





<p>Revealing the Complexity of Family Interventions</p> 	 <p>Kathleen KnafI, PhD, FAAN University of North Carolina at Chapel Hill</p> 
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<p>Disclosures</p> <p>Neither the speaker or other members of the research team (Crandell, Havill, Leeman, Sandelowski, Shaw-Kokot) have relevant financial relationships to disclose.</p> 

Learning Objectives

- Recognize the defining characteristics of family intervention research.
- Analyze the key distinguishing aspects of family-focused intentions.
- Assess the conceptual underpinnings and nature of family involvement in family-focused interventions.



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Family Synthesis Project Research Team

- **Jamie Crandell** (Bayesian statistics)
- **Nancy Havill** (Data-base management)
- **Jennifer Leeman** (Synthesis & translational research)
- **Kathleen Knafl** (Family research)
- **Margarete Sandelowski** (Synthesis research)
- **Julia Shaw-Kokot** (Advanced search techniques)



Research Assistants

- | | |
|-------------------|-------------------|
| ◦ Jinbing Bai | ◦ Lindsey Munn |
| ◦ Haley Estrem | ◦ Paul Nguyen |
| ◦ Louise Fleming | ◦ Jinhee Park |
| ◦ Allison Glasser | ◦ Hyewon Shin |
| ◦ Dmitry Kats | ◦ Einav Srulovici |
| ◦ Anna Lee | ◦ Holly Wei |



Family Interventions

“Non-medical interventions that are psychologically, socially or behaviorally oriented and that involve members of the patient’s family or both the patient and family member” (Martire, et al., 2004)

- Evidence of efficacy based on systematic reviews (Chesla, 2010; Martire, et al., 2004).
- Recommendations to provide more detailed descriptions of interventions (Martire, 2004; Michie, 2010)



Categories of Family Interventions (Fisher & Weihs, 2000)

- Psychoeducational
- Relationship-focused
- Family therapy



Psychoeducational Family Interventions

Interventions that educate patients and family members about disease processes, requirements for care; largely directed toward increasing knowledge and skill in disease management, improving coping, and providing or helping recipients expand social support



Example - Psychoeducational Intervention

“The aim of this randomized controlled trial was to test the hypothesis that a caregiver – clinician asthma communication education intervention, when compared to a control group receiving standard asthma education, would be associated with reduced symptom days and nights and increased appropriate controller medication use in inner-city children with asthma” (Butz, et al. 2010).



Relationship-focused Family Interventions

Interventions that focus on improving family relations while living with the demands of chronic illness management; involve didactic and skill building elements in problem-solving, family communication, conflict management, and/or cognitive restructuring.



Example – Relationship-focused Intervention

In the current study, we sought to design and evaluate a family-focused intervention aimed at optimizing glycemic control. Our intervention was targeted at maintaining family teamwork around diabetes management with the goals of minimizing diabetes-related family conflict, maintaining quality of life, and increasing adherence to optimize glycemic control in recently diagnosed patients with type 1 diabetes (Laffel, et al., 2003).



Family Therapy Interventions

Interventions usually conducted by a family therapist using a family systems model. Usually, the focus is on the dysfunction within the family rather than on the illness. There is little or no education about the illness.



Example – Family Therapy Intervention

Targeting glycemic control and adherence, the Behavioral Family Systems Therapy for Diabetes intervention was delivered by a trained therapist and included the following components: problem solving, communication training, cognitive restructuring, and functional and structural family therapy targeting anomalous family characteristics” (Wysocki, et al., 2008).



