Health Promoters use stages of change to improve diabetes in urban Mexican-Americans

A demonstration project funded by The Robert Wood Johnson Foundation Diabetes Initiative

2006 CDC Diabetes and Obesity Conference
Denver, May 16-19

Joan Thompson, PhD, MPH, RD, CDE
La Clínica de la Raza
Oakland, CA
### Results of the intervention group

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Before Enrollment (n = 266)</th>
<th>After Enrollment (n = 259)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1c</td>
<td>9.6</td>
<td>8.4</td>
</tr>
<tr>
<td>LDL-cholesterol</td>
<td>109</td>
<td>100</td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>127/73</td>
<td>127/72</td>
</tr>
<tr>
<td>BMI</td>
<td>32.2</td>
<td>33.7</td>
</tr>
</tbody>
</table>
## Comparison of intervention and usual care group

<table>
<thead>
<tr>
<th>Process Measures</th>
<th>Intervention (n= 293)</th>
<th>Usual Care (n = 1065)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dilated eye exam</td>
<td>52%</td>
<td>29%</td>
</tr>
<tr>
<td>Dental Exam</td>
<td>40%</td>
<td>22%</td>
</tr>
<tr>
<td>Cholesterol exam</td>
<td>75%</td>
<td>53%</td>
</tr>
<tr>
<td>Monofilament exam</td>
<td>39%</td>
<td>20%</td>
</tr>
</tbody>
</table>
Targets for self management behavior and preliminary results

These results are based on the health behavior assessment form, not stages of change results.

Patients following meal plan at least 5 d/wk 42%

Patients with 150 min exercise in 5 d/wk 18%

Patients taking medications 90% of the time 85%
### Self efficacy and social support

<table>
<thead>
<tr>
<th></th>
<th>First</th>
<th>Latest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average self efficacy score</td>
<td>7.2</td>
<td>8.0</td>
</tr>
<tr>
<td>(based on scale of 0-10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social support</td>
<td>26</td>
<td>50</td>
</tr>
<tr>
<td>(based on total possible score of 45)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Selected Promoter Activities

- Patient enrollment
  - Patients with A1c>8.5 or
  - Patients with inadequate social support
- Counseling
  - Weekly for first 6 months
  - Monthly thereafter
- Quarterly assessment
  - Self efficacy
  - Stages of change
  - Self management health behaviors (following meal plan, monitoring of blood sugar, taking medications, exercise)
<table>
<thead>
<tr>
<th>Stages of Change: Self monitoring of blood sugar</th>
<th>Initial (n= 171)</th>
<th>Latest (n=168)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-contemplation/contemplation</td>
<td>32%</td>
<td>8%</td>
</tr>
<tr>
<td>Preparation</td>
<td>29%</td>
<td>19%</td>
</tr>
<tr>
<td>Action/Maintenance</td>
<td>40%</td>
<td>72%</td>
</tr>
</tbody>
</table>

These results are based on the physician or health educator's recommendation as the target.
### Stages of Change: Following a meal plan:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Initial (n= 171)</th>
<th>Latest (n= 162)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Contemplation/Contemplation</td>
<td>42%</td>
<td>4%</td>
</tr>
<tr>
<td>Preparation</td>
<td>31%</td>
<td>22%</td>
</tr>
<tr>
<td>Action/Maintenance</td>
<td>27%</td>
<td>73%</td>
</tr>
</tbody>
</table>

These results are based on the patients’ chosen meal plan.
## Stages of Change: Medications

<table>
<thead>
<tr>
<th>Stage</th>
<th>Initial (N= 166)</th>
<th>Latest (N=164)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-contemplation/Contemplation</td>
<td>15%</td>
<td>3%</td>
</tr>
<tr>
<td>Preparation</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>Action/Maintenance</td>
<td>72%</td>
<td>90%</td>
</tr>
</tbody>
</table>

These results are based on the standard of taking medications all the time.
**Stages of Change: Exercise**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Initial (n=157)</th>
<th>Latest (n=166)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-contemplation/Contemplation</td>
<td>22%</td>
<td>5%</td>
</tr>
<tr>
<td>Preparation</td>
<td>29%</td>
<td>19%</td>
</tr>
<tr>
<td>Action/Maintenance</td>
<td>38%</td>
<td>76%</td>
</tr>
</tbody>
</table>

These results are based on the patient’s own exercise goal.
La Clinica de la Raza - Profile

Serves over 40,000 patients a year
- 84% Latino, 8% Asian, 6% African American
- 85%<200% federal poverty level

