Smile Healthy with Your Diabetes

Empowerment based Health Coaching for Patients with Diabetes Type II

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OUTLINES

• Part 1: A JOURNEY ALL TOGETHER
  INSIGHT TO THE HEALTH COACHING

• Part 2: THE RESEARCH ON HEALTH COACHING

• Part 3: LET`S SHARE IDEAS AND KNOWLEDGE
  Questions-Networking
What do YOU want?
Self-awareness for self, then for others
Skills and mindset

Sterotype
“What do I want?”
Health Coaching

“Self-awareness for self, then for others”

• A VALUE-BASED journey to the self

• A VALUE-BASED patient journey, guided and motivated by the medical professional, to explore, unlock and activate the self-potential to adopt healthy lifestyles

• A system-wide innovation aiming positive social change executed with VALUE-BASED leadership principles
Values

• Make “US” who we are

• Meaning of own life

• Anchoring our actions
VALUES

• Group of 3 people

• Each shares a peak experience for 4 minutes

• Afterwards each crosses 3 values for others and self separately on Value Check lists (don't show to each other!)

• Give your Value Check lists to the relevant person
PLACE ALL VALUES (CHosen by YOU AND OTHERS) ON JOHARI WINDOW

JOHARI WINDOW

<table>
<thead>
<tr>
<th>What you see in me</th>
<th>What you do not see in me</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME</td>
<td>ME</td>
</tr>
<tr>
<td>YOU</td>
<td></td>
</tr>
<tr>
<td>YOU</td>
<td></td>
</tr>
</tbody>
</table>

What you see in me: ME, YOU
What you do not see in me: ME
What I see in me: ME, YOU
What I do not see in me: YOU
SELF-AWARENESS

OPEN/FREE AREA

VALUE BASED
LEADERSHIP &
ROLE MODEL

MUTUAL TRUST
POSITIVE REGARD

ASK

MUTUAL TRUST AND
COLLABORATION

SELF

OTHERS

UNKNOWN BY OTHERS

KNOWN BY OTHERS

UNKNOWN BY SELF

KNOWN BY SELF
Leader’s self-concept, Build Your Brand as an Emerging Leader

• Own leadership as a professional
  (from furious to curious; act as they wanted to be)

Role model; Become a Person of Influence

• Patients to become leaders at adopting and improving healthy lifestyles

• Social entrepreneurship/leadership
Do The Right Thing

- The Right Reason
- The Right Way
- The Best HE/SHE Can
Health Coaching

Project: Smile Healthy to Your Diabetes:
Empowerment based Health Coaching for Patients with Diabetes Type II
THE PROJECT, SUPPORTED BY

TURKISH PHASE (2010-2012)
• FDI AND UNIVERSITY OF COPENHAGEN

DANISH PHASE (2012-...)
• IDF (INTERNATIONAL DIABETES FEDERATION)
• UNIVERSITY OF COPENHAGEN
• TRYG
Evidence for Health Coaching

Coaching vs. Education

• Diabetes Management

• Dietary Behavior Modification

• Smoking Cessation

• Weight management

• Cardiovascular Risk Management
DENTISTRY

• Coaching: none

• But ……

• Psychological interventions: significant improvements in periodontal health (Cochrane review)

  Renz A et al.. Cochrane Database of Systematic Reviews 2007; 2, Art. No.:CD005097, doi:10.1002/14651858

• Motivational Interviewing: the most effective intervention approach for altering health behaviours and patient adherence at dental clinical settings

AIM

to design and evaluate the impact of health coaching (HC) compared to health education (HE) by using self-reports and clinical measurements to improve oral health and diabetes management among patients with diabetes mellitus type 2 (DM2) in Turkey and Denmark.
DIABETES and ORAL DISEASES

• Growing global pandemic
• Life-style oriented diseases
• Contributed to the etiology of each other
• Share common lifestyle factors and biological mechanisms
• Patient compliance—the key for success—many challenges
- Periodontal inflammation in early old age associated with mortality in older age
  Avlund K et al. J Am Geriatr Soc 2009

- DM2 patients are more likely to have periodontal disease than people without DM2

- Share common biological mechanisms and same lifestyle related risk factors (poor dietary habits, smoking)
IDF and FDI Joint Declaration (2007)

• prevention of oral disease and promotion of oral health as an essential component of DM management

• to initiate research leading to evidence-based treatment strategies to improve health and oral health of DM patients

• to improve knowledge about the reciprocal link between DM and oral health among all stakeholders, health professionals, people with diabetes, the public and policy makers
Research Methodology
Recruitment

Randomization

Coaching Group

Coaching Group
Coaching Sessions

Coaching Group

Health Education Group

Health Education Group

Health Education Group

Follow-up

Baseline

Initiation-Maintenance

6 months

6 months
Good Oral Health Helps You to Better Control Your Diabetes

WHAT DO YOU WANT?