Analysis of the Characteristics of Family Interventions

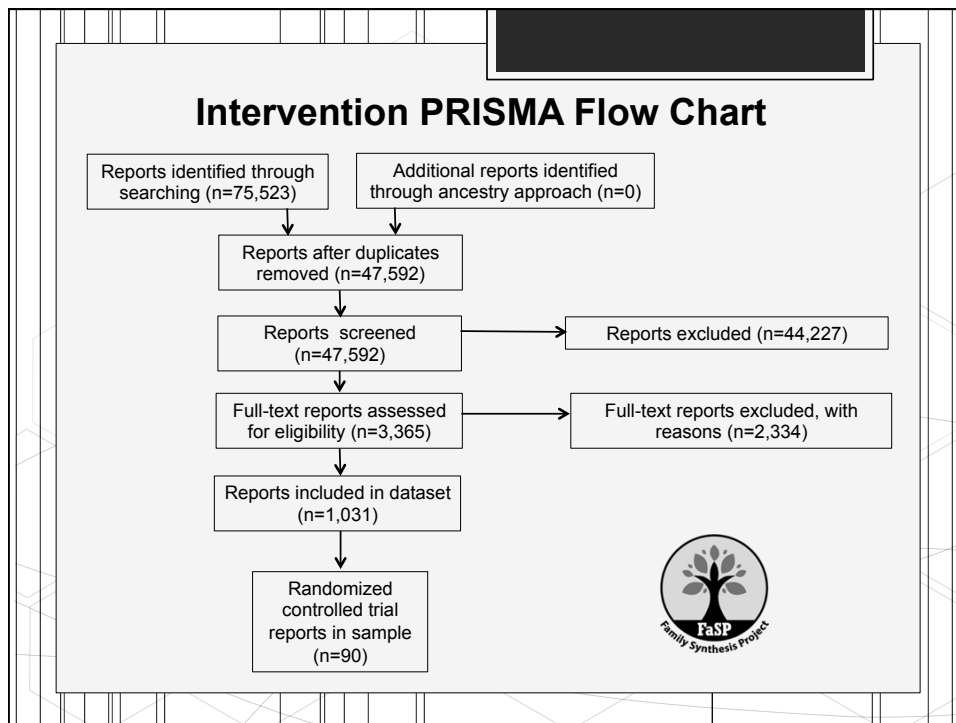
- Based on data from the Family Synthesis Project (R01 NR012445)
- Mixed methods synthesis of research addressing the intersection of family life & childhood chronic physical conditions that is examining:
 - **Nature of interventions directed to families**
 - Intervention efficacy & factors mediating/ moderating effects



Sample Criteria for Intervention Reports


- RCTs reporting a test of a family-focused intervention
- Study of families with a child age 1-18 y/o with a chronic physical condition
- Published in an English language journal between 01/2000 and 03/2014
- Subsample from Family Synthesis Project





Data Extraction & Analysis

- Key features of report & study methods (e.g. sample description)
- Characteristics of intervention
 - Conceptual underpinnings
 - Target problem; source of problem
 - Family member involvement
- Summary grid, coding, and descriptive analysis



Report	Conceptual Base	Problem Addressed	Source of Problem	Outcomes Assessed	Family Involvement
GreyJ aser20 11	Coping Skills Training based on Bandura's social cognitive theory	Stress of parenting a child with diabetes	Complexity of treatment regimen, need for constant parental vigilance, heightened sense of parental responsibility	FAMILY - <i>Diabetes Responsibility & Conflict Scale</i> Child - Metabolic control (HbA1c) Parent - <i>Issues in Coping with IDDM - Parent Scale, CES-D, Parents Diabetes Quality of Life</i>	The six intervention sessions emphasized interactive techniques such as role play and content was tailored to the developmental level of the child. Multiple family groups
Wysoc kiGrec o2001	Behavioral Family Systems Therapy. Grounded in functional and structural family therapy	Poor treatment adherence and poor metabolic control	Ineffective or deteriorating family communication and conflict resolution during adolescence	FAMILY - <i>Parent-Adolescent Relationship Questionnaire; Diabetes Related Conflict Scale</i> Adolescent - <i>Teen Adjustment to Diabetes Scale, Self-Care Inventory</i>	Family's treatment needs were determined by a psychologist; family members had homework assignments following each session


Coding Scheme Applied to Each Intervention

- o **Conceptual underpinnings:** Theory, framework, concept or practice guidelines on which intervention based (e.g., family systems theory)
- o **Problem:** The change the intervention was designed to bring about; the target outcome (e.g., improved adherence)
- o **Source of problem:** What contributed to the problem; what needed to be "fixed" (e.g., knowledge deficit)
- o **Family involvement:** Family member(s) receiving intervention & nature of their participation (e.g., learner)



