

Psychometric Evaluation
of an Instrument
for Assessing Policy Outcomes for
Families with Children Who Have
Severe Developmental Disabilities:
The Beach Center
Family Quality of Life Scale

by

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Acknowledgements

Dissertation Committee

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Introduction

Purpose of the Study

- to evaluate the psychometric properties of the Beach Center Family Quality of Life Scale (BCFQLS)
- to determine whether or not the scale can be used to differentiate between two types of families
- to assist in developing evidence-based policies

Introduction

Research Questions

- Does the BCFQLS produce a floor effect?
- Does the BCFQLS have adequate reliability?
- Does the BCFQLS have adequate validity?
- Are the BCFQLS reliability and validity measures stable among families that differ based on child residence?

Methods

The Study Design

- observational and cross-sectional
- qualitative methods – two open-ended statements
- quantitative methods:
 - one statement
 - the BCFQLS, the Family Resource Scale (FRS), and the Family APGAR

Methods

The Study Sample

- local public school districts:
 - all children born between March 2, 1988 – March 2, 2000
 - special education disability category is severe disability
- local residential facility:
 - all age-eligible children
 - excluded those admitted after September 2, 2005
 - excluded those who attend local public schools

Methods

Description of Sample Response Rate

- phase one:
 - in the family home: 25/55 (46.3%)
 - outside the family home: 29/56 (52.4%)
- phase two:
 - in the family home: 19/24 (79.2%)
 - outside the family home: 20/26 (76.9%)

Methods

Description of Sample

Demographic Data – Respondent

- gender: male = 13.0%, female = 87.0%
- race:
 - black: 44.4%
 - white: 51.9%
 - other: 3.7%
- age: range = 21-66 years, mean = 37.74 years (8.237)
- marital status: 61.1% married, 38.9% not married

Methods

Description of Sample

Demographic Data – Respondent (continued)

- highest educational level attained:
 - < high school = 13.2%
 - high school = 60.4%
 - college degree = 26.4%
- employment status:
 - not employed = 36.0%
 - employed part-time = 12.0%
 - employed full-time = 52.0%

Methods

Description of Sample

Demographic Data – Child

- gender: male = 55.6%, female = 44.4%
- child's age at onset of disability:
 - birth to < one year = 90.4%
 - 1-7 years = 9.6%
- current age of child: mean = 13.44 years (3.462)
 - 6-11 years = 40.7%
 - 12-21 years = 59.3%

Results

Floor Effect

Mean (*sd*)

	in family home	outside family home
• BCFQLS:	3.94 (0.667)	3.60 (0.884)
– disability-related support:	3.98 (1.036)	3.94 (0.865)
– emotional well-being:	3.47 (1.066)	3.36 (1.147)
– family interaction:	4.16 (0.700)	3.45 (1.084)
– parenting:	3.98 (0.662)	3.48 (1.082)
– physical/material well-being:	3.96 (0.689)	3.86 (0.929)

Results

Reliability

Internal Consistency

	in family home	outside family home
• BCFQLS:	0.905	0.950
– disability-related support:	0.761	0.738
– emotional well-being:	0.608	0.885
– family interaction:	0.754	0.884
– parenting:	0.717	0.904
– physical/material well-being:	0.574	0.765

Results

Reliability

Test-Retest Reliability

	in family home	outside family home
• BCFQLS:	0.804**	0.533**
– disability-related support:	0.777**	0.255
– emotional well-being:	0.765**	0.518*
– family interaction:	0.754**	0.842**
– parenting:	0.791**	0.504*
– physical/material well-being:	0.422	0.626*

Results

Validity

Face Validity

“On a scale of 1-5, with one meaning ‘not at all’ and five meaning ‘perfectly’, please circle the number that describes how well this survey measured the degree to which your family enjoys its life together, has its needs met, and is able to do things it likes and wants to do.”

Results

Validity

Face Validity (continued)

	in family home	outside family home
	4.05 (0.789)	3.55 (0.759)
• 1 (“not at all”)	0 (00.0%)	0 (00.0%)
• 2	0 (00.0%)	1 (05.0%)
• 3	5 (26.3%)	9 (45.0%)
• 4	8 (42.1%)	8 (40.0%)
• 5 (“perfectly”)	6 (31.6%)	2 (10.0%)

Results Validity Content Validity

“Please tell us anything else that is important to your family’s quality of life that this survey did not ask.”

Results

Validity

Content Validity (continued)

	in family home <i>n</i> = 11	outside family home <i>n</i> = 15
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- | | | |
|--------------------------------|---|---|
| • adequate | 4 | 4 |
| • emotional well-being | 1 | 3 |
| • physical/material well-being | 2 | 2 |
| • spirituality | 1 | 2 |

Results

Validity

Content Validity (continued)

“Please tell us anything that this survey asked that is not important to your family’s quality of life.”

Results

Validity

Content Validity (continued)

	in family home	outside family home
	$n = 9$	$n = 11$

- | | | |
|-------------------------|---|---|
| • all items relevant | 8 | 6 |
| • dental care | 0 | 1 |
| • spend time together | 0 | 1 |
| • feeling safe | 0 | 1 |
| • “some” not applicable | 1 | 2 |

Results

Validity

Criterion Validity

	in family home	outside family home
• family interaction	0.654**	0.601**
• physical/material well-being	0.391	0.241

Results

Stability Across Family Groups

- BCFQLS:
 - internal consistency: comparable
 - test-retest reliability: comparable, although correlation coefficient higher with in-home group
 - face validity: comparable, although mean score higher with in-home group
 - content validity: comparable, although results slightly better with in-home group
 - criterion validity: comparable
- subscales:
 - disability-related support: performed better with in-home group
 - emotional well-being: comparable
 - family interaction: performed equally well in both groups
 - parenting: performed equally well in both groups
 - physical/material well-being: performed better in the outside-the-home group

Conclusions

- The BCFQLS is a reliable and valid scale for identifying the needs of individual families with children who have severe developmental disabilities, although data obtained from responses to the physical/material well-being subscale should be interpreted with caution.
- The BCFQLS is a reliable and valid scale for use by service agencies in the evaluation of their programs that serve families with children who have severe developmental disabilities.

Conclusions (continued)

- With modification, the scale has the potential to be useful for assessing the impact of disability policy on families with children who have severe developmental disabilities.
- suggested modifications include:
 - minor changes to scale instructions
 - rewording of some demographic items
 - refinement of the physical/material well-being subscale

Conclusions

Recommendations for Future Research Families Whose Child Lives at Home

- conduct focus groups:
 - review problematic items
 - discuss need for additional items
 - discuss creating separate physical and material well-being subscales
- revise scale based on focus group input
- pilot test and psychometrically evaluate the revised scale

Conclusions

Recommendations for Future Research Families Whose Child Lives Outside the Home

- conduct focus groups:
 - discuss differing family needs
 - review all scale items
- revise scale based on focus group input
- pilot test and psychometrically evaluate the revised scale

Conclusions

Policy Implications

- measure quality of life of both family groups
- challenge or support policy
- used to enact evidence-based policies