

PREVENTING SHAKEN BABY SYNDROME: A COMPARISON OF TWO PARENT EDUCATION PROGRAMS

Jill Bradshaw, MSW

University of Connecticut School of Social Work

GENERAL STUDY INFORMATION:

- Student Investigator: Jill Bradshaw, MSW
- Principal Investigator: Dr. Nancy A. Humphreys, University of Connecticut School of Social Work
- UConn IRB Approved – Protocol #HOB-169
- Funded by the Connecticut Children’s Trust Fund
- Conducted in collaboration with the Nurturing Families Network Intensive Home Visiting Programs of the Connecticut Children’s Trust Fund



BACKGROUND:

- There are two prominent parent education programs designed to prevent SBS: *The Dias Model & The Period of PURPLE Crying*
- Both programs were evaluated within the general population as primary prevention strategies.
- There is no data on the use of these programs with a targeted population considered to be at high risk for child maltreatment.



SBS Parent Education Programs

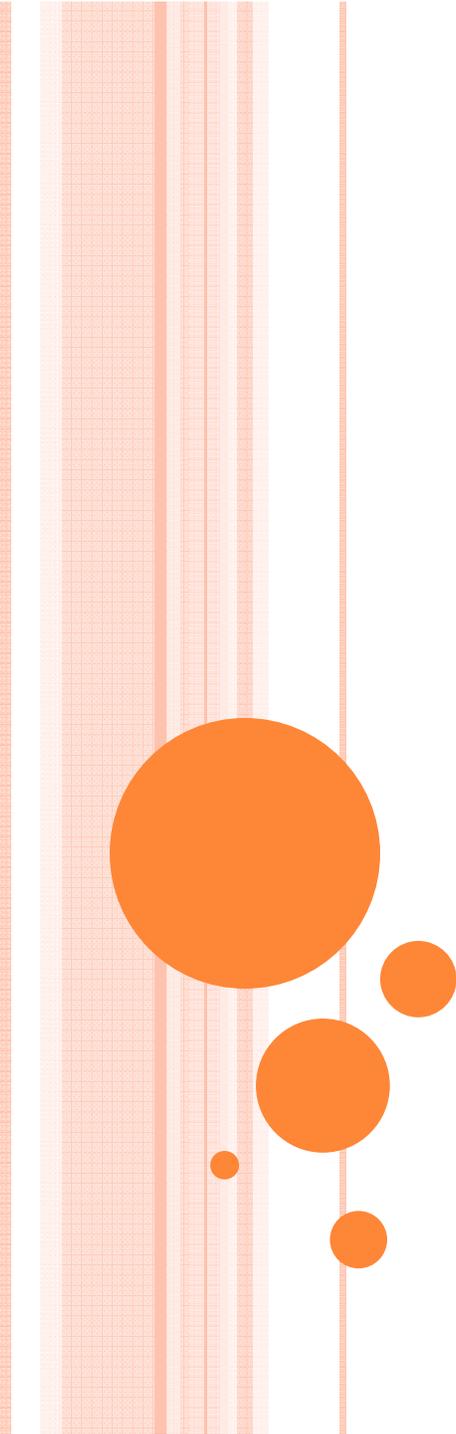
Dias Model

- 5 minute verbal message
- *Portrait of Promise* (10 minute DVD)
- Educational brochure
- Commitment Statement
- Content: 90% about the dangers of shaking; 10% ways to cope with / manage infant crying

Period of PURPLE Crying

- 5 minute verbal message
- *Period of PURPLE Crying* (10 minute DVD – left with family)
- Educational booklet (11 pages)
- Content: 50% about the dangers of shaking; 50% what is normal infant crying & how to manage





PURPOSE OF STUDY:

Compare the two SBS parent education programs, *The Dias Model* and *The Period of PURPLE Crying*, within a population of first time mothers who screened at high risk of child maltreatment.

RESEARCH SETTING:

- The Nurturing Families Network (NFN) is a secondary prevention program that targets first-time mothers with significant risk factors for abuse and neglect.
- The NFN program has connections in prenatal clinics, OB/GYN offices, and in all of the state's 29 birthing hospitals in order to screen mothers for the program components; the NFN program has 44 program sites across the state.
- The NFN program has 3 components:
 - Nurturing Connections
 - Nurturing Parenting Groups
 - Intensive Home Visiting



REID Screen Items

1. Mother is single, separated, or divorced
2. Partner is unemployed
3. Inadequate income or no information
4. Unstable housing
5. No phone
6. Education under 12 years
7. Inadequate emergency contacts
8. History of substance abuse
9. Late, none, or poor prenatal care
10. History of abortions
11. History of psychiatric care
12. Abortion unsuccessfully sought or attempted
13. Adoption sought or attempted
14. Marital or family problems
15. History of, or current depression
16. Mother is age 18 or younger
17. Mother has a cognitive deficit

Intensive Home Visiting Program:

- Eligibility for the Intensive Home Visiting program is based on a positive REID screen (Revised Early Identification).
- For the screen to be positive, 3 items must be true or 8 items unknown or items 8, 11, 14, or 15 present with one other item.
- Participation in program is voluntary.