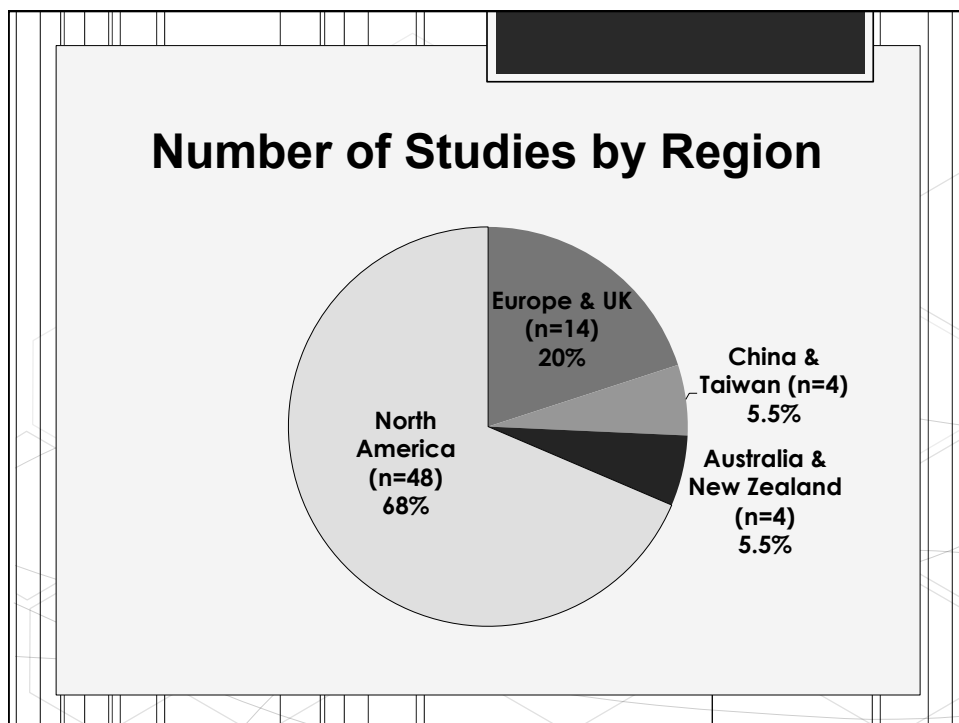
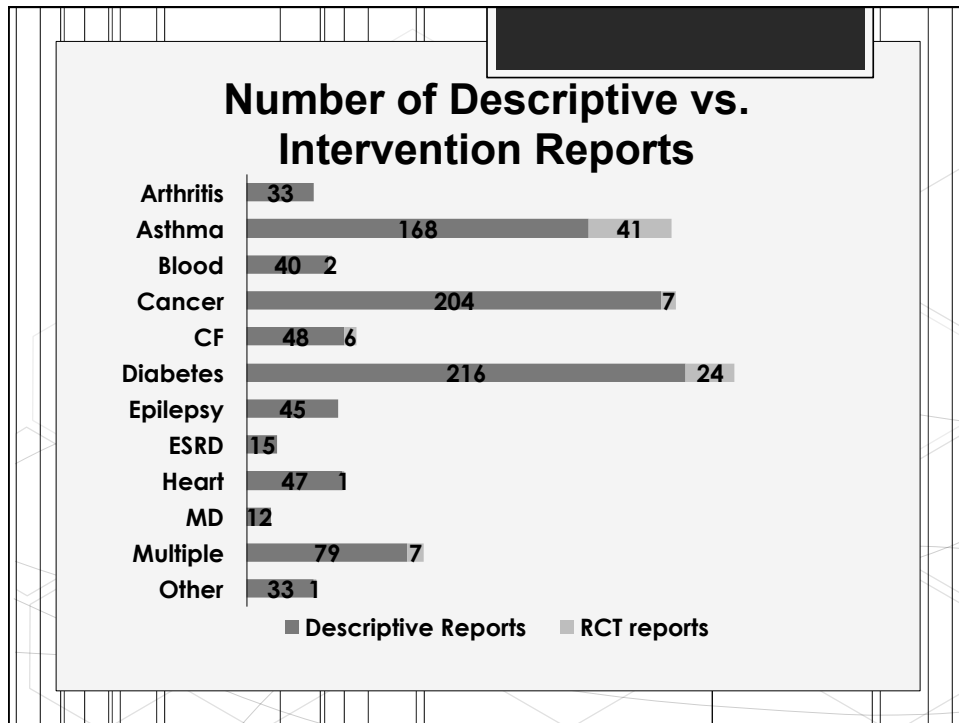
Results

