

# The Important Role of Building Provider-Patient Trust in Improving Maternal and Infant Health Outcomes

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Saving babies. Supporting families.

**First Candle's efforts to support families during their most difficult times and provide new answers to help other families avoid the tragedy of the loss of their baby are without parallel.**

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One of the concerns voiced by parents about Sudden Infant Death Syndrome (SIDS) is how to prevent the occurrence of something whose cause is unknown and the worry that even if they do everything right, there is a chance the baby may die.

The possible causes of SIDS continue to be researched, and risk factors may include brain defects, underdevelopment of automatic processes stemming from premature birth, and respiratory infections, among others. Although the underlying cause of death may

not be determined, the rate of SIDS still remains low and has declined in the U.S. from 130.27 deaths per 100,000 live births in 1990 to 35.18 in 2018. (1)

This decline in part has been attributed to the 1994-launched Back to Sleep (now Safe to Sleep®) public health campaign, which advances guidelines (including supine position, firm mattress, no bedding, no bed-sharing, breastfeeding, and maternal health care) developed by the American Academy of Pediatrics (AAP)—taking precautions matters.

Another reason for preventive measures is that over time the SIDS classification system has expanded into Sudden Unexplained Infant Death (SUID), which includes SIDS and Accidental Suffocation and Strangulation in Bed (ASSB). This has allowed other preventable causes that might have been previously identified as SIDS to be more correctly identified and has underscored the value of infant safe sleep planning.

## If Parents Are Considering Sleep Aids

We know from our work in the field training health care providers in infant safe sleep practices and talking with parents that helping an infant fall asleep and stay asleep are key issues, both for the health of the baby and to enable parents to try and get sufficient sleep themselves.

This can lead to consumer interest in commercial products such as inclined sleepers, but thousands of these have been recalled; they have been called “deadly” by the AAP. The angle of incline can cause airway blockage and suffocation as the infant’s head shifts during sleep, or the baby shifts position. This risk also holds true for other positioners that feature nesting or bolsters. These products run counter to the AAP guidelines and should not be used.

Another category is weighted blankets or swaddles. Weighted blankets may be filled with beads or pellets and are believed to provide a tactile sensory pressure that may induce a calming sensation. Studies using weighted blankets have been conducted on children with autism and attention deficit hyperactivity disorder (ADHD) with varying results, ranging from no statistically significant changes to a three-hour increase in sleep time.(2) However, it is important to remember that weighted blankets are still bedding and not to be used during the infant’s first year of life.

## Swaddles as NAS Therapy

On a related note, a recent pilot study, led by Virginia Summe, RN, of Good Samaritan Hospital in Cincinnati, has focused on the effects of weighted blankets on infants with neonatal abstinence syndrome (NAS), the rates of which have increased in part due to maternal opioid use. (3) The Healthcare Cost and Utilization Report indicates that in 2016 seven NAS births were diagnosed for every 1,000 hospital stays. (4)

NAS affects the nervous system, and symptoms may include hyperactivity, jitters, irritability, poor sleep and feeding, increased respiratory rates, tremors, and vomiting. NAS can also put infants at greater risk of SIDS, so there is value in exploring methods that may be added to the non-pharmacological interventions (quiet environments, rocking, breastfeeding, swaddling, swaying) used to alleviate symptoms, and the recourse to drug therapy if they do not.

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During the study, infants meeting the study criteria in a level III NICU were randomly placed into one of two groups, either receiving weighted blankets or non-weighted first. The infants were placed supine and swaddled and covered (not wrapped) with a weighted blanket of 1 lb. from their shoulders to their feet for 30 minutes. Heart and respiratory rates and temperature were monitored.

Effectiveness was measured by data on heart rate, respiratory rate, and NAS symptoms through the Modified Finnegan Neonatal Abstinence Scoring Tool. During the seven-month study period, 16 infants, the majority receiving drug therapy, were enrolled, with no adverse events or infant distress.

The results indicated a significant decrease (seven beats per minute) in heart rate when a weighted vs. non-weighted blanket was used. Furthermore, although there was no significant difference in respiratory rate, there was a significant decrease in the Finnegan scores during the weighted blanket's use. The study also reported missing temperature data from some of the sample because although the infants' baseline temperatures were taken, their post-blanket readings were not; they were asleep, and the nurses did not want to wake them.

These findings from a limited study raise the possibility that a larger study could yield more data toward determining the efficacy of weighted blankets in helping NAS infants recover and in exploring protocols for their effective use in clinical settings.

Further research could also help inform the effects of weighted blankets and swaddles on the larger infant population, with regard to falling and staying asleep, again keeping in mind that blankets are bedding and cannot be used for safe infant sleep. Although there are a variety of weighted swaddle products on the market, and the pilot study authors have conferred with a commercial firm to develop a weighted sleep sack for use in potential future infant NAS studies, at this time, there is no research evidence to support the use of weighted sleep sacks without doctor recommendation and supervision.

So, to sleep or not to sleep, the quest for sleep for both infants and parents will continue, as will the need to find methods that may offer remedies without compromising safe infant sleep.

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### References:

1. <https://www.cdc.gov/sids/data.htm>
2. Gee B, McOmber T, Sutton J, Lloyd K. Efficacy of weighted blankets for children with autism spectrum disorder, sensory overresponsivity, and sleep disturbance. *Am J Occup Ther*. 2017; 71 : 7111515242 .
3. Summe V, Baker RB, Eichel MM. Safety, feasibility, and effectiveness of weighted blankets in the care of infants with neonatal abstinence syndrome. *Adv Neonatal Care*. 2020 Oct;20(5):384-391.
4. <https://www.hcup-us.ahrq.gov/faststats/NASMap>

*Disclosure: The author is the Executive Director and Chief Executive Officer of First Candle, Inc., a Connecticut not for profit 501c3 corporation.*

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### About First Candle

First Candle, based in New Canaan, CT, is a 501c (3) committed to eliminating Sudden Infant Death Syndrome and other sleep-related infant deaths while providing bereavement support for families who have suffered a loss. Sudden unexpected infant death (SUID), which includes SIDS and accidental suffocation and strangulation in bed (ASSB), remains the leading cause of death for babies one month to one year of age, resulting in 3,600 infant deaths nationwide per year.

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