Prevention of Shaken Baby Syndrome: Facts, Research, and Law

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Objectives: To Comprehend

- Shaken Baby Syndrome (SBS) Facts
  - What is SBS
  - Risk factors of SBS
  - Why people shake babies

- SBS Education and Research
  - Research Timeline
  - Importance and purpose of education
  - Process for education
  - UNMH Results

- Legislation
  - Basic overview of NM legislative process
  - Legislation regarding SBS
  - Legislative Timeline
  - Legislative Methods for SB 21
What is Shaken Baby Syndrome?

- An injury that occurs by violently shaking a young infant or child
- A form of child abuse
  - Leading cause of child abuse death in children under 1 year in the US
  - At least 1 out of every 4 children who are shaken will die
  - An estimated rate of SBS is 30 cases per 100,000 children aged 1 year or younger
- SBS is preventable
What is Shaken Baby Syndrome?

Damage caused when a baby is shaken

Babies are especially susceptible to injury when they are shaken because their connecting tissues and bone structure have not sufficiently developed to offer any protection.

1. Baby's brain bangs against its skull when shaken.

2. Small blood vessels between the brain and skull can tear, causing bleeding.

3. Large blood clots can form, pressing against the brain and causing massive swelling.

4. Baby's undeveloped neck muscles offer no resistance to shaking; vertebrae can crush the spinal cord.

5. Injuries can result in brain damage, retardation, paralysis, blindness, deafness and death.

Source: Utah Education Network, "Shaken Baby Syndrome" The Salt Lake Tribune
What is Shaken Baby Syndrome?

- Leading cause of long term disability
- More than 80% of infants abused have lifelong brain injuries
  - Permanent brain damage
  - Paralysis
  - Cerebral palsy
  - Seizures/epilepsy
  - Deafness
  - Blindness
  - Developmental delays
  - Learning disabilities
  - Behavioral disorders
  - Permanent vegetative state
What is Shaken Baby Syndrome?

- 2010 societal economic impact of SBS was an estimated $16.8 billion
- Savings from prevention of 2% of SBS cases would exceed the costs of existing prevention programming
  - In New Mexico this equates to approximately 1 child every 3 years
SBS Risk Factors

- SBS can happen among families of any ethnicity, income, and family composition
- Risk factors include
  - Male infants under 1 year of age
  - Multiple births
  - Prematurity
  - Prenatal exposure to substance abuse
    - The AAP states that infants with parents experiencing high stress such as those with substance abuse might be at higher risk
SBS Risk Factors

- Perpetrators are often male; the father, stepfather, or mother’s boyfriend
  - 70% were male
  - 45% who confessed were identified as the father or stepfather
- Perpetrators were more likely to have less formal education, young, and unmarried
- History of family dysfunction or previous abuse
  - 60% of children diagnosed had evidence of previous maltreatment
  - 22% had prior involvement with child welfare authorities
SBS Risk Factors

- Uninsured or enrolled in Medicaid
  - 66.1% of injuries listed Medicaid as primary payer
  - Rate of infants hospitalized with serious abuse were 6 times higher when insured under Medicaid
Why People Shake Babies

- Infant crying is often the trigger for SBS
  - Infant crying increases in 1\textsuperscript{st} month, peaks in 2\textsuperscript{nd} month, & generally decreases in the 4\textsuperscript{th} month
    - Normal developmental phenomenon
    - Primary means of communication
    - Plays role in developing the attachment relationship
    - Biological siren that is a signal that alerts & motivates parents to attend to infant’s needs
  - Incidences of SBS is similar to the crying curve above
The Journey: Education

- Dr. Mark Diaz's article published in Journal of Pediatrics
- Nearly 50% reduction in NY

2005

- Education in UNMH ICN begins

2010

- Education expands to UNMH NBICU
- Simulation doll added to education

2011

- Education demonstrates success
- IRB approved study

2012 – 2014

- Study is published in Journal of Neonatal Nursing

2017
Importance of Education

- Infant crying is not the problem but rather the parent or caregiver’s response to the crying
- SBS Prevention education provides parents & caregivers an understanding of normal infant development & coping strategies for infant crying
  - It should occur early
    - Education prior to nursery discharge has demonstrated success
  - Prevention should be aimed at all parents and caregivers as SBS is represented in all socioeconomic levels
  - Include father and other family members whenever possible
SBS Education Process

- Education is given prior to discharge from the nursery
  - Handout “Understanding Shaken Baby Syndrome” is given and key points are discussed
    - Incidence of SBS
    - Damage that can be done to infant
    - Infant calming measures for a crying baby
  - “When Babies Cry” is shown
- Demonstration with simulation doll
  - Includes parent/caregiver hands on experience
SBS Education Process

- Handout “While we are away” given
  - Discuss the importance of sharing information with those who care for baby
- Questions are discussed and answered
UNMH Education Results
June 2012 – September 2014

- Compared the units where parents did & didn’t receive the education
  - No education
    - 39 cases of SBS
  - Education
    - 0 cases of SBS
  - Statistically significant reduction in the incidence of SBS among families that received the education.
- 830 parents participated from the ICN and NICU
- 73% have Medicaid or other government program
UNMH Education Results
June 2012 – September 2014

- 99% found the information helpful
- 99.5% recommended information be given to all new parents
- When asked “Do you remember receiving information about the dangers of SBS?”
  - 98.1% remembered receiving information
- 99.3% remembered watching video
- 82.7% remembered receiving written materials about SBS and what to do when a baby cries
16.7% (1 out of 6) stated this was the first time they had heard that shaking a baby is dangerous.

