The education of diabetic patients about their foot self-care: Our experiences in the Unit of Diabetic foot in the University of Malaga.

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Prof. University of Malaga

International Diabetes Colloquium Ghent 2018
Diabetes Mellitus

- Diabetes Mellitus (DM) is currently one of the most prevalent chronic diseases, with rising figures that reflect a pandemic scenario.

- The International Diabetes Federation (IDF) estimated that 366 million people worldwide have DM.

- The foot is in the core of the problem in patients with DM.
Diabetes and self-care foot

- Generally, education on foot care is directed mainly at patients with a history of complications, above all those with rising levels of HbA1c and those having had diabetes for several years.

- Very few are aimed to determine the specific degree of foot self-care in the population having diabetes mellitus.

- Furthermore, patients qualified as low-risk can develop complications relatively fast in the absence of good glycemia monitoring and adequate self-care practices.


Development, validation and psychometric analysis of the diabetic foot self-care questionnaire of the University of Malaga, Spain (DFSQ-UMA)

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Unit of diabetic foot (by podiatrist)
Review

Assessment of Foot Self-Care in Patients With Diabetes
Retrospective Assessment (2008-2014)

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<table>
<thead>
<tr>
<th>Study</th>
<th>Sample</th>
<th>Design/Intervention</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hincliffie et al\textsuperscript{15}</td>
<td>Ischemic patients</td>
<td>Systematic review (6 RCTs)</td>
<td>Patient education on foot care decreases the number and frequency of ulcers</td>
</tr>
<tr>
<td>Vermiere et al\textsuperscript{14}</td>
<td>Type 1 and 2 diabetes</td>
<td>Systematic review (9 RCTs)</td>
<td>Patient education contributes to decrease in ulcers and amputations, especially in high-risk patients</td>
</tr>
<tr>
<td>Canavan et al\textsuperscript{2}</td>
<td>Amputee patients</td>
<td>Prospective study</td>
<td>Decrease of incidence of amputations in those patients who underwent education</td>
</tr>
<tr>
<td>Dorresteijn et al\textsuperscript{16}</td>
<td>Type 1 and 2 diabetes</td>
<td>Systematic review (19 studies; 5 RCTs)</td>
<td>Insufficient evidence for complex interventions in foot ulcers or complications</td>
</tr>
<tr>
<td>McInnes\textsuperscript{9}</td>
<td>Type 1 and 2 diabetes; low risk of complications</td>
<td>Prospective study</td>
<td>Complications improvement with patient education</td>
</tr>
<tr>
<td>Clark\textsuperscript{7}</td>
<td>Type 1 and 2 diabetes</td>
<td>Narrative review</td>
<td>Complications improvement with patient education</td>
</tr>
<tr>
<td>Deakin et al\textsuperscript{17}</td>
<td>Type 2 diabetes</td>
<td>Systematic review (11 studies)</td>
<td>Improvement in knowledge, weight, treatment adherence, and glycemic control</td>
</tr>
<tr>
<td>Lorig et al\textsuperscript{18}</td>
<td>Type 1 and 2 diabetes</td>
<td>Prospective study</td>
<td>Complications improvement with patient education</td>
</tr>
</tbody>
</table>
Why?????

- Diabetic foot self-care and Diabetic foot self-examination
- Reduction of amputations
- Educational interventions
- Measures of quality of life
Do you generally examine your foot yourself?
Do you inspect your nails?
Do you look for sores and examine the state of the skin of your feet by yourself?
Is it hard for you to dry your feet after showering?
How often do you cut or treat your toenails?
To dry your feet ...
To heat your feet ...
To treat skin sores, dry skin patches, and calluses ...
Regarding summer footwear, with excessive heat, ...
Regarding conventional footwear, before using it ...
Regarding socks ...
Regarding new shoes ...
Is it hard to find comfortable shoes for your feet?
Is it hard to find socks that are right for your feet?
How important do you consider personal care of your feet?
Regarding the recommendations on how to take care of your own feet ...
7 Para secar los pies...
A. Empleo una toalla sólo para los pies y seco la planta y entre los dedos
B. Empleo una toalla sólo para los pies y seco la planta
C. Empleo la misma toalla que para el cuerpo y seco la planta y entre los dedos
D. Los dejo sacar al aire
E. No los puedo secar

8. ¿Te ha resultado difícil secar tus pies?
A. Sí
B. No
Our study

<table>
<thead>
<tr>
<th></th>
<th>Male (n = 101)</th>
<th>Female (n = 108)</th>
<th>Total (n = 209)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>57.78 (16.09)</td>
<td>64.66 (16.73)</td>
<td></td>
<td>0.03</td>
</tr>
<tr>
<td><strong>Years with diabetes</strong></td>
<td>12.16 (10.23)</td>
<td>14.63 (11.42)</td>
<td></td>
<td>0.101</td>
</tr>
<tr>
<td><strong>Glucose</strong></td>
<td>132.07 (40.30)</td>
<td>136.51 (40.17)</td>
<td></td>
<td>0.470</td>
</tr>
<tr>
<td><strong>Hb1AC</strong></td>
<td>7.02 (1.19)</td>
<td>7.32 (1.22)</td>
<td></td>
<td>0.167</td>
</tr>
<tr>
<td><strong>BMI</strong></td>
<td>27.88 (4.43)</td>
<td>28.03 (5.89)</td>
<td></td>
<td>0.840</td>
</tr>
<tr>
<td><strong>Type of diabetes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type I</td>
<td>29 (60.4)</td>
<td>19 (39.6)</td>
<td>48</td>
<td>0.153</td>
</tr>
<tr>
<td>Type II non insulin-dependent</td>
<td>41 (43.6)</td>
<td>53 (56.4)</td>
<td>94</td>
<td></td>
</tr>
<tr>
<td>Type II insulin-dependent</td>
<td>31 (46.3)</td>
<td>36 (53.7)</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td><strong>Educational level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>18 (40.0)</td>
<td>27 (60.0)</td>
<td>45</td>
<td>0.042</td>
</tr>
<tr>
<td>Primary</td>
<td>29 (40.3)</td>
<td>43 (59.7)</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>28 (53.8)</td>
<td>24 (46.2)</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>26 (65.0)</td>
<td>14 (35.0)</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>
Total score and educational level
Self-care and Educational level

The graph shows the relationship between means self-care and educational level. The x-axis represents the educational level, which includes Minimum, Primary, Secondary, and Universities. The y-axis represents the means self-care, ranging from 16.50 to 18.00. The line graph indicates a downward trend as the educational level increases.
Quality of studies of self-care in diabetic patients

The supervision of the feet of diabetic patients reduce the incidence of ulcers. *Salomé y Pinilla, 2011*

Diabetic’s patient with high risk of foot ulceration, should learn the self-care and foot’s care principles. *Perrin, 2009*

Extend prevention’s programmes to reduce complication derived from diabetes. *Lincoln and Lorig, 2008*
INFLUENCE OF DIABETIC FOOT IN THE QUALITY OF LIFE OF THE PATIENTS

The amputation has influence on the quality of life.

The influence on the quality of life is especially in the mobility of the patient after the wound has healed.

The complication related to ulcers or amputation have an economic cost.
QUALITY OF SELF-CARE STUDIES PERFORMED IN DIABETIC FOOT.

Compliance with treatment recommendations presents a high degree of methodological deficiency (Vermiere 2005)

It hasn’t been proved clearly the education effectiveness in reducing incidence of ulcers. (Dorresteijn 2012)

Exist a high heterogeneity between self-care implements. The methodological quality of this implements it’s of great variability. (Harvey 2009)
Thank you so much for your attention