

Parenting challenges related to diabetes management and preferences for accessing parenting support

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Diabetes is a chronic illness in which there are high levels of sugar/ glucose in the blood.

Why does this happen?

Pancreas → Insulin → moves glucose into blood cells (to be used as body fuel)

- Too little insulin (Type 1 diabetes)
- Resistance to insulin (Type 2 diabetes)

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What does management involve?

- Insulin intake (via multiple daily injections or insulin pump)
- Blood glucose monitoring
- Diet
- Exercise



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Impact of childhood diabetes on parents and family

- Immediate transfer of responsibility (Coyne & Anderson, 1988)
- Guilt, anxiety, depression, low self efficacy and QOL (Betschart, 1987; Mednick, 2006; Streisand, et al., 2008)
- Impacts every aspect of family life: dietary habits, finances, time spent in management, less time for recreational and social activities (Auslander, Bubb, Rogge, & Santiago, 1993; Banion, Miles, & Carter, 1983; Lowes, et al., 2005)

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Impact of parenting and family factors on diabetes

- Parenting and family factors have been associated with poorer child wellbeing (Armstrong, et al., 2011) and increased behaviour problems (Overstreet, et al., 1995)
- Permissive parenting, parental restrictiveness, and family conflict linked with poor adherence and glycemic control (Shorer, et al., 2011; Davis, et al., 2001; Jacobson, et al., 1994; Hauser, et al., 1990)
- Family cohesion and authoritative parenting style are linked to good diabetes control and treatment adherence (Monaghan, Horn, Alvarez, Cogen, & Streisand, 2012; Davis, et al., 2001)



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Aims of the present study

- To understand parental problems related to child diabetes management and behaviour
- To investigate the specific topics and strategies that parents would find most beneficial in a parenting intervention
- To understand relationships between child, parent and family factors, which will aid in the development of a parenting intervention for parents of children with type 1 diabetes

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Measures used

Domain of Assessment	Measure
Demographic information	Family Background Questionnaire (Sanders & Morawska, 2010)
Parenting efficacy	Self-Efficacy for Diabetes Scale (Streisand et al., 2005)
Child illness behaviour	Diabetes Behaviour Checklist (Morawska, Mitchell & Pay, 2012)
Child behaviour and adjustment	Child Adjustment and Parent Efficacy Scale (Morawska & Sanders, 2010)
Parenting behaviour	Alabama Parenting Questionnaire- Short Form (Scott, Briskman, & Dadds, 2011)
Family management of child's illness	Condition Management Effort subscale of Family Management Measure (Knaff et al., 2011)
Parent psychological health and family environment	Parenting and Family Adjustment Scale (Sanders & Morawska, 2010)
Parent attribution of child's behaviour	Parental Attribution Questionnaire (Adapted from PAQ, Whittingham, Sofronoff, Sheffield & Sanders, 2008, 2009)
Parent preferences for accessing support	Parent Services Preferences Questionnaire

Preliminary Results: Demographics Child

- o n= 163
- o Mean child age = 7.06 years
- o 46% boys
- o Median age at diagnosis = 4 years (birth-10 yrs)
- o 55.4% hospitalised in past (1-20 times)
- o 16.7% have a chronic illness other than diabetes

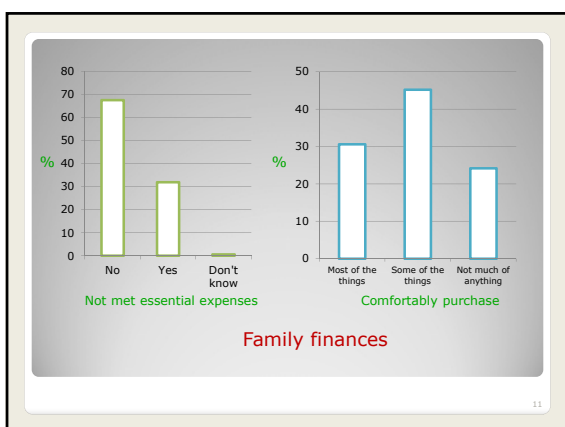
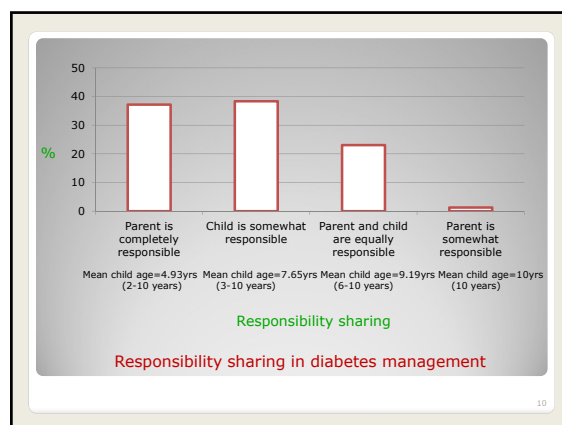
Preliminary Results: Demographics Parent and Family

- o Mean parent age = 38.7 years
- o 95% mothers
- o 87.6% in two-parent households

Education

- University/ Postgraduate degree
- Technical college/ trade
- High school

- o 58.9% working outside home



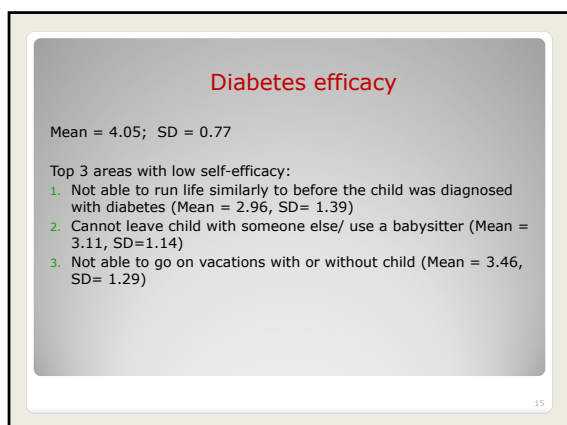
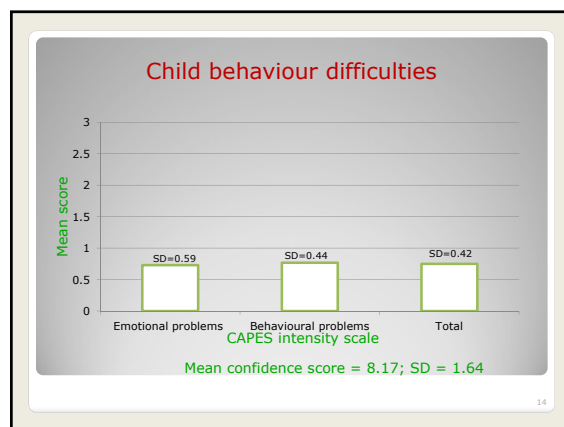
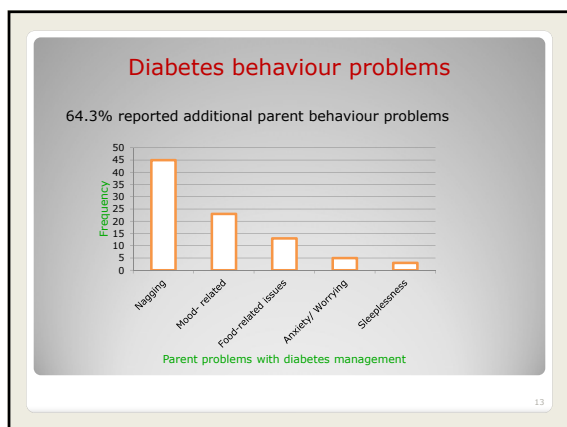
Diabetes behaviour problems

Mean extent score = 1.97; SD = 0.80
 Mean confidence score = 8.87; SD = 1.60

Top 3 problems:

1. Child complains about having diabetes (Mean = 3.06, SD= 1.8)
2. Child complains about having insulin injection/ insulin bolus (Mean = 3.01, SD=1.8)
3. Complains about checking blood sugar levels (Mean = 2.71, SD= 1.64)

- o 29.9% reported additional child behaviour difficulties

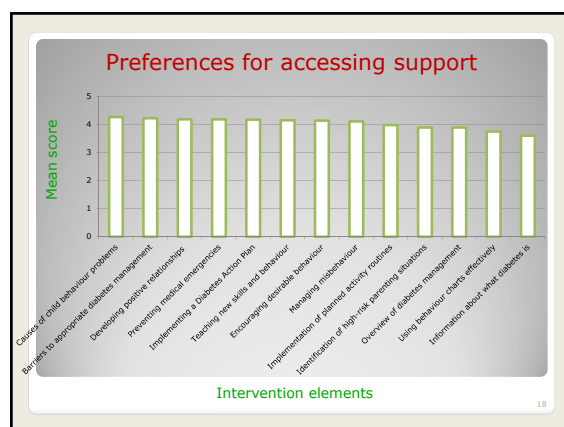
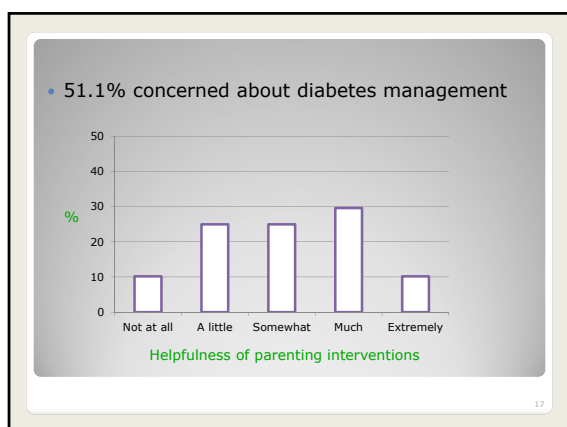


Correlations between key outcomes

	DBC Extent	DBC Confidence	CAPES Intensity	CAPES Confidence	SED	APQ
DBC Extent	1	-.446**	.490**	-.234*	-.356**	.217*
DBC Confidence	-.446**	1	-.081	.761**	.304**	.026
CAPES Intensity	.490**	-.081	1	-.471**	-.452**	.441**
CAPES Confidence	-.234*	.761**	-.471**	1	.456**	-.144
SED	-.356**	.304**	-.452**	.456**	1	-.200*
APQ	.217*	.026	.441**	-.144	-.200*	1

** p < 0.01
* p < 0.05

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Preliminary conclusions

- There is a need for parenting interventions in this population. Parents indicated that a parenting intervention would be at least somewhat helpful in increasing skills and confidence in managing their child's diabetes (Mean=5.48, SD=2.67).
- All intervention components rated between somewhat to extremely helpful-Clarifies the specific topics and strategies that parents may find helpful.
- Parenting programs targeting parent behavior may help to further reduce diabetes and general child behaviour problems, and improve family relations.

Thank you!

Measures used

- Family Background Questionnaire (Sanders & Morawska, 2010) to collect demographics
- Condition Management Effort subscale of Family Management Measure (Knafel et al., 2011) to assess family management of the child's illness
 - Internal consistency reliability found to be .74 for mothers and .78 for fathers; test-retest reliability is .81
 - 5 point scale (Strongly Agree to Strongly Disagree)

Our child's condition requires frequent visits to the clinic.	1	2	3	4	5
Our child's condition is like a roller coaster with lots of ups and downs.	1	2	3	4	5
Our child's condition doesn't take a great deal of time to manage.	1	2	3	4	5
It takes a lot of organization to manage our child's condition.	1	2	3	4	5

iii. Self-Efficacy for Diabetes Scale (Streisand et al., 2005) to measure parental efficacy in managing diabetes

22 items; Internal consistency reliability is .87

Please read the following items. After each statement, circle the number from 1 to 5 that shows how much you believe you can or cannot do what is asked now.

	Very sure I can't	Sure I can't	Maybe I can	Sure I can	Very sure I can
Be the one in charge of drawing up and giving the insulin injection/insulin bolus to my child	1	2	3	4	5
Checking and keeping track of my child's blood glucose levels	1	2	3	4	5
Checking my child's urine for ketones	1	2	3	4	5
Recognize and treat a high blood sugar, with or without ketones	1	2	3	4	5
Prevent my child from having low blood glucose levels	1	2	3	4	5

iv. Parenting and Family Adjustment Scale (Sanders & Morawska, 2010) to evaluate parent psychological health and family environment

- Parental Adjustment (4 items; $\alpha=.86$), Family Relationships (4 items; $\alpha=.79$) and Parental Teamwork (3 items; $\alpha=.79$) subscales
- 4 point scale
 - 0 = not true of me at all
 - 1 = true of me a little, or some of the time
 - 2 = true of me quite a lot, or a good part of the time
 - 3 = true of me very much, or most of the time

I feel stressed or worried	0	1	2	3
I feel happy	0	1	2	3
I feel sad or depressed	0	1	2	3
I feel satisfied with my life	0	1	2	3
I cope with the emotional demands of being a parent	0	1	2	3

v. Child Adjustment and Parent Efficacy Scale (Morawska & Sanders, 2010) to assess child behaviour and adjustment

