Shaken baby syndrome prevention program: a program development plan

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Shaken Baby Syndrome Prevention Program: A Program Development Plan

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Note: This document describes a Capstone Dissemination project reflecting an individually planned experience conducted under faculty and site mentorship. The goal of the Capstone experience is to provide the occupational therapy doctoral student with a unique experience whereby he/she can demonstrate leadership and autonomous decision-making in preparation for enhanced future practice as an occupational therapist. As such, the Capstone Dissemination is not formal research.
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Executive Summary

Excessive, inconsolable cries of an infant may invoke very different, yet distinct, reactions from parents and caregivers; either they comfort and protect the infant or they respond with frustration possibly becoming violent. If the response is violent toward the infant, the devastating consequences could be Shaken Baby Syndrome (SBS). Approximately 1,200 to 1,400 SBS cases are reported each year in the United States with more than 300 victims dying from their injuries. Among the survivors, approximately 80% will suffer from a permanent disability (National Center on Shaken Baby Syndrome [NCSBS], n.d.). However, 25-50% of parents and caregivers do not know the consequences of shaking a baby (ThinkFirst, n.d.). Due to the devastating consequences of shaking an infant, SBS education for parents and caregivers is greatly needed to increase awareness and decrease the incidence of SBS.

The goal for the SBS Prevention Program of Heartbeat of Toledo is to provide individualized occupation-based services to expectant mothers, mothers, and caregivers of infants to decrease the incidence of SBS. The program objectives focus on various parenting skills, identifying and implementing effective coping strategies, maintaining a safe environment for the infant during periods of inconsolable crying, and education about SBS. Approximately 40 expectant mothers, mothers, and caregivers of infants will participate during the first year of the SBS Prevention Program. Educational sessions will take place at the facility and in the clients’ homes. Through the use of occupations, the sessions will address parenting skills, identifying and implementing effective coping strategies, and SBS education. The program will utilize evaluations to properly assess the program, the occupational therapist, and Heartbeat of Toledo. Feedback from clients and stakeholders will determine any necessary changes. The
COPM (Law, 1998) will be used as a pre- and post evaluation to measure client outcomes in terms of occupational competence and occupational performance for the identified goals.

**Introduction**

**Program Goal**

The goal for the Shaken Baby Syndrome (SBS) Prevention Program of Heartbeat of Toledo is to provide individualized occupation-based services to expectant mothers, mothers, and caregivers of infants to decrease the incidence of SBS. The term ‘shaken baby syndrome’ is defined as an extreme whiplash type movement caused by intense shaking and resulting in a sudden acceleration-deceleration of the head and structures within the cranium, multidirectional and rotational, with or without external impact (Goulet et al., 2009).

**Sponsoring Agency**

The SBS Prevention Program will take place in the Heart to Heart program at Heartbeat of Toledo in Toledo, Ohio. Heartbeat of Toledo opened in 1971 to meet the needs of pregnant women in Northwest Ohio. Heartbeat of Toledo offers numerous free and confidential services to expectant mothers and mothers of all ages, ethnicities, religions, and socioeconomic status. A summary of these services include pregnancy testing, options during pregnancy, maternity clothes, non-judgmental support, ultrasounds to detect a viable pregnancy, and the Heart to Heart Earn While You Learn program. The mission of Heartbeat of Toledo states, “Heartbeat of Toledo is committed to promoting the well-being of girls and women with emotional and personal problems relating to actual/possible unexpected pregnancies through free, confidential, and compassionate services” (Heartbeat of Toledo, n.d.).

It is within the mission of Heartbeat of Toledo to promote the well-being of girls and women within the community. Without the educational services regarding prevention of SBS
and identifying effective coping strategies, the girls and women are deprived from important information for keeping their infants safe.

The Heart to Heart program is Heartbeat of Toledo’s free parenting learning center where pregnant women and new parents learn valuable prenatal and parenting skills. The Heart to Heart Earn While You Learn program gives the clients an opportunity to earn credits to “purchase” items from the baby boutique. The baby boutique has a wide variety of new and used baby items including but not limited to pack-n-plays, clothes, strollers, exersaucers, formula, wipes, and diapers. Clients have the opportunity to attend one-on-one education classes with a trained Heart to Heart volunteer, also known as a prenatal or parenting mentor. The lessons available cover topics ranging from the first trimester of pregnancy through parenting during young childhood. The Heart to Heart program encourages expectant mothers and parents of children under 2-years-old to participate in the program, even if it is not the client’s first child as the program emphasizes that parents can still learn valuable parenting techniques from the classes.

**Organizational structure**

The organizational structure of Heartbeat of Toledo is fairly simple. The organization consists of a board of directors, executive director, Pat Todak, office assistant, Pam Gniewkowski, co-coordinators for Heart to Heart services, Jeni Hepner and Marilyn Wolff, and volunteers. Everyone working at the Heartbeat of Toledo organization is a volunteer with the exception of the executive director and office assistant. Although the executive director collaborates with the board of directors for suggestions and new strategies to benefit the organization, it is ultimately the decision of the executive director to what suggestions and strategies are implemented. The co-coordinators of Heart to Heart services report to the executive director of Heartbeat of Toledo. While volunteering at Heartbeat of Toledo, the
volunteers also report to the executive director, office assistance, and the co-coordinator of Heart to Heart. Pat Todak was contacted regarding the organization structure of Heartbeat of Toledo (see Appendix A for the organizational chart).

An occupational therapist hired to organize and lead the SBS prevention program will be an employee of Heartbeat of Toledo. The proposed therapist would report to Pat Todak, executive director, and Pam Gniewkowski, office assistant. As an employee of the organization, the therapist would have the ability to work directly with the co-coordinators of Heart to Heart services, other Heartbeat of Toledo volunteers, and the organization’s clients.

**Investigating the Need**

Heartbeat of Toledo offers a wide variety of educational materials through the Heart to Heart *Earn While You Learn* program. However, the program lacks detailed information regarding SBS. During an interview, Ms. Todak stated:

> Our clients need parenting lessons and education regarding SBS because they do not know about the consequences of shaking a baby. Many of the clients are young and have not identified effective coping strategies, therefore it is important to provide this education so the clients will learn how to positively cope in difficult situations and know the consequences of shaking their baby. (P. Todak, personal communication, February 16, 2010)

A needs assessment was conducted at Heartbeat of Toledo to determine the most appropriate Shaken Baby Syndrome (SBS) prevention program design that will meet the needs of the clients. The most useful methods for obtaining the data were decided upon after an interview with the executive director, an interview with the faculty advisor, and a review of the literature. The most useful methods for assessing the needs of clients at Heartbeat of Toledo
include a semi-structured interview for the organization’s volunteers and self-administered surveys for established clients.

A semi-structured interview for the volunteers was determined to be an appropriate method for data collection because many issues would be addressed while establishing and discussing priorities. An advantage to this method is to gain insight about the volunteers’ experiences with clients and assess the volunteers’ knowledge about SBS. The interviews were conducted at the facility at the convenience of the volunteers. All volunteers were asked to complete the interview to ensure adequate representation of volunteer experience and knowledge about SBS.

The semi-structured interviews were conducted by the occupational therapist in the main offices of Heartbeat of Toledo and Heart to Heart and lasted approximately 15 to 30 minutes. The occupational therapist asked the volunteers about their volunteer experience, knowledge of SBS, and their perception of the importance of an SBS prevention program. The information obtained from the interviews was utilized to developing training information for the volunteers (see Appendix B for questions included in the interview).

Self-administered surveys for established clients were determined to be an appropriate method for data collection because Heartbeat of Toledo allowed the clients to complete the survey during their time at the facility. The surveys were located in a small room that offered the client privacy while completing the survey.

The clients were given the opportunity to complete the survey either prior to or following an educational session. Approximately 15 minutes was allotted to complete the survey; however, if more time was needed, it was granted on an individual basis. The clients were instructed to complete the survey as an incentive to earn points for the Heart to Heart Earn While
You Learn program. The volunteers and occupational therapist explained the importance of completing the survey and its impact on future education sessions. Advantages to this method of data collection include low cost and easy administration. Surveys are also considered an appropriate method for gathering data in a short time (Witkin & Altschuld, 1995). The clients and co-coordinators of the Heart to Heart program were consulted when developing the questions on the survey regarding parenting skills the clients want to learn about (see Appendix C for the complete survey).

The clients’ occupational needs were assessed and prioritized through a comprehensive evaluation, assessment from the Canadian Occupational Performance Measure (Law, 1998), and observation of the mother or caregiver interacting with the infant, if applicable. Information obtained during the clients’ initial visit at Heartbeat of Toledo was be used to determine and prioritize the occupational needs of the clients. This information includes the client’s personal information, such as medical history and pregnancy or mothering status.

Semi-structured interviews were conducted among 24 Heartbeat of Toledo and Heart to Heart volunteers. The semi-structured interviews were conducted informally due to volunteer and client scheduling. The interviews were conducted individually in the Heartbeat of Toledo or Heart to Heart office between client appointments. Each interview lasted between 15 to 30 minutes depending on the detail of the volunteer’s responses and discussion between the occupational therapist and the volunteer. The educational background and level of volunteer experience varied among the volunteers, but each volunteer was willing to provide her interpretation of what is needed to educate the clients.

The years of experience volunteering at Heartbeat of Toledo and Heart to Heart varied from three months to 40 years. All volunteers stated they became volunteers due to the desire to
help young girls and women throughout their pregnancy and also support them during the first couple years of their parenting journey. Many volunteers expressed concerns of providing support for clients because they may not have support at home.

Many volunteers also expressed a concern that the clients’ psychological needs are not being addressed adequately due to the limitations of being a volunteer based non-profit organization. The volunteers stated they provide the clients with a nonjudgmental environment where the clients can talk about their circumstances, but the volunteers do not have the training to provide appropriate mental health services. Volunteers often refer the clients to various community programs to assist with any psychological or personal issues that are beyond their level of experience. The professional experience among the volunteers varies from teaching, nursing, social work, and homemaking. All volunteers are parents and many have grandchildren. Many volunteers reported using personal experiences to answer clients’ questions.

Volunteers expressed concerns about the lack of family support for many clients, which may lead to the clients’ feeling overwhelmed in their new role as a mother. When asked if any clients inquire about anger management strategies, only one volunteer stated that she had one client ask about anger management. She referred the client to a mental health community agency. Other volunteers stated that although the clients have not asked, there are numerous clients that would benefit from anger management training including relaxation and coping techniques during stressful situations. A common theme among the volunteers’ responses indicated that a majority of clients served demonstrate some type of need for stress relief due to being overwhelmed by financial issues, relationship difficulties, or lack of family support.

After the discussion of their interactions with the clients, the volunteers were then asked about their knowledge of shaken baby syndrome. All volunteers demonstrated some knowledge
about shaken baby syndrome; however, a majority of the volunteers reported a limited understanding of the syndrome based on information they had learned during their training and through the media. These volunteers were able to explain that shaking a baby can cause brain damage or death but were unaware of the incidence or specific injuries caused by shaking an infant.

Four of the volunteers have a nursing background and were willing to discuss their personal experiences with shaken baby syndrome. One volunteer stated that she occasionally teaches birthing classes and reported introducing the notion of shaken baby syndrome during the birthing class. She stated this information is brief and used to introduce the concept to the expectant parents. Another nursing volunteer periodically teaches babysitting classes to teenagers wishing to become certified babysitters. She reported briefly introducing shaken baby syndrome and the importance of not shaking a baby but does not provide detailed information due to time constraints. The two remaining nurses both have experience working in the emergency room and trauma centers. Both nurses reported treating multiple victims of suspected shaken baby syndrome over 10 years of combined experience.

When asked about the importance of educating clients about shaken baby syndrome, all volunteers agreed that the information should be addressed when the clients seek services from Heartbeat of Toledo and Heart to Heart. Many volunteers agreed that helping clients identify appropriate coping techniques could help the clients adjust and cope with the challenges of raising a child in addition to the other challenges they experience. The benefit of this information is that we could educate the clients about the dangers of shaking a baby but also train clients to generalize the coping strategies to other situations they may encounter.
After the semi-structured interviews were completed, a needs assessment for the clients was conducted in a survey format. Sixty clients completed the surveys during their parenting sessions. The occupational therapist met with each client at the beginning or end of the client’s Heart to Heart appointment and asked the client to complete the questions on the survey. The clients were willing to complete the surveys and many demonstrated interest in learning about the information on the survey.

Responses to the surveys were utilized to create the programming for the Shaken Baby Syndrome Prevention Program. The clients were asked to rate their learning style. A majority of clients reported learning best through hands-on learning in combination with hearing the information. The Crying Baby sessions have been designed to address each learning style, but each Crying Baby session will address each client’s learning style. If a client prefers to learn the information through vision rather than hearing, the client’s lesson will include more visual aids in addition to hands-on learning. Every Crying Baby session will be designed to include hands-on learning through occupations to provide each client an opportunity to demonstrate skills learned. Performing an occupation will also give the occupational therapist an opportunity to evaluate the client’s understanding of the lesson and retention of the information.

The surveys asked the clients to select parenting skills they would be interested in learning about if they were enrolled in the Shaken Baby Syndrome Prevention Program. Many clients expressed interest in learning about Ways to have fun with your baby, Ways to keep your baby safe, and Ways to deal with a crying baby. Although many clients declined wanting to learn about managing money and time management, it was decided to include these lessons in the programming based on further interaction with the clients. Many clients experience financial hardship and rely on earning credits through Heart to Heart’s Earn While You Learn program to
provide basic supplies for their infant (e.g., diapers, formula, and clothes). Also, many clients experience scheduling conflicts or have difficulty arriving to their appointments on time due to poor time management; therefore, it was determined that clients would also benefit from learning information about time management.

In addition to the self-administered surveys, the clients’ files were reviewed to determine demographic information for all clients to provide client-centered programming. Due to time limitations, clients enrolled in Heartbeat of Toledo and Heart to Heart from September 1, 2010 to February 24, 2011 were reviewed. A review of the charts revealed that 590 clients had received services from the organization. The items reviewed included age, race, relationship status, living situation, and highest level of school completed.

Heartbeat of Toledo and Heart to Heart provide services to all young girls, women, or fathers regardless of religion, race, ethnicity, socioeconomic status, or age. Approximately 54.5% of clients registered at Heartbeat of Toledo are also receiving services at Heart to Heart. Females account for 98.5% of clients served by Heartbeat of Toledo and Heart to Heart.

The largest age group the organization serves includes clients aged 20- to 29-years-old accounting for 54.7% of the clientele. The second largest group are clients aged 12- to 19-years-old at 26.4%. The third most prominent group served are clients ranging in ages 30- to 39-years-old accounting for 15.6% of the clientele. The lowest representation of age includes clients older than 40 making up only 3.3% of the clientele. Due to a variety of age groups served, the programming must be designed to be flexible to maintain the interest of the various age groups. The clients must be able to relate to the information presented to them for the program to be effective.
Heartbeat of Toledo and Heart to Heart also serve a racially diverse population. The highest percentage (44%) of clients served at Heartbeat of Toledo identified themselves as African American. Twenty-eight percent of clients identified themselves as Caucasian, 8% Hispanic, and 2.9% other not otherwise specified. Other ethnicities served include Native American (1.7%) and Asian (0.3%). Approximately 14% of clients did not respond to this question. This information will be utilized to incorporate parenting techniques from various cultures to ensure the client’s culture is addressed rather than being addressed from one culture, possibly singling out some of the clients.

A majority of clients (80.8%) reported their relationship status as being single. Some clients reported being in a committed relationship with 4.2% engaged and 5.8% married. Other clients reported ending a relationship with 3.7% separated and 2.0% divorced. Approximately 0.5% of clients reported being widowed. Only 2.7% of clients left this question blank. The clients that are involved in a positive relationship will be encouraged to bring their partners to the Crying Baby sessions. The clients that are not in a relationship will be encouraged to bring a person of support such as a family member, classmate, or friend.

The clients reported various living situations. The highest percentage of clients reported living alone or with children, accounting for 24.7% responses. Approximately 21.9% live with one parent while 6.1% reported living with both parents. Other clients reported living with their boyfriends (11.5%) or husbands (6.3%). Clients also reported living with other relatives (6.8%) or roommates (1.0%). Nearly 3% of clients reported living in a shelter or being homeless. Finally, 2.2% of clients responded “other” but did not describe their living situation while 15.8% of clients did not answer the question. This diversity of living situations demonstrates the
importance of providing services to these clients, including services for finding appropriate housing and money management.

Determining the clients’ highest level of completed education was important for development of the Crying Baby sessions, to ensure that the information is presented in a manner in which all clients will be able to understand the content. Nearly 25% of clients left this question blank. Twenty-seven percent of clients reported completing some high school, but not graduating whereas 16% of clients reported graduating from high school. Approximately 5% of clients reported obtaining their Graduation Educational Development (GED). Nineteen percent of clients reported completing some college with 3% graduating college. Clients that completed middle school accounted for 2.5% of clients and two clients (0.3%) reported their highest level of education as elementary school. This information will be utilized to provide a simplistic approach to presenting the information while allowing for flexibility based on the client’s education level. The information presented to the clients with an elementary education will be presented in a much more simplistic manner than clients with a college degree. The program wants to address the needs of all clients in a manner that is nonjudgmental and respects their individual circumstances.

**Literature Review**

Excessive, inconsolable cries of an infant or toddler may invoke very different, yet distinct, reactions from parents and caregivers; either they comfort and protect the child or they respond with frustration possibly becoming violent. If the response is violent toward the infant or child, the devastating consequences could be SBS. Whether unintentional as an overly aggressive rocking motion or an intentional response to frustration, a violent act of shaking a baby with the result of SBS, is preventable. However, approximately 25-50% of parents and
caregivers do not know the consequences of shaking a baby (ThinkFirst, n.d.). A survey conducted in North Carolina by Runyan and colleagues (2009) found that 2.6% of mothers reported that their baby had been shaken (either by the mother or partner) as a form of discipline (Runyan et al., 2009).

The concept of SBS was first introduced in 1946 by pediatric radiologist, John Caffey. He first defined the term “whiplash shaken baby syndrome” as a diagnosis when a child exhibited serious internal head injuries without the presence of external injuries (Mraz, 2009). Even though the term has existed for more than 60 years, there is not a national database to track the incidence of this preventable condition; however, some estimates are available. One study stated, “in 2001, an estimated 903,000 children were victims of SBS. Additionally, 1,300 children were fatally injured from SBS the same year” (Mraz, 2009). According to the National Center on SBS, there are approximately 1,200 to 1,400 cases reported each year in the United States with more than 300 of the victims dying from injuries sustained as a result of SBS. Hundreds of children that have survived being shaken receive intensive rehabilitation services, including therapy (Poskey, 2010). Ninety-one percent of children have had significant problems as a result of being shaken including vision, motor, and cognitive disabilities (Talvik, Alexander, & Talvik, 2008). Among the children who do survive, approximately 80% will suffer from a permanent disability (NCSBS, n.d.). However, the actual numbers may be much higher because the current numbers only indicate the reported cases and many cases often go unreported or undetected (NCSBS, n.d.).

Wanting to determine an exact number of cases, researchers performed a study that examined the incidence of serious or fatal inflicted traumatic brain injury (TBI) in North Carolina. The study included all North Carolina children aged 2-years-old or younger who were
admitted to a pediatric intensive care unit or died as a result of a TBI in 2000 and 2001. The overall incidence of inflicted TBI in the first two years of life was 17.9/100,000 person-years compared with 15.3/100,000 of non-inflicted TBI. There was a much higher prevalence for infants younger than 12 months with 29.7/100,000 person-years than children aged 12-24 months with 3.8/100,000 person-years (Keenan et al., 2003).

Cases of SBS often go unreported or undetected because it is difficult to diagnosis the condition as it requires the presence of multiple symptoms (Mraz, 2009). Beginning in the 1970s, John Caffey stated there were six elements necessary to make the diagnosis of SBS. These elements included fractures of the long bones in the arms, fractures of the rib cage, bruising of the torso and arms, injuries to the neck, intracranial bleeding, and intraocular bleeding (The Forensic Truth Foundation, 2007). Other common physical manifestations may include retinal hemorrhages, hematomas, cerebral atrophy, hydrocephalus, and possible bone fractures throughout the body (Mraz, 2009). The current standards for diagnosis only require the presence of intraocular and intracranial bleeding (The Forensic Truth Foundation, 2007). Multiple authors emphasized throughout their publications that SBS is a preventable condition and a majority of the cases could have been prevented with appropriate parent education by medical professionals (Keenan et al., 2003; Mraz, 2009; Poskey, 2005; Showers, 1999).

The most common trigger for shaking is an adult’s loss of control in response to inconsolable crying by a child (Barr, Rivara, et al., 2009; Barr, Trent, & Cross, 2006; Showers, 1999). This frustration may be due to excessive crying; however, healthy babies can cry up to five hours per day (Runyan et al., 2009). Shaking an infant is more likely to be a process, a pattern of parenting responses (Coles & Kemp, 2003) with some parents using shaking as a technique to quiet the child (Blumenthal, 2002) as a result of frustration (Smith, 2003). Studies
suggest that up to 5.6% of parents slap or shake their baby at least one time by the time the infant is 6 months old (Kelly & Farrant, 2008). The shaken baby is rarely an isolated event; it may have been an effective technique to quiet crying and may be used again to try to stop crying (Russell & Britner, 2006; Showers, 1999). Many victims of SBS demonstrate evidence of older head trauma and previous injuries (Kelly & Farrant, 2008; Lowenstein, 2004). One study determined that 71% of victims had evidence of prior abuse, neglect, or both (Barr et al., 2006); indicating that infants are rarely shaken only once. The infants have often been shaken for a period of days, weeks, and months (Smith, 2003).

Parents are often misinformed that if the caregiver responds appropriately, the infant can be soothed; however, a baby may cry without reason (Runyan et al., 2009). Mothers reported feeling judged by others as incompetent mothers if their child misbehaved or cried uncontrollably (Bennett Murphy, 2001) and parents reported feeling frustrated because they could not meet their infant’s needs (Becker et al., 1998). Additional triggers for shaking include sleeping or feeding difficulties (Naughton & Heath, 2001).

Although any infant is at risk for being a victim of SBS, there are some risk factors that should be considered when addressing this sensitive issue. Keenan and colleagues (2003) discovered the possible risk factors for inflicted TBI to include the infant’s age, mother’s education level, ethnicity, and socioeconomic status. Results from the study indicated that the median age for the infants at the time of injury was 4 months (Keenan et al., 2003). Infants younger than 12 months were at a much higher risk for sustaining inflicted TBI than children older than 12 months. The infant’s ethnicity was also a risk factor; additionally, minority children were more susceptible to experience an injury than non-minority children. Results indicated there was increased risk of injury if the infant was first born, male, or younger than 12
months. Factors associated with the mother included single, low socioeconomic status, and low education level (Keenan et al., 2003).

Additional risk factors that may contribute to infant injury or death associated with SBS were identified by MacDonald and Helfrich (2001). The researchers noted that such events as inadequately prepared parents, stress of parents or caregivers, a child with disabilities, multiple births or multiple children, teenage parents, economic strains, or an inability to calm a crying baby are all factors that may cause an act of violence (MacDonald & Helfrich, 2001). Because abuse takes place across all levels of humanity, the researchers emphasized the importance of early training and the recognition of trigger events may help stop some of this abuse.

There are various methods for educating parents and caregivers of infants about the consequences of SBS. The mostly widely used method involves parent education from hospital personnel after the birth of the infant and prior to discharge. Three notable studies support an initiative on educational programs addressing SBS. The first study focused on feedback from parents about the program and information they learned throughout the program (Goulet et al., 2009). The second study focused on the program information and further investigated the effects of the program on the incidence of reported abusive head injuries (Dias et al., 2005). The third study was a randomized control trial examining whether mothers’ attitudes about infant crying would change after receiving educational information from the Period of PURPLE Crying Program (Barr, Rivara et al., 2009).

Goulet and medical colleagues (2009) evaluated the opinions of parents and nurses within two Canadian hospitals to assess the value and adequacy of an educational program targeting SBS and to determine if such a program would be beneficial to a large population. The purpose of the program was multidimensional; to increase the parents’ understanding about infant crying,
its relationship to potential anger and frustration, SBS as a possible outcome to violence, and to identify and provide coping strategies to eliminate any damaging and dangerous behavior (Goulet et al., 2009). Discussion was encouraged to identify appropriate times and locations of when the information should be distributed.

The response from parents indicated that most new parents appreciated the postnatal instruction during the hospital stay but a select few would have preferred a home visit. Regardless, 98% of the parents found the information cue cards identifying what to expect and how to respond extremely useful (Goulet et al., 2009). New mothers were generally the targeted audience regarding SBS education, but fathers and all caregivers should be included with relevance to this topic. The nurses felt that their training was adequate and there was a good balance between scientific information and practical application (Goulet et al., 2009). Although the timing of the intervention requires further observation as to effectiveness, those parents participating in the study appreciated the potential of early education and intervention. Some limitations of the study include that it relied on perception of increased knowledge and the results do not allow the researchers to state that a one-time intervention is sufficient to decrease SBS.

The second study, published by Dias and medical colleagues (2005) addressed whether a comprehensive, regional, hospital-based, parent education program, administered at the time of the child’s birth could be implemented successfully. The researchers also addressed the program’s impact on the incidence of abusive head injuries among children less than 36 months of age in an 8-county western New York region. This program included an SBS education program, commitment statements (CS), and assessing the program and incident reporting after the program. The education also provided ways to cope with persistent infant crying. The CS
asked parents if the information was helpful and whether it was the first time they had heard about SBS and its dangers. Both parents were asked to sign the voluntary CS after they received, read, and understood the materials. The regional incidence of abusive head injuries in children less than 36 months of age were recorded during the 66 month period of study. There were 65,205 documented CS which accounted for 69% of the live births in the region. The telephone surveys were conducted 7 months after the child’s birth and over 95% of the parents remembered having received the information about SBS. After the program was implemented, the incidence of abusive head injuries decreased by 47% (Dias et al., 2005). This study provides the first firm evidence that a comprehensive program of hospital-based parent education administered at the time of the child’s birth can effectively reduce the incidence of abusive infant head injuries (Dias et al., 2005). This program was important because it addressed mothers and fathers of the newborn infants, whereas most studies provided the information to only the infant’s mother. One limitation of this study was that it was not a randomized control trial; this raises the possibility of confounding variables such as the decline in the economy in 2002 and the “Boston nanny” conviction in 1997 which brought international attention to the effects of SBS (Dias et al., 2005).

The third study, published by Barr, Rivara, and colleagues (2009) addressed mothers’ attitudes after receiving materials from the Period of PURPLE Crying Program. This program educated parents about infant crying and the consequences associated with SBS. The letters for PURPLE represent different properties of crying that may cause caregiver frustration; P stands for peak crying which occurs during the second month but then declines, U stands for unexpected timing for prolonged crying, R stands for resistance to soothing, P stands for painful look on child’s face, L stands for long crying spells, and E stands for late afternoon and evening
crying clusters (Barr, Rivara, et al., 2009). Mothers in the control group received control
information from various parenting educational materials such as the Back to Sleep Campaign
and a general informational brochure about caregiving from the Canadian Pediatric Society.
Nurses delivered the materials two weeks after the infant’s birth (Barr, Rivara et al., 2009).
After receiving the materials, the mothers completed a diary regarding their behavior and their
infant’s behavior. Two months after the infant’s birth, mothers completed a phone survey
regarding crying patterns and healthy ways to manage a crying baby. The results from the study
indicated that the mothers receiving the Period of PURPLE Crying materials demonstrated
higher scores regarding crying and behaviors important to prevent SBS than the mothers
receiving the control materials (Barr, Rivara et al., 2009).

Although the previous study cannot identify that the educational materials decreased the
prevalence of SBS, the results have indicated that the parents receiving the educational materials
demonstrated increased knowledge regarding infant crying (Barr, Rivara et al., 2009). The
results from this study are significant because the researchers provided the materials shortly after
the birth of the baby, but not while the mother was still in the hospital. Other SBS prevention
programs provided the information while the mother was still in the hospital and was often
overwhelmed from this life changing event (Goulet et al., 2009). It may be more beneficial for
the mother to receive the information after she has settled at home with her infant, rather than in
the hospital.

Becoming a parent can be an exciting, yet stressful time in a person’s life. Education is
important, especially regarding the effects of shaking a baby. Approximately 25-50% of parents
and caregivers do not know the consequences of shaking a baby (ThinkFirst, n.d.). The
aforementioned studies emphasize the importance of education in the prevention of SBS;
however, the educational information should be available to any person who may care for an
infant, not just the parents. By providing expectant mothers, mothers, and caregivers of infants
with educational information about the devastating consequences of shaking an infant, perhaps
the prevalence will decrease as it has been shown in previous studies. The SBS prevention
program at Heartbeat of Toledo will provide expectant mothers, mothers, and caregivers of
infants with appropriate methods of coping with a crying infant that are individualized for the
client. By possessing effective coping strategies and knowledge about SBS, expectant mothers,
mothers, and caregivers will be prepared to handle an inconsolable infant in a safe manner rather
than reacting to the frustration.

Occupation-Based Programming

The SBS prevention program will be established at Heartbeat of Toledo and delivered to
the clients through Heart to Heart. The SBS prevention program is occupation-based and should
be conducted under the supervision of an occupational therapist. With an educational
background of social, cognitive, and emotional functioning in addition to neurology and child
development, occupational therapists are well equipped to address the needs of expectant
mothers, mothers, and caregivers of infants. The American Occupational Therapy Association
(AOTA) published two official statements regarding the role of occupational therapy with stress
and prevention of disability. Both statements relate to the role occupational therapy could have
in the prevention of SBS. In 2007, AOTA published a societal statement on stress and stress
disorders that states:

The occupational therapy profession promotes the establishment of healthy habit
patterns; familiar predictable routines; and increased engagement in meaningful
occupations that serve both as protective and healing factors in combating the negative
effects of stress. Occupational therapy practitioners develop evidence-based interventions based on this philosophy, and conduct research to establish their efficacy for coping with stress. (Stallings-Sahler, & The Representative Assembly Coordinating Council, 2007, p. 711)

The following year, in 2008, AOTA released a statement regarding occupational therapy in the promotion of health and the prevention of disease and disability. The statement addressed occupational therapy’s contributions to this prevention process. It stated that, “Occupational therapy has an important role in health promotion and disease or disability prevention due to its focus on the health effects of purposeful, productive, and meaningful occupation” (Scaffa, Van Slyke, & Brownson, 2008, p.698). The document listed ways occupational therapy practitioners could help in this process including evaluating occupational capabilities, values, and performance. Practitioners can also reduce risk factors and symptoms through engagement in occupation, providing education regarding occupational role performance and balance, as well as, modifying environments for healthy and safe occupational performance (Scaffa et al., 2008).

A review of the literature indicates that occupational therapy has a minimal role in the prevention of SBS and this role has only been identified recently. However, with the extensive educational background of neurology and child development in addition to cognitive, emotional, and social functioning, there are many roles an occupational therapist can perform within an SBS prevention program. Occupational therapists have the opportunity to disseminate this important prevention information to future parents, caregivers, and anyone else who may care for an infant. Education about the triggering factors and coping techniques when faced with an inconsolable infant may be able to protect many children and possibly save the lives of many others (Goulet et al., 2009; MacDonald, & Helfrich, 2001; Poskey, 2005).
The SBS prevention program will be successful under the direct supervision of an occupational therapist because the program will focus on creating an individualized prevention program for expectant mothers, mothers, and caregivers of infants. This individualized prevention program will be developed by the occupational therapist in collaboration with the clients and volunteers from Heartbeat of Toledo. The occupational therapist will perform client evaluations and assess their needs through interviews. The evaluations would occur at the facility and in the clients’ homes. Home modifications would be implemented to create a safe haven for the mother, caregiver, and infant during stressful times. Utilizing the information gained from the comprehensive assessments and personal interviews and in collaboration with the client and volunteers, the occupational therapist could create an individualized prevention education plan for the client.

To ensure the volunteers are educated about SBS, the occupational therapist would provide an in-service for Heartbeat of Toledo volunteers. The in-service would include pertinent information regarding SBS including the statistics, risk factors, and coping strategies to teach the mothers and caregivers of infants. An occupational therapist would be appropriate for this role due to the educational background of neurology, child development, and psychosocial aspects.

Models of Practice

The occupational therapist leading the SBS prevention program will use the Client-Centered Model (Law, 1998) and Role Acquisition frame of reference (Mosey, 1986) to guide the intervention process with the clients. Both of the approaches emphasize a client-centered approach and can be combined to create an individualized prevention education program for the clients.
The Client-Centered Model is appropriate for use in the SBS prevention program because it emphasizes the client and his or her perception of occupational performance and satisfaction (Law, 1998). This model provides an individualized approach which allows the client to identify personal areas of focus with some guidance from the occupational therapist. The assessment that will be used is the Canadian Occupational Performance Measure (COPM). The COPM is a semi-structured interview that allows the client to identify five areas of focus (Law, 1998). For the purpose of the SBS prevention program, the clients will be encouraged to focus on coping skills, stress management, and parenting skills. This assessment will allow the occupational therapist to learn more about the priorities of the client and determine the education materials needed to maintain a safe environment for the infant. The occupational therapist will collaborate with the client and volunteers at Heartbeat of Toledo to create each client’s goals.

The Role Acquisition frame of reference is appropriate for use in the SBS prevention program because it emphasizes guiding individuals to learn new roles based on expectations from their environment (Mosey, 1986). The clients enrolled in the SBS prevention program are developing a new role as an expectant mother, mother, or caregiver to an infant. In this frame of reference, the occupational therapist has the role of an educator to teach the client how to perform her new role successfully (Mosey, 1986). Therefore, the client plays the role of an individual learner gaining knowledge and skills to perform the new role successfully. The intervention that will be implemented in the prevention program identifies the occupational therapist as an educator to the expectant mothers, mothers, and caregivers. The occupational therapist will fulfill this role by providing SBS prevention education, demonstrating proper occupational performance for coping with an inconsolable infant, providing feedback on the
client’s occupational performance (Mosey, 1986) and educating the clients about the various parenting skills.

**Federal Initiatives and National Trends**

The implementation of the SBS prevention program will address multiple national health initiatives as identified by Healthy People 2020. The goals of Healthy People 2020 are to eliminate health disparities and increase the quality and years of a healthy life (U.S. Department of Health and Human Services, n.d.). The SBS prevention program will aim to increase quality and years of healthy life for at-risk infants by providing education to their mothers and caregivers. The SBS prevention program will address objectives from Injury Prevention, Early and Middle Childhood, and Maternal, Infant, and Child Health. The first category from Healthy People 2020 that the SBS prevention program will address is Injury Prevention. Objective IVP-2 aims to reduce traumatic brain injury, both fatal and nonfatal. Objective IVP-11 aims to reduce unintentional injury deaths and objective IVP-12 aims to reduce nonfatal unintentional injuries. The remaining Injury Prevention objectives address child maltreatment, IVP-37 aims to reduce deaths as a result of child maltreatment and IVP-38 aims to reduce nonfatal child maltreatment (U.S. Department of Health and Human Services, n.d.). The objective from the Early and Middle Childhood category that will be addressed is EMC-2 which aims to increase the proportion of parents who discuss positive parenting with healthcare professionals and implement positive parenting strategies (U.S. Department of Health and Human Services, n.d.). The final objective addressed by the SBS Prevention Program is MICH-1, which is part of the Maternal, Infant, and Child Health category and the objective aims to reduce the rate of fetal and infant deaths (U.S. Department of Health and Human Services, n.d.).
The national trends addressed by the program include the SBS awareness movement sponsored by the National Center on Shaken Baby Syndrome (NCSBS, n.d.), continued efforts for legislation to educate the public about SBS, and implementation of Claire’s Law in the state of Ohio. NCSBS provides multiple resources for information regarding SBS. The mission statement of NCSBS aims to “educate and train parents and professionals, and conduct research that will prevent the shaking and abuse of infants in the United States” (NCSBS, n.d.). The organization seeks to develop prevention programs as needed and advocate for prevention efforts. Most importantly, the organization states that it will collaborate with other organizations to increase the awareness of SBS (NCSBS, n.d.). Therefore, the occupational therapist can obtain educational materials from the NCSBS to assist in the development of the program.