![Age if first time learning about SBS](chart)

- **Age if first time learning about SBS**
- **Mother** vs. **Father**
UNMH Education Results
What the Families Have to Say

- “The video is very helpful…I had no idea things like that happen.”
- “It is very helpful and if everyone sees this video it can save a child’s life.”
- “The hands on visual was most helpful – the doll with the clear brain lights up when you shake it.”
- “Have heard about SBS, but did not fully understand. Now that I have the handouts and watched the video, I am more aware of what happens when a baby is shaken….thank you.”
- “Very good to know, it helped me to learn about SBS, I never knew anything about it.”
Basic Overview of NM Legislative Process

Introduction
• Legislators introduce bills in the Senate or House of Representatives

Committee Referral
• The bill is assigned to one or more appropriate committees

Committee Consideration & Action
• Public has the opportunity to testify
• Committee actions include
  • Do Pass
  • Do Pass as Amended
  • Do Not Pass
  • Refer to the floor or another committee Without Recommendation
Basic Overview of NM Legislative Process

Final Passage
- Bill is called for its third reading
- Members debate its pros and cons on the chamber floor
- A final vote is taken

Senate Bill is sent to the House of Representatives
House Bill is sent to Senate

Governor’s Action
- The Governor may
  - Sign the bill
  - Veto the bill
  - Line item veto
  - Pocket veto the bill
  - 20 days from adjournment to decide about bills

Concurrence
- If bill is amended in the second house it must be sent back to the first house for agreement.
SBS Legislation

- NM ranks 49th in Child Welfare overall (2016)
- NM ranks 8th in the nation for per capital deaths caused by child abuse (2011)
- As of January 2014, per the National Conference State Legislators
  - 18 states have Hospital-Based/Birthing Centers legislation for SBS education
  - 8 states have Child Care Providers legislation for SBS education
  - 2 states have School legislation for SBS education
  - There are 20 different states with legislation regarding SBS education
The Journey: Legislation

2015
- Meeting with Senator Michael Padilla
- Presentation to Legislative Health Committee

2016 Legislative Session
- HB 11
- SB 149
- Wording in HB 2

2017 Legislative Session
- SB 21
Legislative Methods for SB 21

- 2015
  - Dr. Christopher Torrez meets with Senator Michael Padilla
    - Agrees to sponsor bill in 2016
  - Jayme Robertson and Kathy Lopez-Bushnell present to Legislative Health Committee
    - Agrees to sponsor bill in 2016
- 2016 Legislative Session
  - Rep. Doreen Gallegos
    - HB 11
      - Tabled in Committee
Legislative Methods for SB 21

- Sen. Michael Padilla
  - SB 149
    - Ran out of time on Senate floor
  - HB 2
    - Wording added expanding SBS education statewide
- 2017 Legislative Session
  - Sen. Michael Padilla
    - SB 21
      - Dr. Torrez and Desiree Torrez testify in committees and advocate for bill
      - Passed Senate 37-0
      - Passed House 68-0
Legislative Methods for SB 21

- April 6, 2017
  - SB 21 Signed into law by Governor Susana Martinez
The Legislature
of the
State of New Mexico

53rd Legislature, 1st Session

LAWS 2017

CHAPTER 119

SENATE BILL 21

Introduced by
SENATOR MICHAEL PADILLA
RELATING TO PUBLIC HEALTH; REQUIRING THE DEPARTMENT OF HEALTH TO ADOPT RULES REQUIRING HOSPITALS AND FREESTANDING BIRTH CENTERS TO PROVIDE TRAINING AND EDUCATION TO PREVENT SHAKEN BABY SYNDROME TO EVERY PARENT OF EVERY NEWBORN BEFORE DISCHARGE. BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

SECTION 1. SHAKEN BABY SYNDROME PREVENTION.—

The department of health shall adopt rules, no later than December 31, 2017, requiring every hospital and freestanding birthing center to provide training and education to prevent shaken baby syndrome to every parent of every newborn before discharge of the newborn from the health facility. The rules shall require the health facility to maintain records to demonstrate compliance with this requirement and to report such information as the department deems appropriate regarding the training and education provided by such health facility. The department, in collaboration with the university of New Mexico health sciences center's department of pediatrics, shall approve training and instructional materials in both English and Spanish and shall include the use of shaken baby simulation dolls in the required curriculum.
You too can help prevent SBS for all of our infants here in New Mexico!

Thank you
References