Families Screened Prenatally (N=342)	40%
Mother's Marital Status (N=811)	
Single, never married	84%
Married	13%
Divorced, separated, widowed	3%
Mother's Race/Ethnicity (N=804)	
White	32%
African American	18%
Hispanic	43%
Other (includes multi-racial)	7%
Mother age at Baby's Birth (N=728)	
Under 16 years	7%
16-19 years	42%
20-22 years	22%
23-25 years	11%
26 years and older	19%
Median Age	20 years
Maternal Grandmother Living in the Household (N=773)	39%
Father Living in the Household (N=773)	36%
Father's Involvement With Child (N=583)	
Very involved	55%
Somewhat involved	15%
Sees child occasionally	7%
Very rarely involved	3%
Does not see baby at all	21%

NFN
Intensive
Home Visiting
Program
Participants:
Social
Demographic
Characteristics

(2007 Annual Outcome Report)



NFN INTENSIVE HOME VISITING

Services

- The family is eligible for weekly home visits for up to 5 years.
- Families are provided with parent education and links to community services by a peer role model.
- Bi-lingual, Spanish-speaking home visitors at most sites.

Staffing

- Home Visitors: Para-professionals (although there is a wide range of educational backgrounds).
 - Clinical Supervisors: Master's level clinicians (mostly MSWs) providing intensive supervision.
- 

METHODOLOGY:

- Alternative treatment pretest-posttest design (Dias Model used within NFN programs as “standard service” for SBS prevention education program)
- Recruited NFN sites randomly assigned to experimental treatment groups: Dias or PURPLE
- Desired sample size: 120 (60 for each tx group)
- Instrument: modified version of the questionnaire created by Barr et al. (2009) to evaluate PURPLE
- Data Collection:
 - Pre-test administered by the home visitor within the first month since the birth of the client’s child (followed immediately by the intervention)
 - Post-test administered by the home visitor within 8-12 weeks of the pre-test
- Data Analysis: t-tests, multiple regression & ANOVA tests using SPSS



4 DEPENDENT VARIABLES:

1. Mother's knowledge about normal infant crying
2. Mother's knowledge of appropriate responses to infant crying
 - General responses to crying
 - Responses to inconsolable crying
 - Self-talk related to inconsolable crying
3. Mother's knowledge of the dangers of shaking
4. Mother's behavior related to sharing information with other caregivers
 - Crying
 - Walking away if frustrated
 - Dangers of shaking



RESEARCH QUESTIONS:

1. Do the two parent education programs work, as defined by an increase across the four dependent variables?
2. Does one of the parent education programs work better than the other in creating change across the four dependent variables?
3. Do the demographic characteristics of the mother (race/ethnicity; age; years of education; socio-economic status) impact the mother's level of change across the four dependent variables?



RESEARCH QUESTIONS CONTINUED:

4. Does the educational background (years of formal education; degree earned; profession) of the home visitor impact the level of change across the four dependent variables, for each program?
5. Does the level of parent engagement with the home visitor impact the level of change across the four dependent variables, for each program?
6. Does the number of times the home visitor talks with the mother about infant crying and SBS prevention, beyond the delivery of the program, impact the level of change across the four dependent variables, for each program?



1.	My home visitor focuses on my strengths.
2.	My home visitor makes me feel like an important part of the team.
3.	My home visitor developed an action plan based on my personal goals.
4.	My home visitor encourages me to share my point of view.
5.	My home visitor values the knowledge I have about my own child.
6.	My home visitor values me as a person.
7.	My home visitor is available when I need her.
8.	My home visitor helps me when I ask for help.
9.	My home visitor connects me with the services I need.
10.	I have a say in creating the goals in my action plan.
11.	I have control over whether or not I succeed in the program.
12.	I can call my home visitor if I need help.
13.	I feel that my opinion is respected by my home visitor.
14.	I feel respected as a parent by my home visitor.
15.	I trust my home visitor.
16.	I am getting the services I need in order to complete my action plan successfully.
17.	When I talk with my home visitor about my personal situation, I feel like she really listens to me.

PARENT ENGAGEMENT SCALE:

Directions:

We would like you to read the following statements and rate your level of agreement or disagreement for each statement on a 6- point scale; where 6 means you strongly agree and a 1 means you strongly disagree. Please circle that number that most accurately reflects your level of agreement.

 Scale given at end of post-test.
 Completed by mother. Put in confidential envelope.



ADDITIONAL QUESTIONS:

- (PRE & POST) How long is it okay to leave a crying baby alone?

- (POST Only – Re: Anticipatory Guidance)
 - During appointments for your child, did a doctor, nurse or other medical professional talk with you about **shaken baby syndrome**?
 - If yes: What type of information was shared with you? What else? What else?
 - And during those same medical appointments, did a doctor, nurse or other medical professional talk with you about **infant crying**?
 - If yes: What type of information was shared with you? What else? What else?



HOME VISITOR DATA:

- What were the infant soothing techniques that you observed during the home visits?
- What were the infant soothing techniques you discussed with the parents during the home visits?

[Compare data for above two responses to look for any culturally specific infant soothing techniques that might need to be addressed in future programs.]

- What do you see as the strengths and weaknesses of this parent education program in working with this particular family?



Study Limitations:

- Study being done with mothers only (even though we know that fathers/boyfriends are the most likely perpetrators). The hope is that mothers will share information with fathers and other caregivers
- Study generalizable only to NFN programs.

Study Contributions:

- Provide first data on effectiveness of two SBS parent education programs with socially high risk mothers.
 - Promote the expansion of SBS prevention efforts into community-based child welfare programs.
 - Engage profession of Social Work in SBS prevention.
- 

CURRENT STATUS OF STUDY:

NFN Site Recruitment

- 1st Wave of NFN Site Recruitment: Fall 2008
- 11 Sites Recruited; Sites trained in study protocol between October – December 2008
- A total of 27 Home Visitors currently trained
- 2nd Wave of NFN site recruitment currently under way

Human Subject Recruitment

- Enrollment of human subjects started 12/2008
- As of 3/31/09: 39 mothers have been enrolled in the study
- 5 mothers have dropped out (completed only pre-test)
- 9 mothers have completed study (pre & post-test)
- Enrollment expected to continue until late fall