There have been continued efforts for legislation to educate the public about SBS. Although multiple bills have been presented to Congress, none have made it past committee review. The first bill that included information about the prevention of SBS was introduced to the House of Representatives in April 2001 but has yet to be approved by the Committee on Health, Education, Labor, and Pensions (THOMAS, n.d.). The second bill included information about enhancing Federal efforts in regards to public awareness and education about the risks and dangers associated with SBS. It was introduced to the House of Representatives in September 2006 and was referred to the Subcommittee on Health (THOMAS, n.d.). The third bill included similar information as the second bill and it was introduced to the Senate in April 2007. It was read twice, and referred to the Committee on Health, Education, Labor, and Pensions (THOMAS, n.d.). The fourth bill included similar information as the second bill, only it was introduced to the Senate. It was introduced in April 2007 and has been referred to the Subcommittee on Health (THOMAS, n.d.). There have been multiple bills presented to
Congress regarding National Shaken Baby Syndrome Awareness Week which have been agreed upon with unanimous consent (THOMAS, n.d.). Currently there is no federal legislation that has been passed to mandate SBS education. However, several states have recognized the importance of educating the public about SBS and have implemented state legislation to improve effort. States have implemented legislation to be proactive in educating the public about the dangers of shaking an infant.

Currently, states with SBS legislation include South Carolina, Massachusetts, New York, Texas, Utah, Minnesota, and Ohio. The legislation varies among the states, but all seek to educate the public and prevent SBS. Ohio and Massachusetts have legislation that requires statewide records of child abuse cases involving SBS (NCSBS, n.d.). This is required to better track the incidence of SBS cases. Ohio, South Carolina, and Massachusetts require parent education through hospital based programs prior to the discharge of the newborn. However, South Carolina requires hospital personnel provide the education to mothers, fathers, and primary caregivers of the infants whereas Ohio and Massachusetts only require the mother receive the information (NCSBS, n.d.). A majority of the states with legislation require SBS prevention education for licensed childcare workers and employees of daycares. The requirements vary among the states with some states not requiring a minimum amount of training hours while other states require a minimum 5 to 20 hours of training per year regarding infant safety, not exclusive to SBS.

The SBS prevention program will be implemented in Toledo, Ohio; therefore, specific legislation of the state of Ohio will be discussed. As of March 1, 2009 Claire’s Law for Shaken Baby Syndrome Prevention was established for the state of Ohio. This law was created as an
advocacy effort by Claire Fishpaw’s parents (Ohio Department of Health, n.d.). Claire was shaken by her babysitter when she was 11-months-old and is a survivor of SBS.

Claire’s law requires SBS education be provided by physicians and pediatrician offices. It also requires that physicians or nurses talk to mothers before the baby is born and before the mother is discharged from the hospital after giving birth (Ohio Department of Health, n.d.). However, the information is not addressed thoroughly and is often rushed or given in an informational brochure. The law mandates that day care centers must educate their workers. Starting in March 2009, all SBS cases in Ohio will be entered in a database and will be tracked, as another requirement from the law (Ohio Department of Health, n.d.). A weakness to the law is that it does not require fathers or other caregivers to receive the information. The SBS prevention program at the Heartbeat of Toledo will provide education before and after the birth of the infant to all enrolled clients and their support persons to ensure the safety of the infants.

The SBS prevention program implemented at Heartbeat of Toledo will assist in addressing the needs of expectant mothers, mothers, and caregivers of infants as established by these national trends. The program will provide individualized SBS prevention education while assisting the expectant mothers, mothers, or caregivers to increase awareness and decrease the incidence of SBS.

Objectives

Program Goal

The goal for the Shaken Baby Syndrome (SBS) Prevention Program of Heartbeat of Toledo is to provide individualized occupation-based services to expectant mothers, mothers, and caregivers of infants to decrease the incidence of SBS.
Objectives

1. Participants will select at least three parenting skills they want to learn about while enrolled in the program and create goals for each selected parenting skill as measured by the COPM (Law, 1998) during the first Crying Baby Session.

2. Participants will identify at least four effective coping strategies for handling their frustration and sadness and create a minimum of one goal in relation to each coping strategy by the end of the second Crying Baby Session.

3. Participants will implement personally identified coping strategies with an occupation involving an inconsolable crying baby doll during the third Crying Baby Session.

4. During a home evaluation, the participants will identify five environmental safety risks for the infant during periods of inconsolable crying.

5. Within two weeks following the home evaluation, the participants will implement the safety recommendations suggested by the occupational therapist.

6. Participants will attend eight Crying Baby sessions within 10 weeks and will be able to self report progress of personally identified goals as measured by the COPM (Law, 1998), perform related occupations, and modify the goals when appropriate by the end of the 10th week.

7. Upon completion of the SBS Prevention Program, 70% of participants will have achieved 85% of their personally identified parenting skill goals from the COPM (Law, 1998).

8. Upon completion of the SBS Prevention Program, 70% of participants will report implementing identified effective coping strategies when dealing with frustration, sadness, or an inconsolable infant.
The established objectives were based on recommendations from Heartbeat of Toledo personnel and previously published literature. A review of the literature in relation to SBS, occupational therapy, child abuse, and parent education was used when developing the SBS Prevention Program. Results from the studies indicated that parents appreciated the educational materials addressing effective coping strategies, especially when confronted with persistent infant crying (Dias et al., 2005; Goulet et al., 2009). In addition to providing effective coping strategies, results from one study indicated that parents who received the educational materials demonstrated increased knowledge regarding infant crying (Barr, Rivara, et al., 2009) and results from a similar study indicated that educational information decreased the incidence of abusive head injuries in an 8-county western New York region by 47% over a 5-year period (Dias et al., 2005). The percentage of participants expected to achieve their parenting skills goals was determined based upon Heartbeat of Toledo’s past experience of successful completion of the Heart to Heart sessions.

Marketing and Recruitment of Participants

Marketing

Developing marketing materials for the SBS Prevention Program will require involvement from the stakeholders. The executive director of Heartbeat of Toledo, Pat Todak, will be responsible for approving all marketing materials for the program. The co-coordinators of Heart to Heart services, Jeni Hepner and Marilyn Wolff, will also review the materials and make suggestions for seeking the attention of the population. The primary target audience includes expectant mothers, mothers, and caregivers of infants. The secondary target audience includes the mothers’ support person and the infants’ fathers. Many of the clients at Heartbeat of Toledo are between the ages of 12-24, have low education levels, and low socioeconomic status;
therefore, it is pertinent to provide marketing materials that address their interests while applying the resources to their education level and learning style.

A variety of marketing strategies will be implemented for the recruitment of participants. Current marketing strategies for Heartbeat of Toledo include radio advertisements, phone book advertisements, brochures, website programming, and word of mouth. The primary marketing strategy to promote the SBS Prevention Program will be a brochure (see Appendix D for the complete brochure) that highlights the program’s unique components and ways to register for the program. The brochures will be available at the Heartbeat of Toledo office and the Heart to Heart office. The occupational therapist will present important aspects of the program to the volunteers at Heartbeat of Toledo and personnel at participating recruitment locations mentioned above, in hopes they will understand the benefits of the program for the infants and their parents or caregivers. The volunteers at Heartbeat of Toledo will also be encouraged to give the clients program brochures and explain the program to the clients while they are scheduling appointments for other educational sessions.

Information about the SBS Prevention Program will be added to Heartbeat of Toledo’s website (http://www.heartbeatoftoledo.org) in hopes of targeting potential clients. This is cost effective because there is no fee to post additional information on the Heartbeat of Toledo website. The program would be listed under the tabs labeled Our Services and Heart to Heart. Due to the availability and frequent use of technology, this marketing strategy will be successful in recruiting new clients. This strategy allows potential clients to learn about the program in a relatively accessible method. This marketing strategy is appropriate because potential clients in this age demographic are more likely to visit a website then look in the phone book or
newspaper. Also, the website gives the clients the opportunity to learn about the services provided by Heartbeat of Toledo prior to visiting the facility.

Radio and phone book advertisements will not be exclusive to the SBS Prevention Program. Due to the high cost of the advertisements, the SBS Prevention Program will be advertised as a new service offered by Heartbeat of Toledo. Both methods of marketing will mention or list the SBS Prevention Program but the program will not be the only feature of the advertisement.

It is predicted that the most successful recruiting method will be word of mouth from clients. Unfortunately this will not occur until the program has been implemented. It is predicted that there will be a higher recruitment rate if clients who are currently enrolled in the SBS Prevention Program provide positive statements and testimonials on how the program has positively influenced their lives. Many of the Heartbeat of Toledo and Heart to Heart clients sought services after learning how the organization has personally helped a friend, classmate, or family member adjust to the pregnancy or parenting journey.

Potential participants of the SBS Prevention Program are expectant mothers, mothers, and caregivers of infants living in Northwest Ohio who wish to obtain services from Heartbeat of Toledo. Although most of the services are offered to the mother, the infant’s father or male role model is welcome to attend the educational sessions if he registers with Heartbeat of Toledo. There are no restrictions regarding client age, gender, religion, race, and ethnicity. If the clients are receiving services as a parent, the child must be younger than 24 months via Heart to Heart guidelines. Also, there are no restrictions regarding income, but most of the clients belong to a low socioeconomic status.
Information gathered from the clients will include their age, pregnancy/parenting status, age of their child/children, and contact information for themselves and an emergency contact. The information collected will be documented by the occupational therapist. The clients will also be asked to identify parenting skills they wish to learn about while enrolled in the program. This information will only be used to create an individualized SBS Prevention Program for the clients and contact the clients for appointment reminders.

To participate in this program, the clients must meet the following inclusion criteria. The participants must be enrolled in Heartbeat of Toledo and receive Heart to Heart services. Heartbeat of Toledo has served 590 clients from September 1, 2010 to February 24, 2011. However, not all clients of Heartbeat of Toledo choose to enroll in the Heart to Heart Earn While You Learn program. Approximately, 54.5% of Heartbeat of Toledo’s clients are enrolled to receive Heart to Heart services. It is estimated that the SBS Prevention Program will serve 40 clients within the first year due to time constraints, schedule conflicts, clients completing the Heart to Heart program prior to implementation of the SBS Prevention program, and potential drop outs. The occupational therapist will work 20 hours per week. The Crying Baby sessions, including documentation will last approximately 2 hours. This will allow the occupational therapist to treat approximately 8 clients per week for 16 hours total. The remaining 4 hours will be allotted towards volunteer training, travel time, recruitment, and consultation phone calls.

The SBS Prevention Program will consist of five cohorts with eight clients assigned to each cohort. Even though clients will be assigned to cohorts, they will still receive individualized occupational therapy sessions. The first cohort of Crying Baby sessions will start week 7 of the initial year, the second cohort will begin week 17 of the program, the third cohort will begin week 27, the fourth cohort will begin week 37, and the fifth cohort will begin week
47. For each client, there are a minimum of 8 weekly Crying Baby sessions that must be completed within 10 weeks. After a client has completed the program, the occupational therapist will evaluate the effectiveness of the program using the program evaluation and determining how many clients met their goals.

To be eligible to participate in the SBS Prevention Program, the participants must be able to identify at least three parenting skills they want to learn about while enrolled in the program and create at least one goal for each parenting skill, using the COPM (Law, 1998). This must be completed during the initial Crying Baby Session. The participants must be willing to collaborate with the occupational therapist to identify a minimum of four effective coping strategies for handling their frustration and sadness. They must be willing to collaborate with the occupational therapist to create a minimum of one goal in relation to the coping strategies by the end of the second Crying Baby session. The participants must be willing to allow the occupational therapist into their home for a home evaluation. During the home evaluation, the participants must be willing to collaborate with the occupational therapist to identify five environmental safety risks for their infant during periods of inconsolable crying and implement the recommendations from the therapist within two weeks of the home evaluation. The participants must have reliable transportation to and from the Heartbeat of Toledo facility to ensure they can attend the educational sessions to receive additional information, participate in appropriate occupations, report progress of personally identified goals as identified by the COPM (Law, 1998), and modify the goals when appropriate.

Recruitment of Participants

The volunteers at Heartbeat of Toledo and Heart to Heart will be the main recruiters of participants for the SBS Prevention Program because they have direct access to the clients and
have an established rapport with the clients. The volunteers will recruit participants when they inquire about receiving services from Heartbeat of Toledo and the Heart to Heart *Earn While You Learn* program. The volunteers will provide the participants with the occupational therapist’s contact information if there are any questions regarding the program that volunteers are unable to answer. However, the volunteers will be educated about the components of the program through a presentation given by the occupational therapist prior to the implementation of the program. The volunteers will be responsible for distributing the marketing materials to the clients within the Heartbeat of Toledo facility. The therapist will be responsible for developing the marketing materials. New participants will be recruited throughout the year and participants will be entering and exiting the program throughout the course of the year.

**Programming**

The SBS Prevention Program is a highly individualized parenting and caregiver education program designed to meet the needs of expectant mothers, mothers, and caregivers of infants. The SBS Prevention Program will strive to assist the clients to meet the objectives mentioned previously. The programming will be led by an occupational therapist who will use the guidance of principles and theories associated with the Client-Centered model of practice (Law, 1998) and the Role Acquisition frame of reference (Mosey, 1986).

The Client-Centered model of practice will be used because it emphasizes the client and his or her perception of occupational performance and satisfaction (Law, 1998). This model provides an individualized approach which allows clients to identify their areas of focus with guidance from the occupational therapist. It will be important for the clients to realize that the SBS Prevention Program focuses on their needs and goals. The COPM will be an appropriate assessment to use with this population because it is a semi-structured interview (Law, 1998).
which allows open discussion between the client and the occupational therapist about the client’s concerns. This assessment will allow the occupational therapist to learn more about the priorities of the client and determine the education materials needed to maintain a safe environment for the infant. The occupational therapist will collaborate with the client and volunteers at Heart to Heart to create each client’s goals.

Principles from the Role Acquisition frame of reference that will be used during the programming include using the occupational therapist as an educator, providing information to the clients, demonstrating occupational performance, and providing feedback on the client’s occupational performance (Mosey, 1986). These principles will be implemented during every Crying Baby session.

The assessment that will be utilized from the Role Acquisition frame of reference includes observation of the client interaction with the infant, the baby doll, and utilization or lack of coping techniques. The observation will first determine whether the client is able to perform the desired occupation. The occupational therapist must determine the demands of the environment and what factors may be influencing the client’s occupational performance. The occupational therapist will observe the occupational performance, assess the quality of the performance, identify sub-occupations, and determine the positive and negative reinforcers present in the environment (Royeen & Duncan, 1999).

To provide effective learning opportunities, the clients’ behaviors must be reinforced directly (cause and effect) or reinforced by another person (occupational therapist, mentor, or infant). Repetition alone will not ensure retention of materials, it is important for the occupational therapist to provide reinforcement when the client performs an occupation (Royeen & Duncan, 1999).
The clients at Heartbeat of Toledo have unique needs and circumstances; therefore, they will receive occupational therapy services individually with the occupational therapist. Heart to Heart encourages the clients to bring a person of support to the clinic. If the clients choose to bring someone, that person will also receive the SBS Prevention Program educational information at no charge. The client is also welcome to bring anyone who may care for the infant during the Crying Baby sessions. This participation will encourage education among all caregivers with the infant’s safety as the primary focus. This will be encouraged because in most SBS cases, the mother is not the perpetrator, but it is usually someone else close to the infant (Goulet et al., 2009).

Clients will enter and exit the program throughout the year. The cohort sessions will be closed and the clients will be allowed 10 weeks to complete eight Crying Baby sessions. Even when the clients are discharged from the SBS Prevention Program, they will continue to receive Heart to Heart services; therefore, the occupational therapist will provide consultative services for the clients with ongoing communication with the volunteers. The volunteers will update the occupational therapist on the client’s concerns and use of coping techniques after the arrival of the infant. The clients will be encouraged to contact the occupational therapist or Heart to Heart volunteer if they have any questions or concerns.

There are two ways potential participants may begin the program. If the participant has not received services from Heartbeat of Toledo, the person must first register with the organization. Registration within the organization ensures the participant’s prenatal and parenting needs are addressed appropriately. If the participant is an existing client at Heart to Heart, the person must inquire about the SBS Prevention Program with her appointed volunteer. The volunteers will forward all inquiries to the occupational therapist. The occupational
therapist will meet with the client and her appointed volunteer at the Heartbeat of Toledo facility to determine eligibility and to schedule the Crying Baby sessions, if eligible. Scheduling for the Crying Baby sessions will be based on the client’s time of pregnancy or parenthood. Clients who will receive the Crying Baby sessions upon admission to the program include clients in their third trimester, clients with pregnancy characterized by complications, or current parents. The Crying Baby session information will be introduced to clients in their first and second trimester of pregnancy, but not discussed in detail until closer to the arrival of the infant to ensure the client takes the information seriously. If the information is presented to the clients too early in pregnancy, the situation may not seem applicable to them and they may dismiss the information as unimportant (Goulet et al., 2009).

Principles from the Role Acquisition frame of reference will be used to educate the clients about their changing roles. In this program, the occupational therapist acts as the teacher to the clients so they can learn new skills necessary to perform their new role as a parent. Various occupations will be demonstrated and described to the client by the occupational therapist throughout the program. Clients will perform appropriate occupations in the occupational therapist’s presence and will be evaluated according to their performance. Occupations will be implemented throughout the program based on the principle from the Role Acquisition frame of reference which states that performance in a role will enhance skill (Mosey, 1986). This practice of performing the occupation will encourage a dynamic relationship between the new role and skills required to perform the role successfully (Mosey, 1986). This frame of reference also emphasizes the importance of balancing roles in the clients’ lives through adaptation which will be encouraged through the use of occupations.
General characteristics of the program will be applied throughout the program to all clients during all educational sessions. Each session of the program will begin with the occupational therapist addressing any concerns or questions the clients have regarding the previously discussed parenting skills, including the associated occupations. The occupational therapist will also review the homework assignments with the clients to determine whether the client truly understood the material. As an incentive to complete the assignments, completed homework will be included as credits for the *Earn While You Learn* program. Most sessions will last approximately 60 to 90 minutes. The exact duration of the session will vary based on clients’ questions, the parenting skill, and the planned occupation. The first and final sessions will be approximately 120 minutes to allow completion of paperwork from the clients, review of the COPM (Law, 1998), brief interview, and completion of the SBS pre/posttest. The clients must complete eight Crying Baby sessions within 10 weeks. It will be recommended to schedule the sessions on a weekly basis to ensure consistency and retention of the materials. After each session, the occupational therapist will complete progress notes to document the progress of the clients, describe the occupational performance, and make recommendations for the next session.

During the initial Crying Baby session, the occupational therapist will provide an overview and introduction into the SBS Prevention Program. After an introduction into the program, the occupational therapist will describe the parenting skill educational materials that are offered through the SBS Prevention Program (see Appendix E for an explanation of parenting skills). Please note these are only examples and occupations will be individualized to each client. With assistance from the occupational therapist, the client will select between three to five parenting skills she wants to learn about while enrolled in the program. As the clients continue to participate in the program, they will have the opportunity to learn about all the
sessions available if they are interested and time allows. With the use of the COPM (Law, 1998) and guidance from the occupational therapist, the client will create goals for each parenting skill selected. The selected parenting skills will be documented by the occupational therapist and the goals will be documented on the COPM assessment form (Law, 1998). The client will be given a brief pretest regarding SBS (see Appendix F for the complete pre/posttest). After the client completes the pretest, the occupational therapist will discuss SBS with the client including its definition, incidence and prevalence, risk factors, signs of SBS, and consequences. The occupational therapist will also provide each client with the *Period of PURPLE Crying* materials to address SBS and persistent infant crying. During this session, the occupational therapist will interview the client regarding her concerns with the challenges associated with pregnancy and parenting.

The occupational therapist will also introduce educational information for either *Ways to adjust to being pregnant* or *Ways to adjust to being a mom*, depending on whichever lesson is appropriate for the client. The occupational therapist will also help the client identify and predict role changes and ways the client can handle those changes. The client will be given a homework assignment addressing the particular parenting skill. Homework will be due during the following Crying Baby session.

During the second session, the occupational therapist will review the previous lesson’s homework and address *Ways to cope with frustration or sadness*. The second session will address appropriate coping strategies and the occupational therapist will collaborate with the client to identify at least four effective coping strategies for handling frustration and sadness. With the use of the COPM (Law, 1998) and assistance from the occupational therapist, the client will create a minimum of one goal in relation to each coping strategy. The occupational therapist
will explain the statistics of SBS, how frustration can lead to shaking a baby, and the importance of healthy coping skills. After the coping strategies have been addressed, the client will perform an occupation while the occupational therapist provides feedback. At the conclusion of the session, the occupational therapist will address any questions and provide the next homework assignment for the client. The assignment will be due at the next Crying Baby session. An additional homework assignment will be assigned for the client to practice using the effective coping strategies. If the client is pregnant, she will be expected to care for a life-like baby doll, Baby Think It Over, throughout the week to prepare for the third session. If parenting, the client will not be required to care for the doll during the week but will complete an additional homework assignment regarding her infant’s behavior. During this session, the client will schedule an appointment for the occupational therapist to complete a home evaluation and the client will be given an appropriate homework assignment.

The third session will occur in the client’s home. The occupational therapist will first review the written assignment and address any questions or concerns. During this session, the client will give the occupational therapist a tour of the home. With assistance from the occupational therapist, the client will identify five environmental safety risks. The occupational therapist will make verbal recommendations to provide a safe environment for the infant. A checklist including the identified five environmental safety risks and the occupational therapist’s recommendations will be given to the client to help keep the home safe. The lists will vary based on each home environment. This session will address the lesson Ways to baby proof your home. The occupational therapist will also explain the importance of addressing the infant’s needs and emphasize that crying is an infant’s way of communicating. During this session, the client will implement the previously identified coping strategies with an inconsolable crying
baby doll. The occupational therapist will observe and document the client’s occupational performance, including any necessary adjustments. The client will also schedule another home visit with the occupational therapist within two weeks of the first home evaluation.

The fourth session will occur in the client’s home. The client will give the occupational therapist another tour of the home. The client will verbally state and physically show the occupational therapist where the changes were implemented throughout the home and explain the importance of the changes. The changes will be documented and kept in the client’s file. During this session, the occupational therapist will address any concerns the client may have regarding home safety and infant care. The lesson *Ways to keep your baby safe* will be addressed during this session in addition to performing an occupation with the client. The occupational therapist will provide a homework assignment to be completed prior to the fifth session at the Heartbeat of Toledo facility.

During the fifth session, the occupational therapist will review the homework and address any questions or concerns. The client’s goals for parenting skills and coping will be reviewed and modified as appropriate. Since many people learn at different rates, many of the clients are teenagers, and have not completed high school the occupational therapist will review previous information taught to the clients to determine whether the information was retained throughout the duration of the program. This session will be used as an informal evaluation to determine whether the client is progressing towards the identified goals. The progress will be documented to whether more education for a specific lesson is required for the client to ensure the safety of the infant. If there are any areas of concern they will be addressed appropriately by the occupational therapist or a referral to another healthcare professional will be provided if necessary. This session will also address the lessons *Ways to deal with a crying baby* and *Ways...*
to have fun with your baby. During this session, the client will perform one occupation that can be applied to both lessons. The client will be given a homework assignment based on progress towards goals and occupational performance.

During the sixth session, the occupational therapist will review homework and address any questions or concerns. During this session, the occupational therapist will discuss the lesson *Ways to manage your money* and will create an occupation based on the client creating a budget. The client will also be given a homework assignment that addresses money management and budgeting.

At the beginning of the seventh session, the occupational therapist will review the homework and address any questions or concerns. This session will address the lesson *Ways to manage your time*. Due to the short duration of the lesson material, the information about shaken baby syndrome will also be addressed. The occupational therapist will review the critical information associated with SBS and provide guidance while the client prepares a 7 to 10 minute presentation regarding SBS. The presentation will be simple with few supplies to maintain low costs. Supplies provided for the client include a white poster board, markers, construction paper, scissors, glue, and an SBS simulator doll. The clients will be encouraged to use their creativity through various methods such as singing, poetry, or storytelling. However, they must create a poster board that addresses the incidence, risk factors, and consequences of shaking a baby. The client must also provide examples of her personal coping techniques and provide suggestions for those attending the presentation. The client will present the SBS information to anyone who may care for her infant and the occupational therapist for evaluation during the eighth session.

The eighth lesson will occur in the clients’ home. During the first hour of the session, anyone who will care for the infant will be invited to the client’s home to attend the presentation
about SBS. The client will be required to present a 7 to 10 minute presentation. After the client has presented the material, the occupational therapist will answer any questions and provide resources for SBS prevention to anyone attending the presentation. During the second hour of the session, the occupational therapist will privately meet with the client to provide feedback about the client’s presentation, discuss personally identified goals, give the SBS posttest, and determine if continuation of the program is needed or desired. If the occupational therapist determines the client is ready to complete the program, the client will sign a certificate of completion stating that she will not shake her infant. The client will complete an evaluation that asks questions based on what material was helpful, where to find resources, and how an infant changes the client’s roles. If the occupational therapist determines the client should continue the program, the client will continue to address identified goals that have not been met. Occupations will be designed to encourage further learning and to meet the client’s needs. The program will continue until the client reaches the tenth week of the program.

If the occupational therapist determines the client requires further education, additional occupations will be addressed during the ninth and tenth sessions. The content in both sessions will vary based on the client’s needs and understanding of the educational materials. During the tenth session, the client will graduate if appropriate. Upon graduation, the client will sign a certificate of completion stating that she will not shake her infant. The client will complete an evaluation that asks questions based on what material was helpful, where to find resources, and how an infant changes the client’s roles. If the occupational therapist determines more services are required, further enrollment will be determined on an individual basis if the client does not understand the information. If the client’s infant is at risk for harm appropriate healthcare professionals will be notified.
Clients will graduate from direct services of the program at 10 weeks or earlier depending on their progress, fulfillment of their parenting needs, achievement of their goals, and the age of their child. When clients have achieved all of their goals, the client will be asked to complete the SBS posttest and a brief interview with the occupational therapist regarding the role changes and what they have learned from the program. The client will return to the Heart to Heart Earn While You Learn program after graduating from the SBS Prevention Program. Upon graduation, the consultation aspect of the SBS Prevention Program will begin as a continuous program that clients can participate in as long as they continue receiving Heart to Heart services.

The occupational therapist will provide consultative services with assistance from the volunteers. The occupational therapist will maintain care coordination through communication with the volunteers regarding progress updates on the clients. The volunteers will document the progress in each client’s chart. The volunteers will make copies of the progress notes and place them in a folder for the occupational therapist. The occupational therapist will read the progress notes in the folder weekly. The occupational therapist will be contacted immediately if there are any concerns regarding the safety of the client and the infant. During the consultative process, the occupational therapist will call the clients once a month to discuss the previously identified goals, use of coping strategies, and status of the infant. The consultation phase will occur once monthly (or more if needed) until the child is 24-months-old.

The occupational therapist will maintain consistent documentation for each client in the program. The documentation will be kept in the client’s chart and will include the COPM assessment forms (Law, 1998) and interview from the initial visit, SBS pre/posttests, goals, intervention notes, progress notes, and discharge status with the exit interview. If the client cancels or does not show for an appointment, it will be documented in the client’s file. If the
client has two unexcused absences she will be discharged from the program via Heart to Heart guidelines.

Maintaining the clients’ confidentiality is a priority for Heartbeat of Toledo and the occupational therapist. To ensure all clients’ information is kept private and confidential, electronic files will only be accessible through a password protected laptop and paper copies will be stored in a locked filing cabinet in the Heart to Heart office. The current procedure for documentation at the facility is to use handwritten, hard copy documentation that is kept in the client’s file folder in a locked filing cabinet. However, for dual access for the occupational therapist and volunteers, the occupational therapist will record client data and progress notes on a password protected laptop supplied by Heartbeat of Toledo to ensure access to the client files. The notes and data will be printed for a hard copy to be placed in the clients’ files and allow the volunteers access as needed.

The SBS Prevention Program will offer a mixture of direct, indirect, and consultative services. Direct services will include administration of the COPM (Law, 1998), creation of client goals, education, and interventions. Occupations will be chosen that address the clients’ parenting goals with a strong emphasis on coping strategies. Indirect services will include care coordination with the volunteers at Heartbeat of Toledo and referrals to of healthcare professionals if needed. Consultative services will occur after the client has demonstrated competency in the identified parenting skills and coping strategies. These services will include monthly phone calls to track the client’s progress, address any concerns, and check the status of the infant. The occupational therapist will also work with the Heartbeat of Toledo volunteers to educate them about SBS.
The occupational therapist has an important role in the SBS Prevention Program. The occupational therapist will work 20 hours. General responsibilities include developing marketing materials, maintaining open communication with Heartbeat of Toledo and Heart to Heart personnel, presenting program information to Heartbeat of Toledo and other recruiting personnel, and scheduling Crying Baby sessions. The occupational therapist has many responsibilities regarding the Crying Baby sessions. Responsibilities for the Crying Baby sessions include preparing educational material, researching and compiling information about SBS, providing guidance for the clients to create parenting skill goals and effective coping strategies, providing feedback on occupational performance and homework assignments, and answering any questions the clients may have regarding parenting skills or resources available in the community. One of the most important contributions from the occupational therapist is creating meaningful occupations that are specific to each client and parenting skill. This will provide an enjoyable learning experience for the clients that will supply them with the knowledge and parenting skills to safely care for their infant.

**Budgeting and Staffing**

The estimated costs to run the SBS Prevention Program for the initial year are explained in the following budget. The program will be developed and executed by an occupational therapist working part-time, 20 hours a week, year round. The occupational therapist must be a graduate of an accredited occupational therapy program, be registered nationally, be licensed in Ohio, and have a minimum of two years experience due to the community based nature of the programming. It should be noted that this will be the only occupational therapist on staff. A description of the occupational therapy job position (see Appendix G for a complete description) and sample advertisement (see Appendix H for the sample advertisement) can be found at the
end of this document. The occupational therapist will be expected to develop marketing materials for recruiting participants, develop Crying Baby sessions, perform evaluations, provide interventions, and maintain all required documentation.

The occupational therapist’s salary was determined by finding the median annual salary for a full-time occupational therapist in Northwest Ohio ($69,880.00) at the website http://data.bls.gov. That amount was divided by 2 for a part-time salary of $34,940.00. The first month of the program will be devoted to hiring the occupational therapist. During the initial year, the occupational therapist will work 48 weeks rather than 52 weeks due to the hiring process. The weekly salary, $671.92, was determined by dividing the part-time salary by 52 weeks. Since the occupational therapist will work 48 weeks the initial year, the salary was determined by multiplying the weekly salary by 48. The salary for the part-time occupational therapist was determined to be $32,252.31.

**Projected Staffing Costs**

<table>
<thead>
<tr>
<th>Employee Position</th>
<th>Hours Per Week</th>
<th>Salary</th>
<th>Benefits</th>
<th>Total Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Therapist</td>
<td>20</td>
<td>$32,252.31</td>
<td>$8063.08</td>
<td>$40,315.39</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Projected Staffing Costs</td>
<td></td>
<td></td>
<td></td>
<td>$40,315.39</td>
</tr>
</tbody>
</table>


**Items for Therapeutic Purpose**

<table>
<thead>
<tr>
<th>Item</th>
<th>Rationale</th>
<th>Quantity</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Occupational Performance Measure Manual</td>
<td>This manual will be referred to for completing and interpreting the</td>
<td>1 manual ($48.83)</td>
<td>$48.83</td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Quantity</td>
<td>Unit Price</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
<td>------------</td>
</tr>
<tr>
<td>Canadian Occupational Performance Measure Assessment</td>
<td>This will be the major assessment used for each client to identify parenting goals and effective coping strategies.</td>
<td>2 packs</td>
<td>$18.38 each</td>
</tr>
<tr>
<td>The Period of PURPLE Crying Materials (full color booklet and 10-minute DVD)</td>
<td>This information will be used during the Crying Baby Sessions to educate parents and caregivers about SBS.</td>
<td>100 packs</td>
<td>$3.50 each</td>
</tr>
<tr>
<td>Avery Durable ½” Three-ring binders</td>
<td>Will be given to each client to organize program information.</td>
<td>40</td>
<td>$2.99</td>
</tr>
<tr>
<td>8 pack three-ring binder dividers</td>
<td>Will be used to organize program information given to the clients.</td>
<td>40</td>
<td>$1.39</td>
</tr>
<tr>
<td>Office Max 2 Pocket Folders (Assorted)</td>
<td>Will be given to the client’s person of support to organize program information.</td>
<td>3 packs</td>
<td>$19.29 each</td>
</tr>
<tr>
<td>White Poster Board (28”x22”)</td>
<td>Necessary for the client’s SBS Prevention presentation to anyone caring for the infant.</td>
<td>4 packs</td>
<td>$7.49 each</td>
</tr>
<tr>
<td>Crayola Classic Broad Line Markers</td>
<td>Necessary for the client’s poster for the SBS Prevention presentation to anyone caring for the infant.</td>
<td>4 packs</td>
<td>$3.79 each</td>
</tr>
<tr>
<td>Baby Think It Over (Life-like Baby Doll)</td>
<td>Necessary for the Crying Baby session addressing effective coping techniques.</td>
<td>1 pack</td>
<td>$3,915</td>
</tr>
</tbody>
</table>
Shaken Baby Syndrome Simulator | Necessary for addressing the damaging effects of SBS and client presentations. | 1 pack (3 SBS Simulator dolls) * ($1,349) | $1,349

Total Cost of Items for Therapeutic Purposes | $5,977.78


**Office Supplies**

<table>
<thead>
<tr>
<th>Item</th>
<th>Rationale</th>
<th>Quantity</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>GreatPapers! Channel foil certificate paper</td>
<td>Certificates for graduates of the program and client signature page of completion of program.</td>
<td>7 packs (12 count) * ($5.99)</td>
<td>$41.93</td>
</tr>
<tr>
<td>White Office Paper</td>
<td>Necessary for printing brochures, making copies of educational materials, and making copies of documentation.</td>
<td>1 case (5,000 sheets) * ($37.99)</td>
<td>$37.99</td>
</tr>
<tr>
<td>Perforated Writing Pads</td>
<td>Necessary for writing observations and progress notes.</td>
<td>1 pack (12 pads) * ($7.49)</td>
<td>$7.49</td>
</tr>
<tr>
<td>Black BallPoint Pens</td>
<td>Necessary for taking notes while in the office and in the clients’ homes.</td>
<td>1 pack (60 pens) * ($5.29)</td>
<td>$5.29</td>
</tr>
<tr>
<td>Pencils</td>
<td>Necessary for taking notes while in the office and in the clients’ homes.</td>
<td>1 pack (72 pencils) * ($3.99)</td>
<td>$3.99</td>
</tr>
<tr>
<td>Portable File Box</td>
<td>Necessary to organize and keep client records when separated from locked</td>
<td>1 pack * ($13.99)</td>
<td>$13.99</td>
</tr>
</tbody>
</table>
Hanging File Folders | Necessary to organize and keep client records when separated from locked filing cabinet. | 5 packs (20 pieces) * ($8.99) | $44.95

Paperclips | Necessary to keep forms together while in the client folders. | 2 pack (400 paperclips) * ($2.49) | $4.98


HP Pavilion Laptop Computer | Necessary to provide access to client files while away from the Heartbeat of Toledo facility. | $549.99 | $549.99

| **Total Cost of Office Items** | **$732.59** |

*Prices for Office Items were estimated from [www.officemax.com](http://www.officemax.com)

**Miscellaneous Items**

<table>
<thead>
<tr>
<th>Items</th>
<th>Rationale</th>
<th>Quantity</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mileage Reimbursement</td>
<td>Necessary for the occupational therapist to administer home evaluations, reevaluate the home, and attend the SBS prevention presentation.</td>
<td>3 visits for each client of 40 clients @ 20 miles per visit ($0.50 per mile)</td>
<td>$1,200.00</td>
</tr>
</tbody>
</table>

| **Total Cost of Miscellaneous Items** | **$1,200.00** |
In-Kind Support

Heartbeat of Toledo will provide the following items as in-kind support to the SBS Prevention Program: office space, chair, desk, three hole punch, telephone with answering machine, locking filing cabinet, copy machine, copying services, computer, printer, and access to the Baby Boutique.

