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An Exploration of a State Mandated Health Education Program

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Walden University
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Abstract

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MSW, The Ohio State University, 1988

BS, Wilberforce University, 1986

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Public Health

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Abstract

Shaken baby syndrome (SBS) is one of the most violent forms of physical child abuse. In 2007, the State of Ohio enacted a health education mandate known as Claire's law. Claire's law requires all birthing hospitals to provide SBS education to mothers prior to their discharge. This law is the result of public demand and advocacy initiatives; however, it was not clear how the mandate was developed or whether or not the mandate and subsequent educational programs have had an impact on efforts to prevent SBS. The purpose of this qualitative case study was to explore the state of Ohio's processes involved in creating legislation to mandate SBS education. Data were collected through document reviews and interviews with SBS workgroup members (n = 5). The precede-proceed program planning model provided the conceptual framework to examine the participatory process involved in the development of the mandate from its beginning. The findings of the study showed that SBS workgroup members believed mandated education would affect SBS incidence and would ensure that mothers receive SBS education in Ohio hospitals during their birth experience. The findings also demonstrated a lack of a formal program planning methodology and no public inclusion in the development of the mandate or its required health education component. The state of Ohio has an additional means to ensure widespread education on SBS through the creation of this mandate. Statutory requirements provide opportunities for health professionals to educate the public on the effects of shaking a baby, resulting in a key implication for social change. Legislation focused on health education should be multifaceted and include varying layers of intervention.

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Dedication

I dedicate my work to families affected by child maltreatment. It is my hope that my work will impart opportunities for further research in effort to understand the multifaceted causes of child abuse and neglect and place greater emphasis on preventing maltreatment. I dedicate this research study to all those who seek understanding of governmental policy impact on behavior and societal response to social problems.

Acknowledgments

I would like to thank Dr. JaMuir Robinson, my dissertation Chair, for all of her words of wisdom, and ability to provide hope when I felt hopeless. I am so grateful to have a committed Chair who has never given up on my ability to complete this journey.

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Chapter 1: Introduction to the Study

In the United States, physical child abuse accounts for more than 15% of reported cases of child maltreatment (National Children's Alliance, 2012). Shaken baby syndrome (SBS) is one of the most violent forms of physical child abuse (National Center on Shaken Baby Syndrome, 2000; Prevent Child Abuse America, 2009). According to the National Center on Shaken Baby Syndrome (2006), 1,200 to 1,400 infants and children are believed to be victims of SBS each year. Annually, SBS accounts for 12% to15% of infant deaths in the United States (CDC, 2002). SBS can occur in newborn infants and children up to age five, although most cases of SBS occur in children under two years of age (American Academy of Pediatrics [AAP], 2001; National Library of Medicine [NLM], 2011).

Federal laws were created to assist states with the identification and prevention of child abuse and neglect. In 1962, the public child welfare system was greatly changed when Congress amended the Social Security Act making provision for child protective services (O'Neill & Gesiriech, 2011). In 1974 Congress created the Child Abuse Prevention and Treatment Act (CAPTA) under Pub. L. 93-247 CAPTA was reauthorized December 20, 2010 by the Reauthorization Act of 2010 under Pub. L. 111-320 (Child Welfare Information Gateway, 2011). Every state has enacted laws in accordance with federal legislation. Many if not all state statutes cover issues regarding mandatory reporting, screening, and identification of child maltreatment (Child Welfare Information Gateway, 2012). Ohio reported over 29,000 cases of unique victims of child maltreatment in 2012, more than 12,000 cases of which were the result of physical child abuse (Child

Maltreatment, 2012). SBS often occurs as a result of frustrated caregiver's inability to console a distressed young child (National Center on Shaken Baby Syndrome, 2006; NLM, 2011). Research from the Bulletin World Health Organization (2009), suggests the "possibility may exist that the shaking of a baby is an unintentional result of poor coping skills" (p.232). Although the caregiver may not have intended to cause harm, shaking a baby is a form of physical child abuse (National Center on Shaken Baby Syndrome, 2000). In response to an increased incidence of SBS, Ohio and other states enacted mandated shaken baby laws.

Although these mandates were generated in various states, there were no evidence that indicated states with mandated shaken baby laws were more or less effective at decreasing incidents of shaken baby or had fewer reports of physical child abuse cases. In 2007, Ohio created a SBS education program in response to Senate Bill 144, known as Claire's Law (Ohio Rev. Code §3701.63). Claire's Law requires all hospitals and freestanding birthing centers to provide SBS education to the child's parent prior to discharge. The proposed study explored the development of this health education mandate in the state of Ohio. The potential social change implications of the study include an increase in knowledge of legislation to create health education programs, educating policy makers on their roles in decision making that impacts child abuse and neglect issues, and the effectiveness of those efforts in order to better address child abuse.

This chapter will provide background information on existing prevention efforts to reduce incidences of physical child abuse. The research problem, the intent of the study, and qualitative research questions are presented. Chapter one includes a discussion

of the research design, definitions of key concepts related to the study, assumptions, limitations, and delimitations of the study. The significance of the study and a summarization of main points in the chapter preceeds the transition to chapter two.