Insurance coverage
- 50% no insurance
- 40% Medicaid or Medicare
- 10% private insurance

Characteristics of target population
- Spanish speaking, low literacy
- Inadequate social support
- A1c>8.5
Program Objectives of Demonstration Project

- Overall goal
  Assess the effectiveness of the Advanced Diabetes Self Management Program

- Components of the intervention
  - Use of the trans-theoretical model to stage patients and offer stage specific counseling interventions
  - Train peer educators (promoters) to counsel and support patients in self care
  - Train providers to use the promoters to improve clinical outcomes
Promoters’ roles (1)

- Serve as liaison between patients and providers
  - Contact provider directly when important patient need arises
  - Participate in quarterly case conferences

- Provide self care information
  - Teach diabetes classes
  - Provide one on one counseling by phone or face to face

- Contribute to continuity and coordination of care
  - Follow-up with patients after the provider visit
  - Encourage patients to keep their A1c test current
  - Help patients with goal setting and action planning
Promoters’ Roles (2)

- Assist in attending appointments and adherence to medications
  - Encourage patients to take medications
  - Help patient to identify barriers and problem solve
  - Accompany patients to appointments
  - Clarify patient’s medication list
- Facilitate community participation in health care system
  - Table at the Farmers Market
  - Participate in the La Clinica and other health fairs
- Promote consumer advocacy and protection
  - Organize regarding immigration issues
  - Educate on pre-diabetes at health fairs
Promoters’ Roles (3)

- Provide on-going follow-up and support
  - Do appointment reminders
  - Lead walking club
  - Lead relaxation group
  - Facilitate support group
  - Assist in depression group
  - Counsel patients according to their stage of readiness

- Maintain records on all patient contacts

- Assess patients on self efficacy, stages of change, social support, and self management behaviors

- Data entry
Definition of Stages of Change

- **Pre-contemplation** – I can’t or I won’t
  (The patient is not yet considering change or is unwilling or unable to change).

- **Contemplation** - Maybe I will
  (The patient acknowledges concerns and is considering the possibility of change but is ambivalent and uncertain)

- **Preparation** – I will
  (The patient is committed to the change and is planning to make the change in the near future, but is considering what to do).

- **Action** – I am doing
  (The patient is actively taking steps to change but has not yet reached a stable state)

- **Maintenance** – I have been doing
  (The patient has achieved initial goals, and it is now a habit)
Pre-contemplation: Strategies for intervention

- Express concern
- Raise doubts about patient behavior
- Normalize behavior
- Provide information
Contemplation: Strategies for intervention

- Normalize ambivalence
- Consider the “cons”
- Consider the “pros”
- Self re-evaluation
- Examine options
Clarify the patient’s own goals and strategies for change

Anticipate problems before they occur

Lower barriers to change

Help the client to enlist social support
Action: Strategies for intervention

- Acknowledge difficulties in the early stages of change
- Engage the patient in treatment
- Identify high risk situations
- Assess strengths and social support
Maintenance: Strategies for Intervention

- Affirm commitment
- Affirm patient resolve and self efficacy
- Incorporate positive rewards
- Review long term goals
Lessons to be shared

- Staging patients on a specific behavior provides an effective way to assess movement through the stages.
- On-going promoter training in staging patients is needed for achieving consistency in the way it is used.
- Use of the psychological processes for facilitating change is situation-based, requires repeated training, and is inconsistently applied.
- Program participants experienced improved values for other process measures that were not part of the intervention.
- Staging of patients needs to be based on a well-defined endpoint and not the patient’s own goal, which changes each time a small step is achieved.
Challenges

- The extensive documentation required for the study is difficult for promoters with limited literacy skills.
- Results are hard to interpret over time when staging is based on a patient goal, rather than a specific program target.
- Many patients spend several months a year out of the country. This makes periodic contact difficult for some.
- Patients, many of them undocumented, have competing issues they are dealing with, besides their diabetes. This makes participation in activities difficult.
What is your stage of readiness?

- **Pre-contemplation?** Are you perfectly happy with the behavior changes your patients are making with your current counseling style?

- **Contemplation?** Have you thought about talking to someone you know who can tell you the benefits of using the trans-theoretical method?

- **Preparation?** If you are ready to use this method, go to Lumetra.com to download the Guide to Stages of Change Intervention, plus other relevant resources (available June).

- **Action?** Acknowledge the challenges of changing the way you interact with patients. What have you learned about yourself?

- **Maintenance?** Note how the rapport you have with your patients has improved and your patients’ self management has improved too.

jthompson@laclinica.org
La Clínica de la Raza