Indirect Costs

The indirect costs for maintaining the facility which includes heating, air conditioning, and electricity will be reimbursed by the Heartbeat of Toledo SBS Prevention Program.

Total Program Costs

<table>
<thead>
<tr>
<th>Expense Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected Staff Costs</td>
<td>$40,315.39</td>
</tr>
<tr>
<td>Items for Therapeutic Purpose</td>
<td>$5,977.78</td>
</tr>
<tr>
<td>Office Supplies</td>
<td>$732.59</td>
</tr>
<tr>
<td>Miscellaneous Items</td>
<td>$1,200.00</td>
</tr>
<tr>
<td>In-Kind Support</td>
<td>$0.00</td>
</tr>
<tr>
<td><strong>Subtotal of Program Costs</strong></td>
<td>$48,225.76</td>
</tr>
<tr>
<td>Indirect Costs (25% of Subtotal of Program Costs)</td>
<td>$12,056.44</td>
</tr>
<tr>
<td><strong>Total Program Cost</strong></td>
<td>$60,282.20</td>
</tr>
</tbody>
</table>

Funding

Grant funding will be required to implement the initial year of the SBS Prevention Program. The estimated budget for the initial year is $60,282.20. To help with the costs for the
SBS Prevention Program, three appropriate funding sources have been identified. These funding sources include the RGK Foundation, the Stranahan Foundation, and the WHO Foundation.

The first funding opportunity is provided by the RGK Foundation. It was established as an independent foundation in 1966 with the primary focus of educational and medical research. The Foundation has expanded its interest to include various projects associated with education, community, and health/medicine. Within the community, the Foundation seeks to address the community’s needs, identifying abuse prevention as a need (RGK Foundation, n.d.). This is an appropriate funding source for the SBS Prevention Program because the program seeks to decrease SBS within the community and prevent abuse which is an area of focus for the community aspect of the Foundation. The Foundation also has a special interest in children and family services in addition to parenting education. The goal of the SBS Prevention Program involves providing parenting education to expectant mothers, mothers, and caregivers to infants to reduce the incidence of SBS which is identified as a type of abuse.

The second funding opportunity is provided by the Stranahan Foundation. The foundation was established in 1944 by the founders of the Champion Spark Plug Company in Toledo Ohio, Frank D. and Robert A. Stranahan. The Foundation was created to assist individuals and groups in their efforts to improve society and the environment within five areas of interest: education; physical and mental health; ecological well-being; arts/culture; and human services. Within physical and mental health interest, the Foundation supports programs that aim to improve physical and mental health arenas, including preventive measures in addition to educating people to take better care of themselves and their families (Stranahan Foundation, 2010). This is an appropriate funding source for the SBS Prevention Program because the program provides preventive measures of child abuse by educating parents and caregivers of
infants and children about the dangers of shaking a baby and the importance of establishing healthy coping techniques for the prevention of abuse. The SBS Prevention Program also provides parents and caregivers of infants with parenting education through the Crying Baby Sessions that not only address SBS but money management, techniques for bonding with their infant, and many other lessons that address various aspects of parenting roles. These lessons and associated occupations can assist clients take better care of themselves and their families.

The third funding opportunity is provided by the WHO (Women Helping Others) Foundation. The Foundation was created in 1993 to support community-focused charities that serve the overlooked needs of children and families. The Foundation is committed to supporting organizations that are dedicated to women, children, and families in need and provides funding for non-profit organizations throughout the United States and Puerto Rico (W.H.O. Foundation, Inc., n.d.). This is an appropriate funding source for the SBS Prevention Program because it addresses the parenting concerns of women and provides them with the education to enhance the relationship with their children and build stronger relationships within their family. The clients at Heart to Heart are in need financially and emotionally. Although Heart to Heart does not provide financial assistance through money, it gives parents the opportunity to earn items that would otherwise have to be purchased in a retail store. The Earn While You Learn program has provided families in need with necessities such as diapers, formula, toiletries, pack-n-plays, bottles, clothing, etc. Earning these items may provide small financial support that allows families to use the money they would have spent on baby items, on other items that provide basic needs for their family such as groceries, rent, or utilities. The SBS Prevention Program will collaborate with Heart to Heart to give clients the opportunity to earn points for the Earn While
The SBS Prevention will also provide parents with emotional support that may be missing in the home environment.

**Self-Sufficiency Plan**

After the SBS Prevention Program has been funded by a grant for the first year, it is assumed that Heartbeat of Toledo personnel will recognize the importance and effectiveness of the program and strive to maintain the programming in the future. To ensure self-sufficiency of the SBS prevention program, Heartbeat of Toledo can provide multiple funding opportunities through existing fundraisers and sponsoring new fundraisers. Heartbeat of Toledo will donate 10% of raised monies through existing fundraisers including the annual golf outing and donations through the Kroger Community Rewards program. Heartbeat of Toledo and Heart to Heart personnel will also sponsor a new fundraiser, with funds specifically raised for the SBS Prevention program. The new fundraiser will be a gala titled *Protecting Babies* and will be open to anyone in the community. The gala will include a raffle of donated items from sponsoring agencies. Monetary and supply donations from the community will also be accepted.

**Program Evaluation**

Evaluation of the SBS Prevention Program is necessary to determine the effectiveness of the program and demonstrate its importance to stakeholders and potential funders. The SBS Prevention Program will utilize formative and summative evaluations to properly evaluate the program. Formative evaluations will occur throughout the program and will be used to identify program strengths and weaknesses. Throughout the course of the program, clients and stakeholders will evaluate the program to determine any necessary changes. Feedback from the evaluations will be used to provide continuous improvement of the program. Clients will be given the opportunity to verbally identify strengths and weaknesses of the program during the
Crying Baby Sessions. The occupational therapist will document all feedback given by the clients regarding program evaluation. The occupational therapist will meet bi-monthly with the stakeholders, Pat Todak, Pam Gniewkowski, Marilyn Wolff, and Jeni Hepner, to discuss the progress of the program and provide any suggestions to improve the quality of the program.

Summative evaluations will be used to measure the impact of the program and this will be determined by measuring the outcomes of the clients during the initial year. Results from the summative evaluations could decide the program’s future. One method for summative evaluation is the use of the COPM (Law, 1998). The occupational therapist will use the COPM (Law, 1998) for assessment as a pre- and post evaluation to measure the progress of the clients. The COPM (Law, 1998) will measure the clients’ progress in terms of occupational competence and occupational performance for occupations associated with the parenting skills. The COPM will also measure the goals identified by the client and occupational therapist (Law, 1998). The objectives will be monitored and documented by the occupational therapist. The objectives will be evaluated by using the following methods:

1. Participants will select at least three parenting skills they want to learn about while enrolled in the program and create goals for each selected parenting skill as measured by the COPM (Law, 1998) during the first Crying Baby Session.
   a. During the initial meeting with each client, the occupational therapist will describe the parenting skills available through the SBS Prevention program. The client will select at least three parenting skills and the occupational therapist will document the identified skills in the related areas on the COPM form (Law, 1998) such as self-care, productivity, and leisure. With assistance from the occupational therapist, the client will create one goal for each parenting skill selected. Using the COPM, the client
will rate each selected parenting skill based on performance and satisfaction of performance (Law, 1998).

2. Participants will identify at least four effective coping strategies for handling their frustration and sadness and create a minimum of one goal in relation to each coping strategy by the end of the second Crying Baby Session.
   a. During the second session with each client, the occupational therapist will describe the importance of identifying effective coping strategies for dealing with frustration and sadness. The client will identify at least four coping strategies. The occupational therapist will document the client’s identified coping strategies in the appropriate areas on the COPM form (Law, 1998). With assistance from the occupational therapist, the client will create at least one goal for each identified coping strategy. Using the COPM (Law, 1998), the client will rate the performance and satisfaction of performance for each identified coping strategy.

3. Participants will implement personally identified coping strategies with an occupation involving an inconsolable crying baby doll during the third Crying Baby Session.
   a. At the end of the second Crying Baby Session, the client will be given the doll Baby Think It Over. If pregnant, the client will be expected to care for the life-like doll during the week, throughout the third Crying Baby session, and demonstrate proper coping strategies when the doll becomes inconsolable. If parenting, the client will not be required to care for the doll during the week but will complete an additional homework assignment regarding her infant’s behavior. The occupational therapist will evaluate this objective by having the client verbally state and physically demonstrate the proper coping strategies identified in the previous session. The
occupational therapist will also evaluate the parenting skills via the Baby Think It Over software. The software records periods of crying and length of time spent crying.

4. During a home evaluation, participants will identify five environmental safety risks for the infant during periods of inconsolable crying.
   a. During the third Crying Baby session, the client will give the occupational therapist a tour of the home. The occupational therapist will evaluate this objective by having the client verbally state and physically show the occupational therapist five environmental safety risks. The occupational therapist will document the client’s identified risks and if necessary identify other potential risks found during the home evaluation. A checklist will be provided for the client to make changes within the home to create a safe environment for the infant.

5. Within two weeks following the home evaluation, participants will implement the safety recommendations suggested by the occupational therapist.
   a. During the fourth session, the client will give the occupational therapist another tour of the home. The client will verbally state and physically show the occupational therapist the changes implemented throughout the home and explain the importance of the changes. These changes will be documented by the occupational therapist and kept in the client’s file.

6. Participants will attend eight Crying Baby sessions within 10 weeks and will be able to self-report progress of personally identified goals as measured by the COPM (Law, 1998), perform related occupations, and modify the goals when appropriate, by the end of the 10th week.
a. The occupational therapist will keep an attendance sheet to evaluate if the clients attended the required Crying Baby Sessions within 10 weeks. The occupational therapist will store copies of completed homework assignments, document any concerns the clients may have about parenting skills, and document any recommendations provided by the occupational therapist.

7. Upon completion of the SBS Prevention Program, 70% of participants will have achieved 85% of their personally identified parenting skill goals from the COPM (Law, 1998).

a. During the fifth session, the client will reassess the parenting skills by rating both performance and satisfaction with performance, using the COPM (Law, 1998). The occupational therapist will evaluate this objective by documenting whether the goals have been achieved during the course of the SBS Prevention Program. This will be determined by comparing the initial COPM ratings with the reassessment (Law, 1998). If there is an increase in the ratings of performance and satisfaction of performance, the client is demonstrating progress and working toward the achievement of personally identified goals.

8. Upon completion of the SBS Prevention Program, 70% of participants will report implementing identified effective coping strategies when dealing with frustration, sadness, or an inconsolable infant.

a. During the fifth session, the client will reassess the coping strategies for both performance and satisfaction with performance, using the COPM (Law, 1998). The occupational therapist will evaluate this objective by documenting whether the coping goals have been achieved during the course of the SBS Prevention Program. This will be determined by comparing the initial COPM ratings with the reassessment
(Law, 1998). If there is an increase in the ratings of performance and satisfaction of performance, the client is demonstrating progress and working toward the achievement of the goals.

An additional method for summative evaluation is a survey that will be completed by the clients within two weeks after their final Crying Baby Session. The surveys will be completed during one of their Heart to Heart sessions and will be submitted anonymously by the volunteers. The survey will allow the clients to provide feedback about the program, the occupational therapist, the Heartbeat of Toledo facility, and evaluation of their goals (see Appendix I for the evaluation survey).

**Timeline**

The major tasks and milestones of the SBS Prevention Program that will occur during the initial year are identified in a timeline (see Appendix J for a detailed timeline).

**Letters of Support**

Letters of support will be solicited from individuals representing several different agencies. The primary letter of support is from the executive director at Heartbeat of Toledo, Pat Todak (see Appendix K for the letter of support). Heartbeat of Toledo is sponsoring the program and therefore it would be appropriate to have the executive director provide a letter of support.

Letters of support will be solicited from individuals of various areas of expertise including occupational therapy, pediatrics, neurology, and shaken baby syndrome (see Appendix L for contact information). The second letter of support could be from Jeni Hepner and Marilyn Wolff, co-coordinators of Heart to Heart services. They are an important source of support because they have direct access to the clients and the volunteers helping the clients. They would be able to identify some of the needs identified by the clients. The third letter of support could
be provided by Dr. Marilyn Barr, founder and executive director of the National Center on Shaken Baby Syndrome. Her letter of support could address the need for increased public awareness and disbursement of SBS educational materials. The fourth letter of support could be from Florence Clark, PhD, OTR/L, FAOTA, president of the American Occupational Therapy Association. This letter could describe the contributions occupational therapy could make to the SBS Prevention Program and parenting education classes. The fifth letter of support could be from John Fishpaw, corporate director, advocacy, and government relations of Prevent Child Abuse Ohio. He is also the father of Claire Fishpaw, an SBS survivor. Claire’s law in Ohio was named after his daughter. He could provide personal experience of the challenges of raising a child with SBS and advocate the importance of educating anyone who will care for an infant or child about the consequences and dangers of shaking. The sixth letter of support could be from Dr. Judith S. Palfrey, president of the American Academy of Pediatrics. This letter could describe the fragile structures of an infant’s head and neck and the devastating consequences that could occur from shaking an infant. The seventh letter of support could be from Susan H. Connors, president and CEO of Brain Injury Association of America. This letter could address the importance of preventing head injuries and the effects of traumatic brain injuries on the victims and their families. The eighth letter of support could be from Gail A. Poskey, PhD, OTR. Dr. Poskey is an assistant professor at Texas Woman’s University Occupational Therapy program. She has done extensive work in shaken baby syndrome and has advocated for the role occupational therapy in the prevention of shaken baby syndrome. This letter could address the importance of the presence of occupational therapy in shaken baby syndrome prevention and how occupational therapy can assist parents in adapting to their new roles.
References


Appendix A

Heartbeat of Toledo Organizational Chart

Board of Directors

Executive Director, Pat Todak

Proposed Occupational Therapist

Office Assistant, Pam Gniekwowski

Heart to Heart co-coordinators, Jeni Hepner & Marilyn Wolff

Volunteers
Appendix B

Needs Assessment Semi-Structured Interview

1. How long have you been a volunteer at Heartbeat of Toledo or Heart to Heart?
2. Why did you become a volunteer?
3. Do you have any professional experience working with clients?
4. What are your concerns about the clients that receive services from Heartbeat of Toledo?
5. How do you think these concerns should be addressed?
6. What is shaken baby syndrome?
7. Do you think it is important to educate clients about shaken baby syndrome?
Appendix C

Needs Assessment Survey

Please take a few minutes to answer the questions below. Your answers are private and will only be used to create the program based on what our clients need. Please be honest with your answers.

1. Age: _____

2. What is your ethnicity?
   _____ Asian/Asian American
   _____ Pacific Islander
   _____ African American/Black
   _____ Latino/Hispanic
   _____ Native American/American Indian
   _____ White/Euro-American
   _____ Bi- or Multi- Racial

3. Are you pregnant?
   _____ no   _____ yes   How many weeks? __________

4. Do you have any kids?
   _____ no   _____ yes   How many kids do you have? _____
   a. If you have kids, how old are they?
      __________________________

5. Where do you live?
   _____ My own place (house or apartment)
   _____ With my boyfriend/husband
_____ My parents’ house (mom or dad)
_____ My boyfriend/husband’s parents’ house (mom or dad)
_____ Family member of mine; please state their relationship to you: ________________
_____ Family member of my boyfriend/husband; please state their relationship: ________
_____ Other (please describe): _______________________________________________

6. Do you attend middle school, high school, or college classes?
   _____ no    _____ yes
   
   a. Where do you attend classes?
      _____ Middle School
      _____ High School
      _____ GED
      _____ College

7. Who is your financial support? Check all that apply.
   _____ Myself
   _____ Boyfriend/husband - the baby’s father
   _____ Boyfriend/husband – someone other than the baby’s father
   _____ Mom
   _____ Dad
   _____ Grandparent
   _____ Friend
   _____ Other (please describe): ____________________________________________

8. Who is your emotional support? Check all that apply.
   _____ Boyfriend/husband - the baby’s father
_____ Boyfriend/husband – someone other than the baby’s father

_____ Mom

_____ Dad

_____ Grandparent

_____ Friend

_____ Teacher

_____ Other (please describe): ________________________________________________

9. What do you do for fun?

___________________________________________________________________________

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10. What is the best way you learn? Rate on a scale from 1 to 6.

(1 as your first choice and 6 as your last choice).

_____ Seeing the information (ex: pictures and videos)

_____ Hearing the information (ex: music and sound)

_____ Using words (ex: talking about it and writing about it)

_____ Hands-on (ex: doing something as you learn about it)

_____ With others (ex: in a group and with other people)

_____ Alone (ex: working by yourself)

11. What skills do you want to learn about? Check all that apply.

_____ Ways to adjust to being pregnant

_____ Ways to cope with frustration or sadness
___ Ways to keep your baby safe
___ Ways to adjust to being a mom
___ Ways to deal with a crying baby
___ Ways to bond with your baby
___ Ways to manage your money
___ Ways to manage your time
___ Ways to baby proof your home
___ Ways to have fun with your baby

12. Why did you choose Heartbeat of Toledo?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Thank you for taking the time to fill out the survey! The answers you have given will be used to create a program that meets your needs and the needs of our other clients.
PREVENTING SHAKEN BABY SYNDROME:
ONE BABY AT A TIME

Our goal is to provide individualized services to pregnant women, mothers, and caregivers of infants to decrease the incidence of Shaken Baby Syndrome.

NEVER SHAKE A BABY

Shaken baby syndrome occurs when an infant is violently shaken.

Usually happens when a person gets frustrated because the baby won’t stop crying.

Possible immediate consequences of shaking a baby:

- Seizures
- Poor eating or vomiting
- Extreme tiredness or difficulty waking up
- Death

Possible long-term consequences:

- Brain damage
- Learning disabilities
- Physical disabilities
- Death

What more information?
Visit www.dontshake.org and contact Heartbeat of Toledo to schedule your classes.

Heartbeat of Toledo
2130 Madison Ave.
Toledo, OH 43606
Phone: 419-241-9131

http://heartbeatoftoledo.org
PICK CLASSES THAT WILL HELP YOU & YOUR BABY

- Ways to adjust to being pregnant
- Ways to adjust to being a mom
- Ways to cope with frustration or sadness
- Ways to keep your baby safe
- Ways to deal with a crying baby
- Ways to manage your money
- Ways to manage your time
- Ways to baby proof your home
- Ways to have fun with your baby

HOW CAN I SIGN UP FOR CLASSES?
There are a few steps that must be taken to sign up for the Shaken Baby Prevention Program:

Step 1: Register at Heartbeat of Toledo
Step 2: Register for Heart to Heart Earn While You Learn program
Step 3: Ask your parenting instructor about the Shaken Baby Syndrome Prevention Program
Step 4: Schedule an appointment with the occupational therapist to begin your learning experience

WHEN & WHERE ARE THE CLASSES?
The occupational therapist will be flexible to fit your needs and classes will be scheduled based on times that are good for you. Some classes will be at Heartbeat of Toledo, but some classes will be at your house.

WHO CAN COME TO THE CLASSES?
Anyone who is registered with Heartbeat of Toledo and Heart to Heart. We encourage you to bring a person of support (family member, friend) to help you through your journey.

WHY SHOULD I TAKE THE CLASSES?
Learn the facts surrounding Shaken Baby Syndrome and how you can prevent your infant from being shaken.

Learn to be the best parent you can be in the comfort of one-on-one learning session with a caring and compassionate occupational therapist.

Learn positive ways to deal with frustration or sadness so that you can keep your baby safe.
Appendix E

Crying Baby Sessions: Parenting Skill and Related Occupation Descriptions

**Ways to adjust to being pregnant:** This parenting session will address dealing with morning sickness, uncertainty of pregnancy, energy conservation, and endurance. The predicted role changes of becoming a parent will be addressed. Some occupations that may be performed during this session include creating and performing an exercise regimen or practicing energy conservation.

**Ways to adjust to being a mom:** This session will address the role changes associated with becoming a parent. Some occupations that could be performed during this session include doing laundry and doing yard work. Throughout the occupation, the client will be responsible for caring for a life-like baby doll.

**Ways to cope with frustration or sadness:** This parenting session will address various ways to cope with frustration or sadness. Many options will be available to the clients including listening to music, creating a list of accomplishments, writing thoughts in a journal, meditating, and creating a list of support persons. The occupation performed will be selected by the client. Some possible choices include creating a list of relaxation techniques and practicing the techniques, writing in a journal, or making a craft.

**Ways to baby proof your home:** This session will occur during the home evaluation. The occupation will involve the client identifying at least five environmental risks for an infant. The client will implement the recommended changes within two weeks of the home evaluation and the home will be reevaluated by the occupational therapist after the changes have been made.

**Ways to keep your baby safe:** This parenting session will address ways to keep the baby safe in various environments such as the home, car, and bathtub. Some occupations that could be
performed during this session include putting the car seat in the car, researching product recalls and assembling a first aid kit.

**Ways to deal with a crying baby:** This session will include a life-like baby doll. The doll will be programmed to be inconsolable. The client will be required to demonstrate how she/he would deal with an inconsolable infant through utilization of identified coping techniques.

**Ways to bond and have fun with your baby:** This session will include occupations that allow the parent to bond with the baby. Some occupations could include singing lullabies, reading children’s books, taking a walk, and using bath time as an opportunity to bond with the baby.

**Ways to manage your money:** This session will address the importance of money management. The suggested occupations will allow the client to create a budget, balance a checkbook, and register for assistant services (if needed).

**Ways to manage your time:** This session will address the importance of time management. This session will include occupations that allow the client to list the occupations performed throughout the day, create a calendar to balance time, budget time, and review the time management with the occupational therapist.
Introduction to the Crying Baby Sessions

Welcome! You are here because you are pregnant and are going to become a parent or you have already experienced the joy of becoming a parent. You are also here because you are interested in learning about becoming a better parent for your child. There are different lessons that you will learn about during your time spent in the program.

You are dedicated to becoming a good parent and learning about these topics can help you be successful in your journey. We admire your efforts and the Heart to Heart Staff members are here to help you, answer any questions you might have, and address any concerns you have about parenting or life in general.

You have been selected to be a part of our program. You are already enrolled in Heart to Heart and will continue your relationship with your mentor. You will also build a relationship with an occupational therapist who will guide you through the Cry Baby sessions.

An occupational therapist is a medical professional with training in many different areas including role adjustment, child development, and every day skills needed to care for yourself. The occupational therapist who will be working with you has education and experience working with babies and their parents. If you have any questions at anytime, don’t be afraid to ask. The staff members and the occupational therapist are here to help you! Call us at 419-245-3888 or the occupational therapist at 419-555-1234.

The general rules of the program are the same as Heart to Heart. The lessons will be covered over a period of 10 weeks. If you are unable to come to your appointment, call us before your appointment so that we can reschedule. You must complete the program within 10 weeks to make sure that we teach you this important information as soon as possible.

Again, welcome to our program. We are pleased to have you in our program and look forward to teaching you about this new journey in your life.
Ways to adjust to being pregnant

Congratulations on your pregnancy! Depending on how far along you are, you may be experiencing a lot of different symptoms. The purpose of this lesson is to help you identify common characteristics often experienced by pregnant women throughout their pregnancy. If you have any questions at any time ASK us…we are here to help you. Also, if you have any concerns about your pregnancy call your doctor right away.

When you become a parent your role in life is going to change. Briefly discuss your current roles and how your roles are going to change once you become a parent.

Roles – set of behaviors that are deemed as “normal” based on social expectations and our circumstances. Role expectations often influence how we make decisions, how we act in certain environments, and how we interact with others (Crowe, VanLeit, Berghmans, & Mann, 1997).

What are your roles now?:

What will your roles be once the baby is born?:

How are the roles different than before?:

How does this make you feel?:
Listed below are some common questions and brief answers.

**Why do I feel sick all the time?** (Johnson, 1994)

Don’t worry, you are not alone. *Morning sickness* (feelings of nausea or even vomiting) affects almost 75% of all pregnant women. It is also important to know that morning sickness can occur at anytime of the day – not just in the morning. Sometimes morning sickness will go away after the first trimester (first 12 weeks) of pregnancy, but it may stay until the baby is born. Below are some tips that may help you feel better and reduce your feeling of morning sickness.

- Keep a package of crackers by your bed so that you can have a quick snack before getting out of bed in the morning
- Try to always have food in your stomach
  - Eat healthy snacks
  - Eat a higher number of meals, but smaller amounts of food for each meal
  - Eat foods high in protein and fiber
- Drink lots of water so you don’t become dehydrated

**Is it okay to have caffeine during my pregnancy?** (Evans, 2010)

Many people enjoy their coffee, tea, or soda, so it might be difficult for you to cut back on your intake. The effects of caffeine on your developing baby are unclear; however, high caffeine intake (4-5 cups per day) has been linked to increased risk of miscarriage, preterm delivery, and low birth weight. The effects of small to moderate amounts (1-2 cups per day) have not been identified.

Caffeine is a drug, it is a stimulant that increases your blood pressure and heart rate, making you feel as though you have more energy. However, there are few risks associated with caffeine including increased blood pressure and heart rate and also the risk of dehydration.

Drinking moderate amounts of caffeine (1-2 eight ounce cups per day) is probably fine, but you shouldn’t drink to the point where you feel jittery or that your heart is pounding. Also, be sure to drink lots of water throughout the day.
What foods should I eat when I’m pregnant? (Johnson, 1994)

It is important for you to eat healthy foods to ensure that you and your baby are getting enough nutrients and vitamins to support growth and development. It is okay to have a sugary snack every once in awhile, but you should not make it a habit because sugary calories provide no nutritional value. Also, even though you are eating for two doesn’t mean that you should eat twice as much. You should only be eating about 300 extra calories per day.

**Healthy foods:**
- Dairy products
- Eggs
- Lean beef
- Lean pork
- Chicken
- Peanut butter
- Fiber rich foods
- Orange juice
- Water

**Unhealthy foods (limit intake):**
- Junk food
- Candy
- Cookies
- Soda/pop
- Artificial sweeteners
- Caffeine

**Foods to avoid completely:**
- Soft cheeses (Brie, Feta, Mexican style, Camembert)
  - may have *listeria* (a type of bacterium that could cause miscarriage, preterm labor, or stillbirth)
- Deli meats
  - (only eat deli meats if you heat them until they are steaming hot to kill any bacteria)
- Do NOT eat raw or undercooked meats
Create a menu for next week using healthy foods:

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Keep a food log for the next week so that you can see the types of food you are eating.

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Preparing for your baby (Johnson, 2004)

Make a list of items you will need to take the hospital with you. Be sure to pack your hospital bag when there is more than a month remaining in your pregnancy because you never know when your baby is going to want to come into our world.

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<th>Items for hospital bag</th>
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<td>• Nightgown for after birth</td>
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<td>• Slippers with non-slip soles</td>
<td>• Thermometer</td>
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<td>• Robe</td>
<td>• 6-8 receiving blankets</td>
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<td>• Nursing bras or supportive bras</td>
<td>• 3-4 fitted sheets for crib</td>
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<td>• 2 boxes of diaper wipes</td>
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<td>• Diaper rash ointment</td>
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<tr>
<td>• Glasses (cannot wear contacts)</td>
<td>• Sterile cotton balls</td>
</tr>
<tr>
<td>• Extra absorbent sanitary pads</td>
<td>• Baby nail clippers</td>
</tr>
<tr>
<td>• 3 pairs of loose underwear</td>
<td>• Bottles – four 4 oz. &amp; four 8 oz.</td>
</tr>
<tr>
<td>• Things to do while in the hospital</td>
<td>• Petroleum jelly</td>
</tr>
<tr>
<td>o Magazines</td>
<td>• Nasal bulb for suctioning</td>
</tr>
<tr>
<td>o Books</td>
<td>• 4 sleepers</td>
</tr>
<tr>
<td>o Crossword puzzles</td>
<td>• 3 pairs of socks</td>
</tr>
<tr>
<td>o Word searches</td>
<td>• 6 onesies</td>
</tr>
<tr>
<td>• Cameras</td>
<td></td>
</tr>
<tr>
<td>• List of people to call</td>
<td></td>
</tr>
<tr>
<td>• Two outfits for the baby</td>
<td></td>
</tr>
<tr>
<td>• Car seat (you will not be able to leave the hospital until you have a car seat)</td>
<td></td>
</tr>
</tbody>
</table>
Energy Conservation

This information in this worksheet is based on information at:
http://www.caot.ca/default.asp?pageid=3689 and
http://www.phcentral.org/medical/conservation.html

Energy conservation is the ability to manage your energy level so that your energy will last throughout the day. Now that you are pregnant or parenting, it is especially important to make sure you are able to manage your energy level throughout the day so that you don’t get run down.

Your energy level can be affected by the amount and quality of sleep, the foods you eat, the balance between work and rest, and the things you do throughout the day.

Try just a few of these strategies to add energy to your day…

Principles of Energy Conservation

- Balance activity with rest
- Plan ahead
- Set priorities
  - What has to be done vs. what can wait
- Pace activity
  - Take rest breaks and don’t rush
- Learn activity tolerance
  - Don’t wait until you’re exhausted to quit a task

Principles of Work Simplification

- Slide objects instead of lifting
- Eliminate unnecessary motions
- Sit to work when possible
- Use proper work heights
- Avoid stooping, bending, and over-reaching
- Store supplies where used

Pace

- Work and move at a moderate pace.
  - Fast walking takes 1-1/2 times as much energy as slow walking.
Walking up stairs takes 7 times as much energy as walking on level ground.

- Take frequent short rest periods while you are walking
- Use slow, flowing motions rather than fast, jerky movements
- Plan ahead to avoid rushing
- Avoid sudden bursts of activity

Practice good posture

- Sit and stand correctly by using good posture
- Lift with your legs while keeping your back straight
  - This is especially important when lifting your child
- Avoid reaching
- Push, don’t pull
- Use both hands to carry items when possible
- Slide, don’t lift
- Hold objects close to your body when carrying

- Avoid excessive bending, reaching, carrying and lifting
- Avoid extra trips by using a cart or trolley to carry items
- When carrying items, divide the load
  - e.g. carry two smaller bags of groceries in each arm instead of one large heavy bag
- Prevent bending and stooping by using long or adjustable handles on dustpans, brushes, shower mops
  - Changing your baby on a changing table rather than on the floor

- Work heights
  - Use work surfaces that are at a level that allows you to work without bending or raising your hand above the elbow

Reduce fatigue (tiredness)

- Sit when possible, this reduces energy use by 25%.
- Take frequent stretch breaks throughout the day
- Plan short rest breaks to help increase your endurance. Even a short five minute break can be refreshing
Create a comfortable environment

- Make your surrounding conditions enjoyable because it will help make the job more enjoyable.
  - Listen to your favorite music
  - Open the window for fresh air

Practice time management

- Switch between light and heavy tasks.
- Create a schedule to complete activities throughout the week rather than one day.
  - Alternate heavy and light tasks throughout the day and week

Organize your work

- Plan your activities first to avoid extra trips
- Gather necessary supplies and equipment prior to doing the job
  - For example, gathering all cooking supplies before cooking
- Keep objects that are used for the same task together, so you don’t have to search for them
- Store heavy objects within reach and store light articles in high and low areas

Modify activities

- Self-care
  - Put on a terry cloth bathrobe if you can’t dry your back
  - Use a bath brush for feet and back -- get one with a long handle
  - Ease bathing by using adapted bathroom
    - i.e., safety rails, tub bench, hand-held shower and grab bars
- Clothing
  - Select larger clothing than usual, as it is easier to put on and take off
  - Select clothing that opens in front and opens all the way so that you do not have to step into it
  - Use a long shoe horn if bending over is difficult or not allowed
- Bathroom safety
  - Install grab bars in the bathtub for safety
  - Non-skid strips in bottom of tub
  - Shower chair and hand held shower
• Cleaning
  o Use tongs to pick up objects from the floor
  o Do not reach when using the dust mop
  o Use light weight, long handled tools
  o Carry a light basket with all the cleaning supplies you need

• Cooking/meal preparation
  o Use surface appliances rather than a low oven when possible
  o Slide filled pans along stove and counter tops instead of lifting them
  o Use a pull cart to bring food home from the supermarket rather than carrying shopping bags
  o Use an electric appliance when possible
    ▪ i.e., blender, mixer, can opener, etc.
  o Plan one dish meals
  o Kneel beside the oven, rather than bending over
  o Prepare extra portions for easy reheating later
  o Use light weight pots and pans with Teflon/Silverstone coating
  o Wear apron with pockets so that you can carry objects
  o Eliminate unnecessary steps:
    ▪ Let dishes drain dry
    ▪ Soak pots in hot water and detergent to eliminate vigorous scrubbing

• Laundry
  o Pin socks together before washing
  o Sort clothes on a table, never on the floor
  o Use sinks that are at a proper work height
  o Sit to iron
  o Use fabric softener to avoid wrinkles
  o Use three baskets to collect dirty clothes: to avoid sorting light, medium, and dark colors
  o If your laundry room is located downstairs toss dirty clothes down in a pillowcase, instead of making an extra trip

• Storage
  o Store items close to where they will be used
  o Hang pots on wall, if dust is not a problem
  o Install pull-out or swing-out shelving

• Shopping
  o Call the store ahead of time and reserve a wheelchair if needed
  o Call the store ahead of time to make sure the items you want are available
  o Keep a pad of paper a pencil in all rooms to avoid searching
  o Shop at non-peak hours
Ways to adjust to being a mom

After giving birth (Huggins, 2005)

- After a couple weeks, practice light exercise because it will help increase your energy level
- Find social groups for new moms, the adult interaction will be good for your emotional health
- You may be emotional due to hormonal changes and the increased responsibility of caring for your baby
- Try to get plenty of rest... you may:
  - Feel tense
  - Have the inability to cope
  - Have a poor appetite
  - Feel depressed

Signs of postpartum depression (baby blues) (Huggins, 2005)

- Change in sleep patterns
- Change in eating habits
- Crying everyday
- Feeling tense or nervous
- Recurrent disturbing thoughts or impulsive behaviors
- Excessive worrying or feeling guilty
- Panic attacks
- Poor concentration or forgetfulness
- Withdrawn
- Failure to keep appointments
Now that you have become a parent, you have probably noticed that your roles have changed. Briefly discuss how your roles have changed with the occupational therapist.

Roles - set of behaviors that are deemed as “normal” based on social expectations and our circumstances. Role expectations often influence how we make decisions, how we act in certain environments, and how we interact with others (Crowe, VanLeit, Berghmans, & Mann, 1997).

List the roles you had before you were pregnant:

List the roles you have now that you are a parent:

How have your roles changed?:

How are you handling your new role?:

How does your new role make you feel?:
Ways to cope with frustration or sadness

Life can be difficult, especially when you are pregnant or raising a child. There are many stressors that may cause you to be frustrated, angry, or even sad. We are here to help you get through these difficult times. It is important for you to be able to identify the emotions that you are feeling so that you can handle them in a healthy manner. Don’t be afraid to talk to us, we are here to help you through the most joyous yet often the most stressful time in your life. If there is an issue that we may not have much experience with, we will gladly refer you to a professional that can help.

Write a definition for each word and discuss the meanings with the occupational therapist. Next make a list of things that make you feel that way.

Frustrated:

Angry:

Sad:

(example – when my boyfriend goes out with his friends instead of staying with me)

Happy:

(example – when I talk to my friends on the phone)

Relaxed:

(example – when I take a bubble bath or listen to my favorite music)
Tips for coping (Huggins, 2005)

- Eat a well-balanced and healthy diet
- Talk to someone and tell them how you are feeling
- Ask other people for help taking care of the chores and your baby
- Exercise a little bit everyday
- Make sure to get plenty of rest – sleep when your baby sleeps
- Take care of the way you look – it will help you feel better about yourself
- Spend time with other adults
- Nurture yourself
- Call the depression hotline at 1-800-944-4PPD

Call for immediate assistance (Huggins, 2005)

- Suicidal thoughts
- Hearing sounds or voices
- Trouble sleeping for more than 48 hours
- Inability to care for your baby
- Inability to eat
- Fear of harming your baby

List 10 ways you can deal with frustration in a positive way:

1. Close your eyes and picture yourself at your favorite place
2. Leave the situation
3. Call a friend to talk about your feelings
4. Listen to your favorite music
5. Write a letter about your feelings
6. Write in a daily journal
7. Take a warm bath, but not TOO warm
8. Watch a movie
9. Take a walk
10. Use the progressive muscle relaxation technique
Progressive Muscle Relaxation Technique (Scott, 2008)

A good way to decrease stress and anxiety is to use the Progressive Muscle Relaxation technique. In this technique, you practice tightening your muscles and then relaxing them. It is believed that when you relax them, some of your stress escapes with the muscle tension. This technique may help you to feel more relaxed and you only need about five minutes to complete the whole routine.

First, find a quiet and comfortable area. You may sit or lie down, whichever will help relax you more. Then follow the steps below, working our way from head to toe:

1. While you are breathing in, tense all the muscles in your face by closing your eyes as tight as possible and clenching your teeth. Hold this for 8 seconds. Then exhale and relax your facial muscles completely.

2. Again, while breathing in, tense all the muscles in your neck and shoulders. Hold this for 8 seconds. Then exhale and relax your muscles completely.

3. Continue working your way down your body until you get to your toes. Here is a list of the muscle groups you’ll want to address:

   a. Chest
   b. Stomach
   c. Right arm
   d. Right hand
   e. Left arm
   f. Left hand
   g. Buttocks
   h. Right leg
   i. Right foot
   j. Left leg
   k. Left foot

This relaxation technique is quick and easy to use. For a shortened version you can include only the main muscle groups

   - Face
- Upper torso
  - Neck, shoulders, arms
- Lower torso
  - Abdomen and chest
- Lower body
  - Buttocks, legs, feet

http://stress.about.com/od/generaltechniques/ht/howtopmr.htm

Sometimes you need a break, even after you’ve tried all your relaxation techniques. If you feel that you are overwhelmed, take a deep breath and call someone for help. It is important that you have someone you can depend on in case of an emergency or if you just need a break from your crying child.

Create a list of support people you can call if you have an emergency or if you are feeling overwhelmed. Make sure your support people are individuals who will not judge or lecture you if you ask them for help. Write them in the order that you would call them.

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone Number</th>
<th>Relationship</th>
<th>When to call</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Therapist</td>
<td>(419) 245-3888</td>
<td>Mentor, Healthcare professional</td>
<td>Scared, frustrated, overwhelmed, danger to self or baby</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone Number</th>
<th>Relationship</th>
<th>When to call</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart to Heart</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Ways to baby proof your home

It is important that you keep your home safe for your child – this is also known as babyproofing. For this lesson you will give the occupational therapist a tour of your home and you will discuss things that might be dangerous. After the tour the occupational therapist will help you identify ways that you can create a safer environment for your child.

Create a list of environmental risks in your home and why they are not safe:

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 
9. 
10.
## Checklist for safety hazards

<table>
<thead>
<tr>
<th>Safety Hazard</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemicals in locked cabinet</td>
<td></td>
</tr>
<tr>
<td>Small items off of floor</td>
<td></td>
</tr>
<tr>
<td>Uncovered outlets</td>
<td></td>
</tr>
<tr>
<td>Access to plugs</td>
<td></td>
</tr>
<tr>
<td>Plants</td>
<td></td>
</tr>
<tr>
<td>Toilet seat</td>
<td></td>
</tr>
<tr>
<td>Safety latches</td>
<td></td>
</tr>
<tr>
<td>Pet food</td>
<td></td>
</tr>
<tr>
<td>No cords by the crib</td>
<td></td>
</tr>
<tr>
<td>No bumpers in the crib</td>
<td></td>
</tr>
<tr>
<td>Gate by the stairs</td>
<td></td>
</tr>
</tbody>
</table>
Ways to keep your baby safe

Now that you have welcomed your baby into this new world, it is important to make sure your baby is safe. This lesson provides you with suggestions for keeping your baby safe in many different environments including the home, the car, and the bathtub. Accidents can happen in an instant, but if you are a prepared parent many accidents can be avoided.

<table>
<thead>
<tr>
<th>What are some common signs that my baby might be sick? Get help immediately if you think there is something wrong with your baby (Johnson, 1994).</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Temperature higher than 100.4 degrees F or slight temperature with other symptoms</td>
</tr>
<tr>
<td>- Fewer wet diapers</td>
</tr>
<tr>
<td>- Vomiting all or most food</td>
</tr>
<tr>
<td>- Diarrhea</td>
</tr>
<tr>
<td>- Not eating</td>
</tr>
<tr>
<td>- Behaving differently, harder to wake, less active</td>
</tr>
<tr>
<td>- Won’t sleep</td>
</tr>
<tr>
<td>- Breathing problems – noisy or faster than normal</td>
</tr>
<tr>
<td>- Limp, listless</td>
</tr>
<tr>
<td>- Doesn’t like touch or shows discomfort when moved</td>
</tr>
<tr>
<td>- Crying more than usual</td>
</tr>
<tr>
<td>- Change in skin tone: bluish, paler than usual</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Common poisons (Johnson, 1994)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Air fresheners</td>
</tr>
<tr>
<td>- Alcohol</td>
</tr>
<tr>
<td>- Batteries</td>
</tr>
</tbody>
</table>
- Cigarettes
- Cleaning supplies
- Laundry supplies
- Lighter fluid
- Medicine
- Nail polish and remover
- Plants

Preventing accidental poisonings (Johnson, 1994)
- Keep all chemicals in a locked cabinet
- Keep chemicals and medicine out of your child’s reach
- Just because medicine has a child proof does not mean a child can’t open it
- Poison control center
Car Injuries (American Academy of Pediatrics, 2011)

Car crashes are a great threat to your child’s life and health. Most injuries and deaths from car crashes can be prevented by the proper use of car safety seats. Your child will be safe and may behave better, so you can pay attention to your driving. Your baby will not be able to leave the hospital without a car seat.

Be sure that your baby’s car safety seat is installed correctly. Read and follow the instructions that come with the car seat and the sections in the owners’ manual of your car on using car seats correctly. You can also go to the fire department to have it check to make sure it is installed properly. Use the car safety seat EVERY time your child is in the car.

Your infant should ride in the back seat in a rear-facing car seat. NEVER put an infant in the front seat of a car with a passenger air bag. The safest place for all infants and children to ride is in the back seat.

Do not leave your child alone in a car. Keep your car and your trunk locked. Children who are left in a car can die of heat stroke because temperatures can reach deadly levels very quickly.

They can be strangled by power windows or knock the vehicle into gear. Always walk behind your car to be sure your child is not there before you back out of your driveway. You may not see your child behind your car in the rearview mirror.

Remember, the biggest threat to your child’s life and health is an injury.

Bathroom Safety (American Academy of Pediatrics, 2011)

Keep the door shut so the child cannot be in the bathroom alone.

- Keep a latch on door
- Be able to unlock door from outside so child doesn’t lock him or herself in alone
To prevent injuries:

- Never leave your child alone in the bathtub, not even for a second. A child can drown in an inch of water. If you must leave the bathroom, take your child with you. Bath seats will not prevent drowning. Never leave water in the bathtub when it is not in use.
- Place a protective cover over the water faucet so your child won’t be hurt if he/she bumps his/her head against it.
- Close the lid of the toilet, and install a toilet lid lock.
- Adjust your hot water heater so that the hottest temperature at the faucet is no more than 120 degrees Fahrenheit (48.9 degrees Celsius).

- Store all medicines and cosmetics out of reach and in a locked cabinet.
- Unplug electrical appliances and store them in a cabinet with a safety lock. Do not leave your child in the bathroom with a curling iron, hair straightener, electric razor, or hair dryer. Keep razors in a locked cabinet when not in use.

**Safety for Your Child: Birth to 6 Months**
(American Academy of Pediatrics, 2011)

Many accidents happen because parents are not aware of what their children can do.

**Falls**
Babies wiggle, move, and push against things with their feet soon after they are born. Even these very first movements can result in a fall. As your baby grows and is able to roll over, he/she may fall off of things unless protected. **Do not leave your baby alone** on changing tables, beds, sofas, or chairs. **Put your baby in a safe place** such as a crib or playpen when you cannot hold him/her or keep an eye on him/her.

Your baby may be able to crawl as early as 6 months. **Use gates on stairways and close doors** to keep your baby out of rooms where he or she might get hurt. Install operable window guards on all windows above the first floor to keep your child from falling through the screen.
Do not use a baby walker. Your baby may tip the walker over, fall out of it, or fall down the stairs and seriously injure his/her head. Baby walkers let children get to places where they can pull heavy objects or hot food on themselves. Baby walkers are dangerous.

If your child has a serious fall or does not act normally after a fall, call your doctor.

Burns
At 3 to 5 months, babies will wave their fists and grab at things. NEVER carry your baby and hot items at the same time. You can’t handle both! NEVER leave hot items on the counter. Your baby can get burned.

If your baby gets burned, immediately put the burned area in cold water for a few minutes to cool it off. Then cover the burn loosely with a dry bandage or clean cloth and call your doctor.

Be sure you have a working smoke alarm on every level of your home, especially near your furnace and sleeping areas. Test the alarms every month. Change the batteries at least once a year. To make it easy to remember, change the batteries on a special occasion to remember (a birthday, a holiday, etc.).

Choking and Suffocation
Babies explore their environment by putting anything and everything into their mouths. NEVER leave small objects where your baby can get to them. NEVER feed your baby hard pieces of food such as chunks of raw carrots, apples, hot dogs, grapes, peanuts, and popcorn. Cut all the foods you feed your baby into thin pieces to prevent choking. Be prepared if your baby starts to choke. Ask your doctor to recommend the steps you need to know. Learn how to save the life of a choking child.

To prevent possible suffocation and reduce the risk of sudden infant death syndrome (SIDS), your baby should always sleep on his or her back. NEVER put your baby on a water bed, bean bag, or anything that is soft enough to cover the face and block air to the nose and mouth.

Keep plastic wrappers and bags away from your baby. They can suffocate your child.
Safety for Your Child: 6 to 12 Months  
(American Academy of Pediatrics, 2011)

Children are fast you might be surprised you by how fast your child learns new things like crawling, sitting, and standing. Your child will grasp at almost anything and reach things he or she could not reach before.

Falls
Because of your child’s new abilities, he or she will fall often. Protect your child from injury by using gates on stairways and doors. Remove sharp-edged or hard furniture from the room where your child plays. Install operable window guards on all windows above the first floor.

Do not use a baby walker. Your baby may tip the walker over, fall out of it, or fall down the stairs and seriously injure his head. Baby walkers let children get to places where they can pull heavy objects or hot food on themselves. Baby walkers are dangerous.

If your child has a serious fall or does not act normally after a fall, call your doctor.

Burns
When you can’t give your child your full attention, put your child in a safe place such as a pack-n-play, high chair, or exersaucer.

If your child does get burned, put cold water on the burned area immediately for a few minutes to cool it off. Then cover the burn loosely with a dry bandage or clean cloth. Call your doctor for all burns.

Drowning
Children at this age love to play in water. Empty all the water from a bathtub, pail, or any container of water immediately after use. Keep your bathroom door closed. NEVER leave your child alone in or near a bathtub, pail of water, wading or swimming pool, or any other water, even for a moment. Drowning can happen in less than an inch of water. Knowing how to swim does NOT mean your child is safe in or near water. Stay within an arm’s length of your child around water.
Poisoning and Choking

Your child likes to learn about the world by putting things into his or her mouth. NEVER leave small objects in your child’s reach. Don’t feed your child hard pieces of food such as hot dogs, raw carrots, grapes, peanuts, or popcorn. Cut all of his or her food into thin slices to prevent choking.

Be prepared if your child starts to choke. Learn how to save the life of a choking child. Ask your doctor to recommend the steps you need to take.

If your child eats something that could be poisonous, call the Poison Help line at 1-800-222-1222 immediately. Do not make your child vomit.

Strangulation and Suffocation

Keep your baby’s crib away from windows. Cords from window blinds can strangle your child. Use cordless window coverings or tie cords high and out of reach. Do not knot cords together.

Safety for Your Child: 1 to 2 Years
(American Academy of Pediatrics, 2011)

Your child loves to explore at this age which can be dangerous because your child doesn’t understand danger or the meaning of “no” when exploring.

Firearm Hazards

Keep all guns out of your home. Your child is at risk of being shot by him/herself, friends, or family members. Hand guns are very dangerous. If you do have a gun, keep it unloaded, and store it in a locked place. Store the ammunition locked in a separate cabinet.

Poisonings

Even at this age, your child is still putting things into his or her mouth. Keep all small items and dangerous items out of reach and in a locked cabinet.

If your child puts something poisonous into his or her mouth, call Poison Help immediately. Attach the Poison Help line (1-800-222-1222) to your phone. Do not make your child vomit.
Falls
Remove furniture with sharp edges from where your child plays and sleeps. Your child enjoys climbing and jumping. Be sure to keep chairs away from the kitchen counter, table, or window because these items allow your child to climb to dangerously high places. Remember, your child does not understand danger.

If your child has a serious fall or does not act normally after a fall, call your doctor.

Burns
At this age, it is still important to keep your child in a safe place while cooking or not giving your undivided attention.

Children who are learning to walk will grab anything to steady themselves, including hot oven doors, wall heaters, or outdoor grills. Keep your child out of rooms where there are hot objects that may be touched or put a barrier around the objects to prevent burns.

Drowning
At this age your child loves to play in water. NEVER leave your child alone around any source of water, no matter how shallow it is. A child can drown in less than an inch of water.
<table>
<thead>
<tr>
<th>Emergency Phone Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>My address and phone number:</td>
</tr>
<tr>
<td>Police</td>
</tr>
<tr>
<td>Fire</td>
</tr>
<tr>
<td>Poison Control</td>
</tr>
<tr>
<td>Your doctor</td>
</tr>
<tr>
<td>Your baby’s doctor</td>
</tr>
<tr>
<td>Emergency Contact</td>
</tr>
<tr>
<td>Reliable relative</td>
</tr>
<tr>
<td>Reliable friend</td>
</tr>
<tr>
<td>Neighbor</td>
</tr>
<tr>
<td>Closest hospital</td>
</tr>
</tbody>
</table>
Create a checklist for first aid kit. Be sure to check expiration dates and keep your first aid kit fully stocked in case of an emergency. Place a checkmark next to the items in your first aid kit. Keep this list in your first aid kit so that it is fully stocked at all times.

<table>
<thead>
<tr>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibiotic ointment</td>
</tr>
<tr>
<td>Bandages</td>
</tr>
<tr>
<td>Gauze</td>
</tr>
<tr>
<td>Scissors</td>
</tr>
<tr>
<td>Suction bulb</td>
</tr>
<tr>
<td>Tape</td>
</tr>
<tr>
<td>Thermometer</td>
</tr>
<tr>
<td>Tweezers</td>
</tr>
</tbody>
</table>
Ways to deal with a crying baby

“My beautiful boy is the best blessing any mother could hope for, yet sometimes when he cries endlessly, I just want to hurt him/her or yell at him/her. I know I won’t follow through on these thoughts, but they won’t go away. I’m afraid if I tell my husband, it’ll be used against me.”

– Unidentified mother’s confession on www.fitpregnancy.com

When your baby cries, it is understandable that you want to do everything in your power to make your baby stop crying.

Did you know that your baby’s cries are a way of communicating with you? Your baby’s cries may signal that he or she is hungry, has a dirty diaper, is tired, or just might want attention.

Did you know that babies can cry more than 4 hours each day? It is normal for babies to cry. It is not only their way of communicating, but also a way to release their tension. Although it may be tempting to use the amount of time your baby cries as a measure to how good of a parent you are, don’t be tempted to fall into that thought. A crying baby does not mean that you are a bad parent. If your baby is crying and you have checked to make sure the baby is safe and all his or her needs are taken care of, it is okay to let your baby cry for a couple minutes if you need a break. Be sure that your baby is somewhere safe (crib or pack-n-play) before leaving the room.

Why do babies cry?

What should you do if your baby won’t stop crying?

Where should you put your baby if you become frustrated by your baby’s crying?
Create a checklist for things to do when your baby is crying

<table>
<thead>
<tr>
<th>Why am I crying?</th>
<th>After watching the video <em>When your baby cries...Ways to soothe your baby</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hungry</td>
<td>List 5 things you can do to try to calm a baby:</td>
</tr>
<tr>
<td>• Wet diaper</td>
<td>1.</td>
</tr>
<tr>
<td>• Tired</td>
<td>2.</td>
</tr>
<tr>
<td>• Lonely</td>
<td>3.</td>
</tr>
<tr>
<td>• Too much stimulation</td>
<td>4.</td>
</tr>
<tr>
<td>• Too hot/too cold</td>
<td>5.</td>
</tr>
<tr>
<td>• Temperature</td>
<td></td>
</tr>
<tr>
<td>• Hurt</td>
<td></td>
</tr>
<tr>
<td>• Bored</td>
<td></td>
</tr>
<tr>
<td>• Sick</td>
<td></td>
</tr>
</tbody>
</table>

Create a plan to handle your inconsolable baby. Remember it’s okay to walk away once you know your baby is safe.
Have you ever had to take care of a crying baby?

How did it make you feel?

What did you do?

What would you do differently and why?
Ways to bond and have fun with your baby

Creating a bond with your baby is important for building a relationship with your child. This relationship can begin the day your baby is born. There are many ways to build this relationship with your baby; it can be as simple as spending time with your baby and simply making eye contact.

Ways you can help develop a relationship with your baby

- Read your baby books
- Sing your baby lullabies
- Play with your baby
- Make eye contact with your baby
- Talk to you baby
- Create a bond with infant massage

Infant Massage (Ramsey, 2008)

Infant massage has many benefits. The most important benefit is that it helps you bond with your baby and develop a loving relationship. Other benefits for your baby include better sleep patterns, relief of mild gas pains, decreased stress/tension, increased awareness and coordination, and enjoyment of bonding with you.

When massaging your baby, it is important to use olive oil because it is natural and will not be harmful. Do not use massage oil because your baby’s skin is sensitive and it may cause skin irritation.

To ensure that the infant massage is an enjoyable experience for you and your baby, follow the guidelines. Perform the massage in a warm and comfortable room. Dress your baby in only a diaper. Dim the lights. Place the baby on several soft sheets or towels. Keep your hands on your baby so that you don’t disrupt the bond or startle your baby.
Suggestions when to use infant massage:

- Feeding – neck and jaw muscles
- Crying – shoulders and back
- Mild gas pain or constipation – abdomen

Stages of infant massage:
http://www.massagehealththerapy.com/strokes-and-pressures.html

- Stroking
  - gently making contact and pulling the skin toward the parent

- Effluerage
  - gently making contact and pushing away from the parent; increases circulation and smoothes overworked muscles

- Petrissage
  - compressing skin and maintain light pressure with 3-4 circular movement; helps with relaxation

- Picking up
  - grasping a small amount of tissue between thumb and index and middle fingers, lifting tissue in circle motion and release
Ways to manage your money

Managing your money is important for you and your family’s well-being. The more you know about your finances you’ll be able to manage and build your confidence in handling your finances. Take a few minutes to answer the yes or no questions below to determine if you know about your finances. Knowing your financial situation is important to make sure that you are first spending money on things that are needed, saving for the future, and then spending money on things that you want (Noel & Klein, 2005).

- Who is in charge of the finances in your home? Me  Not Me
  Even if you aren’t in charge of your finances you should still know about the money that you have with your family so that you can plan appropriately.

- Do you have a bank account?  Yes  No

- Do you know how much money you have in your bank account?  Yes  No

- Do you have a monthly budget?  Yes  No

- Do you balance your checkbook?  Yes  No

- List your family’s fixed expenses (those that do not change month to month)
  - Rent
  - Car payment
  - Utilities
  - Child care
  - Insurance

- List variable expenses (those that do change month to month)
  - Groceries
  - Bus fare or gas money
  - Phone bill
  - Credit card
  - Laundry
  - Gifts
  - Unexpected expenses
Design a worksheet – be specific as possible with your monthly expenses

<table>
<thead>
<tr>
<th>Monthly Income #1</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Income #2</td>
<td>$</td>
</tr>
<tr>
<td>Total Monthly Income</td>
<td>$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fixed Expenses</th>
<th>Amount</th>
<th>Due Date</th>
<th>Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage/Rent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(bus fare, cab fare, parking, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Care</td>
<td>$</td>
<td></td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Utilities</th>
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</thead>
<tbody>
<tr>
<td>Gas</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cable</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water &amp; Sewer</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garbage</td>
<td>$</td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable Expenses</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Groceries</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laundry</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit Card 1</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit Card 2</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loans</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School fees</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hair care</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medications</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child expenses</td>
<td>$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(diapers, formula, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleaning Supplies</td>
<td>$</td>
<td></td>
<td></td>
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<tr>
<td>Gifts</td>
<td>$</td>
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<td></td>
</tr>
<tr>
<td>Unexpected expenses</td>
<td>$</td>
<td></td>
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</tr>
</tbody>
</table>

| Total money remaining | $       |


Now that you have an understanding of where your money is going, complete the activity below.

Create financial goals for your future. Include your goals for one month, one year, and five years. Having goals will make it easier to control your spending.

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Create a list of ways to reduce unnecessary spending:

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Create a list of community resources that can assist you in money management:

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
Ways to manage your time

(MayoClinic, 2008)

Time management is important to make sure that you stay organized and make it to your appointments on time. It will make your life more manageable if you are able to keep track of your time.

Tips for time management

- Plan ahead as much as possible
- Write appointments in a pocket calendar
- Write daily/weekly to do lists
- Set aside a minimum of 5 minutes to yourself
- Keep like items together
- Break big tasks into smaller, more management tasks
  - Spend 15 minutes each night cleaning so that it doesn’t turn into a big mess and cost you more time
  - Make big meals ahead of time and freeze leftovers to save time during the week
- Limit distractions
- Take a break as needed
Create a list of chores or errands that must be completed each day

<table>
<thead>
<tr>
<th>Day</th>
<th>Household Chores</th>
<th>Errands</th>
<th>Occupations of daily living</th>
<th>Leisure activities</th>
<th>Sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Tuesday</td>
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<tr>
<td>Wednesday</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Occupations of daily living</td>
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<td>-----------------------------</td>
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<tr>
<td>Leisure activities</td>
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<td></td>
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<tr>
<td>Sleep</td>
<td></td>
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**Thursday**

<table>
<thead>
<tr>
<th>Household Chores</th>
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<tbody>
<tr>
<td>Errands</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupations of daily living</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Leisure activities</td>
<td></td>
</tr>
<tr>
<td>Sleep</td>
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</table>

**Friday**

<table>
<thead>
<tr>
<th>Household Chores</th>
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<tbody>
<tr>
<td>Errands</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupations of daily living</th>
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<tbody>
<tr>
<td>Leisure activities</td>
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<tr>
<td></td>
<td>Saturday</td>
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<td>-------</td>
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<tr>
<td>Sleep</td>
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<td></td>
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</tr>
<tr>
<td>Household Chores</td>
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</tr>
<tr>
<td>Errands</td>
<td></td>
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<tr>
<td>Occupations of daily living</td>
<td></td>
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<tr>
<td>Leisure activities</td>
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<td>Sleep</td>
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<table>
<thead>
<tr>
<th></th>
<th>Sunday</th>
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</thead>
<tbody>
<tr>
<td>Sleep</td>
<td></td>
<td></td>
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<tr>
<td>Household Chores</td>
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<tr>
<td>Errands</td>
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<tr>
<td>Occupations of daily living</td>
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<td></td>
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<tr>
<td>Leisure activities</td>
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<td></td>
</tr>
<tr>
<td>Sleep</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
References


Congratulations!

You have successfully completed the Shaken Baby Syndrome Prevention Program. You have fulfilled the requirements, demonstrated great parenting skills, and have learned about the dangers of shaking a baby. You have practiced the skills necessary to be a successful parent for your child. The occupational therapist and the Heart to Heart staff are so proud of your accomplishment…we hope that you are proud too!

The Shaken Baby Syndrome Prevention Program covered a lot of important material in a short time; therefore, the occupational therapist will be making phone calls to contact you to see if you have questions that were not answered during your participation in the program. The occupational therapist wishes to continue a relationship with you, your family, and your baby. Please do not hesitate to call if you have any questions or concerns, we are here to help you.

Now that you have graduated from the Shaken Baby Syndrome Prevention Program, you will return to the Heart to Heart Earn While You Learn program. You have earned credits by participating in the Shaken Baby Syndrome Prevention Program and you may use your credits in the Heart to Heart Baby Boutique.

As a final requirement, we ask that you sign a pledge stating that you will not shake your baby and that you will teach others who watch your baby about the dangers of shaken baby syndrome. Remember, all it takes is a reaction to frustration to change a baby’s life forever!
I, ________________________________, pledge that I will use my coping strategies when I am frustrated. I pledge to never shake my baby because I know the devastating consequences that could occur. I pledge to teach others who may care for my baby about the dangers of shaking a baby. I will only leave my baby in the care of those I have educated about Shaken Baby Syndrome and those who I trust.

I will implement the following coping strategies during times of frustration or sadness:

1. 
2. 
3. 
4. 
5. 

If I have any questions or concerns at anytime, I pledge to call a support person, the occupational therapist, or my parenting mentor at Heart to Heart.

Support person’s phone number:

Occupational therapist: 419-555-1234

Heart to Heart: 419-245-3888
This is to certify that

[Signature]

Has successfully completed the Crying Baby sessions of the Shaken Baby Syndrome Prevention Program through Heartbeat of Toledo & Heart to Heart under the guidance of a licensed and registered occupational therapist.

Date: ____________________
Appendix F

Shaken Baby Syndrome Pre/Posttest

Please answer the questions the best you can. Your answers will be used to help the occupational therapist learn how much you know about Shaken Baby Syndrome. (The answers are in bold)

1. **True or False.** Only babies born to poor families are shaken.

   Socioeconomic status (how much money a family has) is not an indicator of SBS; it can happen in wealthy families and poor families (Becker, Liersch, Tautz, Schlueter, & Andler, 1998). The actual incidence of SBS reflects all socioeconomic status levels in American families (Meskauskas, Beaton, & Messervey, 2009). Additionally, SBS is not exclusive based on race, gender, or level of education (Lowenstein, 2004). Any infant can be a victim of shaken baby syndrome; it just takes one second to change an infant’s life forever.

2. **True** or False. Babies are shaken because they will not stop crying.

   The most common factor for shaking is an adult’s loss of control in response to inconsolable crying by a child (Barr et al., 2009; Barr, Trent, & Cross, 2006; Showers, 1999). Healthy babies can cry up to five hours per day, although many parents disagree (Runyan et al., 2009). Some parents use shaking as a technique to stop crying and quiet the child (Blumenthal, 2002). This method may work initially to quiet the infant but it is not the appropriate way. It only takes one time to change a baby’s life forever. The action by the perpetrator is often parallel to the perpetrator’s frustration (Smith, 2003). Parents reported feeling frustrated because they could not meet their infant’s
needs (Becker et al., 1998). Additional triggers for shaking include sleeping or feeding difficulties (Naughton & Heath, 2001).

3. True or False. Babies cry because it is their only way to communicate.

Crying is one of the most important ways for infants to communicate with their caregivers (Poole, 1991). Crying is normal and a healthy part of development (Poskey, 2010). It also serves a physical and psychological purpose; it strengthens lungs, helps the infant release tension, and allows the infant to communicate his/her needs (Brazelton, 1962). Many parents become frustrated with the amount of time their baby might spend crying; however, crying does get better with time (Parkin, Schwartz, & Manuel, 1993).

4. True or False. Shaking a baby can result in death.

Fifteen to forty percent of infants die as a result of being shaken. Only 15% of infants that have been shaken do not show signs of injury, but this is very rare. Two-thirds of infants have detrimental effects including permanent disabilities and even death (Russell & Britner, 2006).

5. True or False. Shaking a baby can result in permanent disabilities.

Hundreds of children that have survived being shaken receive intensive rehabilitation services, including therapy (Poskey, 2010). Ninety-one percent of children have had significant problems as a result of being shaken including vision, motor, and cognitive disabilities (Talvik, Alexander, & Talvik, 2008). Kemp and Coles discovered that more than 40% of SBS survivors have a disability (2003). Shaking a baby can result in brain damage and could possibly cause death (Showers, 1999). Showers identified common characteristics among survivors of SBS as “sleep disorders, coordination problems, general irritability, manipulative behaviors, and depression” (Showers, 1999, p. 25).
Injuries that could result from being shaken include many retinal hemorrhages (bleeding), intracranial pressure (pressure on the brain), subdural hemorrhaging, and fractures of ribs and skull (Showers, 1999).

6. True or **False**. A baby has to be shaken for at least 30 seconds to show signs of SBS.

   Damage occurs the moment the shaking begins (Meskauskas et al., 2009) and injuries can occur within seconds (Showers, 1999).

7. True or **False**. The effects of shaking a baby do not always occur right after the baby has been shaken.

   The baby may quiet down and exhibit symptoms that seem like the flu such as vomiting and being lethargic (really tired). There is not an agreement of how long it takes for symptoms to occur in less threatening situations but the child may exhibit behavioral problems and learning disabilities when seeking educational services. There is a consensus that threatening injuries occur within minutes and can range between 2 to 18 hours. Multiple studies have demonstrated that children do not behave normally immediately following the inflicted head injury. Ninety-one of perpetrators reported that the infants they had shaken demonstrated immediate onset of symptoms (Starling et al., 2004).

8. True or **False**. Many people who shake babies do not love the baby.

   Many perpetrators of SBS cases claim they did not intend to hurt the infant; they just wanted the infant to stop crying. However, physical evidence suggests the perpetrator had intent to harm (Fulton, 2000).
9. True or False. Most cases of shaken baby syndrome were planned before they occurred. Perpetrators testified that they shook the baby because they “lost control” or “snapped” when faced with the infant’s in­consolable crying (Russell, 2010).

10. True or False. Because moms often spend the most time with their babies, they are more likely to shake their baby.

Anyone can shake a baby (Poskey, 2010). As perpetrators, males outnumber females 2:1 (Meskauskas et al., 2009). Males were perpetrators in 68.5% of cases and females were perpetrators in 31.5% of cases (Fulton, 2000). The most common perpetrator is the biological father accounting for 37%-47% of reported cases. The second most common perpetrator is the mother’s boyfriend accounting for 21%-41% of reported cases. Mothers account for approximately 12% of all reported cases (Showers, 1999).

Men who are often responsible for caring for infants do not have much experience with infants (Showers, 1999), whereas women often have some experience prior to the birth of their infant.

Traits of common perpetrators include males younger than 30 with less than a high school education. They are often socially isolated, depressed, and have a history of substance abuse. Parents should educate anyone who cares for their infant about the dangers of shaking an infant (Meskauskas et al., 2009).

11. True or False. Sometimes it is okay to let your baby cry.

Mothers reported feeling judged by others as incompetent mothers if their child misbehaved or cried uncontrollably. The mothers reported being frustrated and helpless (Bennett Murphy, 2001). Avoid misinterpreting baby’s cries as a failure of caregiving (Naughton & Heath, 2001). Increased crying is a normal part of development. Parents
are often misinformed that if the caregiver responds appropriately, the infant can be soothed, but sometimes this is not the case a baby may cry without reason (Runyan et al., 2009).

12. True or False. It is okay to gently shake a baby.

“Under no circumstances should babies ever be shaken” (Lowenstein, 2004). A study conducted by Blumenthal (2002) found that good shaking is socially acceptable by parents in Britain versus hitting a child. That is NOT true; it is NEVER okay to shake a baby. There is the perception that it is okay to shake a baby for resuscitation and minor head injuries are to be expected when the infant is young– but it is unacceptable and the previous statements are not true (Kemp & Coles, 2003). A survey conducted in North Carolina discovered that 2.6% of mothers reported that their baby had been shaken (either by the mother or partner) as a form of discipline (Runyan et al., 2009).

13. True or False. Often a baby that has Shaken Baby Syndrome has only been shaken once.

As many as 50% of cases have medical findings that suggest repetitive injury. It is believed that shaking the baby may have previously quieted the child so the method may have been utilized again, only this time resulting in more serious injuries (Showers, 1999). Many children demonstrate evidence of older head trauma and previous injuries (Kelly & Farrant, 2008; Lowenstein, 2004); indicating that infants are rarely shaken only once. The infants have often been shaken for a period of days, weeks, and months (Smith, 2003). The shaken baby is rarely an isolated event; it may have been an effective technique to quiet crying and may be used again to try to stop crying (Russell & Britner, 2006).

Shaking an infant is more likely to be a process, a pattern of parenting responses (Coles
& Kemp, 2003).

Studies suggest that up to 5.6% of parents slap or shake their baby at least one time by the time the infant is 6 months old (Kelly & Farrant, 2008). One study determined that 71% of victims had evidence of prior abuse, neglect, or both (Barr et al., 2006).

14. **True or False.** The same effects seen in SBS may also occur from a fall.
   Falls less than 20 feet do not cause threatening injuries (Showers, 1999).

15. **True** or **False.** Babies who are shaken are often under 1 year of age.
   
   Primarily shaken babies are under 1 year of age with a majority of infants under 6 months of age (Becker et al., 1998; Kemp & Coles, 2003; Showers, 1999; Talvik et al., 2008). However, SBS may occur in children up to 5-years-old (Showers, 1999; Talvik et al., 2008).

16. **True or False.** Girls are more likely to be shaken than boys.
   Boys are more likely to be shaken than girls. Males have been the victims in 60-82% of reported SBS cases. Some reasons may include that boys cry more than girls, boys’ cries are higher pitched, they are harder to soothe, and the social conception that boys are not supposed to cry (Showers, 1999). Many adults may demonstrate less nurturing behaviors toward male infants due to unrealistic social expectations. Risk factors for infants include prematurity, disability or illness, born to mothers who did not receive prenatal care, mothers with poor education, and parents younger than 18 years (Poskey, 2010).

17. **True** or **False.** Babies cry most during the afternoon and evening hours.
   Babies cry more often during afternoon and evening hours (Barr et al., 2009; Barr et al., 2006; Hunzinker & Barr, 1986). The common crying pattern among infants increases in first few weeks, peaks around the second month, and becomes more stable by the fifth
month (Barr et al., 2006). Colic also begins around two weeks of age (Barr et al., 2006). One study found that babies cried an average of 2 ¼ hours per day, with this starting to decrease around 7 weeks of age (Brazelton, 1962).

18. **True** or False. Shaken Baby Syndrome is preventable.

Yes, SBS can be prevented! The media often portrays the causes of SBS as unpredictable and unpreventable causes, but this is not the case (Runyan et al., 2009). The prevention information should be communicated to all generations of caregivers. The information should educate people the dangers and consequence of shaking an infant. The prevention programs should fully address anger management, appropriate expectations, stress reduction, and reasons why shaking a baby is dangerous (Showers, 1999).
Appendix G

Job Description

Heartbeat of Toledo seeks employment of a part-time, 20 hours per week, occupational therapist to develop and implement a community-based Shaken Baby Syndrome Prevention Program for the clients of Heartbeat of Toledo. Qualified candidates must be a nationally registered and Ohio state licensed occupational therapists who graduated from an accredited university. Due to the independent nature of this position a minimum of two years experience is preferred.

General responsibilities for the occupational therapist include developing marketing materials, maintaining open communication with Heartbeat of Toledo personnel, presenting program information to Heartbeat of Toledo and other recruiting personnel, and scheduling Crying Baby sessions. Responsibilities for the Crying Baby sessions include preparing educational material, researching and compiling information about SBS, administering the COPM assessment (Law, 1998), providing guidance for the clients to create parenting skill goals and effective coping strategies, providing feedback on homework assignments and occupational performance, and answering any questions the clients may have regarding the parenting skills. One of the most important contributions from the occupational therapist is creating meaningful occupations that are specific to each client and parenting skill. This will provide an enjoyable learning experience for the clients that will supply them with the knowledge and parenting skills to safely care for their infant.

The therapist will be expected to travel as needed for home evaluations and interventions. Mileage reimbursement will be available with limited benefits. The occupational therapist will become an employee of Heartbeat of Toledo and will report to Pat Todak, executive director.
Appendix H

Sample Advertisement for Therapist Position

Help Heartbeat of Toledo Make a Difference!

Heartbeat of Toledo is currently seeking applications for an

**Occupational Therapist**

to run a community-based
Shaken Baby Syndrome Prevention Program. The program will include information about SBS, various parenting skills, and identifying effective coping strategies.

Applicants must be nationally registered and an Ohio licensed occupational therapist with minimum two years experience. This position is a part-time position (20 hours per week) requiring some home evaluations. Limited benefits and mileage reimbursement are available. Interested applicants should send a resume to:

Pat Todak
2130 Madison Ave.
Toledo, OH 43604
419-241-9131
The Shaken Baby Syndrome (SBS) Prevention Program

1. Did the SBS Prevention Program help you learn about the different parenting skills you selected?

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2. Did the homework assignments for each parenting skill help you learn the information?

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3. Did the SBS Prevention Program help you identify coping strategies that work for you during times of frustration or sadness?

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4. Did the SBS Prevention Program help you identify environmental safety risks within your home?

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5. Did the SBS Prevention Program help you learn the importance of preventing Shaken Baby Syndrome?

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6. Would you recommend the SBS Prevention Program to other clients at Heartbeat of Toledo?

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The Occupational Therapist

1. Did the occupational therapist address parenting skills that were most important to you?

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2. Did the occupational therapist teach you how to use coping strategies in your everyday life?

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3. Did the occupational therapist make recommendations for safety changes that were appropriate for you and your home?

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4. Did the occupational therapist take time to get to know you?

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5. Was the occupational therapist able to demonstrate the activities (occupations) associated with each parenting skill?

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6. Was the occupational therapist willing to let other people participate in your sessions?

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7. Was the occupational therapist able to answer your questions?

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The Heartbeat of Toledo Facility

1. Has spending more time at Heartbeat of Toledo made you feel more confident about becoming or being a parent?

Check One: _____Yes   _____No

2. Did Heartbeat of Toledo provide a compassionate and caring environment for learning?

Check One: _____Yes   _____No

3. Did the rooms at Heartbeat of Toledo provide you with enough privacy to discuss your concerns with the volunteers and occupational therapist?

Check One: _____Yes   _____No

4. Will the information you learned from the SBS Prevention Program influence who you will allow to care for your infant?

Check One: _____Yes   _____No

Future Efforts

1. What did you like the most about the SBS Prevention Program?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
2. What did you like the least about the SBS Prevention Program?
______________________________________________________________________________
______________________________________________________________________________
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3. What was the most important thing you learned from the SBS Prevention Program?
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4. What other parenting skills should the SBS Prevention Program address in the future?
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
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5. What could Heartbeat of Toledo do to make the SBS Prevention Program better in the future?
______________________________________________________________________________
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Appendix J
SBS Prevention Program Timeline

**SBS Prevention Program Timeline in Months**

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<tr>
<td>Hire OT</td>
<td>OT</td>
<td>Orient OT, Develop program, Order materials</td>
<td>Implement Crying Baby Sessions for First Cohort</td>
<td>Implement Crying Baby Sessions for Second Cohort</td>
<td>Implement Crying Baby Sessions for Third Cohort</td>
<td>Implement Crying Baby Sessions for Fourth Cohort</td>
<td>Implement Crying Baby Sessions for Fifth Cohort</td>
<td>Evaluations performed as participants are discharged from program</td>
<td>Consultation Phone Calls, Communicate with Volunteers Regarding Client Progress and Concerns, Review Client Files</td>
<td>Analyze Evaluations</td>
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Appendix K

Letter of Support from Pat Todak

April 21, 2011

Dear Ms. Poturalski,

The intent of this letter is to pledge my support for the Shaken Baby Syndrome Prevention Program sponsored by Heartbeat of Toledo and Heart to Heart. This program will serve Heartbeat of Toledo clients and their infants by providing education about parenting skills and shaken baby syndrome awareness.

Providing clients with parenting education and information about shaken baby syndrome is important to ensure infant safety. The Shaken Baby Syndrome Prevention Program will fill a void in the services offered by Heartbeat of Toledo and Heart to Heart. As the executive director of Heartbeat of Toledo, I support the development of the Shaken Baby Syndrome Prevention program.

Thank you for your time and consideration,

Sincerely,

Patricia Todak
Heartbeat of Toledo, Executive Director
Appendix L

Additional Sources for Letters of Support

**Heartbeat of Toledo, Executive Director**
Pat Todak
2130 Madison Ave.
Toledo, Ohio 43604
(419) 241-9131

**Heart to Heart, Co-coordinator**
Jeni Hepner
2130 Madison Ave.
Toledo, Ohio 43604
(419) 245-3888

**National Center on Shaken Baby Syndrome, Founder and Executive Director**
Marilyn Barr
2955 Harrison Blvd #102
Ogden, UT 84403
(801) 627-3399

**American Occupational Therapy Association, President**
Florence Clark, PhD, OTR/L, FAOTA
University of Southern California, Occupational Science and Occupational Therapy
1540 Alcazar Street, CHP 133
Los Angeles, CA 90089-9003
(323) 442-2850

**Prevent Child Abuse Ohio, Corporate Director, Advocacy and Government Relations**
Father of Claire Fishpaw, SBS survivor
John Fishpaw
228 South Wabash Avenue
10th Floor
Chicago, IL 60604
(312) 663-3520

**American Academy of Pediatrics, President**
Judith S. Palfrey, MD
141 Northwest Point Boulevard
Elk Grove Village, IL 60007
(847) 434-4000
Brain Injury Association of America, President and CEO
Susan H. Connors
1608 Spring Hill Road, Suite 110
Vienna, VA  22182
(703) 761-0750

Occupational Therapy
Gail A. Poskey, PhD, OTR
Texas Woman’s University – Denton
P.O. Box 425648
Denton, TX 76204-5648
(940) 898-2801
Annotated Bibliography


Abstract

This study evaluated the effectiveness of an intervention designed to improve early parenting by increasing understanding of infant developmental needs and promoting maternal responsiveness as indicated by increased positive behavior support for infants and decreased psychological control. At-risk mothers were randomly assigned to control or treatment conditions, the latter consisting of training in parental responsiveness, developmental knowledge, and loving touch. Following the intervention, treatment mothers reduced their controlling tendencies; they were less rigid, less intrusive, and more flexible than control mothers. Treatment mothers provided more parental support indicated by higher quality verbalizations, more demonstrative teaching, and lower role-reversal tendencies. *Editors’ Strategic Implications:* Further replication will be necessary, the results for the “My Baby and Me” program are promising. The authors provide crucial information for parent educators about the pairing of basic knowledge transfer with the active engagement of parents with their infants in practicing new parenting skills.

Significance

Raising children can present challenges, especially for at-risk mothers. The information about the mothers in this article related to some of the clients at Heart to Heart including low socioeconomic status, single parenting, low education levels, and teen parenting. Components that will be implemented in the prevention program include implementing a home visitation aspect to ensure continued participation, addressing key parenting behaviors to focus on positive relationships, and teaching parents developmental expectations for their infants. The article relates to clients’ lives and stresses the importance of recognizing instability in the clients’ lives and creating a program that meets their needs. As suggested, the prevention program will aim to involve the fathers’ in the program when appropriate.

**Abstract**

Objectives: This study examined correspondences among maternal and paternal ratings of infant temperament, parental psychological functioning, and infant behavior. Participants included 120 families. When infants were 6 weeks old, mothers and fathers completed the Infant Characteristics Questionnaire (ICQ): reported on their own levels of anxiety, depressive symptoms, and parenting stress; and completed a 3-day diary of their infants’ behavior. Infant irritability was assessed in a laboratory situation. Results. Fathers rated their infants’ temperament somewhat more negatively, but there was significant correspondence between maternal and paternal ratings on the temperament factors of fussiness, unadaptability, dullness, and a difficultness composite. Higher infant difficultness was consistently associated with parenting stress. Infant behavioral fussiness, as measured by 3-day diaries, was significantly correlated with temperament ratings by both parents and with irritability observed in the laboratory setting. Maternal psychological distress was weakly predictive of ratings of infant difficultness; infant behaviors (diary and laboratory-based irritability) accounted for 15 to 17% of the variance. Parental psychological distress and infant behaviors contributed equally to difficultness ratings. Conclusions. Mothers and fathers are influenced by somewhat different factors in perceiving their babies’ temperament but both maternal and paternal reports have a basis in laboratory- and diary-based behaviors. Results indicate the strong contributing influence of infant irritability to the perception of difficult temperament and support the validity of parental reports of infant irritability in the first 6 weeks of life.

**Significance**

When an infant is defined as having a difficult temperament the infant’s behaviors have been found to affect the parent-child relationship in a negative manner. However, researchers have found that mothers and fathers may perceive their infant’s temperament differently. This study examined the relationship between maternal and paternal ratings of infant temperament, parental psychological function, and infant behavior. Results indicated that mothers perceived their infants as less difficult than the fathers’ ratings. No differences were found among parental anxiety; however, mothers reported more depressive symptoms than fathers. There was a correlation between the mothers’ rating of difficultness and the amount of laboratory crying.
The information from this study will be utilized to educate clients about infant temperament. Also, the occupational therapist and volunteers will provide support for the clients and provide a list of community resources if the client appears depressed. The Crying Baby session *Ways to deal with a crying baby* will address infant temperament, suggestions for soothing a crying infant, and also suggestions if the infant will not stop crying. The information in the session *Ways to cope with frustration or sadness* will also be helpful in identifying common techniques for relieving stress which may lead to a better parent-infant relationship.


**Abstract**

Background: Children of adolescent mothers may suffer because of parenting inadequacies. The use of volunteer home visitors to enhance parenting skills has not been well studied.

Objective: To evaluate the effect of a volunteer model home visitation program on adolescent parenting outcomes.

Design: Randomized trial with assignment to home visitation or control group.

Setting: Urban, African American community.

Participants: Adolescents aged 12 to 18 years at 28 or more weeks’ gestation or who had delivered a baby in the past 6 months were recruited between February 1996 and August 1999.

Intervention: Volunteers were recruited from the community and trained to implement a parenting curriculum during weekly home visits. Each volunteer was paired with one teenager.

Main Outcome Measures: Validated instruments measuring parenting stress, parenting behaviors, and mental health.

Results: A total of 232 teenagers were successfully randomized to home visitation and control groups. At baseline, the groups were comparable on demographic, social support, and mental health measures. Almost half the teenagers had poor mental health at baseline, and health rates persisted at follow-up in both groups. In multivariate models, the home visitation group demonstrated significantly better parenting behavior scores at follow-up than did the control group (P=.01) but showed no differences in parenting stress or mental health.

Conclusions: The volunteer home visitation program significantly improved some parenting outcomes but not parental distress or poor mental health. Volunteers may be an
effective means of providing parenting education but interventions that include specific means of addressing poor mental health are likely to have greater effects.

**Significance**

The United States has a higher teenage pregnancy and birth rate than other industrialized countries. These teenage mothers are at a higher risk for depression, substance use, early repeat pregnancy, and dropping out of school. Additionally, children born to teenage mothers have a higher risk of experiencing physical health and emotional problems. Home visitation programs have been shown to be effective in reducing repeat pregnancies and fewer problems with substance abuse. There have been a variety of people who have provided these services including professionals, paraprofessionals, and volunteers. This study examined the effect of a volunteer home visitation program on parenting and mental health outcomes for teenage mothers. The intervention group received weekly visits until the child’s first birthday with an option to continue receiving visits until the child’s second birthday. Results indicated no significant difference among parental stress or poor mental health but did have a positive impact on improve parenting behavior. The authors reported that many contact logs from the home visitors were not completed as instructed which may have impacted the results. Due to the lack of follow-up from the volunteers, it is important for the Shaken Baby Syndrome prevention program to only allow properly trained volunteers committed to the program to participate to ensure the clients’ concerns are addressed appropriately. The authors also reported that the volunteers were laypeople and were not trained to make mental health assessments. Although the staff at Heartbeat of Toledo and Heart to Heart are not trained in the mental health field, the prevention program will educate the staff about common risk factors for child maltreatment and signs of depression. Community resources for mental health will also be provided to the clients during the Crying Baby sessions.

**Abstract**

Background: Shaken baby syndrome often occurs after shaking in response to crying bouts. We questioned whether the use of the educational materials from the Period of PURPLE Crying program would change maternal knowledge and behavior related to shaking.

Methods: We performed a randomized controlled trial in which 1279 mothers received materials from the Period of PURPLE Crying program or control materials during a home visit by a nurse by 2 weeks after the birth of their child. At 5 weeks, the mothers completed a diary to record their behavior and their infants’ behavior. Two months after giving birth, the mothers completed a telephone survey to assess their knowledge and behavior.

Results: The mean score (range 0-100 points) for knowledge about infant crying was greater among mothers who received the PURPLE materials (63.8 points) than among mothers who received the control materials (58.4 points)(difference 5.4 points, 95% confidence interval [CI] 4.1 to 6.5 points). The mean scores were similar for both groups for shaking knowledge and reported maternal responses to crying, inconsolable crying and self-talk responses. Compared with mothers who received control materials, mothers who received the PURPLE materials reported sharing information about walking away if frustrated more often (51.5% v. 38.5%, difference 13.0%, 95% CI 6.9% to 19.2%), the dangers of shaking (49.3% v. 36.4%, difference 12.9%, 95% CI 6.8% to 19.0%), and infant crying (67.6% v. 60.0%, difference 7.6%, 95% CI 1.7% to 13.5%). Walking away during inconsolable crying was significantly higher among mothers who received the PURPLE materials than among those who received control materials (0.067 v. 0.039 events per day, rate ratio 1.7, 95% CI 1.1 to 2.6).

Interpretation: The receipt of the Period of PURPLE Crying materials led to higher maternal scores for knowledge about infant crying and for some behaviors considered to be important for the prevention of shaking.

**Significance**

This study was a randomized control trial examining whether mothers’ attitudes about infant crying would change after receiving educational information from the Period of PURPLE Crying Program. This is a program educating parents about infant crying and SBS. Mothers in the control group received control information from various parenting educational materials such
as the Back to Sleep Campaign. Nurses delivered the materials to the mothers two weeks after the infant’s birth. After receiving the materials, the mothers completed a diary regarding their behavior and the infant’s behavior. Two months after the infant’s birth, mothers completed a phone survey regarding crying patterns and healthy ways to manage a crying baby. The results demonstrated that the mothers receiving the Period of PURPLE Crying materials showed higher scores regarding crying and behaviors important to prevent SBS than the mothers receiving the control materials.

Although this study cannot identify that the educational materials decreased the prevalence of SBS, the results have indicated that the parents receiving the educational materials demonstrated increased knowledge regarding infant crying. This demonstrates that educational materials are helpful for parents after the birth of the child.


Abstract

Background: Infant crying is an important precipitant for shaken-infant syndrome. Objective: To determine if parent education materials (The Period of PURPLE Crying [PURPLE]) change maternal knowledge and behavior relevant to infant shaking.

Methods: This study was a randomized, controlled trial conducted in prenatal classes, maternity wards, and pediatric practices. There were 1374 mothers of newborns randomly assigned to the PURPLE intervention and 1364 mothers to the control group. Primary outcomes were measured by telephone 2 months after delivery. These included two knowledge scales about crying and the dangers of shaking; three scales about behavioral responses to crying generally and to unsoothable crying, and caregiver self-talk in response to unsoothable crying; and three questions concerning the behaviors of sharing of information with others about crying, walking away if frustrated, and the dangers of shaking.
Results: The mean infant crying knowledge score was greater in the intervention group (69.5) compared with controls (63.3). Mean shaking knowledge was greater for intervention subjects (84.8) compared with controls (83.5). For reported maternal behavioral responses to crying generally, responses to unsoothable crying, and for self-talk responses, mean scores for intervention mothers were similar to those for controls. For the behaviors of information sharing, more intervention mothers reported sharing information about walking away if frustrated and the dangers of shaking, but there was little difference in sharing information about infant crying. Intervention mothers also reported increased infant distress.

Conclusions: Use of the PURPLE education materials seem to lead to higher scores in knowledge about early infant crying and the dangers of shaking, and in sharing of information behaviors considered to be important for the prevention of shaking.

Significance

Inconsolable crying is often identified as a common trigger for shaken baby syndrome. Crying patterns have been identified with increased crying during the first month, a peak in the second month, and then often a decrease by the infant’s fourth month. The incidence of shaken baby syndrome mimics the crying patterns with increased incidence during the first month and a peak during the third month. The similarities in pattern demonstrate the need to educate parents of infants about the patterns of crying and the dangers of shaking an infant, prior to the increased event of crying. This study examined the knowledge about infant crying, dangers of shaking, and behaviors for soothing a crying infant. Members of the intervention group received *Period of PURPLE Crying* materials (DVD and booklet) whereas the control group received a DVD about injury prevention and a booklet regarding safe sleep. Results from the study indicated significant differences between the knowledge of crying scales and the dangers of shaking with the members of the intervention group demonstrating more knowledge about the topics. Information from this article will be utilized to demonstrate the importance of educating caregivers of infants about the patterns of crying, ways to deal with stress, and the dangers of shaking a baby. Information from this study will also be utilized to administer the education
materials prior to the pattern of increased crying during infancy to prepare parents of what is
common among infants.

of infant cry and fuss behaviour. Archives of Disease in Childhood, 63, 380-387.

Summary

Despite their common use parental diaries of infants’ cry and fuss behaviour have not been compared with objective methods of recording. To understand what is meant by the descriptions of crying and fussing in the diaries, the diaries of 10 mothers of 6 week old infants were compared with tape recordings of vocalizations made by the infants over a 24 hour period. There were moderately strong correlations between the frequency of episodes (clusters of ‘negative vocalizations’) on the audiotape and episodes of ‘crying and fussing’ in the diaries, and between the duration of episodes on the audiotape and episodes of ‘crying’ in the diaries. To assess the acceptability of the diaries for recording information for clinical and epidemiological research, they were then used in a population study of a wide socioeconomic group. Usable data were obtained from 91% of the sample. The results suggest that despite pronounced differences between recording methods, these diaries may provide valid and useful reports of crying and fussing in the short term.

Significance

Crying is often interpreted as expressing a negative emotion, rather than a form of communication for infants. Consistency has been demonstrated individually among parental diaries, tape recordings, or parental recall regarding the crying pattern. The typical crying pattern suggests that crying increases until 6 weeks of age and then gradually decreases with crying occurring more often during evening hours. This study compared parent reports of crying
and fussing behaviors with tape recordings of vocalizations made by the infants over a 24 hour period. Results suggested that parent diaries provide an accurate representation of infant crying patterns and demonstrated a strong correlation with the audiotape recordings. Information regarding the crying pattern in infants will be utilized in the prevention program. The clients will also be educated about maintaining crying diaries for a brief period to determine any changes in crying patterns among their infants. The clients will also be encouraged to record various soothing techniques and identify which techniques were effective for their infant so the information can be given to anyone caring the infant. Maintaining this information will provide the parents with the tools to respond appropriately to their infant’s needs and assist others who that may care for the infant as well.


**Abstract**

Objective: To determine whether there is an age-specific incidence of hospitalized cases of Shaken Baby Syndrome (SBS) that has similar properties to the previously reported “normal crying curve,” as a form of indirect evidence that crying is an important stimulus for SBS.

Design and setting: The study analyzed cases of Shake Baby Syndrome by age at hospitalization from hospital discharge data for California hospitals from October 1996 through December 2000.

Patients: All cases of children less than 18 months (78 weeks) of age for whom the diagnostic code for Shaken Baby Syndrome (995.55) in the International Classification of Disease, Ninth Edition, Clinical Modification was assigned.

Results: There were 273 hospitalizations of SBS. Like the “normal crying curve,” the curve of age-specific incidence starts at 2-3 weeks, has a clear peak, and declines to baseline by about 36 weeks of age. In contrast to the normal crying curve that peaks at 5-6 weeks, the peak of SBS hospitalizations occurs at 10-13 weeks.

Conclusions: The age-specific incidence curve of hospitalized SBS cases has a similar starting point and shape to the previously reported normal crying curve but the peak occurs about 4-6 weeks later. Of the like predisposing causes, this pattern is only consistent with the
properties of early crying. There are numerous explanations for the lag in the peaks between crying and SBS hospitalizations, including the possibility of repeat shakings prior to hospitalization. The importance of crying as a stimulus to SBS may provide an opportunity for preventive intervention.

**Significance**

This article provides information that will be implemented during the dissemination and development of the program. Infant crying may be a trigger for SBS; therefore, it is important to educate parents about patterns of crying and techniques to ensure they are provided with the proper tools to help soothe their infant when inconsolable crying may occur. The timing for parental education is pertinent to ensure that parents receive the education they need prior to increased crying periods of their infants. The pattern of crying among infants will be utilized for determining the optimal time to provide the information to parents. If the information is provided too soon, they may not take it seriously; however, if the information is provided too late, the results could be detrimental. The article provides a report of the trend of SBS hospitalizations by quarters from 1997 to 2000. This information will be useful when developing parenting education classes because many parents should be educated about the patterns of crying and the Period of PURPLE materials can be used to help the parents identify stages of crying. The article also contains a graph that can be used to demonstrate the crying patterns of infants based on three North American studies.


**Abstract**

This study investigated social interactions between infants and mothers, comparing dyads with physically disabled infants and dyads with nondisabled infants. The groups were matched on mental and motor development, sex, socioeconomic status, birth order, and maternal education. Each infant-mother dyad was videotaped at home during a 10-minute period of free
play, and blind observers subsequently transcribed infants’ and mothers’ behaviors. In general, the groups were remarkably similar in their interaction patterns. However, a few differences emerged: Mothers of infants with physical disabilities were significantly more commanding than were comparison mothers. Nondisabled infants tended to engage in more eye contact than did infants with physical disabilities. And whereas mothers of nondisabled infants responded to interactive play with interactive play, mothers of infants with physical handicaps tended to respond with commands and verbalizations. These results suggest reciprocal influences between infants and mothers in both groups and highlight emerging maternal behavior patterns that may interfere with the development of communication and independence in handicapped young children.

**Significance**

This study examined whether the social interactions were different between infants with physical disabilities and their moms in comparison to their developmentally matched dyads. After encouraging the mothers to play and interact with their infants as they typically would, the researchers examined the mothers’ interactions with their children. Results from the study demonstrated that infants with physical disabilities engaged in less eye contact with their mothers and they responded to the infants’ interactions with verbal responses. The mothers in the control group (mothers of nondisabled infants) were more likely to respond with interactive play. Based on these findings, it is important to identify the importance of eye contact as a way for parents to bond with their infants in the prevention program. Eye contact could be encouraged as a way to bond and encourage positive interaction between the infants and parents.


**Summary**

This study discusses four pairs of twins in which case 5 of 8 infants were severely injured and 2 infants died. In the first case, the parents were 27-and-28-years-old with high
socioeconomic status, happy marriage, and the pregnancy was desired. During the investigation, the father admitted that he shook his 12-week-old infant son after intranslable crying; the injuries sustained killed his infant son. After his admission, the father sought psychiatric care and the mother filed for divorce because she stated she could no longer trust him with their other infant son.

In the second case, the parents were 27-and-25-years-old with a low social status. The parents were not married and the pregnancy was not desired. The twin boy was the mother’s fourth child and the father’s second child. The father also had a history of violence and one of his children died as a possible result of abuse but it was not proven. When the infant boy was 19-weeks-old the mother shook her son stating that she thought he was suffocating and she tried to shake him to regain consciousness. The infant died and the parents blamed one another and are both facing criminal charges.

In the third case, the parents were 23-and-25-years old with a low social status. The parents were not married but the pregnancy was desired. The mother was emotionally and financially dependent on the twins’ father. This case involved both twins. Baby A was taken to the hospital after the mother stated the infant was dropped during feeding. Brain scans showed edema and the baby was admitted to the hospital. Four weeks after the initial admission, the infant was brought into the hospital again with suspicious hematomas but the court returned the infant to the parents. Then new hematomas were found in the brain scans of Baby A when the twin’s sister (Baby B) was brought into the hospital. Baby B was taken to the hospital with head trauma four weeks after Baby A’s first visit to the hospital. The mother stated that the infant cried for a long time, refused to drink, and was disoriented. Although the mother did not admit
to shaking the infant, she stated (without being asked) that she did not smash her infant’s head against the wall or throw her on the floor.

In the fourth case, both parents were 25-years-old. They were married, belonged to the middle social status, and the pregnancy was desired. The twins were born with prenatal rubella infection causing the parents to be heavily burdened with management of the twins’ health complications. Upon discharge, the hospital provided welfare for support. Even with welfare support, the mother shook one of her twins after the father could not wake the infant. However, the mother denied responsibility, blaming the incident on her husband’s parents from the week before. The child survived and was returned to the parents.

**Significance**

It is a misconception that low socioeconomic is a risk factor for SBS, but using information from this article, it demonstrates the importance of educating all parents about SBS, not just the parents of low socioeconomic status. A family’s socioeconomic status cannot be used as a predictor for infants at risk; therefore, it is important that the SBS prevention program be available to all, regardless of socioeconomic status. The information from the case studies will be used to create the education materials for healthcare professionals to dismiss this common misconception. It is important to make this information available to all parents and caregivers caring for an infant because reports from this article demonstrate that some parents do not realize that shaking an infant can cause harm, as reported by some of the parents in the case studies.


**Abstract**

Shaken baby syndrome is the most common cause of death or serious neurological injury resulting from child abuse. It is specific to infancy, when children have unique anatomic
features. Subdural and retinal haemorrhages are markers of shaking injury. An American radiologist, John Caffey, coined the name whiplash shaken infant syndrome in 1974. It was, however, a British neurosurgeon, Guthkelch who first described shaking as the cause of subdural haemorrhage in infants. Impact was later thought to play a major part in the causation of brain damage. Recently improved neuropathology and imaging techniques have established the cause of brain injury as hypoxic ischaemic encephalopathy. Diffusion weighted magnetic resonance imaging is the most sensitive and specific method of confirming a shaking injury. Families of children with subdural haemorrhages should be thoroughly investigated by social welfare agencies.

**Significance**

Reports have shown that children are often shaken as a reaction to inconsolable crying. This article discusses the pathophysiology, clinical signs, diagnosis, medical management, and outcome of shaken baby syndrome. Additionally, the article addresses the importance of prevention efforts.

The article discusses the different types of forces required to cause brain injury, both types of forces occur when an infant or child is shaken. As a result of being shaken, the brain may become hypoxic and cause brain damage. The sequence of events that cause brain damage are depicted in Figure 1 of the article. The sequence will not be discussed during the Crying Baby sessions due to the complexity of the medical terms. The sequence of events include neuraxis damage, apnoea, hypoxia, cerebral edema, raised intracranial pressure, reduced perfusion pressure, ischaemia, and axonal injury.

There are a variety of clinical signs that may be exhibited by a victim of SBS. The clinical signs will vary based on the force and length of shaking. Common signs exhibited by the child include convulsions, vomiting, poor feeding, lethargy, and irritability. Common clinical
signs include retain haemorrhage, subdural haemorrhage, and bone fractures. This information will be used to identify the consequences of shaking an infant.

Diagnosis of SBS can be difficult with cases of SBS if the perpetrators do not provide accurate histories; however, medical professionals may suspect SBS if the child exhibits specific symptoms. The article emphasizes the importance of contacting social services if the incident is believed to be a result of shaking. This information can be utilized in the SBS prevention program to demonstrate that even if an accurate history is not given by the perpetrator, medical professionals have the training to detect possible child abuse. The article also describes the outcome of SBS as causing more injuries and deaths than accidental head injuries. This demonstrates the importance of educating the public about the consequences of SBS.

The article provides a brief overview of prevention efforts. These efforts should be addressed to both males and females. The authors recommend providing prevention education in the educational system to ensure the information is being delivered to the appropriate audience. However, the SBS prevention program will be implemented in a community-based setting due to the demonstrated need through other research studies.


**Summary**

Eighty mothers of normal newborn infants kept daily records of their infants’ fussing for the first 12 weeks. Twenty-eight babies were the firstborn in the family. An attempt was made to eliminate excessive environmental tension as an additive factor. Babies with underlying pathology were eliminated also. There was an average of 2 ¼ hours’ crying in the first 7 weeks, with less each week thereafter. The time of day of its occurrence is summarized. Typical non-fussers sucked their fingers for longer periods each day. Babies who cried an unusual amount
responded to manipulation of environmental tension. The possible innate reasons for crying in the infant are summarized. The hypothesis is made that a certain amount of crying is necessary. The reassuring aspect of this incidence of crying in “normal,” emotionally secure, well-fed infants can be stressed by pediatricians for earnest parents who become anxious about a normal amount of unsatisfiable crying in their own neonate.

**Significance**

Although crying is common during infancy, many parents are not aware of the normal patterns of crying among infants and often view crying as an indication of poor parenting skills. Crying not only serves the purpose of communication between the infant and caregiver but also has physiologic and neurophysiologic purposes. The author reports that the physiologic purpose of crying is to improve pulmonary capacity and the neurophysiologic function is in response to needs such as hunger, discomfort, or temperature change. It is important to educate parents about the purposes of crying and the patterns of crying to assure the parents that crying is a normal part of infancy and not an indicator of poor parenting skills. This study asked parents to maintain a daily record of their infant’s crying during the first 12 weeks. The mothers were able to contact their pediatrician with any concerns as often as needed and at least one time weekly throughout the study period. The mothers were encouraged to address obvious reasons for crying such as hunger or soiled diaper. If the infant continued to cry, the mothers were encouraged to interact with the infant through swaddling, playing, or changing the infant’s positioning. These suggestions will be offered during the Crying Baby sessions in addition to suggestions of how to address infant crying. This information will also be used to demonstrate that crying has a purpose in infancy and it is not an indicator of poor parenting skills. The
information from this study will be utilized to create a homework assignment about the
importance of crying during infancy.


**Abstract**

At Children’s Hospital of Michigan there seemed to be a disproportionate number of
white infants with shaken baby syndrome (SBS) relative to the proportion of white infants in our
physically abused population. All reports of suspected child abuse on children <18 months from
Children’s Hospital from 1980-1985 were reviewed. The total number of abused children 18
months or younger was 545 (447 black, 87 white, 1 unknown). There were 20 children in the
SBS group. Eight of 87 (9%) of white abused infants had SBS compared with 12 of 447 (2.7%)
of black abused infants. The occurrence of SBS in white abused infants was disproportionately
higher than in blacks. This finding has not been previously reported. Before generalization can
be made, additional data must be obtained.

**Significance**

This article discusses a review of suspected child abuse cases in children younger than 18
months at Children’s Hospital of Michigan located in Detroit, Michigan. The review found that
the occurrence of SBS in white infants (9%) was much higher than in black infants (2.7%).
Results also found that the infants were mostly male, but mothers and fathers were equally
represented as the perpetrators. These results suggest that there are different “appropriate”
methods of discipline based on race. The authors provide an example that white families may
consider shaking a child better than beating a child whereas black families reviewed in the study
have been shown to discipline their children through beating. However, these results cannot be
generalized to particular individuals of each race as individual family discipline may vary and it
would be stereotyping one region’s results to all members of one race. The information for the
SBS prevention program will not be presented in a manner that would suggest stereotyping;
rather the appropriate forms of discipline will briefly be addressed. Due to time constraints,
participants will be referred to the Heart to Heart *Earn While You Learn* program which addresses discipline in further detail.


**Summary**

An overview of the problem of the Shaken Infant Syndrome and the impact it has on society, as well as the great importance of the use of a multidisciplinary approach to the problem, and a general overview of what, exactly, Shaken Infant Syndrome is. This chapter will be of general interest to all readers.

**Significance**

This chapter provides a general overview of shaken baby syndrome addressing the incidence, risk factors, mechanisms of injury, clinical presentation, diagnosis, prognosis, and recognition and prevention. This chapter provides statistics of shaken baby syndrome that will be helpful throughout the development of the prevention program. Based on the information in this chapter, it is evident that prevention measures have not met their goals and prevention programs are needed to increase the public’s awareness and decrease the incidence of shaken baby syndrome. Information from this chapter that will assist in the development of a shaken baby syndrome prevention program include that many perpetrators stated they did not know the dangers of shaking an infant, males are the most common perpetrators, and the consequences of shaking an infant.

**Abstract**

Infants and young children reported for maltreatment are a particularly vulnerable population. Many of these young children are maltreated by their own mothers. A mother’s description of her infant’s temperament can inform researchers’, practitioners’ and policy makers’ understanding of the relational problems between the mother and her young child and thereby sharpen the focus of intervention and treatment programs. We examine maternal perception of infants’ temperament, using data from the National Survey of Child and Adolescent Well-Being. The sample consisted of 1,001 biological mothers of children aged birth to 23 months and investigated for child maltreatment. About a fifth of the sample reported that for more than half the time their infants or toddlers were crying or upset and were difficult to soothe or calm. During the average day, about 40% of infants or toddlers were reportedly fussy and irritable half the time or longer. The most negative infant behaviors were consistently reported by 13.6% of the mothers. In multivariate analyses, variables significantly associated with the mothers’ perceptions of difficult temperament were physical victimization by an intimate partner and the mother’s own childhood history of abuse and neglect. Knowledge about mothers’ perceptions of difficult temperament and about predictors of these perceptions can help heal the mother-child relations and restore the capacity for mutual joy and protection of the child well-being.

**Significance**

This article discusses the relationship between infant temperament and maltreatment. Temperament is defined as “constitutionally-based individual differences in emotional, motor, and attentional reactively and self-regulation” (p. 558). This definition will be used to create a simple definition of temperament to be addressed during the Crying Baby session *Ways to deal with a crying baby*. Educating parents about infant temperament can help parents better understand their infant’s behavior and why it may be different than other children. The study found that infants who were classified as having difficult temperaments were at higher risk for
maltreatment due to increased parent stress and lower self-esteem. Results also found that approximately 40% of infants were classified as irritable or fussy throughout the day and described as difficult to calm. Educating clients regarding proper coping techniques may help decrease their anxiety and increase their self-esteem in caring for their infant leading to more positive parent-child interaction and decreased risk for SBS.


**Abstract**

Everyday minor stressors (hassles) have been proposed as an alternative to major life-events as a measure of stress. This article examines three aspects of hassles as a stress measure: group contextual differences in hassles reported, the stability and consistency of hassles over time, and the effectiveness of hassles in predicting adaptational outcomes. Results showed that there are clear contextual differences in hassles. Groups report quite different patterns of hassles reflecting their particular social contexts. These patterns also appear to be stable across time, probably as a result of consistency in both group roles and situational factors. Finally, hassles are found to be substantially better than life-events in predicting psychological well-being and mental health dimensions. Taken together, these findings support the use of hassles as a valid and reliable measure of stress which has significant relationships to important adaptational outcomes.

**Significance**

Stress is often associated with major life-changes; however, stress can often be associated with minor life changes or everyday events. The authors defined “hassles” as experiences that are harmful to a person’s well-being. Hassles vary based on the person, the person’s experiences, and can change over a period of time. Stress, even when caused by minor events, can affect a person’s emotional, physical, and psychological well-being. This article examined the differences of hassles, stability and consistency of hassles, and effectiveness of hassles predicting adaptational outcomes. The authors hypothesized that the number of hassles reported
would remain stable, but there would be changes with the intensity of the hassles. The authors collected data from mothers and elderly over a six-month period. The information from this article that will be utilized in the prevention program will include responses from the participants, especially the mothers, to compile a list of stressors that may affect the clients. Concerns that were identified by participants included concerns for meal preparation, lack of sleep, and time management. The clients may experience these stressors due to their new role of parenthood; therefore, the occupational therapist will educate clients about the importance of preparing for their role changes and there will be Crying Baby sessions that will address the issue of coping with frustration and sadness, time management, money management, and ways to adjust to role changes. The staff of Heartbeat of Toledo and Heart to Heart will be taught that it is important to not only address the stress surrounded by becoming a parent, but also the stress occurring in the clients’ lives on a daily basis.


Parenting attitudes and infant spanking: The influence of childhood experiences.

*Pediatrics, 124*, 278-286.

**Abstract**

Objectives: To assess associations among maternal childhood experiences and subsequent parenting attitudes and use of infant spanking (IS), and determine if attitudes mediate the association between physical abuse exposure and IS.

Methods: We performed a prospective study of women who received prenatal care at community health centers in Philadelphia, Pennsylvania. Sociodemographic characteristics, adverse childhood experiences (ACEs), attitudes toward corporal punishments (CP), and IS use were assessed via face-to-face interviews, conducted at the first prenatal care visit, 3 months postpartum, and 11 months postpartum. Bivariate and multiple logistic regression analyses were conducted.

Results: The sample consisted of 1265 mostly black, low-income women. Nineteen percent of the participants valued CP as a means of discipline, and 14% reported IS use. Mothers exposed to childhood physical abuse and verbal hostility were more likely to report IS use than
those not exposed (16% vs 10%, \(P=.002\); 17% vs 12%, \(P=.02\), respectively). In the adjusted analyses, maternal exposure to physical abuse, other ACEs, and valuing CP were independently associated with IS use. Attitudes that value CP did not mediate these associations.

Conclusions: Mothers who had childhood experiences of violence were more likely to use IS than mothers without such experiences. Intergenerational transmission of CP was evident. Mothers who had experienced physical abuse as a child, when compared to those who had not, were 1.5 times more likely to use IS. Child discipline attitudes and maternal childhood experiences should be discussed early in parenting in order to prevent IS use, particularly among at-risk mothers.

**Significance**

Corporal punishment is defined as “the use of physical force with the intention of causing a child to experience pain, but not injury, for the purpose of correction or control of the child’s behavior” (p. 279). Although experts agree that the use of corporal punishment is harmful, the rate of corporal punishment in infancy is between 14-35%. This article addresses parents’ attitudes regarding corporal punishment use among infants. Risk factors for corporal punishment use include single marital status, parental frustration, maternal depression, low education and socioeconomic status, black race/ethnicity, and a history of abuse or family violence. Many of the clients at Heartbeat of Toledo and Heart to Heart exhibit a minimum of one risk factor for corporal punishment use among infants; therefore, it is important to educate clients about the harm of corporal punishment. Due to time constraints, the SBS prevention program will not be able to provide an in-depth lesson addressing discipline but a brief overview of positive reinforcement for discipline will be included throughout the Crying Baby sessions. Additionally, the Heart to Heart *Earn While You Learn* program provides a series of lessons addressing discipline. The clients will be encouraged to complete the lessons after graduation from the SBS prevention program.

**Abstract**

This study examined socio-demographic, child, and family-level correlates of retention patterns among parent participants of Familias Unidas/SEP (Coatsworth, Pantin, & Szapocznik, 2002), a randomized, controlled trial of a family-focused preventive intervention. The current study’s aim was to identify variables that could be used to classify ethnic minority (African American and Hispanic) caregivers (N=143) into their known patterns of retention across 30 sessions of the intervention. Person-centered analyses identified three broad attendance pattern groups: (a) non-attenders; (b) variable attenders; (c) consistent-high-attenders. Subgroups of the variable-attender group included: (a) dropouts; (b) variable low-attenders; (c) variable high attenders. Four socio-demographic indicators were significant discriminators of the broad retention patterns. Three family-level factors were significant discriminators of the variable-attender subgroups. Additional significant mean/rate differences among retention pattern groups on correlates are reported. Implications for how retention is examined in preventive interventions and for developing intervention strategies for importing retention rates are discussed.

**Significance**

There have been many efforts to provide family-focused interventions for high-risk families. The focus of the interventions have included personal, interpersonal, and social factors that predict recruitment, engagement, and participation retention of the families involved in the interventions. Typically there are poor attendance rates (approximately 20-33%) for family-focused interventions and parent training. The various factors that may influence retention rates include level of parent education, income, child’s behavior, and disagreement between family members to participate in the program. This study examined the patterns of retention for family focused intervention and whether demographics or child and family factors would determine the attendance patterns. Having the ability to predict attendance patterns would be helpful in recruiting appropriate clients for the Shaken Baby Syndrome prevention program. The first
screening process to determine whether the clients are dedicated to learning information from the Crying Baby sessions will be their attendance rate in the Heart to Heart program. The staff at Heartbeat of Toledo and Heart to Heart will maintain communication about clients’ attendance records and will refer dedicated clients to the Shaken Baby Syndrome prevention program. It is important for the staff and the occupational therapist to maintain a non-judgmental and positive interaction with the clients to ensure they continue participating in the program.


**Abstract**

This paper examines the potential for the prevention of shaken baby syndrome from a retrospective case series study of 90 children with subdural hemorrhage (SDH). The children were under two years of age when admitted to hospitals in Wales and south west England between 1992 and 1998. Child abuse cases were identified and examined for their social characteristics, frequency of health care contacts, and explanations for injury. Most babies were under six months old, two thirds sharing social characteristics associated with physical child abuse in general, especially violence. Three quarters had attended community health services or hospitals prior to the finding of an SDH, most with symptoms indicating abuse. Explanations demonstrated a failure to protect a baby’s head. The conclusions are that an accumulation of abusive events prior to the diagnosis of an SDH typified these cases of shaken baby syndrome. Although questions remain about the circumstances of abuse, parents associated dangerous child care practices with the SDH. A social-situational empowerment model of prevention is appropriate, to target vulnerable carers of the very young in the home and in health care settings, especially when babies are seen with any symptoms that could be related to abusive head trauma.

**Significance**

This article provides a definition of shaken baby syndrome that is consistent with the definition provided by previous resources. This definition will be used to define shaken baby syndrome in the prevention program, but it will be described with less medical jargon to ensure understanding for clients of all education levels. This article reviewed case studies of 90 children with subdural haemorrhage (SDH) and identified potential opportunities for the
prevention of shaken baby syndrome. The characteristics of perpetrators were consistent with
the literature; the risk factors include male perpetrators, infants under six months of age, male
infants, and low socioeconomic status. This information will be used to identify potential clients
for the prevention program. The review of case studies indicated that 75% of the infants had
previous contact with healthcare professionals that were not routine appointments and 48% of
the infants had been admitted to the hospital prior to their injury. This demonstrates the
importance of education for parents and caregivers for the prevention of shaken baby syndrome.
The article emphasizes the importance of both primary and secondary prevention; both
approaches will be utilized in the shaken baby syndrome prevention program. Evaluating the
program is also important to demonstrate its effectiveness and its impact on the families and the
infants. The article provides a list of suggestions for evaluating the program and demonstrating
its effectiveness including a flowchart of problems, outcomes, and noting any changes in the
infant’s appearance, sharing information with other healthcare professionals interacting with the
families, and providing clients’ comments regarding their infant’s behavior and their interaction
with the infant.

longitudinal study of maternal depression and child maltreatment in a national sample of
families investigated by Child Protective Services. *Archives of Pediatric Adolescent
Medicine, 163*(10), 922-929.

**Abstract**

Objective: To assess whether a change in depression predicts a mother’s change in
maltreatment.

Design: Observational, repeated measures study.

Participants: Mothers who retained custody of a child aged 0 to 15 years following a maltreatment investigation and completed at least 2 of 3 surveys (n=2386).

Main Exposure: Change in depression status between baseline and 18- and 36-month follow-ups, assessed with the Composite International Diagnostic Interview Short Form.

Main Outcome Measures: Change in psychological aggression, physical assault, and neglect between baseline and 18- and 36-month follow-ups assessed with the Conflict Tactics Scale Parent-Child version.

Results: One-third (35.5%) of mothers experienced onset of remission of depression. Onset of depression was associated with an increase of 2.3 (95% confidence interval, 0.2-4.4) psychologically aggressive acts in an average 12-month period, but was not statistically significant associated with change in physical assault or neglect.

Conclusion: Depression is positively associated with maternal perpetration of psychological aggression in high-risk families.

Significance

In 2006, Child Protective Service agencies in the United States received over 3 million referrals involving approximately 6 million children. Depression is common and associated with an increased risk of perpetrating child maltreatment including medical neglect, physical abuse, and psychological aggression. This study examined whether maltreatment can be predicted by a change in depression status. During the 36-month study, approximately one-fourth of mothers were identified as depressed with episodes lasting an average of 12- to 14-weeks. Results from the study indicated that change in depression was not associated with change in physical maltreatment, but was associated with psychological aggression. There appeared to be a reciprocal relationship between maternal depression, child behavior, and parenting. This suggests that interventions should be available to help parents positively engage with their children. The information from this study will be utilized to address the importance of providing maternal support and providing appropriate community resources if the client is demonstrating signs of depression.
Shaken Baby Syndrome is a complex disorder with implication for family members (especially the victim’s mother) that are felt long after the emergency diagnosis and treatment of the child are concluded. The authors conducted a Women’s Support Group for parolees over a two year period. Included in its group membership were several women who had been jailed for child abuse related crimes. This article synthesizes the significant progress in the researcher from the medical, legal, social, nursing, and preventive health perspectives on Shaken Baby Syndrome. The difficulties of diagnosis Shaken Baby Syndrome in a timely manner are presented with emphasis on the diagnostic ambiguities confronting the various medical and nursing providers and nonoffending perpetrators. The case study attempts to raise the consciousness of nurses, with whom the nonoffending parents come into contact in the vast array of health service settings, as well as provide specific recommendations for enhancing community health nursing practice.

Significance

This article provides a review of the progress that has been made regarding SBS literature and the article describes the impact of SBS on the victim’s family. Providing a report of family experience reveals the economic, social, and emotional effects on the nonoffending caregiver.

The article identifies common characteristics for perpetrators and victims of SBS. Common characteristics associated with perpetrators include males with an average age of 22 years. Common characteristics associated with victims include male infants younger than 6 months of age. However, the SBS prevention program will educate clients that all infants are at risk for being shaken and anyone can be a perpetrator with the lapse of judgment during a stressful situation.

The case study examined in this article (also examined in Smith, 2003) involves a 3-month-old African American male who was brought to the hospital by his parents due to decreased crying, temperature, and decreased intake. The infant’s mother reported that after her
son received his first set of immunizations he had not been “acting right” (p. 245). The mother stated that she had called the pediatrician’s office with concerns after her son had fallen out of bed but was told by the triage nurse that the infant did not need immediate medical treatment because he had not lost consciousness. The infant was observed by the pediatric medical staff, but the diagnosis of SBS was missed in the absence of clear medical findings. However, the tertiary care facility filed a suspected child abuse report based on the infant’s condition.

During the investigation, the infant’s father was arrested and immediately put in jail based on evidence “to arrest the father for child abuse, assault, battery, reckless endangerment, and attempted murder” (p. 246). During the trial, the infant’s father admitted to using heroin with a friend while in the presence of the infant. The father was found guilty and sentenced to a minimum of 15 years in prison.

Six months following the father’s incarceration, the mother was arrested and charged with “failure to seek urgent medical treatment for her son” (p. 246). She was sentenced to 6 months in jail. The infant’s mother had to face emotional and economical consequences of her son’s condition. The mother stated that even though the father had a criminal record (including assault and drug use) prior to the birth of their infant, she believed that he had changed. Even after the father’s incarceration, she did not believe that the father would hurt their child.

The authors of the article suggest that the mother was not guilty of neglect based on their interactions with her. The authors state that the mother contacted the pediatrician’s office regarding her concerns and was reassured that her infant did not require immediate medical attention. The authors also reference the mother’s behavior prior to the incident because she did not have any negative behaviors on her record (consistent employment and no drug use).
The information from this case study will be used to describe the hardships experienced by families affected by SBS. This information will also be utilized to demonstrate the need for education regarding SBS and the importance of seeking medical assistance when the clients “feel” something is not right with their child. It is better to take the child to the hospital with concerns then dismiss the atypical behaviors.


**Summary**

This chapter will explain the data regarding who the perpetrators of SBS are and what triggers their behavior. Specific epidemiologic risk factors will be discussed as well as the approach to the psychopathology of the parents and perpetrators, adult-child interactions, psychosocial isolation, child factors and situational dynamics contributing to SBS. Key factors in understanding development, temperament, behavior and parental expectations will also be discussed.

**Significance**

This chapter is similar to the previous chapter because it identifies common perpetrators and behaviors that may trigger the behavior of shaking an infant. Information in this chapter could be helpful in emphasizing the importance of parent education as well as education for others who may care for the infant. An important concept from this chapter is that many
perpetrators state that they did not intend to harm the infant, but rather calm or quiet the infant. This information will be helpful in creating the shaken baby prevention program because it demonstrates the importance of identify coping techniques as the incident is not premeditated but rather reactive to quiet the crying infant. The chapter also identifies data regarding the peak age which children demonstrate increased episodes of inconsolable crying and the importance of educating parents about the consequences of shaking a baby prior to this critical time period.


**Abstract**

Objective: Abusive head injuries among infants (shaken infant or shaken impact syndrome) represent a devastating form of child abuse; an effective prevention program that reduces the incidence of abusive head injuries could save both lives and the costs of caring for victims. We wished to determine whether a comprehensive, regional, hospital-based, parent education program, administered at the time of the child's birth, could be successfully implemented and to examine its impact on the incidence of abusive head injuries among infants <36 months of age.

Methods: All hospitals that provide maternity care in an 8-county region of western New York State participated in a comprehensive regional program of parent education about violent infant shaking. The program was administered to parents of all newborn infants before the infant's discharge from the hospital. The hospitals were asked to provide both parents (mothers and, whenever possible, fathers or father figures) with information describing the dangers of violent infant shaking and providing alternative responses to persistent infant crying and to have both parents sign voluntarily a commitment statement (CS) affirming their receipt and understanding of the materials. Program compliance was assessed by documenting the number of CSs signed by parents and returned by participating hospitals. Follow-up telephone interviews were conducted with a randomized 10% subset of parents, 7 months after the child's birth, to assess parents' recall of the information. Finally, the regional incidence of abusive head injuries among infants and children <36 months of age during the program (study group) was contrasted with the incidence during the 6 preceding years (historical control group) and with statewide incidence rates for the Commonwealth of Pennsylvania during the control and study periods, using Poisson regression analyses with a type I error rate of 0.05.
Results: During the first 5.5 years of the program, 65,205 CSs were documented, representing 69% of the 94,409 live births in the region during that time; 96% of CSs were signed by mothers and 76% by fathers/father figures. Follow-up telephone surveys 7 months later suggested that >95% of parents remembered having received the information. The incidence of abusive head injuries decreased by 47%, from 41.5 cases per 100,000 live births during the 6-year control period to 22.2 cases per 100,000 live births during the 5.5-year study period. No comparable decrease was seen in the Commonwealth of Pennsylvania during the years 1996 to 2002, which bracketed the control and study periods in western New York State.

Conclusions: A coordinated, hospital-based, parent education program, targeting parents of all newborn infants, can reduce significantly the incidence of abusive head injuries among infants and children <36 months of age.

Significance

This study addressed whether a comprehensive, regional, hospital-based, parent education program, administered at the time of the child’s birth could be implemented successfully. The researchers also addressed the program’s impact on the incidence of abusive head injuries among children less than 36 months of age in an 8-county western New York region. The other study addressing the prevention program did not address the program’s incidence, which was a limitation. This program included an SBS education program, commitment statements (CS), and assessing the program and incident report after the program. The education also provided ways to cope with persistent infant crying. The CS asked parents if the information was helpful and whether it was the first time they had heard about SBS and its dangers. Both parents were asked to sign the voluntary CS after they received, read, and understood the materials.

The regional incidence of abusive head injuries in children less than 36 months of age were recorded during the 66 month period of study. There were 65,205 documented CS which accounted for 69% of the live births in the region. The telephone surveys were conducted 7 months after the child’s birth and over 95% of the parents remembered having received the
information about SBS. After the program was implemented, the incidence of abusive head injuries decreased by 47%. This study provides the first firm evidence that a comprehensive program of hospital-based parented education administered at the time of the child’s birth can effectively reduce the incidence of abusive infant head injuries.

This program was important because it addressed mothers and fathers of the newborn infants, whereas most studies provided the information to only one parent. One limitation of this study was that it was not a randomized control trial; this raises the possibility of confounding variables such as the “Boston nanny” conviction in 1997 which brought international attention to the effects of SBS and also the decline in the economy in 2002.


Summary & Significance

This article focuses on child abuse and neglect in a broad sense by providing information about the importance of primary prevention efforts and raising public awareness. It is important to provide families with direct support and implement home visitation in the prevention of child abuse to gain an accurate interpretation of the home environment; therefore, both strategies should be implemented in a prevention program. The role of healthcare professionals in primary prevention can be achieved through evaluation of the home environment and awareness of potential risky situations. This article will be used as a reference of why the SBS prevention program must implement a multidisciplinary approach. Characteristics of the most effective
child abuse prevention are identified and will be implemented during the development of the prevention program.


Abstract

“Shaken baby syndrome” (SBS) results in intracranial and intraocular hemorrhages with no evidence of external trauma. The cause of these injuries is vigorous shaking of an infant being held by the chest, shoulders, or extremities. A significant number of cases of head trauma in infants and young children are a direct result of SBS. In extreme cases, SBS may result in death. Many cases of SBS go unidentified because of the absence of external injuries, no witnesses to the event, and the failure of the abuser to admit his or her actions. Because of the numbers of children affected and the difficult in detecting SBS, it is essential that critical care nurses who care for children be aware of SBS as a potentially lethal form of abuse. This article educates nurses about the signs and symptoms of SBS in an attempt to foster early recognition and interventions in cases of SBS to reduce mortality and morbidity associated with the syndrome.

Significance

This article discusses the mechanisms of injury, risk factors associated with SBS, clinical presentation of SBS, clinical diagnosis of SBS, and outcome of SBS. In the mechanisms of injury, the author states that the instant the shaking begins so does the pathophysiology associated with SBS. This will be included in the pre/posttest for SBS education to provide clients with an understanding that the effects of shaking are immediate. The risk factors of SBS will also be addressed in the SBS prevention program. The risk factors identified in the article are similar to the risk factors listed in other articles as well; this is helpful because it demonstrates the consistency among various references. In addition to the common risk factors identified, the author also identifies social isolation as a risk factor. Social isolation can be caused by this new role of becoming a parent; therefore, the SBS prevention program will address the importance of identifying predicted role changes to prepare the clients for their role expectations as parents.
The clinical signs and symptoms identified in the article are consistent with sources of literature and will be used to educate clients about the consequences of shaking an infant. The article also discusses the process of clinical diagnosis of SBS; however, this will not be addressed with the clients due to the medical jargon surrounding the topic. Additionally, this topic will not be addressed because the occupational therapist does not want the clients to feel uncomfortable or accused of possibly shaking their infant.

The article also discusses the outcome of SBS including permanent brain damage and intellectual delay. Outcomes may include severe motor dysfunction, blindness, mental retardation, paralysis, cerebral edema, spastic quadriplegia, and possibly even death. The author identifies social characteristics that may also occur due to SBS, these include the survivor of SBS exhibiting shy behaviors, low self-esteem, and poor social skills. This information will be used to educate the clients of the possible long-term consequences of SBS.

The author suggests implementing SBS prevention efforts through prenatal classes, community education, and physicians. This SBS prevention program will address the issue through community based prenatal and parenting classes.


Summary

The medical management of the shaken infant is challenging and frustrating. Severe traumatic and hypoxic-ischemic injuries commonly occur in these patients, resulting in significant central nervous system injury. The medical management of these children depends mostly on the severity of central nervous system injury. The infant with isolated TBI may benefit
from aggressive management of increased intracranial pressure. Otherwise, the major thrust of care for these infants is supportive in nature, maintenance of normal hemodynamic and respiratory parameters, and treatment of seizures. Recognition of SBS is important so that appropriate diagnostic tests can be done and therapies initiated. Because of the devastating nature of these injuries, numerous resources are required to care for survivors. The outcome of infants with severe brain injury is dismal; therefore, prevention is required.

**Significance**

This chapter addresses the medical management of a survivor of shaken baby syndrome. Although the intensity of medical management for the survivor depends on the severity of damage to the central nervous system, this chapter briefly describes the amount of medical care needed. This chapter describes the signs and symptoms of shaken baby syndrome which will be used to compile a section of the prevention program for the Crying Baby sessions. This information will be helpful for parents or caregivers who may suspect the infant may be in danger. The chapter also identifies risk factors that may attribute to the shaking of an infant which will be used to target the prevention program to those individuals at risk.


**Summary**

This article is written for nurse practitioners and discusses the nature of early parenthood and provides suggestions for nurses to educate their patients about parenting their babies. The article identifies and describes strategies which can be implemented to help parents understand their babies including infant state, state modulation, infant behavior, and infant cues. This article
provides nurse practitioners with information they can use to educate their patients to encourage them to build strong relationships with their infants.

**Significance**

Parents must be able to respond to their infant’s cues in a sensitive manner to develop a bond with their infant. Although this article is written for nurse practitioners, the information in this article is helpful to anyone educating parents about the importance of developing a strong emotional bond with their infant. Educating new parents about developing bonds with their infants may help prevent child abuse and neglect. “Infant state” defines six levels of consciousness associated with infant behavior and the article provides suggestions of how parents should interact with their infants during the different stages of consciousness. Providing parents with this information can help them better understand their infant’s behavior and why their infant may interact with them differently during various times of the day. Educating parents about the infant’s need for state modulation can help teach parents that their infant may be able to soothe him/herself with some instances when the infant may be difficult to soothe.

The article also addresses different temperaments which should be addressed in the Shaken Baby Syndrome prevention program. If an infant is difficult to soothe, the article suggests providing something interesting for the baby to listen to or look at to distract the baby. The article emphasizes the importance of providing responsive and consistent caregiving which will be addressed in the prevention program.

Abstract

Objective: To evaluate parents' and nurses' opinions regarding the adequacy of an educational program on shaken baby syndrome: the Perinatal Shaken Baby Syndrome Prevention Program (PSBSPP).

Design: Qualitative and quantitative assessments in the form of interviews and questionnaires administered in French.

Setting: Two birthing institutions in Montréal, QC, Canada: a university hospital and a regional center.

Participants: Two hundred and sixty-three parents (73.8% mothers, 26.2% fathers) received the intervention after the birth of their child, and 69 nurses administered it.

Methods: Parents' and nurses' assessments of the adequacy and relevance of the program and nurses' assessments of the training they received to administer the program were evaluated.

Results: Both parents and nurses supported this initiative. Most parents appreciated the usefulness of the information. Nurses believed the program was adequate, and their training to deliver the program was satisfactory. All participants reported that the program was highly relevant, especially for new parents.

Conclusion: The Perinatal Shaken Baby Syndrome Prevention Program achieves the goals of (a) increasing parents' knowledge about infant crying, anger, and shaken baby syndrome and (b) helping parents identify coping strategies. The relevance of introducing the PSBSPP in all birthing institutions is supported. Future studies should focus on vulnerable and culturally diverse populations, and longitudinal follow-up could help determine if the PSBSPP reduces the incidence of shaken baby syndrome.

Significance

This study evaluated the opinions of parents and nurses within two Canadian hospitals to assess the value and adequacy of an educational program targeting SBS and to determine if such a program would be beneficial to a large population. The purpose of the program was multidimensional; to increase the parents’ understanding about infant crying, its relationship to potential anger and frustration, SBS as a possible outcome to violence and to identify and provide coping strategies to eliminate any damaging and dangerous behavior. Discussion was encouraged when and where information should be distributed. Most new parents appreciated the postnatal instruction during the hospital stay but a few would have preferred a home visit. Regardless, 98% of the parents found the information cue cards highlighting what to expect and
how to respond extremely useful. New mothers were generally the targeted audience regarding SBS, but fathers and all caregivers needed to be included with relevance to this topic. The nurses felt that their training was adequate and there was a good balance between scientific information and practical application. Although the timing of the intervention needs further observation as to effectiveness, those participating in the study appreciated the potential of early education and intervention. Some limitations of the study include that it relied on perception of increased knowledge and the results do not allow the researchers to state that a one-time intervention is sufficient to decrease SBS.


**Abstract**

Objective: The aim was to construct and test the reliability (utility, internal consistency, interrater agreement) and the validity (internal validity, concurrent validity) of a scale for home visiting social nurses to identify risks of physical abuse and neglect in mothers with a newborn child.

Method: A 71-item scale was constructed based on a literature review and focus group sessions with social nurses and paraprofessionals who had experience with underprivileged families. This scale was applied in a random sample of 40 home visiting social nurses, who collected data in sample of 373 nonabusive and 18 abusive/neglectful mothers with a newborn child.

Results: Items with prevalence rates below 5% and items making no significant difference between maltreating and non-maltreating mothers were omitted. The final version contained 20 items. This scale showed high internal consistency (alpha = .92) and high interrater reliability ($r = .97$). Exploratory factor analysis yielded a three-factor solution; Isolation (8 items, explaining 62.17% of the common variance), Psychological complexity (6 items, 18.86%), and Communication problems (6 items, 8.41%). Scores on Communication problems or Isolation obtained higher scores for social deprivation than low-scoring mothers.

Conclusion: Home visiting nurses can identify risks for physical abuse and neglect among mothers with a newborn infant by focusing on signs of social isolation, distorted communication and psychological problems.
Significance

It is important for clinicians and health care professionals to be able to identify early risk factors for child abuse such as parents’ unrealistic expectations, poor relationship between infant and parent, and lack of sensitivity or responsiveness to the infant. Identifying the risks and addressing the issues may help prevent child abuse. This study aimed to develop a scale to identify risks for child physical abuse and neglect in families with infants ages 0- to 3-months. The study also implemented the scale and examined the reliability and validity of the developed scale. The scale was utilized by social nurses visiting the homes of the families. Information that will be utilized for the prevention program will be focused towards identification of risk factors of child abuse and neglect. The scale will not be utilized in its entirety due to time constraints, but will be referred to for identification of possible risk factors. Some of the items from the scale will be utilized to create an open dialogue between clients and the occupational therapist such as family support, level of satisfaction with family members, and expectations of their infant.


Abstract

This quasi-experimental pilot study examined the association of a maternal preparation program with women’s competence in maternal care behaviors, self-perceived adaptation to the maternal role, and satisfaction with the maternal preparation received in conjunction with obstetric and delivery care. Sixteen subjects participated in the program. A cost-benefit questionnaire was completed by the program participants to examine whether the availability of such a maternal preparation program would influence future selections of a hospital for delivery. Our Occupational Therapy Maternal Role Preparation Program was provided to the subjects in four sessions. The program included material on physiological changes in the new mother,
orchestration of activities of daily living, infant development and individual differences, and the mother-infant relationship. Results were statistically significant with their obstetric care and preparation for maternal role, in favor of the treatment group. In addition, all 8 members of the treatment group reported that they thought the program was helpful and would recommend it to other mothers.

**Significance**

The pattern of society in the Western world has made significant changes over the years, especially in preparation for adulthood. Many young women are now trained to enter the workforce, rather than being prepared for motherhood. Parents have shown increased interest in learning information regarding their child’s development, building a positive relationship with their child, and learning how to improve their child’s quality of life. When a woman becomes a mother, she acquires a new role which requires new role performances, adaptations, and orchestration of daily activities. Preparing women for this new role can assist with a smooth role transition and competence in performing new role tasks. Maternal competence has been associated with stronger mother-infant relationships due to the mother’s ability to respond to her infant with understanding and sensitivity. The mother-infant relationship can be influenced by the mother’s perception of her infant’s temperament and her ability to respond appropriately to her infant’s cues. This article sought to determine if mothers would demonstrate increased competence in maternal care after participating in an occupationally based maternal education program.

The preparation program consisted of four sessions which began approximately one month prior to the arrival of the infant and was completed when the infant was approximately 3 weeks old. The purpose of the program was to assist the mother with her new role, providing her with the opportunity to learn and practice maternal skills. The program addressed physiological
changes, management of activities of daily living, and the importance of mother-infant relationship on infant development.

This article will be referred to for the organization of the Crying Baby Sessions including the information to address such as physiological changes of the mother, infant development, role transitions, and adjusting to occupational performance of activities of daily living. This article also demonstrates that women are willing to learn about developing a strong relationship with their infants. Also, 100% of the participants would recommend the maternal preparation to mothers because they believed that it was helpful in preparing them for their new roles as mothers. This is encouraging statement for the development of the SBS prevention program. It is important to address topics that the participants feel are helpful to ensure continued participation in the program and encourage others to enroll in the program.


**Abstract**

Background: Colic, a condition that is well known to parents and nurses working in child health centres, is characterized by excessive crying. However, the criteria for defining colic are vague, there is no agreed definition and no effective treatment exists. Even though there is no cure of colic, nurses in child heath centres have to deal with the condition as parents bring their crying infants to them.

Aim: To develop an understanding of how nurses deal with infant colic/excessive crying, how the parents perceive nurses’ contribution, and whether nursing makes a difference to the situation or not.

Ethical issues and approval: The project was reviewed and approved by the Research Ethics Committee in Norway where the study was carried out.

Methods: The design is explorative, and the data were collected through qualitative in-depth interviews with nurses and parents of crying infants. The analysis follows the guidelines of Kvale, which imply a phenomenological/hermeneutical mode of understanding.

Findings: The primary aim of nursing is to assist parents in their efforts to cope with the challenges of infant colic. Nurses and parents differ to some extent in how they define the problems and the needs of the families. In addition, both parents and nurses question the nurses’
knowledge and ability to help in this situation. A relationship with the parents based on trust is fundamental to enable the nurses to achieve their goals, but such a relationship is not always developed.

Conclusion: Even though nursing interventions do not cure infant colic, the amount of crying may be reduced and life made easier for the families if the parents are offered help in coping with the situation. Consequently, this should be the primary aim of nursing when approaching families with a colicky infant.

Significance

This article is written for nurses, but is helpful in the creation of the SBS prevention program. Colic is a condition found in infants characterized by excessive crying; inconsolable crying is often a trigger for a shaking event therefore it is imperative to educate participants about colic and ways to handle a crying infant. The challenge associated with colic is that there is not a reason for the infant’s cries, leaving some parents feeling helpless; however, participants will be educated that infant crying or inability to soothe a crying infant is not indicative of poor parenting. The article identifies the onset of colic and that it often disappears with time.

This article examined how nurses help parents with colicky infants. The researchers conducted semi-structured interviews with nurses and parents to determine the nurses’ role in assisting parents with crying infants. Parent responses indicate “infant crying was a sign that their baby was suffering and the overall need of the parents was to alleviate this” (p. 270). The parents described feeling anxious and helpless if they were unable to calm their crying infant. This statement demonstrates that parents are sometimes desperate when their infant has been crying for an extended period of time; therefore, education about the infant crying pattern, definition of colic, and identification of appropriate coping techniques will provide parents with the tools to address the situation in a healthy manner for both the parent and infant. Results from the study suggest that nurses are unable to assist parents if there is not a trusting relationship
between both two parties. This demonstrates the importance of building a rapport with the participants to ensure they are willing to share their feelings and open to having support from the occupational therapist and Heart to Heart personnel. The authors emphasize that the nurses’ role is not to calm the crying infant but rather provide guidance and support for the parents during this stressful time.


**Summary**

The sociodemographic characteristics of the Shaken Baby are discussed, as well as common risk factors found among infants, families, & perpetrators. The initial history and physical examination findings in SBS are reviewed & the need for early identification & treatment is highlighted. We then discuss the epidemiology of SBS, including a review of its definitions, governmental reporting systems & public health implications. Little is known regarding specific incidence & prevalence of SBS because it has only recently been identified in vital statistics, health, law enforcement, & social welfare data systems in the US. The public health implications of SBS are reviewed based on long-term health consequences of SBS and societal costs associated with traumatic brain injury in children. Future epidemiologic research should be directed at improved recording SBS fatality, monitoring of SBS non-fatalities, & evaluating primary and secondary prevention activities.

**Significance**
This chapter discusses child abuse laws that were passed in the 1960’s to aide in the reporting of child abuse and establishment of programs to help victims of child abuse. The Child Abuse Prevention Treatment Act (CAPTA) was introduced requiring all suspected child abuse be reported by educators, social workers, law enforcement, and health care providers. The chapter does not discuss the development of any prevention programs that have been formulated due to this passing of CAPTA in 1974. Information from this chapter will be useful in creating the shaken baby prevention program because it identifies common risks factors for shaken baby syndrome including family dynamics, risk factors associated with the infant, and risk factors of common perpetrators. This information will be helpful to develop the prevention program so that the education is delivered to at-risk families in a way that will demonstrate the significance of the consequences associated with shaken baby syndrome. The chapter also identifies common triggers of shaking an infant which will be used in the dissemination portion of the capstone and the Crying Baby sessions. This chapter provides many statistics associated with shaken baby syndrome which will be helpful in demonstrating the consequences associated with shaking an infant and the need for a prevention program. Previous prevention efforts are also addressed in this chapter including characteristics that may have deemed them successful or unsuccessful; this information will be used as a guide so that unsuccessful attempts of previous programs will not be repeated.


Summary
This chapter discusses many of the significant legal, investigative and medical issues encountered when Shaken Baby Syndrome cases are prosecuted in court. Heavy emphasis is placed on trial strategies and techniques including the development and motive evidence, opening and closing statements, lay and expert witness testimony, meeting untrue defenses and cross-examination of defense experts, and effective use of demonstration slides. Emphasis is also placed on the internal preparation of the case including coordination of multidisciplinary response to the investigation, development of background investigation information to supplement medical findings and discovery of “prior bad acts” evidence, difficulties in making appropriate charging decisions, and pre-trial motion practice.

**Significance**

Addressing shaken baby syndrome from a legal and investigative perspective will be helpful in creating the shaken baby syndrome prevention program because it includes the common behaviors by perpetrators (such as not providing adequate healthcare for the infant), characteristics of unintentional actions, and common motivations for the shaking incident. This chapter also provides a statement from the American Academy of Pediatrics which states that many people do not know the specific injuries of shaking infant, but most competent individuals would recognize the act of shaking as dangerous. The chapter also indicates that many perpetrators do not intentionally injure their infants which demonstrates that need for education. This fact will be addressed with clients to emphasize that these incidences are not planned and the information will be used to emphasize the importance of identifying appropriate coping techniques to properly address an inconsolable infant.

**Summary**

This chapter focuses on the medical social worker’s role in the collaborative effort by the various professionals dedicated to identifying and treating cases of Shaken Baby Syndrome. Key topics include the interview with the attending parent or caregiver of the injured child, the nature of the information that is to be gathered from the interview, suggested techniques for the effective gathering of this information, and how to best advocate for the needs of the victim of SBS in a pediatric hospital.

**Significance**

This chapter identifies the social worker’s role of identifying and treating cases of shaken baby syndrome. A social worker can be an asset to the investigation by interviewing family members, providing resources, and assisting the family with coming to terms with the injury. This chapter discusses the importance of healthcare professionals working with the parents to focus on the needs of the child. Information from this chapter will be used to demonstrate the importance of including the family in healthcare decisions and building a rapport with family members to ensure information is taken seriously during prevention efforts. Techniques identified for interviewing will also be implemented to conduct the needs assessment with parents.


**Abstract**

The crying patterns of normal infants in industrialized societies is characterized by an overall increase until 6 weeks of age followed by a decline until 4 months of age with a
preponderance of evening crying. We hypothesized that this “normal” crying could be reduced by supplemental carrying, that is, increased carrying throughout the day in addition to that which occurs during feeding and in response to crying. In a randomized controlled trial, 99 mother-infant pairs were assigned to an increased carrying or control group. At the time of peak crying (6 weeks of age), infants who received supplemental carrying cried and fussed 43% less (1.23 vs 2.16 h/d) overall, and 51% less (0.63 vs. 1.28 hours) during the evening hours (4 PM to midnight). Similar but smaller decreases occurred at 4, 8, and 12 weeks of age. Decreased crying and fussing were associated with increased contentment and feeding frequency but no change in feeding duration or sleep. We conclude that supplemental carrying modifies “normal” crying by reducing the duration and altering the typical pattern of crying and fussing in the first 3 months of life. The relative lack of carrying in our society may predispose infants to crying and colic in normal infants.

Significance
Crying during infancy is normal. The typical crying pattern is characterized by an increase of crying until the infant reaches 6-weeks then a gradual decline until 4 months of age. Crying usually occurs during afternoon and evening hours. Although common, crying can have lasting effects on the mother-infant relationship. The crying may trigger maternal distress or even child abuse. Parents have often used their infant’s crying and ability to soothe as an indicator of their parenting skills; however, inconsolable crying should not be viewed as an indicator of poor parenting. When an infant cries many parents or caregivers try rocking or carrying the infant to help soothe their child. The researchers examined whether the “normal” crying pattern could be changed through increased carrying throughout the day. Results indicated that increased carrying was associated with a significant reduction of crying and fussing in infants during the first 3 months of life. The infants appeared to be more content during their wake periods. Although it is unrealistic to carry an infant all day, clients in the prevention program will be educated about the various methods mentioned in the study to soothe infants. The soothing techniques included carrying, rocking, patting, swaddling, talking to the
infant, and providing visual stimulation to distract the infant. The clients will be encouraged to experiment with the various techniques to determine what works for their infant and will be asked to express their feelings if their infant is inconsolable after these attempts to soothe.


**Summary**

This article presents the pathological findings in fatal shaken impact syndrome which reflect the current state of knowledge and the majority opinion of practicing forensic pathologists. The discussion is limited to issues related to fatal cases of shaken impact syndrome with a review of the pathophysiology, autopsy, and neuropathologic findings. Pathophysiology, presentation and autopsy techniques are discussed, with special emphasis on findings specific to SBS. This article concludes with a review of current knowledge of timing of injuries in inflicted cerebral trauma.

**Significance**

This chapter provides details regarding pathological findings in shaken infant syndrome cases which have been fatal. This chapter is addressed to death investigators and identifies characteristics to be aware of during the investigation. This chapter includes a study which identified 76 fatal cases, with 80% of the deaths occurring less than 24 hours after the incident. This chapter will be referred to for further information regarding the investigation of suspected cases of shaken baby syndrome. A diagram in this chapter provides a figure of proposed
mechanisms of injury in shaken impact syndrome. This diagram will be used to demonstrate the different mechanisms of injury for the intended audience.


**Abstract**

Objective: Educational programs designed to inform mothers and other child caretakers about the dangers of infant shaking have been widely adopted; however, only one has been evaluated to ascertain its effect on abusive head trauma (AHT). This project’s goal was to evaluate whether an educational video delivered on the postpartum ward decreased AHT.

Methods: A case-control study was conducted in which 77 Utah resident mothers of children aged under 2 years who had AHT were drawn from the only pediatric level-one trauma center in Utah and the Medical Examiner’s Office from 2001 to 2007. Five control mothers per case matched by birth year were identified through the state’s birth certificate registry. Conditional logistic regression was used to calculate the adjusted odds of AHT given maternal exposure to the education video. An alternate injury and alternate education exposure were assessed to examine potential confounding.

Results: The educational video was associated with nonstatistically significant reductions of both AHT (odds ratio [OR] 0.7, 95% confidence interval [CI], 0.5-1.2) and the alternate injury mechanism, child injury from motor vehicle crash (OR 0.9, 95% CI, 0.6-1.4). Alternate education about car seat use (OR 0.4, 95% CI, 0.2-0.8), back to sleep (OR 0.3, 95% CI, 0.2-0.5), and setting hot water temperature (OR 0.2, 95% CI, 0.1-0.4) were associated with significant reductions in AHT.

Conclusions: AHT occurrence was not significantly associated with the educational video but was associated with alternate postpartum education provided to mothers. These results suggest that the shaken baby prevention video is not casual at reducing AHT.

**Significance**

This article focuses on past prevention education programs and includes a study that examined the effectiveness of an educational video to prevent abusive head trauma (SBS) in Utah. Results suggested that the SBS video does not appear to decrease the incidence of abusive head trauma in Utah. This suggests that prevention efforts should provide a multidisciplinary approach by providing more thorough education (not just a video) to be more effective. Therefore, the SBS prevention program will include interactive Crying Baby sessions to ensure
the clients can ask questions and the homework assignments ensure that the clients are attentive to the material. The interaction between the clients and the occupational therapist provides the occupational therapist with the opportunity to question the client to determine retention of the materials.


**Abstract**

Context: Physical abuse is a leading cause of serious head injury and death in children aged 2 years or younger. The incidence of inflicted traumatic brain injury (TBI) in US children is unknown.

Objective: To determine the incidence of serious or fatal inflicted TBI in a defined US population of approximately 230,000 children aged 2 years or younger.

Design, Setting, and Subjects: All North Carolina children aged 2 years or younger who were admitted to a pediatric intensive care unit or who died with a TBI in 2000 and 2001 were identified prospectively. Injuries were considered inflicted if accompanied by a confession or a medical and social service agency determination of abuse.

Main Outcome Measure: Incidence of inflicted TBI. Multivariate logistic regression models were used to compare children with inflicted injuries with those with non-inflicted injuries and with the general state population aged 2 years or younger.

Results: A total of 152 cases of serious or fatal TBI were identified, with 80 (53%) incurring inflicted TBI. The incidence of inflicted TBI in the first 2 years of life was 17.0 (95% confidence interval [CI], 13.3-20.7) per 100,000 person-years. Infants had a higher incidence than children in the second year of life (29.7 [95% CI, 22.9-36.7] vs. 3.8 [95% CI, 1.3-6.4] per 100,000 person-years). Relative to the general population, children who incurred an increased risk of inflicted injury were born to young mothers (less than 21 years), non-European American, or products of multiple births.

Conclusions: In this population of North Carolina children, the incidence of inflicted TBI varied by characteristics of the injured children and their mothers. These data may be helpful for informing preventative interventions.

**Significance**
This article discusses the incidence of serious or fatal inflicted traumatic brain injury (TBI) in North Carolina. It also discusses possible risk factors for TBI including infant age, mother’s education level, ethnicity, and socioeconomic status. This study included all North Carolina children aged 2-years-old or younger who were admitted to a pediatric intensive care unit or died with a TBI in 2000 and 2001. The overall incidence of inflicted TBI in the first two years of life was 17.9/100,000 person-years compared with 15.3/100,000 of non-inflicted TBI. There was a much higher prevalence for infants with 29.7/100,000 person-years than children aged 12-24 months with 3.8/100,000 person-years. Additional results from the study indicated that the median age for the infants at the time of injury was 4 months. The infant’s ethnicity was also a risk factor; minority children were more susceptible to experience an injury than non-minority children. There was increased risk of injury if the infant was first born, male, or younger than 12 months. Factors associated with the mother included single, low socioeconomic status, and low education level.


Abstract

Aim: To describe the epidemiology of subdural haemorrhage (SDH) in New Zealand infants.

Methods: Prospective enrollment of all cases of infantile SDH from 2000 to 2002. Retrospective analysis of national discharge and death data for the same period.

Results: Seventy-seven cases of infantile SDH were identified prospectively, and a further 49 cases retrospectively. Of these 126 cases, 92 resulted from non birth related trauma. Forty eight of these were attributed to abuse and 28 to accidental injury. Sixteen cases were undetermined. The ‘minimum’ annual incidence of inflicted infantile SDH in New Zealand is 14.7 per 100,000 (95% confidence interval (CI) 10.8-19.4), and the ‘maximum’ 19.6 per 100,000 (95% CI 15.1-25.0). Among Maori, the ‘minimum’ is 32.5 per 100,000 (95% CI 21.4-47.3), and the ‘maximum’ 38.5 per 100,000 (95% CI 26.3-54.4).
Conclusions: The epidemiology of infantile subdural haemorrhage in New Zealand is similar to that described elsewhere. Non accidental head injury is a significant child health issue in New Zealand, and the incidence is particularly high among Maori.

Significance

This article does not specifically discuss SBS but rather addresses the broader topic of infant subdural haemorrhage (SDH). This article reports that most of the children receiving treatment had previous history of SDH which demonstrates the importance of educating parents. This education is important especially since some parents reported smothering, slapping, or shaking their baby within the first 6 months. The authors predicted that it would cost approximately $10 per infant to provide appropriate SBS prevention information to parents and caregivers. The information from this article will be utilized to demonstrate the need for parent education, especially coping techniques to decrease the incidence of SBS.


Abstract

The aim of this paper is to reflect on the role that the health professions can play in preventing a serious form of physical child abuse. Using research data from a case series study on non-accidental head injury, or shaken baby syndrome, some aspects of child healthcare are reviewed for their potential for prevention. In child protection in the UK, more resources are put into the diagnosis and assessment of child abuse than into interventions designed for prevention. The field of prevention is generally lacking in a theoretical underpinning or systematic means of evaluation and yet the 1996 National Commission of Inquiry into the Prevention of Child Abuse concluded that child abuse ‘can almost always be prevented provided the will to do so is there’ (National Commission of Inquiry into the Prevention of Child Abuse, 1996). This requires major changes to the way society views and protects children. The focus in this paper is on the very young, mainly babies under 6 months of age. It calls for a lowering of the threshold with which health professionals view a baby’s illness for secondary prevention of non-accidental head injury and the need to review approaches to primary prevention, both from the UK and abroad, in order to implement a systematic means to primary prevention.
Significance

This article addresses the incidence of non-accidental head injury. A misconception held by some parents stated that many believed that minor head injury in infants are viewed as acceptable and inevitable; this demonstrates the importance of reiterating the fact that head injury can be prevented. This article provides examples of community-based programs that will be referred to during the development of the prevention program. Possible triggers of SBS are mentioned in the article such as parental stress factors and possible thought of apnea or a “fit” attack. A study examining predisposing factors of non-accidental head injury is discussed in the article and will be referred to during the development of the program.


Summary

Retinal hemorrhages (RH) are the most common ocular finding in SBS. Retinal hemorrhages can’t be dated clinically or histopathologically. Non-ophthalmologists have great difficulty in seeing RH when limited by direct ophthalmoscopy and undilated pupils. There are many other causes but ophthalmologists aren’t always aware of SBS in the differential of RH. While retinal injuries can cause the loss of vision, the most common cause of blindness in SBS is direct bilateral injury to the visual pathways of the brain.

Significance

This chapter discusses the ophthalmic manifestations of shaken baby syndrome including retinal hemorrhages. The chapter addresses critics’ statements that often these physical
manifestations may be caused by accidents such as falling or a motor vehicle accident; however, the chapter utilizes information found from previous cases to demonstrate that non-accidental head trauma is detected by a higher frequency and intensity of retinal hemorrhages. Information from this chapter will be used to discuss physical manifestations of shaken baby syndrome and describe the complications experienced by the victims and their families.


**Abstract**

Objectives: This article describes the relationship of mothers’ orchestration of daily occupations, the specialized maternal work of parenting a child with a disability, and the mother’s subjective well-being.

Method: Mothers’ daily occupations and subjective well-being were studied using multiple in-depth interviews, participant observation of a day’s round of occupations, and scales of well-being. Data were treated to a recursive analysis, which included theoretical notes generated during transcriptions that identified important themes and additional points of inquiry, line-by-line coding of transcripts, and theoretical sorting of codes and regrouping, recoding. To account for patterns in the data, a relational analysis was conducted that included the generation of metaphors.

Results: Emergent findings of this analysis identified the mothers’ guiding occupational motif and eight processes of orchestration in their daily routines. The occupational motif, the embrace of paradox, directed the mother’s orchestration of daily occupations. The orchestration processes included planning, organizing, balancing, anticipating, interpreting, forecasting, perspective shifting, and meaning making. Examples illustrate the maternally driven and child-sensitive nature of these processes.

Conclusion: In their daily rounds, the mothers studied were attentive to the manner and method with which they interacted with their children to produce child-contingent occupations commensurate with their values of being a good mother. Using these orchestration processes, mothers made sense of their past, designed their present, and planned for their future within their daily occupational rounds for themselves and family members.

**Significance**

Although this article does not discuss SBS or child abuse, it addresses the role of mothers and the daily occupations performed by mothers of infants. The article discusses the importance
of creating a balance of daily occupations for mothers and their children with special needs. This balance is required for the mothers’ well-being; therefore, the parents’ enrolled in the prevention program will address coping techniques and plans for creating a balance for the clients because the parents’ well-being is linked to the child’s crying and child’s progress. Identification of coping clients adjust to the stress associated with becoming a new parent.


**Summary**

Although the Shaken Baby Syndrome was not formally described by John Caffey until 1972, it can be traced back at least 500 years. Beginning with a prophecy made by Nostradamus in 1555, many have described subdural hematoma and its relationship to trauma and abuse. This chapter explores aspects leading up to Caffey’s work, from early attempts to understand this in children through our present understanding of abusive head trauma.

**Significance**

This chapter will serve as a historical reference for shaken baby syndrome. This chapter highlights the significant discoveries throughout history which lead to the term “shaken baby syndrome.” This chapter demonstrates that shaken baby syndrome has a detailed history that started long before 1972 when the first formal description of shaken baby syndrome was defined. An excerpt from *Newsweek Magazine* originally published in 1956 provides a brief description of a nurse connected with 15 cases of injury to infants as a result of shaking. The nurse stated that she did not know why she did she shook the infants and that her actions were uncontrollable. The information will be helpful in creating the shaken baby prevention program to provide
potential clients with a brief history that this preventable condition has been recorded for centuries. The cases involving the nurse also demonstrate that anyone can have a lapse in judgment after becoming frustrated while working with an infant.


**Summary & Significance**

This book is divided into eighteen chapters, with each chapter addressing various aspects surrounding shaken baby syndrome. Please note that each chapter addresses different topics and will be included in this annotated bibliography to provide a more detailed overview of the aspects surrounding shaken baby syndrome. This book provides a multidisciplinary approach with perspectives from a variety of healthcare professionals and law enforcement personnel. Each chapter provides information regarding shaken baby syndrome including physical manifestations, potential risk factors, and information about perpetrators.

This book serves as a valuable resource throughout my capstone experience as it defines shaken baby syndrome, thoroughly explains physical manifestations associated with diagnosis, identifies the need for prevention efforts, and emphasizes the importance of providing a multidisciplinary approach. This book will provide me with valuable information to demonstrate the need of a shaken baby syndrome prevention program.


**Summary**
This document provides an overview of the available scientific knowledge about the shaken baby syndrome, from a psychosocial perspective. This document provides information about SBS including a description, the incidence, consequences, risk factors, and what to do if a baby does not stop crying. The risk factors are divided into three categories which include the abusers, the victims, and the context of the shaking incident. The author conducted a review of various databases for information about SBS and terms related to SBS. The search resulted in 248 references; however, individual articles were selected as references based on their relevance to the topic.

**Significance**

This document provides a review of SBS references from a psychosocial perspective. The description of the syndrome provides a definition of SBS and how it occurs. Additional information includes the different symptoms a shaken infant may exhibit. These symptoms include drowsiness, convulsions, lethargy, vomiting, coma, or irritability. This information will be used in the SBS prevention program to educate clients and their family members about the consequences of shaking an infant.

This document also discussed the incidence of SBS. The author estimated that Canada has over 100 cases of shaken baby syndrome cases reported annually. Consistent with the literature, the author suggests that this estimate may be lower than the actual incidence due to undiagnosed cases, estimating that approximately 30% of cases are not diagnosed during the first medical examination. Lack of parent report also creates a challenge for diagnosis of SBS. The document discusses a family violence study which indicated that:
Five-percent of Quebec women with a child under two years of age stated that their baby had been shaken at least once during the year preceding the study, and that 1% of these women claimed that the child has been shaken six times or more. (p. 4)

The author also states that approximately 27% of Quebec residents do not know the dangers of shaking an infant. These statistics demonstrate the need for education about the dangers and consequences of shaking an infant.

Risk factors for the abusers are identified and will be used to educate the clients about the importance of only allowing someone they trust to watch their infant. The risk factors associated with the abusers include young parents, parents with unrealistic expectations, parents experiencing stressful situations or domestic violence, and those with a history of drug or alcohol use. Risk factors associated with the victims include children younger than 1 year, premature or children with disabilities, or twins due to the additional work. The document also discusses the context to which shaking may occur identifying crying as a common trigger. The document also provides a list of ways to handle a crying baby. The SBS prevention program will implement Crying Baby sessions that address infant crying, ways to soothe a crying infant, and identifying appropriate coping techniques to cope with frustration (which may be associated with an inconsolable infant).


Summary

The Shaken Baby Syndrome can result in severe neurologic injury that leads to ethical challenges in medical care. This article addresses the perceived distinctions between withholding
and withdrawing life-sustaining medical treatment, demonstrating that in a severely injured child
the burdens of therapy may be disproportionate to the benefits. In this case, withdrawal of
support could be in the child’s best interest. The article then addresses the issue of who can
participate in that best interest decision. While parents must be allowed to participate, there may
be circumstances of conflicts of interest for a parent in the shaken baby syndrome that don’t
allow the parent to make a choice in their child’s best interest. In these situations the health care
team and the state services must use their parens patriae to act in the best interest of a child
which could include withdrawal of support of life-sustaining treatment.

Significance

This chapter addresses the ethical challenges associated with providing medical care for
victims of shaken baby syndrome. This chapter is more appropriate for healthcare professionals
involved in the immediate and intensive medical care for the victims. Emergency personnel
must remain cognizant of the entire situation and make decisions that are ethical with the infant’s
best interest. Healthcare professionals must determine who is responsible for deciding whether
to implement life-sustaining medical treatment, when the treatment can be withdrawn, and who
should make the decision. Although this chapter is not relevant for the prevention program, it
does provide a glimpse into the ethical issues surrounding the treatment of shaken baby
syndrome.

Journal Psychiatry in Medicine, 34(2), 131-141.

Abstract

Primary care physicians and psychiatrists should be aware of the incidence, causes, diagnoses, and prognosis of the conditions of Shaking Baby Syndrome (SBS). This article discusses both accidental and non-accidental head injury, and also addresses the legal aspects of SBS. Incidence, potential causes, explanations, prevention, and treatment of the condition, both
for the perpetrators and the unfortunate victims, are considered. Of special importance is the fact that SBS is difficult to diagnose with absolute certainty. Hence the identification of potential perpetrators can be difficult and injustices can occur.

**Significance**

The actual incidence of SBS is unknown due to underreporting and difficulty of providing the SBS diagnosis; however, it is estimated that “ten percent of the traumatic injuries suffered by children under five years of age are non-accidental, and 5%-20% of those non-accidental injuries are lethal” (p. 132). Common characteristics of SBS may include rib fractures, retinal hemorrhaging, subdural hematoma, and intracranial injury. This information will be helpful during the compilation of the program development and dissemination. The causes for the shaking are often unknown but it is believed that a trigger may be inconsolable crying. This demonstrates the importance of parenting education classes and providing soothing and coping techniques for parents and caregivers. This article also provides a list of references that will be helpful during the research of SBS. Details from the research study will be utilized to demonstrate the need for an SBS prevention program.


**Summary**

One of the essential parts of the evaluation of victims of traumatic head injury is the radiographic evaluation of SBS, which includes computerized tomographic scans, magnetic resonance images and plan x-rays. This chapter discusses the role of radiologists starting with John Caffey, and examines our current understanding of bone injury and healing, dating fractures
and intracranial blood and intracranial injury. The appropriate tests and the common findings in this syndrome are also reviewed.

**Significance**

This chapter identifies the important role of radiologists in the diagnosis of shaken baby syndrome. Vivid details of the physical manifestations that a radiologist might find while interpreting the tomographic scans, x-rays, and magnetic resonance images are described.

Although the prevention program does not focus on the diagnosis of shaken baby syndrome, information from this chapter will be used to demonstrate the seriousness of condition and demonstrate that the symptoms are usually visible immediately following the shaking incident.


**Abstract**

Objectives: The objective of this study was to assess crying behavior during infancy in very preterm infants with or without brain injury.

Methods: A total of 125 very low birth weight infants survived during January 2001 to July 2004 in Turku University Hospital, Finland. They were categorized according to the most pathologic brain finding either in ultrasound or MRI. Baby Day Diary was used to assess crying behavior at term, 6 weeks, and 5 months of corrected age. The behavior of a group of term control infants (*n* = 49) was assessed at 5 months.

Results: Severe brain injuries in very low birth weight infants did not affect the duration of fussing or crying. In very low birth weight infants, brain injuries did not affect the frequency of fussing or crying bouts or the development of circadian rhythm in crying behavior. At 5 months of corrected age, fussing bouts were more frequent in very low birth weight infants compared with term control infants (6.4 per day vs 4.5 per day), and very low birth weight infants were held more (169 minutes [97] vs 130 minutes [69], respectively).

Conclusions: This prospective study using a validated cry diary showed that brain injuries that are related to prematurity do not have major effects on crying behavior or development of circadian rhythm. Prematurity does not increase the duration but increases the frequency of fussing and crying at 5 months of corrected age compared with term control infants. It also
seems that prematurity and brain pathology may increase caregiving activity in the form of holding.

**Significance**

There have been numerous studies examining the pattern of crying in healthy infants which have suggested that crying usually peaks between 4 to 6 weeks of life. However, there has only been one study examining the pattern of crying in preterm infants but it did not address infants with brain injury. The current study addresses the crying patterns of preterm infants with or without brain injury. One-hundred twenty-five very low birth weight infants participated in the study. The researchers performed serial cranial ultrasound examinations on the infants throughout the study to detect intraventricular hemorrhage (IVH), caudothalamic cysts, cystic periventricular leukomalacia (PVL), and striatothalamic vasculopathy. An MRI was also performed on the same day as the ultrasound examinations. The infants were then divided into three groups based on the findings from the testing. The three groups included a normal group, an intermediate group with brain imaging findings of unclear significance, and brain pathology group. The parents of each infant were asked to complete a Baby Day Diary in which they would record their infant’s fussing and crying. The diaries were completed for three days at each age point which included at term, at 6 weeks, and at 5 months of corrected age. If the infants were in the hospital and the parents were not present, a nurse completed the diaries. Results suggested that the development of circadian rhythm, duration and frequency of crying and fussing were not affected by the presence of brain injury. However, when compared to control term infants, the very low birth weight infants demonstrated more frequent crying bouts at 5 months of corrected age. The information from this study will be used to answer questions regarding infant crying during the prevention program and education of parents with premature infants.

**Summary & Significance**

This article lists infant risk factors and characteristics of perpetrators which will be helpful in providing education for the families at-risk. Examples of multidisciplinary community efforts and suggestions for developing a program are included in the article and will be referred to during the development of the prevention program. Additional information that will be helpful during the development of the program include four key elements to an educational program including one-on-one instruction, viewing a video, reviewing a brochure, and providing a parent certificate. Helpful suggestions include how to approach parents of newborns and ways to make the healthcare professionals more comfortable when interacting with parents and providing the education. This information will be used during the presentation to the volunteers at Heartbeat of Toledo and Heart to Heart to provide them with the tools to feel more comfortable addressing the parents. The article provides information on the importance of implementing multiple approaches, the optimal time for education, and the importance of educating all those individuals who will care for the infant.


**Abstract**

Shaken baby syndrome (SBS) is a great concern for forensic nurses. Accurate diagnosis and treatment is essential. The purpose of this report is to review the history of SBS, as well as the physical symptoms of a patient suspected of suffering from this form of abuse. Implications
of SBS for the forensic nurse will be presented; this will include the education of families and
caregivers and methods of prevention.

**Significance**

This article discusses the history, estimated prevalence, and physical manifestations
surrounding SBS. It briefly discusses the importance of prevention education, as well. The first
concept of SBS was introduced in 1946 by pediatric radiologist, John Caffey. He first defined
the term “whiplash shaken baby syndrome” as a diagnosis when a child exhibited serious internal
head injuries without external injuries. Even though the term has existed for more than sixty
years, there is not a national database to track the incidence of this preventable condition.
However, some estimates are available. The prevalence from this study found that, “in 2001, an
estimated 903,000 children were victims of SBS. Additionally, 1,300 children were fatally
injured from SBS the same year.” Unfortunately, it is difficult to diagnosis the condition
because it requires the presence of multiple symptoms. Common physical manifestations
include retinal hemorrhages, hematomas, cerebral atrophy, hydrocephalus, and possible bone
fractures throughout the body. The authors emphasized throughout the article that SBS is a
preventable condition and a majority of the cases could have been prevented with appropriate
parent education by medical professionals.

Naughton, A., & Heath, A. (2001). Developing an early intervention programme to prevent

**Abstract**

This paper describes the development and implementation of a programme to prevent
child maltreatment in a multicultural, inner city community setting with very high rates of
physical abuse and neglect. The rationale and philosophy underpinning the prevention
programme is outlined. It has a unique approach, combining several features present to varying
degrees in other home visiting programmes within a well-structured framework. This includes the identification of vulnerable parents during the antenatal period, the use of generic health professionals (health visitors) in identification and intervention with families, an ‘active engagement’ strategy, the development of specialist non-stigmatizing clinics for parents and the creation of a consultation service for generic workers. A variety of interventions are briefly described which are used to support vulnerable families. These include antenatal parenting workshops; baby massage; dedicated crying, sleeping, and feeding clinics; and clinics to help parents manage toddler behaviour. Evaluation over the first 5 years of these clinics shows almost 75% of cases have successful outcomes.

Significance

This article discusses a child abuse and maltreatment program in London. When developing the program the authors emphasized the importance of building a trusting relationship with the families by listening to families, becoming engaged with the parents, and listening to the parents’ anxieties. The article states that parents reported sometimes feeling stressed to the point of abuse. When presenting the information about SBS, the article emphasizes not making the families feel as though they are singled out because it may turn them off to participating in the program. This is an important aspect to express to the volunteers of Heartbeat of Toledo and Heart to Heart to ensure the clients this information is addressed with all clients.


Abstract

Objective: To test, among an urban primarily African American sample, the effects of prenatal and infancy home visiting by nurses on mothers’ fertility, partner relationships, and economic self-sufficiency and on government spending through age 12 years of their firstborn child.

Design: Randomized controlled trial.

Setting: Public system of obstetric and pediatric care in Memphis, Tennessee.
Participation: A total of 594 urban primarily African American economically disadvantaged mothers (among 743 who registered during pregnancy).

Intervention: Prenatal and infancy home visiting by nurses.

Main Outcomes Measures: Mothers’ cohabitation with and marriage to the child’s biological father, intimate partner violence, duration (stability) of partner relationships, role impairment due to alcohol and other drug use, use and cost of welfare benefits, arrests, mastery, child foster care placements, and cumulative subsequent births.

Results: By the time the firstborn child was 12-years-old, nurse-visited mothers compared with control subjects reported less role impairment owing to alcohol and other drug use (0.0% vs. 2.5%, P=.04), longer partner relationships (59.58 vs 52.67 months, P=.02), and greater sense of mastery (101.01 vs. 99.60, P=.005). During this 12-year period, government spent less per year on food stamps, Medicaid, and Aid to Families with Dependent Children and Temporary Assistance for Needy Families for nurse-visited than control families ($8772 vs. $9797, P=.02); this represents $12,300 in discounted savings compared with a program cost of $11,511, both expressed in 2006 US dollars. No statistically significant program effects were noted on mothers’ marriage, partnership with the child’s biological father, intimate partner violence, alcohol and other drug use, arrests, incarceration, psychological distress, or reports of child foster placements.

Conclusion: The program improved maternal life course and reduced government spending among children through age 12 years.

Significance

Research has suggested that the rates of unintended subsequent pregnancies, poverty, and government spending have decreased with the presence of home visiting nurses for low-income mothers with their first child. This study was a follow-up of a randomized trial which examined the effects of prenatal and infancy home visiting nurses on the mothers’ fertility, partner relationships, and government spending through the first 12 years of the firstborn child. Results from the study indicated that the intervention group (those receiving nurse visits) reported longer partner relationships, greater sense of mastery of parenting, and less government spending. This study demonstrated positive effects with decreased government spending, but did not demonstrate effects on mother-infant relationship. This article does not directly relate to the
Abstract

A program of prenatal and infancy home visitation by nurses was tested as a method of preventing a wide range of health and developmental problems in children born to primiparas who were either teenagers, unmarried, or of low socioeconomic status. Among the women at highest risk for care-giving dysfunction, those who were visited by a nurse had fewer instances of verified child abuse and neglect during the first 2 years of their children’s lives (P=.07); they were observed in their homes to restrict and punish their children less frequently, and they provided more appropriate play materials; their babies were seen in the emergency room less frequently during the first year of life. During the second year of life, the babies of all nurse-visited women, regardless of the families’ risk status, were seen in the emergency room fewer times, and they were seen by physicians less frequently for accidents and poisonings than comparison group babies (P ≤ .05 for all findings, except where indicated). Treatment differences for child abuse and neglect and emergency room visits were more significant among women who had a lower sense of control over their lives.

Significance

This article was published 1986. Six years prior to the publication, two research surveys confirmed an increase in the reports of child abuse and neglect. Due to this dramatic increase, the focus should be placed on prevention of maltreatment to decrease its incidence. This study addressed whether a comprehensive prenatal and postpartum nurse visitation was effective in preventing a variety of childhood problems, including child abuse and neglect. There were four treatment conditions: 1) control; 2) regular prenatal and well-child care at local physicians’ offices and local clinics; 3) a nurse home-visitor approximately every two weeks during pregnancy, screening, and transportation services; and 4) a nurse home-visitor until the child was two-years-old in addition to the services provided for the third treatment group. During the
home visits, the nurses addressed many topics regarding pregnancy and child development. The topics that were addressed included fetal and infant development, infant temperament (focusing on crying), infant’s physical health care needs, dietary requirements, and importance of responsive caregiving. The nurses also emphasized the importance of informal support and encouraged the women’s family and close friends to participate. These topics that were addressed by the nurses will be addressed during the Crying Baby sessions to prepare the clients to care for their infant, build a secure attachment with their infant, and protect the infant from maltreatment. The prevention program will also place a strong emphasis on utilizing informal support from friends, family members, and clinic personnel.


**Abstract**

Objectives: The objective of this study was to evaluate the effectiveness of three methods in the management of infantile colic.

Methods: Healthy infants with persistent crying were randomly assigned to one of three groups for a 2-week period. All groups received an assessment and reassurance from a pediatrician and support from a public health nurse. Group 1 also received counseling regarding specific management techniques. Group 2 also received a car-ride simulation device. Group 3 acted as a control. Mothers completed crying diaries and preintervention and postintervention anxiety questionnaires.

Results: Thirty-eight mother-infant pairs were enrolled. Combining all three groups, there was a 24% reduction in daily hours of crying (P=.01) and an 18% improvement in maternal anxiety (P<.001), but no significant difference among groups.

Conclusions: The natural history of persistent crying of infancy is improvement over time. These specific interventions proved no better than reassurance and support alone in decreasing daily hours of crying and maternal anxiety.

**Significance**
Excessive infant crying also referred to as colic, can be stressful for parents. Colic can occur in infants that appear healthy and parents must be reassured that infant crying is not an indicator of poor parenting. The possible causes of colic include lactose intolerance, cow milk protein allergy, neurophysiologic response to environment, and interruption of parent-infant relationship. This study compared the effectiveness of three interventions in the management of persistent infant crying. The interventions included parental counseling, car ride simulation, and support and reassurance for the parents. Results from the study demonstrated that regardless of the intervention, maternal anxiety improved within two weeks. This suggests that providing counseling about management techniques and the use of the car-ride simulator were no more effective than providing support and reassurance. The results also demonstrate that time was responsible for improvement of persistent infant crying. This is important to explain to the clients of the prevention program that some interventions may not work, but the crying will decrease over time. The clients should be encouraged to try a variety of soothing strategies, but be reassured that if the infant continues to cry it is not from lack of effort and it is not the parents’ fault. It is important to educate the clients about positive effective coping strategies for themselves, to reduce anxiety and respond to their infant appropriately.


**Summary**

This article addresses SBS from the perspective of the legal practitioner or prosecutor in both the criminal or juvenile/family court. This analysis includes an examination of the procedural alternatives that the legal practitioners or prosecutor may employ to successfully
SHAKEN BABY SYNDROME PREVENTION PROGRAM

protect the victim of SBS from further injury and to hold the perpetrator legally accountable.

Next there is a discussion of the strategies available for effective case building. Finally we will examine the methods for gathering and presenting evidence to the court.

Significance

Although this chapter provides information from a legal perspective, if the infant’s safety is not in the best interest of a potential perpetrator, hopefully the legal consequences may scare a potential perpetrator. The legal consequences will not specifically be addressed in the prevention program but if the parents or caregivers ask about the legal aspects, I will provide this information. I will only provide the information if asked because I do not want the clients to think I am only delivering the information because I think there is intent to harm the infant. The program is designed to be implemented in an educational and non-judgmental manner so the parents feel comfortable with open communication with the occupational therapist. Providing the legal information will inhibit the clients’ willingness to be honest with the occupational therapist.


Abstract

This study describes 56 infants who presented to the Emergency Department of The Children’s Hospital of Denver during a 1-year period with an episode of excessive, prolonged crying, without fever and without a cause that was apparent to the parents. The final diagnoses included a broad array of conditions, of which 61% were considered serious. The history provided clues to the final diagnosis in 20% of cases. Physical examination revealed the final diagnosis in 41% and provided clues to the diagnosis in another 13%. Accurate diagnosis requires a thorough physical examination, which should include careful skill inspection underneath all clothing, palpation of all large bones, fluorescein staining of the cornea, eversion of eyelids, rectal examination, retinal examination, and thorough neurologic examination. “Screening” laboratory tests, except for urinalysis and urine culture, were of little help. This study indicates that for those patients in whom the physical examination is not diagnostic, the
persistence of excessive crying after the initial examination predicts the presence of a serious cause. Those infants who cease crying before or during the initial assessment are unlikely to have a serious cause. Recommendations for a stepwise assessment are offered.

Significance

Infants communicate their needs and distress through crying. Parents may become frustrated if they are unable to console their infant, often feeling as though they are not meeting their infant’s needs and therefore an inadequate parent. This is not true because even though it may seem overwhelming for the parents, it is common for children to cry up to three hours each day. Educating parents about excessive crying is critical to ensure parents that infant crying is a form of communication rather than an indication of poor parenting. This article provides a definition of colic which will be provided in a Crying Baby session of the prevention program. This article discusses the importance of crying during infancy and examined the incidence of excessive crying in otherwise healthy infants. The most common crying pattern among infants enrolled in the study occurred during the afternoon and evening hours from 3 PM to midnight. The researchers suggested a physical examination and observation for infants reported to have excessive crying. A physical examination will determine whether there are any physical concerns. The period of observation would then be used to assess the diagnosis or lack of diagnosis. The information regarding infant crying, crying patterns, and colic will be included in the prevention program with emphasis of crying as a form of communication for infants. Volunteers will also be educated regarding the pattern of crying to provide reassurance to clients that crying is normal and the parents can schedule help or support based on the crying pattern.


*Special Interest Section Quarterly: Early Intervention & School, 17*(3), 1-4.
Summary

This article discusses SBS and the mechanisms of injury. It also discusses that infant crying as a possible trigger for shaking. The article identifies the need for prevention and importance of establishing a prevention program. It identifies the role occupational therapy can have in the prevention of SBS, rather than only providing intervention after the incident has occurred.

Significance

Occupational therapists often play a role in the treatment of survivors of SBS; however, occupational therapists have not been involved in the prevention of SBS. The author discusses the role occupational therapy can have in SBS prevention. As mentioned in previous articles, infant crying is often viewed as a potential trigger and this author recommends addressing this issue by educating parents about infant crying, providing suggestions to soothe an infant, and identifying proper coping techniques. The article briefly discusses ways to design programs and provides references for other SBS prevention programs. The article also provides a list of available resources such as brochures and DVDs that may be helpful in creating SBS prevention programs.


Summary

Controversies invariably exist when hypotheses about biological phenomena cannot be studied directly (in clinical settings where information is readily available) or indirectly (with the
creation of biological models approximating the organism in question). This creates missing links in the chain of logic and results in incomplete faith some conclusions about these phenomena. Such is the case in shaken baby/shaken impact syndrome. Because abusive head trauma occurs without witnesses other than the perpetrator in most cases, we need to infer certain information to fill the gaps of validated facts. This leaves room for scientific and legal challenge. But there is increasing clinical and research data elucidating this condition. Although SBS cannot be studied in the bench laboratory tradition or even in the tradition of the hospital-based research scientist, there is a generation of new knowledge that is providing answers. These answers are being found in studies done by a wide range of scientists who have contact with abusive head trauma cases at some point in the process of care. Emergency department clinicians, intensive care specialists, hospital attending clinicians, forensic pediatricians, pediatric ophthalmologists, neurosurgeons, radiologists, forensic and neuro-pathologists all have contributed to this literature.

**Significance**

There are controversies that surround shaking baby syndrome. The controversies are due to the variance in clinical signs of SBS such as various neurological symptoms and often no external signs of traumatic injury to the head. This chapter provides a list that identifies a general consensus about shaken baby syndrome. This list will be utilized when creating the shaken baby syndrome prevention program.

Summary

Shaken infant syndrome is commonly associated with injuries to the central nervous system. Non-accidental cerebral trauma has been implicated in 10% of children under age two with injury. Cranial vault fractures, subdural hematomas, localized parenchymal hemorrhages, diffuse axonal injury and spinal cord injury can be part of the shaken infant syndrome. This review will outline the neurosurgical aspects of the multidisciplinary team approach in cases of children with neurological sequelae from the shaken infant syndrome.