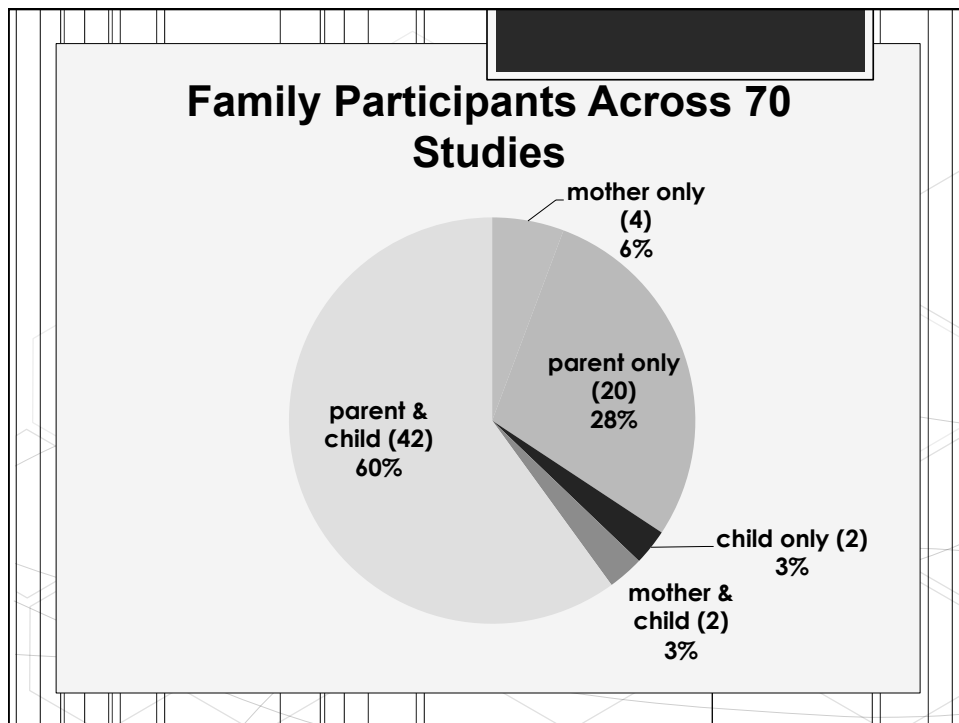
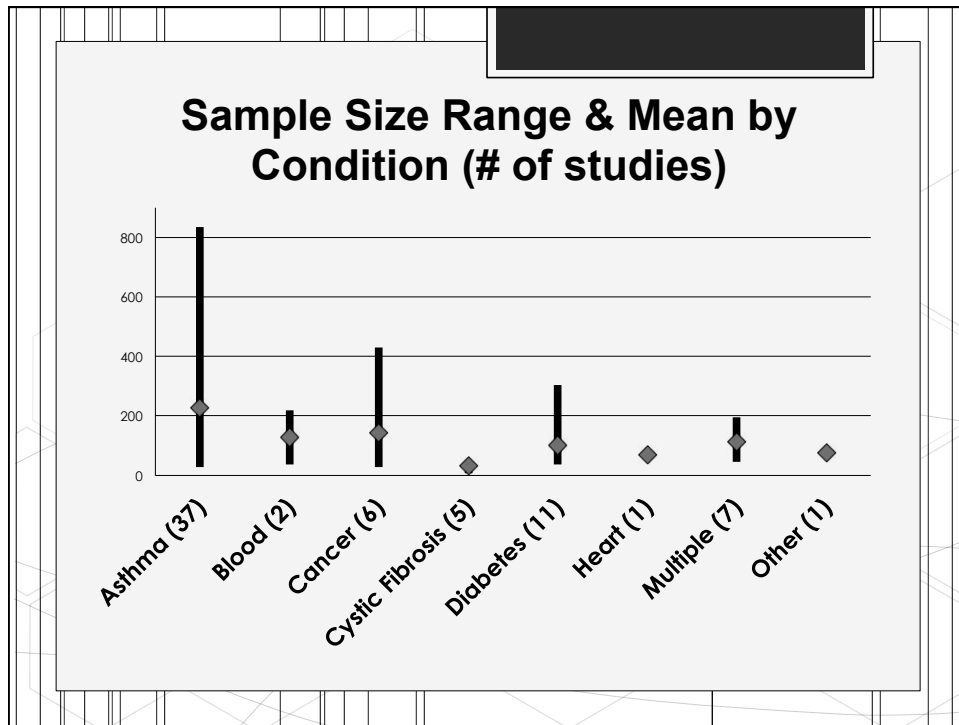
- Description of studies
 - Conditions
 - Sample characteristics
- Characteristics of interventions
 - Conceptual underpinnings
 - Target problem
 - Source of problem
 - Family member involvement

