Effects of individualized health coaching in patients with type 2 diabetes

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Diabetes is the seventh leading cause of death in the United States. In 2012 the total estimated amount of money spent on diabetes was $245 billion. To decrease healthcare costs and increase quality of life for the diabetic patient it is important to find the most effective way to treat diabetes to decrease rates of comorbidities and improve patient outcomes. A new strategy of treating diabetes is individualized health coaching. This includes collaboration with many different entities of health care providers, including a nurse or counselor to help the patient make their own goals that they, themselves feel are attainable. This also gives the patient more time to ask questions they might not have had time to ask during the physician visit. The purpose of this review is to determine the efficacy of individualized health coaching on lowering hemoglobin A1c (HbA1c) in diabetic patients.

### INTRODUCTION

**Objective**
To assess the effects of health coaching in individuals with type 2 diabetes on glycated hemoglobin (A1C levels)

**Results**

<table>
<thead>
<tr>
<th>Study</th>
<th>Objective</th>
<th>Design</th>
<th>Control</th>
<th>Intervention</th>
<th>Number of Patients</th>
<th>Average age (years)</th>
<th>Male (%)</th>
<th>Female (%)</th>
<th>Telephone calls</th>
<th>Length of follow up</th>
<th>Critique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sherifali et. al.</td>
<td>To assess the effectiveness of collaboration of a nurse care manager with primary care physicians to improve clinical outcomes for adults with type 2 diabetes.</td>
<td>Meta-analysis</td>
<td>Randomized Controlled Trial</td>
<td>57.0</td>
<td>11.4</td>
<td>55.5 ± 7.3</td>
<td>36-100</td>
<td></td>
<td>3-16 months</td>
<td></td>
<td></td>
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<tr>
<td>Hiss, et. al.</td>
<td>To determine if telephone health coaching is beneficial to patients with type 2 in lowering HbA1c.</td>
<td>Randomized Controlled Trial</td>
<td>55.7 ± 13.1</td>
<td>64</td>
<td>0.15</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Walker, et. al.</td>
<td></td>
<td></td>
<td>55.5 ± 7.3</td>
<td>65</td>
<td></td>
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</tr>
</tbody>
</table>

**Clinical Question:** In patients with type 2 diabetes, is individualized health coaching more effective than traditional patient education in lowering hemoglobin A1c?

### METHODS

**FURTHER RESEARCH**

- Sherifali, et al. 2020

**Due to**

- Lack of consistency in follow up length between studies
- Different entities of health care providers, including a nurse or counselor in studies
- Small sample size
- Length of follow up
- Critique
- Wide variation between each intervention
- Relatively small sample size for a meta-analysis
- Great degree of heterogeneity
- Unclear or high risk of bias present in randomized controlled trial

### RESULTS

**CONCLUSIONS**

The three studies compiled above all show statistical significance in lowering diabetic patient’s HbA1c using health coaching techniques. Integrative health coaching is a good way to make the patient active in the treatment of their disease.

For the future, more longitudinal studies need to be done to track HbA1c changes over a longer period of time. Further studies must also address what component of the individualized plans make health coaching successful.

Current research shows individualized health coaching statistically lowers HbA1c in patients with type 2 diabetes and is an option worth pursuing.

### ACKNOWLEDGEMENTS

We would like to thank Dr. Erika Kancler, Carolyn Schubert, and the communication center for their assistance in this Capstone Project.

### REFERENCES