Significance

This chapter provides medical information about the consequences of shaken baby syndrome which will be used during the SBS discussion of the Crying Baby sessions. This chapter discusses the physical injuries and rate of morbidity and mortality associated with shaken baby syndrome. This information will be useful in providing statistics and demonstrating the importance of implementing a shaken baby syndrome prevention program to families at risk and the public.


Abstract

Each year infants die or are permanently disabled at the hands of their caregivers by abusive head trauma, more commonly known as Shaken Baby Syndrome (SBS). Current medical research confirms the central role of infant crying is the most common explanation given by abusers. Although SBS prevention efforts have been initiated, most remain unevaluated. This article provides an overview of a 5-year, evidence-based SBS-prevention program called The Period of PURPLE Crying: Keeping Babies Safe in North Carolina from a social marketing perspective. The project includes three components: (1) in-hospital education for parents of
every newborn at all 86 hospitals/birthing centers in North Carolina; (2) reinforcement in community settings such as prenatal visits to health departments or well-child care visits to primary care providers; and (3) a media campaign.

**Significance**

The *Period of PURPLE Crying: Keeping Babies Safe in N.C.* is an in-hospital SBS prevention program that was developed and implemented in North Carolina for 5-years. The program utilized four steps of social marketing (initial planning, formative research, strategy development, and program development and pretesting) to ensure the information addressed the program’s goals and objectives. The authors emphasize throughout the article that crying is a normal part of infancy and that shaking is sometimes viewed as a form of discipline. Although the primary objective of the program was to educate parents about infant crying and reduce the rate of SBS to keep infants safe, the cost of this preventable abuse also has a role in demonstrating the need for prevention efforts. The estimated costs of hospitalization for child maltreatment averages between $18,000 to $70,000 per child which demonstrates the financial impact this violent act has on society. This article will be particularly helpful because it describes the programming of the North Carolina program including the materials used and ways to make a program attractive and appealing to parents. There is an emphasis on the importance of utilizing a multidisciplinary approach to educate all individuals who may care for an infant, not exclusive to the parents. The article provides descriptions of marketing strategies which will be helpful in developing the marketing aspect of the SBS prevention program. Making changes to a routine may be difficult for hospital personnel; this article addresses the apprehension encountered during the implementation of the program. This demonstrates the importance of preparing personnel, making them feel comfortable addressing the topic, and the importance of emphasizing the need for a SBS prevention program.

**Abstract**

In the last 10 years, over 80% of adults surveyed report some familiarity with Shaken Baby Syndrome (SBS) and the dangers of shaking infants younger than 2 years of age (Dias et al., 2005; Russell & Britner, 2006). Hence, in the context of SBS prevention, the question of whether caregivers knew the safety risks of shaking an infant becomes less meaningful than questioning whether caregivers have an awareness of alternate responses they could use to respond safely to the relatively normative occurrence of inconsolable crying (Barr, Trent, & Cross, 2006).

Objective: The present work is a continuation of efforts to prevent abusive head injury during infancy particular to SBS by raising awareness and provides prevention professionals with a reliable and shorter, single-page version of the Shaken Baby Syndrome Awareness Assessment (Russell & Britner, 2006).

Methods: A sample of 370 adults completed the short version of the measure during 2008.

Results: Psychometric results, including Cronbach’s alphas and Pearson’s correlations, are all significant and meet acceptability standards.

Conclusion: These results indicate the short version of the measure is ready for use in the preventative field.

Practice Implications: The Shaken Baby Syndrome Awareness Assessment – short version is best used to support child abuse prevention professionals in engaging caregivers in a conversation about responding to a crying infant safely. By talking about the responses a caregiver might be willing to use in the high-stress context of an infant’s inconsolable crying bout, intervention efforts can be tailored to maximize on caregiver strengths and achieve a high degree of goodness of fit with the values held in the care environment. Increasing the goodness of fit between caregivers’ values and the steps recommended through an intervention program supports the likelihood that the behavior described in the program’s service plan will be used.

**Significance**

Injuries from SBS are often due to a lack of the caregivers’ impulse control. It is important to provide parents and caregivers of infants with the proper tools to better control their frustration. It is difficult to evaluate past prevention programs due to limited reports; however, this article provides information for improving the context of an SBS prevention program which
suggests changing the emphasis of the program. Most programs focus on the consequences of SBS, although these consequences are necessary to demonstrate the magnitude of what could happen the author suggests the prevention program should address ways to console a crying infant, age appropriate discipline, infant safety, and administration of the SBS Assessment-short survey. Additional strategies include assessing individuals’ attitudes toward responding to a crying infant, maximizing the parents/caregivers’ strengths during prevention efforts, and educating ways to respond to high-stress situations. This approach provides the parents/caregivers with appropriate tools to deal with a stressful situation rather than just listing the consequences of shaking an infant. The Crying Baby sessions will address infant crying, including ways to soothe a crying infant; additionally, the Crying Baby sessions will assist the clients identify coping techniques unique to their individual needs and preferences.


Abstract

Recent estimates of Shaken Baby Syndrome awareness suggests that approximately half of all American adults have not heard of the often devastating risks of shaking an infant. Using a sample of 288 undergraduate students, we developed a measure of attitudes around infant care practices. A total of 264 community participants completed a revised survey. Between-group comparisons, exploratory factor analyses, and internal consistency tests were employed to determine the directionality and reliability of any scale structure present in the data. A five factor structure fits the data reliably, and each of these factors seems to represent a unique dimension. Implications for using this measure clinically and preventatively are discussed.

Significance

There are few education programs for SBS prevention and most of those programs address SBS in a broader sense of child abuse and neglect. SBS is preventable, but some people
do not know the devastating consequences of shaking a baby. Prior to an SBS public service announcement, between one-third to one-half of adults reported not knowing the dangers of shaking a baby; however, with education the numbers have decreased, demonstrating the need for a prevention program specifically for SBS. Although previous programs have provided suggestions for soothing a crying infant, these programs have not been evaluated on whether the suggestions have been effective or helpful. This issue will be addressed in the proposed program by asking the parents to report coping strategies that are effective and helpful for them during stressful times.


**Abstract**

Purpose: The current study sought to compare interventional materials intended to raise public awareness of the caregiving practices connected to Shaken Baby Syndrome (SBS). Two hundred and sixty four adults (mean age 32 years) were recruited for participation through convenience sampling at a large Northeastern university. Participants fell into two groups – those who regularly cared for children (46%) and those who did not (54%).

Methods: SBS awareness was surveyed prior to an educational intervention and at three time points (2, 6, and 12 weeks post-intervention) longitudinally. Three intervention levels were used: Two different video conditions, each with an informational brochure, and the brochure-only condition. Survey responses were combined into five factor scores. Changes in factor score over time were modeled using event history analysis to predict the conditional probability of change in awareness as a discreet event.

Results: The resulting models show consistent results for three of the five factors, predicting the highest likelihood of increased awareness for a teaching video intervention, followed by a testimonial video, and the lowest probability for increased awareness for the use of an intervention using only the brochure. Negative change, or decreased awareness, was not predicted by the type of intervention materials. Demographic variables were not significant predictors of either positive or negative change.
Conclusion: The results indicate that the addition of video materials, and in particular material focusing on teaching alternative behaviors, significantly increases the likelihood of positive changes in SBS awareness over interventions which use only a brochure.

Implications for practice or research: The present study uses a two by three design to describe levels of improved awareness of Shaken Baby Syndrome across two groups of participants (those who regularly care for children and those who do not) and type of educational material (a brochure versus two different videos each in combination with the brochure). Results show a differential effect for each intervention level, and indicate a need for careful selection of educational materials for intervention programs concerned with preventing SBS through public awareness.

Significance

This article provides helpful suggestions for the topics to address for an SBS prevention program. Suggestions that will be utilized include focusing on the parent-child relationship, providing parents with skill building opportunities to enhance the relationships, and providing parents with information about developmentally appropriate discipline. The article also provides a list of educational materials that will be referred to during the development of the program.

Results from the study suggest that a video intervention in addition to a brochure improves change in attitudes rather than only the brochure. The SBS prevention program will address SBS through video, brochures, and interactive lessons to provide a better understanding and retention of the information.


Abstract

Objective: To determine the role of household composition as an independent risk factor for fatal inflicted injuries among young children and describe perpetrator characteristics.

Design, Setting, and Population: A population-based, case-control study of all children <5 years of age who died in Missouri between January 1, 1992, and December 31, 1999. Missouri Child Fatality Review Program data were analyzed. Cases all involved children with injuries inflicted by a parent or caregiver. Two age-matched controls per case child were selected randomly from children who died of natural cases.
Main Outcomes Measure: Inflicted-injury death. Household composition of case and control children was compared by using multivariate logistic regression. We hypothesized that children residing in households with adults unrelated to them are at higher risk of inflicted-injury death than children residing in households with 2 biological parents.

Results: We identified 149 inflicted-injury deaths in our population during the 8-year period. Children residing in households with unrelated adults were nearly 50 times as likely to die of inflicted injuries than children residing with 2 biological parents (adjusted odds ratio: 47.6; 95% confidence interval: 10.4-218). Children in households with a single parent and no other adults in the residence had no increased risk of inflicted-injury death (adjusted odds ratio: 0.9; 95% confidence interval: 0.6-1.9). Perpetrators were identified in 132 (88.6%) of the cases. The majority of known perpetrators were male (71.2%), and most were the child’s father (34.9%) or the boyfriend of the child’s mother (24.2%). In households with unrelated adults, most perpetrators (83.9%) were the unrelated adult household member, and only 2 (6.5%) perpetrators were the biological parent of the child.

Conclusions: Young children who reside in households with unrelated adults are at exceptionally high risk for inflicted-injury death. Most perpetrators are male, and most are residents of the decedent child’s household at the time of injury.

Significance

In Missouri, the leading cause of injury and death among infants result from child maltreatment. Adult caregivers are often to blame for these injuries. A small study suggested that children residing with adults unrelated to them are at a greater risk for being abused. This study found that these children are 8 times more likely to die of maltreatment than children living with both biological parents or only a single parent. This study sought to evaluate the household composition as a risk factor for fatal inflicted injuries among children. The researchers aimed to determine whether children living with unrelated adults were at a higher risk of maltreatment than children living with either their biological parents or a single parent and no other adult. The results indicated:

Children who died as a result of inflicted injuries were more likely to be black, born to young, unmarried, Medicaid-eligible mothers with less than a high school education and
late or no prenatal care; reside in household with young siblings; and have a prior report to child protective services (p 689).

Of the children who suffered fatal inflicted injuries, 73% of the injuries were inflicted by hitting or shaking the child.

The perpetrator characteristics were similar in the study conducted by Starling and colleagues (2004). The most common perpetrator was the child’s father, followed by the boyfriend of the child’s mother, and finally the mother. If the fatal inflicted injury occurred within the first week of the infant’s life, the mother was often the perpetrator. This demonstrates the importance of educating mothers and family members regarding the fragile state of the infant. Results from the study indicate that children under 5-years-old have a higher risk of inflicted-injury death if they live in a household with adults unrelated to them. Children residing in single-parent homes, without another adult present, were not shown to have an increased risk of inflicted-injury death. The researchers suggested that child abuse prevention efforts should target the biological fathers and male caregivers since they are the leading perpetrators in child maltreatment. Although the Shaken Baby Syndrome prevention program is mainly targeted towards the mothers, the fathers/male caregivers are encouraged to attend the Crying Baby sessions and the mothers are encouraged to educate others caring for their child about the information learned through the Crying Baby sessions. The mothers and caregivers will be encouraged to ask questions and call a hotline if questions arise during after hours.


**Abstract**

The suggestion that has been made that a systematic approach to informing all parents of newborns about the dangers of shaking a baby is needed. The purpose of this study was to
determine whether an educational campaign about the dangers of shaking a baby could influence parental knowledge, and would be perceived as helpful by new parents. A total of 15,708 parents of newborns in one urban county received a “Don’t Shake the Baby” packet over a one year period. Moms ranged in age from 14 to 44 years, and 90% were white. A response postcard in the educational packet was returned by 3,293 parents (21%). More than three-fourths of respondents said the information was helpful to them and 49% indicated that subsequent to reading the materials they were less likely to shake their babies. Ninety-one percent said they thought other parents of newborns should read the material.

**Significance**

Shaken baby syndrome was first described by Dr. John Caffey in 1972. Upon Caffey’s description of shaken baby syndrome, he also recommended implementing a large public educational program on the dangers of shaking infants. However, according to the Ohio Department of Health, in 1986-1988 15% of deaths due to child maltreatment were confirmed cases of shaken baby syndrome and an additional 11% were questionable cases. This article raised two concerns that may impact parents’ perceptions of shaken baby syndrome. One concern was raised when a Task Force of Child Abuse and Neglect became aware of a medical setting that was encouraging parents to shake their infants to revive the infants if they were experiencing an apneic episode. At least two children experienced brain damage from this approach. The second concern is the need for educating caregivers raising drug-exposed infants because the infants spend much of their time crying and are often difficult to soothe due to drug withdrawal. These statistics and concerns demonstrate that there is still a need for prevention efforts. The purpose of this study was to determine whether parental knowledge could be influenced by an educational campaign about the dangers of shaking an infant and whether the parents thought the information was helpful. Results indicated that 57% of participants learned more about the dangers of shaking an infant and over 75% of participants reported the information was helpful. This article demonstrates the need for educational programs targeted
towards educating parents about the dangers of shaking an infant and that many parents found
the information to be helpful. This information will be utilized to demonstrate the need for the
program at Heartbeat of Toledo for potential funding sources.


**Summary**

This book highlights the topics addressed during the Second National Conference on
Shaken Baby Syndrome held in Salt Lake City, Utah in 1998. This book discusses victims,
common histories, missed cases, medical findings, diagnostic imaging, implications of research
in biomechanics, forces involved and timing, neurodevelopmental consequences, family impact,
investigation, perpetrators, prosecution, common defenses, sentencing, and prevention. The
book also contains a glossary, and contact information for the sponsors, author, and editorial
board. The information from this book will be helpful in identifying the need for a prevention
program, discussing the consequences, and prevention efforts.

**Significance**

The section titled *Neurodevelopmental Consequences* will be utilized to identify the
physical consequences as a result of shaking an infant. The section titled *Family Impact* will be
utilized to demonstrate that the effects of shaken baby syndrome are not exclusive to the hospital
stay; rather a split second decision to either refrain or to shake a baby will have a lifelong impact
on both the infant and the family members. One mother described the challenges of raising a
survivor of shaken baby syndrome which will be used to demonstrate the impact of family life
during the Crying Baby sessions. Other important details from this chapter include a report of
little awareness of shaken baby syndrome, the challenges faced by families, and the importance of advocating for families affected by shaken baby syndrome.

The section titled Prevention will be helpful because it discusses successful and unsuccessful attempts at prevention programs. This section states that in previous programs, only parents were educated about shaken baby syndrome but the focus has shifted to educating any person who may care for an infant. The importance of education regarding shaken baby syndrome is discussed throughout this section with suggestions of dissemination of the information.

The information found throughout the book will be utilized to create Crying Baby sessions, identify the need for prevention, and provide family statements about the challenges of raising a survivor of SBS. Additional information about the risk factors and common characteristics of perpetrators will be utilized to identify appropriate clients for the program. If clients or volunteers have any questions regarding SBS, the occupational therapist will use this book as a reference.


Summary

Although the prevention of shaken baby syndrome is questioned by some professionals there is no doubt that prevention is the ideal goal. Education about the dangers of shaking babies is paramount, especially in light of the fact that messages have historically been distributed that shaking is an acceptable practice. Such messages have included instructions regarding apnea as well as infant cardiopulmonary resuscitation. While it can be argued that the amount of shaking
needed to cause SBS, the important prevention message is that babies and children should never be shaken for any reason. This dictum, along with information about the specific injuries caused by shaking should be provided to everyone, from youngsters to senior citizens. Common approaches to educating the public are discussed and evaluation of these efforts will also be reviewed. Other programs in schools, hospital maternity units and through child care licensing are also being implemented. The responsibility for SBS prevention belongs to every professional who works for children and families and to each individual who care for a baby or young child.

**Significance**

This chapter demonstrates that opposition may occur during the implementation of the prevention program. Some individuals question the diagnosis of shaken baby syndrome, but even if they do not agree with the diagnosis, critics still strive to keep infants safe. This chapter demonstrates the need of education for all ages which will require developing different aspects of the program to relate to babysitters, parents, caregivers, and grandparents. The Crying Baby session will have a template that the occupational therapist can follow; however, this should only be used a guide. Each session should be designed for the each client’s needs including education level and best method of learning.


**Abstract**

Effects of early and extended postpartum contact and paraprofessional home visits on maternal attachment, reports of child abuse and neglect, and health care utilization were determined by random assignment of 321 low-income women to intervention or control groups immediately after delivery. Observations of maternal attachment were made at four months and 12 months. Hospital, health and welfare agency records, and interviews were used to determine
reports of child abuse and neglect and health care utilization. After establishing a control for maternal background variables, early and extended contact explained statistically significant but small amounts of variance in several of the attachment measures. There were no statistically significant effects of the home visit interventions on maternal attachment, and neither intervention was related to reports of child abuse and neglect and health care utilization. Although the study supported earlier findings that early and extended contact has a significant effect, additional interventions are needed to support mother-infant attachment.

**Significance**

Building a positive relationship between a mother and her child is often dependent upon early development of the mother-infant bond. Home visitation programs have been shown to have a positive impact on child development and the parent-child relationship. This study examined the effectiveness of a maternal support program in which a paraprofessional visited the mother and her infant for the first three months following the infant’s birth. The study also examined whether this encouragement of mother-infant attachment would decrease child abuse and neglect. Although the researchers found no evidence that the program influenced maternal attachment or decreased the rate of child abuse and neglect, information from this study will still be utilized in the development of the prevention program. This study provided a list of education opportunities for parents that will be implemented to educate clients of the prevention program. These education opportunities include child development, importance of play, language development, importance of mother-infant attachment, use of community resources, and raising a child with special needs. Including these topics in the Crying Baby sessions of the prevention program will provide the clients with opportunities to build a strong attachment with their infants. The clients will be encouraged to bring a support person and educate their family members regarding the information they learned from the program.

**Abstract**

Objective: Previous studies have concluded that shaken baby syndrome occurs more often among Whites than among Blacks. The purpose of this study was to determine whether race is a predictive factor in Shaken Baby Syndrome when population and referral patterns are considered.

Methods: A retrospective model record review of closed head injuries due to child abuse during the time period January 1992 to July 1997 was conducted at three pediatric tertiary care medical centers in North Carolina. Patients included children, ages 0-4 years, identified from medical record reviews and child abuse databases. Only North Carolina residents were included. The specific rates of shaken baby syndrome in Whites versus non-Whites in the referral area were computed.

Results: The difference in the rate of shaken baby syndrome from the referral area was not statistically significant among Whites versus non-Whites (26.7/100,000 versus 38.6/100,000, \( p = .089 \)). Most of the perpetrators were male (68%) and most victims (76%) lived with their mothers and biological father or mother’s boyfriend.

Conclusion: Race was not a significant factor in predicting shaken baby syndrome in the referral area studied, and therefore is not a useful factor in targeting groups for intervention.

**Significance**

Due to a large difference in the incidence of shaken baby syndrome among white versus black infants in child abuse cases, Brenner and colleagues suggested that different methods of discipline were acceptable in different cultures. The purpose of this study was to determine whether race is a predictive factor in shaken baby syndrome.

The researchers reviewed charts of children with suspected SBS. To be eligible for inclusion, the child must be 0 to 4 years of age, have a diagnosis of SBS, identify as a victim of child abuse, and referral made to law enforcement or Department of Social services.
records from three North Carolina pediatric hospitals dated from January 1992 to July 1997 were reviewed.

A review of the medical charts found a total of 101 cases of child abuse head injury. Sixty-two percent of the children were White and 38% of the children were non-White. The non-White group included African American, Hispanic, Vietnamese, and American Indian. Based on the findings, the researchers suggest that race does not appear to be a predictor of shaken baby syndrome because there was not a significant difference in comparison of White versus non-White children.

The findings from this study will be used to demonstrate that race is not a predictive factor of SBS; therefore, it is important for the volunteers to recruit participants from all racial backgrounds. The volunteers will be educated on the importance that any infant is at risk of becoming a victim of SBS if the parents or caregivers are not equipped with proper coping techniques for handling frustration. The SBS Prevention Program will work with the participants to assist in identification of personal coping techniques to help decrease the incidence of SBS.


Abstract

Shaken baby syndrome is a significant cause of infant morbidity and mortality and is widely recognized in the medical literature. Classic signs include retinal hemorrhage, subdural or subarachnoid hemorrhage, and associated fractures. Most victims are younger than 6 months old and have been affected by violent shaking with rapid angular deceleration and possible terminal impact. This article summarizes issues related to clinical presentation, diagnosis, risk factors, and interventions for healthcare professionals.

Significance
SBS usually occurs in children younger than 2-years old; however, it is possible for the effects to be seen in children up to 5 years of age. This article provides information about SBS regarding the pathophysiology, clinical signs and symptoms, and diagnostic testing results. The article also addresses the prognosis, counseling, treatment, and a case study. This article supports information found in previous articles regarding SBS including that infants are rarely only shaken one time and that crying is often a trigger of the shaking event.

Information from this article will be utilized in creating the Crying Baby sessions and provide the clients with information regarding the consequences of shaking an infant and why young infants are more susceptible to being shaken. Information regarding the infant’s anatomy will be used to demonstrate their fragile state. For example, adults’ heads comprise approximately 2% of the total body weight, but account for 10% of an infant’s total body weight. This demonstrates that babies’ neck muscles are weak due to the demand of supporting such a heavy weight in comparison to the rest of the body.

The prognosis of SBS is divided into thirds. Approximately one-third of infants will die, one-third will live but with significant injury, and one-third may not exhibit any symptoms; therefore, two-thirds of infants will be negatively impacted. This information will be presented to the participants in a serious manner to emphasize the severity of the symptoms. The long-term effects of SBS can be divided into three major areas of neuromotor impairment, developmental delays, and visual impairment.

The article also discusses the importance of providing counseling for survivors of SBS and the family. Counseling is encouraged to assist families in answering questions about the incident and the process of recovery. It may be difficult for families to understand why the
perpetrator would want to harm their child, but it most instances, shaking a baby is a reaction to frustration rather than a planned incident.

The case study in the article will be utilized to demonstrate the hardships that families can experience due to SBS. In the case study, a 3-month-old infant was taken to the emergency room believed to be in septic shock even after further examination of the infant, the medical professionals at the hospital missed the diagnosis of SBS. However, when the infant was transferred to tertiary care, the personnel filed a report of suspected child abuse which resulted in the child’s father being arrested and jailed immediately. Six months after the infant’s father was incarcerated, the infant’s mother was arrested and convicted for not seeking medical treatment for her son. The infant was placed in specialized foster care. This incident had a heavy burden both emotionally and financially on the infant’s mother.


**Summary**

Brain injuries commonly occur in children who suffer non-accidental trauma. Survivors of shaking-impact syndrome are especially prone to develop a myriad of problems related to brain damage. Understanding the clinical prognostic indicators and their limitations is critical to providing appropriate care for these children. Critical non-neurological complications involving breathing and feeding are discussed in depth to help children. Techniques to control muscle spasticity, protect skin and joints and provide emotional support for the caregivers of the brain-injured child are outlined. A well designed, comprehensive, coordinated rehabilitation program
will reduce initial hospitalization and train caregivers to reduce the likelihood of future hospitalization for preventable conditions and will provide the educational framework for the ongoing care of the injured child.

**Significance**

This chapter describes common brain injuries experienced by survivors of shaking baby syndrome, concepts that define the consequences of a severe traumatic brain injury, and goals in the treatment of pediatric brain injury. The three goals include improving the child’s quality of life, optimizing functional performance, and decreasing the cost of injury and subsequent disabilities. These goals can also be addressed during the dissemination of a prevention program. The chapter also discusses the importance of implementing a multidisciplinary team to create an effective rehabilitation program; the multidisciplinary team can also be implemented to deliver prevention materials to the public, especially to families at-risk. Family education and training is important in the recovery of the infant are discussed in this chapter and will be utilized to emphasize the importance for family and parent education.


**Abstract**

Background: Scientific and courtroom debate exists regarding the timing of onset of symptoms and the mechanism of injury in infants and children with inflicted traumatic brain injury (ITBI).

Objectives: To determine the time interval between ITBI and the onset of symptoms and to explore the mechanism of ITBI.

Design, Setting, and Patients: Retrospective review of all cases of pediatric ITBI admitted between January 1, 1981, and July 31, 2001, to a large academic medical center and cases
admitted to two additional academic institutions between January 1, 2001, and July 31, 2001, comparing 81 cases of ITBI in which perpetrators admitted to abuse with 90 cases in which no abuse admission was made. The patients with perpetrator admissions to ITBI consisted of 53 boys (65%) and 28 girls (35%). Their ages ranged from 2 weeks to 52 months.

Main Outcome Measures: Characteristics associated with perpetrator admissions to ITBI in children.

Results: Shaking was the most common mechanism of injury among all cases with perpetrator admissions: 55 (68%) of the 81 perpetrators admitted to shaking the children. Impact was not described in 44 (54%) of the 81 cases. In cases in which only impact was described, 60% (12/20) of the children, showed skull or scalp injury, compared with 12% (4/32) with skull or scalp injury in the shake only group. In 52 (91%) of 57 cases in which the time to the onset of symptoms was described, symptoms appeared immediately after the abuse. In 5 cases (9%), the timing of symptoms was less clear, but they occurred within 24 hours. None of the children were described as behaving normally after the event.

Conclusion: The symptoms of inflicted head injury in children are immediate. Most perpetrators admitted to shaking without impact. These data, combined with the relative lack of skull and scalp injury, suggest that shaking alone can produce the symptoms seen in children with ITBI.

Significance

The leading cause of disability and death among children is inflicted traumatic brain injury. The timing of injury is critical for investigators to identify the perpetrator; however, this is often difficult because in many abusive events, the initial histories are not accurate. The purpose of this study was to determine the time between the inflicted traumatic brain injury and the onset of symptoms by reviewing past cases of inflicted traumatic brain injury. Data from cases in which perpetrators admitted to causing injuries were reviewed. The information that was documented included the history surrounding the injury, mechanism of injury, nature of injury, and relevant medical and social histories. After a review of the perpetrator information, the most common perpetrator was found to be the father followed by the mother’s boyfriend and then the mother. This information demonstrates the importance of educating not only the mothers about shaken baby syndrome, but the fathers and mother’s boyfriend. The fathers/mothers’ boyfriends will be encouraged to attend the Crying Baby sessions with the
mothers. If the males are unable to participate during the scheduled Crying Baby sessions, the clients will be encouraged to share the information with the father/boyfriend.


Abstract

Objective: Shaken Baby Syndrome (SBS) is now recognized as being the main cause of severe traumatic brain injury in infancy. However, our understanding of the impact of this type of abuse on child development remains sketchy. The main objective of the current study was therefore to shed light on the cognitive dysfunctions that are particular to SBS victims once they are school-aged.

Method: A clinical group was formed of 11 children diagnosed with SBS who had been admitted between 1988 and 1999 to a tertiary pediatric hospital in Quebec, Canada. The children were matched for age, gender, socioeconomic status, and family composition to 11 healthy Quebec children, who made up the control group. A battery of composite tests was developed to assess the children’s main cognitive functions and was administered individually to the 22 children. A univariate $t$-test was used to compare the performances of the two groups.

Results: The mean age of the children in the clinical and control groups at the time of the assessment was 87.64 months and 90.18 months, respectively. Pairing and birth data were equivalent for both groups. Significant weaknesses were noted in the clinical group for intelligence quotient (IQ), working memory, mental organization, alternation, and inhibition. These deficits seemed to have a greater impact on the verbal sphere of the children’s mental functioning.

Conclusion: Primary results point to the anterior cerebral regions of the brain as the principal site of dysfunctions that persist years post-trauma. It is important to consider these results longitudinally, even in children apparently less extensively affected, since the frontal regions only reach maturity at the end of adolescence.

Significance
This article discusses a research study that examined the cognitive effects of victims of SBS. This information will be used to educate clients and demonstrate the need of SBS prevention education. Results from the research study suggest that survivors of SBS demonstrate lower intellectual levels, decreased attention, decreased tolerance of frustration, and decreased ability to adapt to changes. A limitation that needs to be considered is that the only children included in the study had to be able to complete testing to be eligible; therefore, the results do not demonstrate an accurate measure of the wide variety of disabilities as a result of SBS. The children that were excluded from the study exhibited low levels of functioning, suggesting that the effects of SBS are more severe than demonstrated in this article. This information will be included in the SBS education portion of the prevention program.


**Abstract**

The goal of the present study was to examine parental characteristics associated with the emergence of infant colic using a prospective longitudinal study. When infants were 2 weeks of age, parent measures of personality, marital satisfaction, parenting stress, and social support were obtained. In addition, parents were asked about their definition of colic. When infants were 6 weeks of age, parents completed a 4 day, 24 hours cry diary. Parents also completed a stress questionnaire. Based on the fussing/crying data derived from the diaries, 22 of the 128 infants were identified as having colic. Results showed colic infants to have distinctive crying and fussing patterns. Differences in parent conceptualizations of colic were also identified for colic and non-colic families. Results indicated that parental variables, particularly parenting stress and marital satisfaction, may have contributed to the parents’ report of excessive crying and fussing.

**Significance**

This study provides a general definition of colic that will be used in the Crying Baby session *Ways to deal with a crying baby.* This study examined the influence of parent report on
excessive infant crying at 6 weeks. Results from the study indicate that parents with colicky infants spent more time with their infants than parents of infants without colic. Also, mothers of infants with colic reported more parenting stress and less satisfaction with marital and family support than mothers of infants without colic. This study demonstrates that parents of colicky infants required additional support due to their perceptions of their infant’s behavior. To decrease the negative attitudes toward the infant’s behavior, it is important for the occupational therapist to assist the clients in identifying support persons. The clients will be asked to complete a chart about contact information for their support persons and the occupational therapist’s information will be included.


**Abstract**

The aim of this study was to investigate the relationship between crying of an infant and inflicted head injury by shaking and/or impact. During the period between January 1, 1997 and December 31, 2003, 26 cases of shaken baby syndrome (SBS) were identified in Estonia. The incidence of SBS was 28.7 per 100,000 children under 1 year of age during the whole study period. In this group there were four children from twin pairs; two twin boys and a girl from a twin pair and a boy from another twin pair. This represents 15.4% of the 26 cases. Twins in Estonia represent 2.12% of infant births. The mean age on admission was 3.9 months. According to outpatient records almost all parents (88.5%) in the study group (23/26) had contacted their family physicians and other specialists because of excessive crying or irritability of the baby prior to the admission to the hospital with SBS or death. We found that the time curve of crying was similar to the curve of highest incidence of cases of SBS except the crying curve began earlier.

**Conclusion:** Our data confirm that the families with twins are at additional risk for SBS and parent’s complaints of excessive crying of their infants should be taken as a signal that parents need to be carefully counseled.

**Significance**
The article provides the prevalence and incidence of SBS. This article, in addition to previously mentioned articles, identifies an association of SBS and persistent crying. Associations that may contribute to persistent crying include maternal depression, family stress, family breakdown, and child abuse. A figure in the article demonstrates the relationship between the crying curve and the time of SBS; this figure will be used during dissemination and will be used to identify the proper timing for disbursement of educational materials to ensure parents receive education at the appropriate time. The article emphasizes the importance of developing social bonds with infants and will be implemented in the prevention program. The findings from the study will be presented to healthcare professionals to demonstrate the necessity of addressing the parents’ concerns about persistent infant crying and development of the parent-infant bond.


**Summary**

The criminal investigation in the Shaken Baby Syndrome must remain objective and gather all available information to establish what occurred, whether multiple abusive incidents are involved, and the party(s) responsible. The four cornerstones of investigation are (1) medical and pathological findings, (2) recording the scene and the lawful seizure of evidence, (3) background investigation, and (4) statements, interviews and interrogations of witnesses and suspects. The criminal investigator is in a focal portion in that he/she is also responsible for chain of custody of evidence, documentation and collation of relevant facts and providing assistance to the prosecutor in evaluation cases for trial.

**Significance**
This chapter is intended for law enforcement personnel because it addresses the criminal investigation for suspected shaken baby syndrome cases. This chapter also describes the typical injuries of shaken baby syndrome, the symptoms immediately following the shaking episode, and most common triggering incidents. This information will be helpful in creating the prevention education program. This chapter highlights the importance of discussing the pregnancy or caring for an infant with the parents to ensure that even if the pregnancy was unwanted the child should remain safe. Identifying appropriate coping techniques to implement during times of frustration will increase the likelihood the child will remain safe. This chapter provides common techniques that may be helpful when interacting with parents and collaborating with the parents to identify appropriate coping techniques. Identification of personal and effective coping techniques will be addressed during a Crying Baby session.


**Abstract**

Objective: To determine the efficacy of behavioral management counseling in the treatment of persistent, excessive infant crying (>3 hours per day).

Design: Two treatments, one no treatment control group. Infants were group-matched according to baseline fuss/cry levels, sociodemographic, and infant variables. Treatments were carried out sequentially by the same counselors.

Setting: Telephone counseling by volunteers (mothers) of CRY-SIS, a national support group for the parents of crying infants.

Patients and Interventions: Sequential sample of 27 mother-infant pairs receiving treatment 1 (Tr1, empathy: talking through the problem), 21 receiving treatment 2 (Tr2, behavioral management: specific care taking suggestions) and 44 receiving no treatment (C, controls). Infants were between 1 to 5 months of age.

Measurements and results: Mother-infant pairs had a pretreatment baseline assessment and a posttreatment follow-up (3 months after baseline) using 1-week diaries. Total fuss/cry duration reduced significantly more in the behavioral management group (by 51%) than the empathy group (37%) or the control group (35%). This was mainly due to significantly reduced evening fussing/crying in Tr2 (67%) compared with Tr1 (45%) and C (42%). No differences in
total number of fuss/cry bouts/day were found. However, the number of fuss/cry bouts reduced significantly more in the evening in Tr2 (by 55%) compared with Tr1 (27%) and C (32%). Behavioral management mothers evaluated the same counselors as more sympathetic, knowledgeable, and understanding. Tr2 was also perceived by mothers to have helped them more in reducing the crying problem, coping with the infant, and improving the relationship with their infant than Tr1. No effects of treatment on infant difficult temperament were found.

Conclusions: Behavioral management was more effective in reducing fussing/crying than spending time with the mother talking through the problem or just waiting for spontaneous remission. Treatment by suitably but briefly trained lay counselors is an inexpensive and successful treatment option.

Significance

Excessive infant crying affects between 9 to 26% of infants. This is often the concern of parents which leads them to seek help from pediatricians or other healthcare professionals. Many parents seek the guidance from healthcare professionals to help them address this issue. The four different approaches mentioned in the article for addressing excessive infant crying include pharmacological treatment, dietary treatment, vestibular stimulation, and altering parent-infant interaction. In addition to the common treatments, the authors sought to determine whether support from mothers would assist parents in adjusting to their infant’s crying. The authors compared the results from three different conditions: a behavioral management approach, emotional support group, and no treatment group. In the behavioral management group the parents reported the infant’s social interaction in addition to the amount and pattern of sleeping and crying. The family demographics were also considered. After evaluation of the family dynamics and the infant’s patterns, the behavioral management approach was tailored towards each family’s needs. In the empathy condition, mothers were encouraged to share their feelings of distress with the counselors. The counselors were encouraged to provide emotional support to the mother by reassuring her that infant crying is not her fault. The information in this article will be used to teach the staff of Heartbeat of Toledo and Heart to Heart about the importance of
providing an empathetic environment so the clients will feel comfortable discussing their concerns. The staff will be encouraged to allow the clients to discuss their feelings openly in a non-judgmental environment and provide suggestions about adapting to the occupations associated with their role as a parent. The prevention program will focus on behavioral management to address clients’ concerns because this approach was shown to have long-term changes in parents’ behavior.