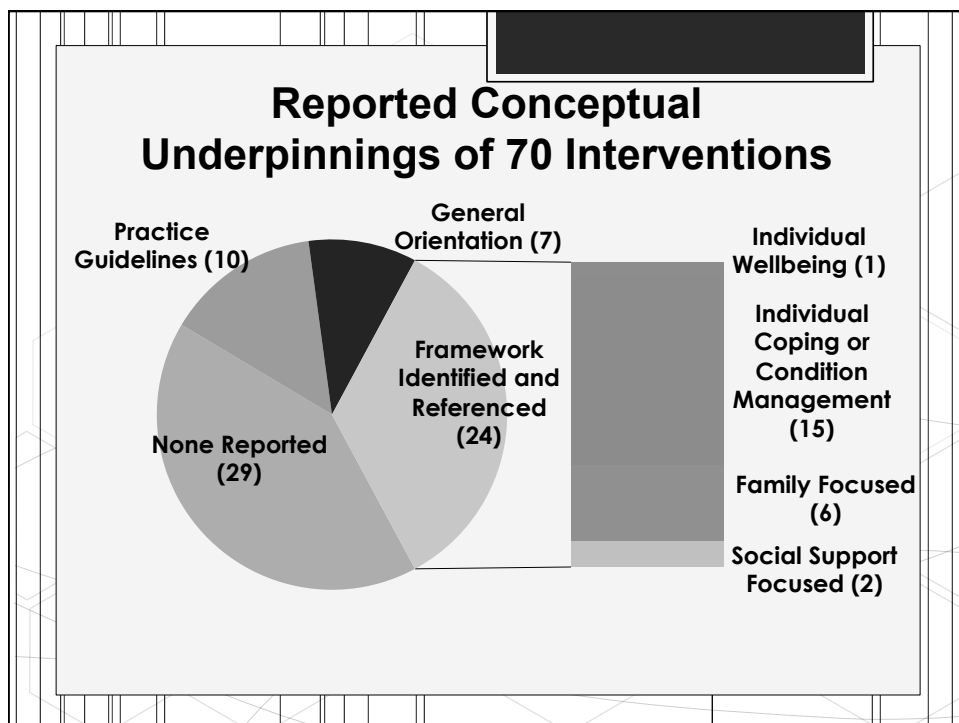
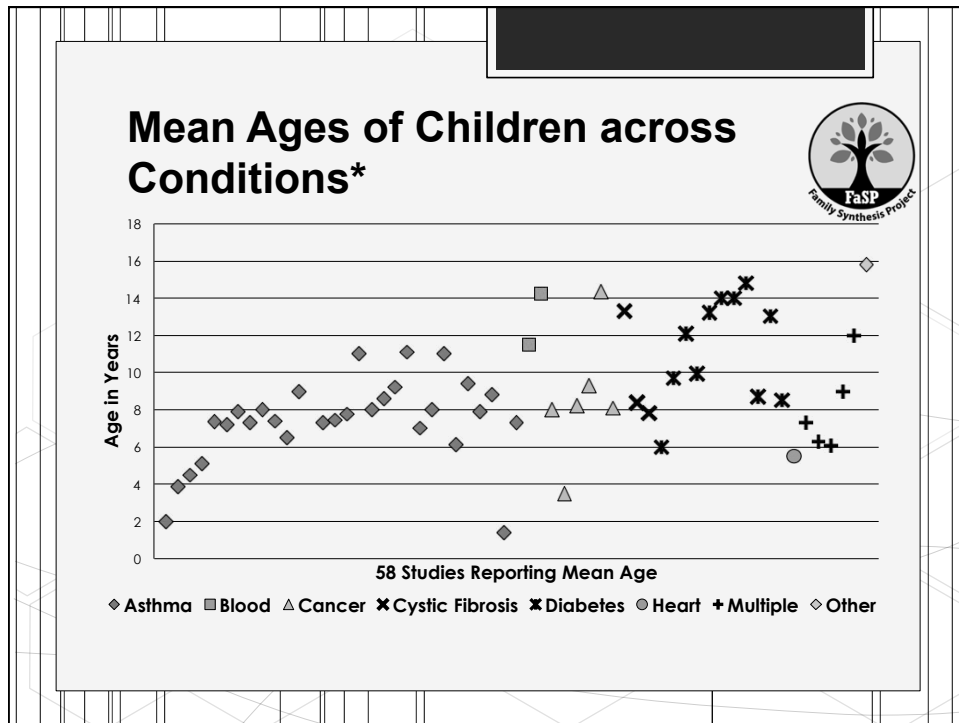


Number of Reports, Studies, & Interventions

Condition	# Reports (N=90)	# Studies/Interventions (N=70)
Asthma	41	37
Diabetes	24	11
Multiple	8	7
Cancer	7	6
CF	6	5
Blood	2	2
Heart	1	1
Other	1	1









Frameworks Used

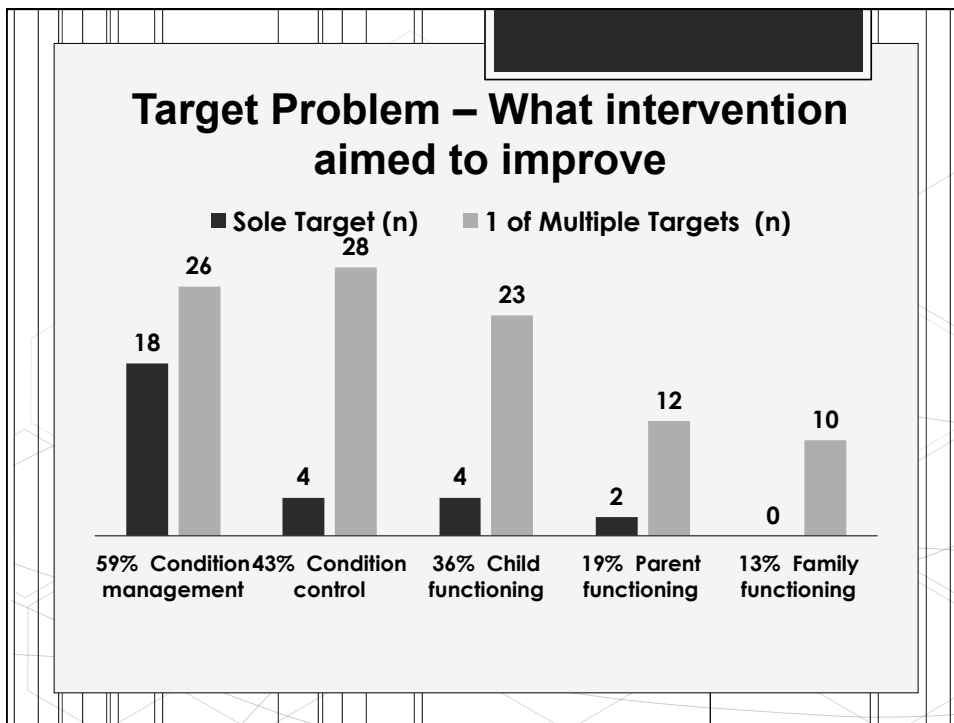
- Individual coping or condition management
 - Self-efficacy theory
 - Transtheoretical stages of change model
 - Health Beliefs Model
 - Social Cognitive Theory
- Family Focused
 - Family Systems Theory
 - Calgary Family Assessment & Intervention Model




