ASSESSING DIABETES SUPPORT IN ADOLESCENTS: FACTOR STRUCTURE OF THE MODIFIED DIABETES SOCIAL SUPPORT QUESTIONNAIRE-FAMILY

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INTRODUCTION
Key areas of diabetes specific support from parents and friends (cf. LaGreca, 1995):
- Insulin administration
- Blood glucose testing
- Assistance during hypoglycemia & hyperglycemias
- Following a meal plan
- Exercising regularly
- Feeling good about diabetes

DSSQ-Family
Modified DSSQ-Family (70 items) completed by parents
Two Parallel Scales
1. Frequency (1 = never, 6 = every day)
2. Supportiveness (-2 = absolutely not supportive, +3 = very supportive)

Individualized Scoring:
Frequency x Supportiveness

OBJECTIVE:
Demonstrate that traditional key areas of diabetes specific support don’t tap domains of support that are most critical for adolescents.

Participants:
434 adolescents with Type 1 Diabetes were randomly divided into two groups:

Exploratory Factor Analysis:
Exploratory Factor Analysis, (first random half)
207 adolescents, 14.8 yrs, IDDM duration 6.2 yrs
EFA suggested 5 factors explaining 40% of item variance; presented in figure below with number of items and reliability alpha.

Confirmatory Factor Analysis:
Confirmatory Factor Analysis (second random half)
227 adolescents, 14.7 yrs, IDDM duration 6.1 yrs
CFA was conducted on the second half of the sample, confirmation of the factor structure was tested across gender and age groups.

Indices of Model Fit:

<table>
<thead>
<tr>
<th>Factors</th>
<th>TLI</th>
<th>CFI</th>
<th>RSMEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidance &amp; Supervision</td>
<td>.938</td>
<td>.952</td>
<td>.037</td>
</tr>
<tr>
<td>Encouragement for Self-care &amp; Exercise</td>
<td>.992</td>
<td>.995</td>
<td>.018</td>
</tr>
<tr>
<td>Help in Critical Situations</td>
<td>1.00</td>
<td>1.00</td>
<td>.000</td>
</tr>
<tr>
<td>Nourishment</td>
<td>.991</td>
<td>.994</td>
<td>.018</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>.998</td>
<td>.999</td>
<td>.011</td>
</tr>
<tr>
<td>Tangible Support</td>
<td>1.00</td>
<td>1.00</td>
<td>.000</td>
</tr>
</tbody>
</table>

Conclusions:
1. Three traditional aspects of diabetes social support were verified: Help in Critical Situations, Nourishment, and Emotional Support
2. Two new factors were identified: Guidance & Supervision, and Encouragement for Self-care & Exercise
3. For intervention it is important to indicate both diabetes areas and social-emotional needs of adolescents with IDDM
4. The 45-item “Modified Diabetes Social Support Questionnaire-Family” emerged as a reliable and internally valid measure for diabetes support

Reference: