outcomes.