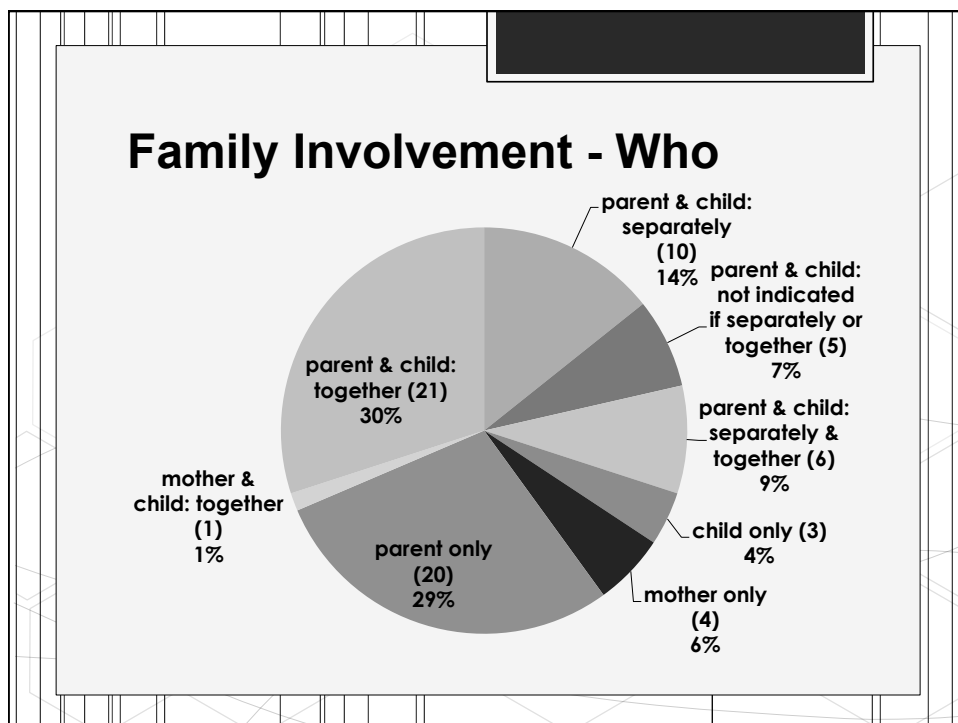
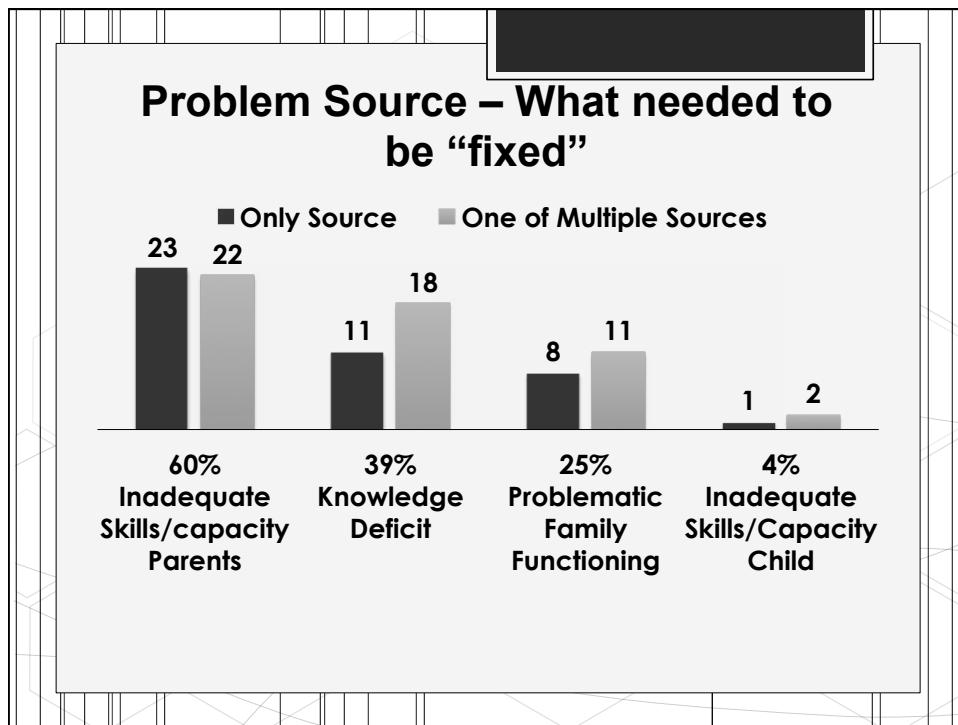
Target Problem – What intervention aimed to improve

- **Condition control:** Child health status (e.g. HbA1c, visits to the ER, days missed from school)
- **Condition Management:** Child and/or family capacity to adhere to treatment regimen; incorporating condition management into family life.
- **Child/ adolescent functioning:** Child psychosocial functioning, behavior, and/or quality of life
- **Parent functioning:** Parent psychosocial functioning and/or quality of life
- **Family Functioning:** Family functioning and/or quality of family life (e.g., relationships, problem solving, conflict resolution)





- ### Problem Source – What needed to be “fixed”
- **Deficient knowledge:** Inadequate or miss-information about the condition and/or key aspects treatment regimen
 - **Inadequate condition management skills/capacity - parents:** Deficits in ability to carry out the tasks needed to manage the condition or personal characteristics that support condition management (e.g., self-efficacy, confidence)
 - **Inadequate condition management skills or capacity – child:** Deficits in ability to carry out the tasks needed to manage the condition or personal characteristics that support condition management (e.g., self-efficacy)
 - **Problematic family functioning:** Aspect(s) of family functioning that impedes optimal condition management (e.g. conflict, division of labor)
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Family Involvement - How

- **Learner:** Family members received information or instruction, with some opportunity to ask questions or master new skills and information.
- **Active participant:** Family members engaged in intervention through discussion, skill building and problem solving exercises.
- **Active participant and intervention shaping:** In addition to engagement through discussion and skill building exercises, family members provided input on focus of intervention and areas targeted for change.