- 30 items
- Behavioural Problems Subscale (26 items; $\alpha=.91$), Emotional Problems Subscale (4 items; $\alpha=.81$) and Parental Efficacy Scale ($\alpha=.96$)

	How true is this of your child?				Rate your confidence 1 = Certain I can't do it 10 = Certain I can do it
	Not at all	A little	Quit e a lot	Very muc h	
My child:					
Gets upset or angry when they don't get their own way	0	1	2	3	<input type="text"/>
Refuses to do jobs around the house when asked	0	1	2	3	<input type="text"/>
Worries	0	1	2	3	<input type="text"/>
Loses their temper	0	1	2	3	<input type="text"/>
Misbehaves at mealtimes	0	1	2	3	<input type="text"/>

vi. Alabama Parenting Questionnaire - short form (Scott, Briskman, & Dadds, 2011) to assess parenting behavior

- 15 items
- 5 point scale
- 1-Never
- 2-Almost Never
- 3-Sometimes
- 4-Often
- 5-Always

You let your child know when he/she is doing a good job with something.	1	2	3	4	5
You praise your child if he/she behaves well.	1	2	3	4	5
You compliment your child when he/ she does something well.	1	2	3	4	5
You threaten to punish your child and then do not actually punish him/her.	1	2	3	4	5
You let your child out of a punishment early (like lift restrictions earlier than you originally said).	1	2	3	4	5

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vii. Diabetes Behaviour Checklist (Morawska, Mitchell & Pay, 2012) to understand behaviours that parents of children with diabetes often have to manage

- 24 items
- Extent and Confidence scales
- 7 point scale (Not at all to Very much)

	To what extent has this behaviour been a problem for you with your child?							How confident are you in dealing with it? <small>(I choose / can't do it / I choose / can do it)</small>
	Not at all	A little	Somewhat	Much	Very much			
Complains about checking blood sugar level	1	2	3	4	5	6	7	<input type="checkbox"/>
Complains about having insulin injection/ insulin bolus	1	2	3	4	5	6	7	<input type="checkbox"/>
Does not correctly follow steps for checking blood sugar level	1	2	3	4	5	6	7	<input type="checkbox"/>
Complains about entering blood sugar levels into diary or insulin pump	1	2	3	4	5	6	7	<input type="checkbox"/>
Refuses to go to the doctor/clinic	1	2	3	4	5	6	7	<input type="checkbox"/>

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viii. Parental Attribution Questionnaire to evaluate parental beliefs regarding factors that contribute to their child's behavioural difficulties

- 4 situations (two general and two diabetes-specific situations)
- 6 point scale (Strongly Agree to Strongly Disagree)
- Scores on locus, stability and controllability attributions

Imagine your child has recovered from an episode of low blood sugar some time back. You ask him/ her to have some crackers and cheese. Your child ignores your instruction and doesn't do as asked.

My child's behaviour is due to something about my child; for example, because that's the way s/he is.	1	2	3	4	5	6
My child's behaviour is due to something about this particular situation. My child would not behave like that in other situations.	1	2	3	4	5	6
My child's behaviour is due to his/ her diabetes.	1	2	3	4	5	6
The causes of my child's behaviour are mostly permanent and are unlikely to change in the future.	1	2	3	4	5	6
The causes of my child's behaviour are mostly temporary and will pass with time.	1	2	3	4	5	6
My child could control this behaviour if s/he wanted to.	1	2	3	4	5	6
My child has no control over this behaviour.	1	2	3	4	5	6

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ix. Parent Services Preferences, which are a series of questions about current and future service access and preferences for accessing parenting support

- 13 statements
- 5 point scale (Not at all useful to Extremely useful)

If a parenting intervention was developed, with the aim of increasing parents' skills and confidence in managing their child's diabetes and behaviour, how important would it be that the intervention includes the following elements?

Information about what diabetes is	1	2	3	4	5
An overview of diabetes management	1	2	3	4	5
Strategies for preventing medical emergencies	1	2	3	4	5
Tips for identifying barriers to appropriate diabetes management	1	2	3	4	5
Strategies for developing positive relationships with children	1	2	3	4	5
Skills for encouraging desirable behavior	1	2	3	4	5
Strategies for managing misbehavior	1	2	3	4	5

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