Disclosure to Participants

- Notice of Requirements For Successful Completion
  - Please refer to learning goals and objectives
  - Learners must attend the full activity and complete the evaluation in order to claim continuing education credit/hours

- Conflict of Interest (COI) and Financial Relationship Disclosures:
  - Presenter: Kristine Batty, Ph.D., APRN-BC, BC-ADM, CDE – No COI/Financial Relationship to disclose

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Measuring Family Resilience in Families with an Adult with Diabetes

Background

- Diabetes now at epidemic proportions in US, over 29 million Americans have Diabetes …how many family members are impacted?????????

- Family is known to have strong influence on diabetes care and outcomes of those with diabetes through self management tasks and perception of disease (White, et al., 2009; Keough, et al., 2011)

John and Joe

- 2 men with similar backgrounds
- 2 families with different perspectives
- Why? How? What can we do?
Background

• Little research conducted in population of families of adults with diabetes

• Very little research conducted on family resilience and diabetes

Family and Diabetes

Family members of those with diabetes report:

• "Low levels of knowledge and support"

• "Low levels of well-being"

• "High levels of emotional distress (White, et al, 2009)"

• "Resilience leads to adaptation to illness such as diabetes (Bradshaw, Richardson, Kulkarni, 2007)"

Family Resilience

Defined as the ability of the family:

- to adapt and remain healthy despite major stressor (Black & Lobo, 2008)

- to positively respond to crisis (McCubbin & McCubbin, 1985)

- to use strengths to turn a crisis into a positive experience and grow as a result (Walsh, 2003)

- "bounce forward" (Walsh, 2006)

Family Resilience Factors (Walsh, 2006)

Characteristics:

• Belief Systems- making meaning of adversity; positive outlook; transcendence and spirituality

• Organizational patterns- flexibility; connectedness; social and economic resources

• Communication/Problem Solving- clarity; open emotional expression; collaborative problem solving

Research Questions

• 1- Does family functioning (according to the components of the Family APGAR) correlate to level of family resilience?

• 2- Does level of diabetes knowledge correlate to family resilience levels?
Questions cont.

• 3- Which of the three resilience factors (i.e. positive outlook, diabetes knowledge and aspects of family functioning) are the most influential in predicting levels of family resilience?

• 4- Is the Family Resilience Assessment (FRA) questionnaire a reliable and valid measure in families with diabetes?

Sample

• Convenience sampling
• Focus on variation among participants
• 4 Recruitment sites (3 Diabetes Education Programs, 1 private practice)
• Snowball effect

Recruitment

Inclusion Criteria

• Family member of person with Diabetes
• Age of person with diabetes 25-65 years
• Age of participant 15-65 years
• Family with Type 1 or Type 2 Diabetes
• English speaking
• Literate

Exclusion Criteria

• Gestational Diabetes
• Non-English speaking
• Mentally ill
• Incarcerated
• Considered vulnerable population

Recruitment

Inclusion Criteria

• Family member of person with Diabetes
• Age of person with diabetes 25-60 years
• Age of participant 15-65 years
• Family with Type 1 or Type 2 Diabetes
• English speaking
• Literate

Exclusion Criteria

• Gestational Diabetes
• Non-English speaking
• Mentally ill
• Incarcerated
• Considered vulnerable population

Research Design

• Descriptive correlational
• Non-experimental
• Demographics questionnaire
• 4 assessment instruments

Instruments

- Family APGAR (adaptation, partnership, growth, affection, and resolve)
- Life Orientation Test (LOT)
- Diabetes Knowledge Test (DKT)
- Family Resilience Assessment (FRA)

Instrument validity

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Concept measured</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family APGAR</td>
<td>Family functioning: adaptation, partnership, growth, affection, resolve</td>
<td>0.055[^1]</td>
</tr>
<tr>
<td>Life Orientation Test</td>
<td>Positive outlook, optimism</td>
<td>0.760[^2], 0.79</td>
</tr>
<tr>
<td>Family Resilience Assessment</td>
<td>Family resilience</td>
<td>0.505</td>
</tr>
<tr>
<td>Diabetes Knowledge Test</td>
<td>Diabetes knowledge</td>
<td>&gt;0.7 in numerous settings</td>
</tr>
</tbody>
</table>
Family Resilience Assessment

29 item questionnaire

- Likert scale: 0 (undecided) to 5 (all of the time)
- Score range: 0 to 145
- Higher scores indicate higher level of resilience
- Cronbach’s Alpha = 0.929

Demographics

- Gender
  - Female 55
  - Male 22
- Age
  - 15 to 65
  - avg 45
- Ethnicity
  - W/NH 75
  - H 2
- Income
  - >$60,000 70.2%
- Type of Diabetes
  - T1 31
  - T2 44

Demographics

- Adverse Event
  - Yes 17
  - No 60
- Diabetes Education
  - Yes 33
  - No 44
- Has Diabetes
  - Yes 9
  - No 68
- Living with Diabetes
  - Yes 34
  - No 43

Family Functioning and Family Resilience

- $r = 0.59 \ p < 0.1$ (Pearson product moment correlation coefficient)
- Significant POSITIVE relationship between Family Functioning and Family Resilience

Diabetes Knowledge and Family Resilience

- Diabetes Knowledge does NOT correlate to Family Resilience
- **This does not indicate that Diabetes Knowledge/Education is unnecessary

Predictors of Family Resilience

- Family Functioning was only predictor of Family Resilience accounting for 18% variance
  - $R^2 = 46\%, \ F=1.48= 12.77, \ p<0.001$
- Positive Outlook and Diabetes Knowledge were not significant contributors to Family Resilience
Validity of FRA
• Cronbach’s alpha calculated for internal consistency reliability
  Cronbach’s alpha of 0.92 within this population
• Deemed Valid and Reliable

Conclusions
• Significant relationship between family functioning and family resilience
• No correlation between level of diabetes knowledge and family resilience
• No correlation between positive outlook and family resilience

Conclusions
• Identification of a strong, valid assessment instrument of families of adults with Diabetes

Implications for Diabetes Education
• How can diabetes educators best support and educate families of adults with Diabetes?
• What FR factors are the most important to families of adults with Diabetes?
• Incorporation assessment instrument into clinical practice

Future Implications
• Development of education curriculum for this population based on FR
• Further refine FRA as a diagnostic instrument for this population
• Increase focus on this population

References
References