Family Involvement – Learner

“Intervention parents/caregivers received a 1-hour asthma education session taught by a rural asthma educator. Specific content addressed in the educational sessions included early warning signs of asthma exacerbations, levels of asthma severity, avoidance of rural environmental exposures, types of asthma medications, how to obtain and use an asthma action plan, and use of cue cards to communicate with their child’s health care provider” (Butz, et al., 2005, p. 816).



Family Involvement – Active Participant

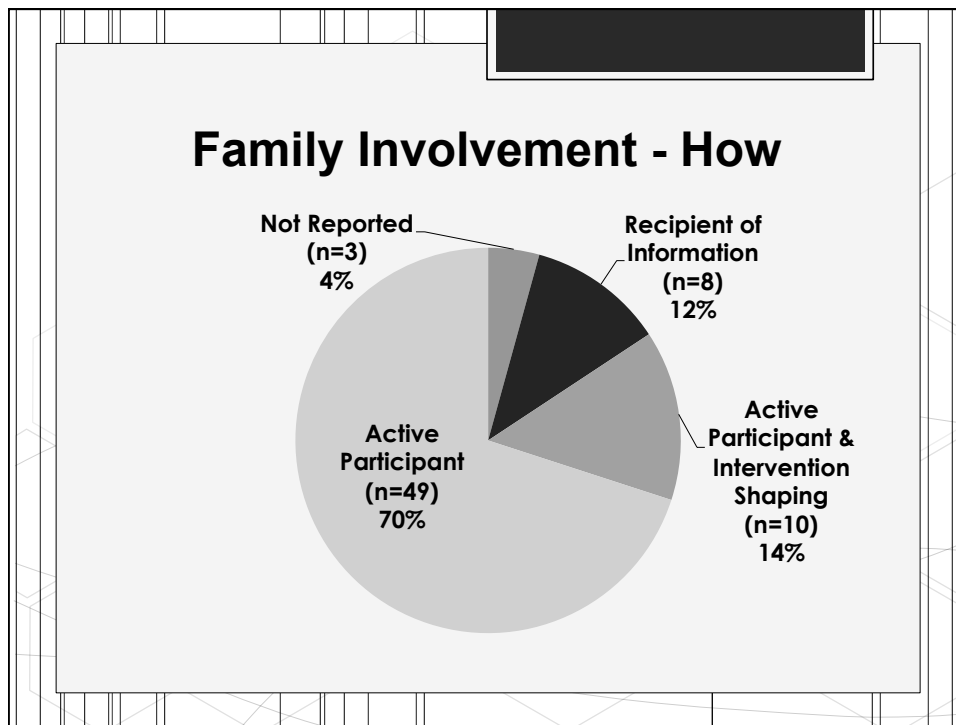
The primary goal of Coping Skills Training is to replace inappropriate or unconstructive coping with more positive and adaptive behaviors. Content emphasized coping with day-to-day problems and managing thoughts, feelings, and behaviors that arise from daily stress related to T1D management. Coping skills addressed were communication, social problem-solving, cognitive restructuring, stress management, and conflict resolution. These were taught in an interactive way through the use of role play techniques and discussion for maximal skill development (Grey, et al., 2011, p. 176).



Family Involvement – Intervention Shaping

“The Stress Point Intervention Nursing protocol “involves (a) identifying the family’s own particular stressful issues surrounding the expected or anticipated hospitalization, (b) developing a plan with the parent to handle their specific issues, and (c) following up to praise strengths and successes, modify, and evaluate the success of the intervention” (Burke, et al., 2001).





- ### Opportunities for Development of Family-Focused Interventions
- Interventions have focused on families in which child has asthma or diabetes; opportunity for intervention work being done with other conditions
 - Most interventions are condition specific; opportunities for cross-fertilization
 - Many authors fail to report conceptual grounding or differentiate theory of the problem from the theory of the intervention; opportunities for conceptual preciseness
 - Rationale for family member involvement and level of engagement unclear; opportunities for examining effect of variation in nature of family participation
 - Limited attention to moderators and mediators of intervention effectiveness; opportunities for more precise analyses
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Discussion




Mixed Methods Synthesis of
Research on Childhood Chronic
Conditions and Family

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We would appreciate your input on the following questions:

1. What were 2-3 things you heard in this presentation that are most relevant for practicing PNP's?
2. **Were there any additional questions** you would have liked to see addressed?
3. We want to reach out to practicing clinicians when we disseminate our findings. What are your primary sources of information (e.g. specific journals, websites, newsletters) about practice-relevant research?

**Please respond to these questions
through a Qualtrics Survey**



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