If you say "To be healthy and to smile healthy", then welcome to participate a new international intervention program for diabetes type 2. It is designed accordingly to the recommendations of International Diabetes Federation and World Health Organization.

There will be oral examination, periodontal cleaning, and individual counseling/education sessions on oral health and diabetes, weight management and physical activity. If you would like to participate to the program, please call .......... or send email to aci@sund.ku.dk.

Participation and activities are free of charge.
Clinical oral health examinations:
Periodontal Attachment Loss, Community Periodontal Need Index, Caries (ICDAS)

Medical measures:
Fasting glucose, HbA1C
LDL, HDL, TRIGLISERID
Body fat-BMI
PERIODONTAL CLEANING
Allocation of the patients to 2 groups

Initiation-Maintenance and Follow-up period

**Coaching Group**

NLP, Motivational Interviewing,
Self-Efficacy focusing on Empowerment

1-1 session

Shared knowledge by permission

**Health Education Group**
<table>
<thead>
<tr>
<th>Traditional Care Model</th>
<th>Health Coaching Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health professional as expert</td>
<td>Client as expert in own life</td>
</tr>
<tr>
<td>Client told what to do</td>
<td>Client offered information but chooses own solutions</td>
</tr>
<tr>
<td>One size fits all solutions</td>
<td>Individually tailored solutions</td>
</tr>
<tr>
<td>Extrinsic motivators</td>
<td>Intrinsic motivators</td>
</tr>
<tr>
<td>Client required to facilitate change</td>
<td>Collaboration &amp; assistance in facilitating change</td>
</tr>
<tr>
<td>Ignores barriers to change</td>
<td>Addresses barriers to change</td>
</tr>
<tr>
<td>↑ Resistance to change</td>
<td>↓ Resistance to change</td>
</tr>
<tr>
<td>Goal setting overload</td>
<td># &amp; magnitude of goals to suit client</td>
</tr>
</tbody>
</table>

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COACHING METHODOLOGY
Wheel of Health

WEIGHT

ORAL HEALTH
COACHING SESSION
Session 1

• Goal setting (writing/pictorial messages)
• Beliefs
• Values
• Action Plan
• Opportunities-Challanges
• Supporters-Reminders
• Motivators
• Goal value check
• Summary
COACHING SESSION

Session 2

- Action plan check (opportunities-challanges)
- Reminders supporters
- How to proceed
- New goal
7 MASTER "BONES"

- BUILDING TRUST AND RAPPORT
- UNCONDITIONAL POSITIVE REGARD
- PATIENT-FOCUSED APPROACH
- EMPATHY
- ACTIVE LISTENING AND EMPOWERMENT
- ASK, DON`T TELL
- FEEDBACK AND SUMMARISING (MIRRORING)
## POSITIVE REFRAMING

<table>
<thead>
<tr>
<th>PATIENT</th>
<th>DENTAL PROFESSIONAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I don't want/have bleeding gums. I am not happy”</td>
<td>“What do you want instead”</td>
</tr>
<tr>
<td>”Never”, ”but”, ”I wish I could”</td>
<td>Empathy+&lt;br&gt;”What do you want now/What can you do different now? ...”</td>
</tr>
<tr>
<td>” Must/have to ....”</td>
<td>Empathy+&lt;br&gt;“What do you want to ....”</td>
</tr>
<tr>
<td>”I think I can ... ”</td>
<td>“I feel I can.....”</td>
</tr>
</tbody>
</table>
Health Coaching

- Preventive intervention
- An effective communication method
RESULTS
<table>
<thead>
<tr>
<th></th>
<th>Coaching</th>
<th>Education</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (total =186)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>0.76</td>
</tr>
<tr>
<td>Female</td>
<td>77</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>46</td>
<td>60</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>40</td>
<td>41</td>
</tr>
<tr>
<td>Age (years)</td>
<td>72</td>
<td>92</td>
<td>0.29</td>
</tr>
<tr>
<td>30-39</td>
<td>16</td>
<td>31</td>
<td>23</td>
</tr>
<tr>
<td>40-49</td>
<td>13</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>50-59</td>
<td>39</td>
<td>55</td>
<td>41</td>
</tr>
<tr>
<td>60-69</td>
<td>11</td>
<td>16</td>
<td>25</td>
</tr>
<tr>
<td>Education</td>
<td>74</td>
<td>101</td>
<td>0.46</td>
</tr>
<tr>
<td>Primary school or less*</td>
<td>40</td>
<td>61</td>
<td>54</td>
</tr>
<tr>
<td>At least middle school</td>
<td>23</td>
<td>23</td>
<td>31</td>
</tr>
<tr>
<td>(≤8-11 years of education)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least university</td>
<td>11</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Current employment</td>
<td>77</td>
<td>98</td>
<td>0.72</td>
</tr>
<tr>
<td>Housewife/retired</td>
<td>57</td>
<td>76</td>
<td>75</td>
</tr>
<tr>
<td>Employed</td>
<td>20</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>Clinically diagnosed history of diabetes</td>
<td>86</td>
<td>0.51</td>
<td></td>
</tr>
<tr>
<td>≤ 11.9 years</td>
<td>45</td>
<td>49</td>
<td>62</td>
</tr>
<tr>
<td>&gt; 11.9 years</td>
<td>27</td>
<td>37</td>
<td>38</td>
</tr>
<tr>
<td>HbA1C (Mean ± SD)</td>
<td>75</td>
<td>102</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>7.5 (±1.52)</td>
<td>7.8 (±1.60)</td>
<td></td>
</tr>
</tbody>
</table>
**COACHING GROUP**

**HbA1C**

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.5±1.5%</td>
<td>6.9±1.3</td>
</tr>
</tbody>
</table>

**Periodontal Attachment Loss**

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2±1.2</td>
<td>1.1±0.8</td>
</tr>
</tbody>
</table>

**Toothbrushing Self-efficacy**

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.5 ±11.9</td>
<td>29.3±8.6</td>
</tr>
</tbody>
</table>

**Figure** - Several findings from the project "Smile Healthy to Your Diabetes: Health Coaching Based Intervention for Diabetes and Oral Health Management"

**HbA1C**

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.8±1.5%</td>
<td>7.8±1.6%</td>
</tr>
</tbody>
</table>

**Periodontal Attachment Loss**

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3±1.2</td>
<td>1.7±1.5</td>
</tr>
</tbody>
</table>

**Toothbrushing Self-efficacy**

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.7±11.8</td>
<td>20.9±11.4</td>
</tr>
</tbody>
</table>

**Figure** - Several findings from the project "Smile Healthy to Your Diabetes: Health Coaching Based Intervention for Diabetes and Oral Health Management"

### TABLE. FOR SELECTED VARIABLES, CHANGES BY YEAR TWO WITHIN STUDY GROUPS FOR PATIENTS

<table>
<thead>
<tr>
<th></th>
<th>HEALTH COACHING</th>
<th>HEALTH EDUCATION</th>
<th>H-COACHING –H-EDUCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toothbrushing (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never or rare</td>
<td></td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td>2-5 times/week</td>
<td>14</td>
<td>25</td>
<td>Ns</td>
</tr>
<tr>
<td>Once a day</td>
<td>20</td>
<td>23</td>
<td>0.001</td>
</tr>
<tr>
<td>Twice a day</td>
<td>34</td>
<td>30</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>44</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td><strong>Physical Activity (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physically inactive</td>
<td>42</td>
<td>46</td>
<td>NS</td>
</tr>
<tr>
<td>Physically active</td>
<td>55</td>
<td>48</td>
<td>0.001</td>
</tr>
<tr>
<td>Physically high active</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>69</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>69</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>
The high risk group analysis was performed separately for each group; a2-related samples Wilcoxon test within each group; bRepeated measures ANOVA between two groups; n for each variable represents paired; * percentages ≤1; ns: non-significant
• Among patients brushing their teeth at least once a day, **HC** group patients were more likely to be physically active and to have high self-efficacy than those in HE group (p<0.01).

• TBSE was correlated with favourable HbA1c levels (<6.5%) in **HC** group, and quality of life (p<0.05) in both groups.
CONCLUSIONS

• Patient-focused **HC** has a significantly higher impact on better management of oral health and glycemic control (HbA1C) compared to **HE**. It is noteworthy that the improvement was more significant among high risk group patient

• TBSE may be a practical start point for empowerment

• Toothbrushing can be used as an effective and practical behavior to observe personal success in diabetes management
HC can be an adjunct intervention in clinics/health care settings and an effective empowerment and change management methodology for adoption of better lifestyles among DM2 patients.
Health Coaching

Role model; Become a Person of Influence

What Do We Want?
YOUR CHOICE

YOUR VALUES

YOUR OWN PATH
THANK YOU!