Background of the Study

The push for greater accountability regarding the rate of child maltreatment of infants and toddlers ages zero to three led many states to introduce mandated SBS education to mothers in birthing hospitals. In 2001, New York introduced the first state mandate to educate mothers in birthing hospitals on the dangers of shaking their baby (Dias, Smith, deGuehery, Masur, Li & Shaffer, 2005). Many of the SBS mandates require states to develop local interventions to educate mothers. Although there are no true indicators of who is most likely to shake a child, there are factors that increase the risk of harm to infants and children (National Center on Shaken Baby Syndrome, 2011). However, there is no research to indicate a causal relationship between the increased risk for harm and the development of mandated education programs. Fathers and male caregivers inflict over 80% of infant head trauma; in contrast, many states have focused their mandated education on women (Herman-Giddes, Brown, Verbiest, Carlson, Hooten, Howell & Butts, 1999; National Center on Shaken Baby Syndrome, 2011; Shower, 2003). States that mandate education often focus their efforts on educating mothers with no education requirements for fathers, partners or others that will serve as caregivers. To date there are no known published studies on state mandated SBS education and incident rate. No research is available on the use of policies to address this public health concern.

Problem Statement

Of the children reportedly shaken, one in four dies because of their injuries (CDC, n.d.; Poissaint & Linn, 1997). State mandates to address SBS have become increasingly popular despite the lack of data suggesting that policy efforts are effective. In 2007, Ohio created legislation to address this specific form of physical child abuse but it is not clear the extent to which historical knowledge, current research, or legislative processes were used in the creation of the mandate. The fundamental question of the study is: How did the state of Ohio develop legislation that mandated statewide health education on SBS. It is important to study the development of the mandate in order to understand why legislative action was necessary. In the context of existing physical child abuse laws, it is not clear how the mandate is expected to reduce incidences of SBS. Ohio's SBS mandate requires that the director of the Ohio Department of Health (ODH), establish a shaken baby education workgroup whose mission is to participate in the establishment of a maternal education program. The mandate required maternal education programs and child welfare agencies to track investigations of child abuse that resulted from SBS. Ohio became the first state to track shaken baby injuries and deaths under this law (National Center on Shaken Baby Syndrome, n.d.; Ohio Rev. Code § 3701.63, 2007). Prior to implementing the education mandate, Ohio had no surveillance system to determine the number of infants injured due to shaking. It is not clear how this mandate was developed, what research evidence was used during development, or what processes contributed to the design of the resulting education program.

Gap in Literature

The proposed study will examine the development of a state mandate to determine if it is an effective process to prevent infant deaths or serious injuries that result from shaking. It is not clear whether a state mandate for a specific form of child abuse will impact prevention efforts. Currently, there is no known literature that describes the use of the legislative system to create mandated education to address parents or care givers' understanding of the dangers of shaking a baby. The study will not generalize itself to other state mandates because its focus is on the state of Ohio's mandate. By examining the creation of Ohio's mandate, we can ascertain how the legislative process influences the way public health programs function. The research may provide information to other states in their effort to develop education programs aimed at reducing incidences of SBS. This study's goal is to help fill gaps in the literature on the process by which states use policy to develop health education mandates.

Purpose of the Study

The purpose of this qualitative case study was to understand why legislation was necessary and how compulsory health education on a specific form of child abuse will impact prevention efforts. I conducted interviews with members of the Ohio SBS workgroup in order to explore the rationale for developing a mandate for this specific form of physical child abuse. The study examined the use of evidence-based research in the development of an education program, a key component of the mandate.

Research Questions

I performed a qualitative case study to understand why Ohio created a health education mandate on SBS when laws on child abuse already exist. The research will address the question of how the state of Ohio determined that mandated SBS education was the most effective method to respond to this public health issue. The research will seek to answer the following questions.

Research Q_1: Why did The State of Ohio mandate statewide health education on SBS?

Research Q_2: What role did empirical research have in Ohio's decision to mandate maternal education on SBS?

Conceptual Framework

The use of theory in this research will help examine the question of how and why the SBS mandate was created. As such, the use of theory can serve to provide an explanation of what should be known before developing program interventions. To understand the rationale of the mandate in Ohio, I used the precede-proceed model. Precede-proceed is a well-known program-planning model that provides helpful structure in the application of theories and concepts for evaluating and planning program interventions (Glantz & Rimer, 1995). The precede-proceed model is an ecological approach to health promotion (Crosby, 2011). An ecological approach looks at the sum of the whole through the interaction of each part having equal importance on one another. According to Glantz and Rimer (1995), no specific model or theory will be right for all cases. They posit that more than one theory is often needed when developing

comprehensive health promotion programs but caution that the use of too many may prove counterproductive (Glantz & Rimer, 1995).

Based on the precede-proceed model of diagnosing a problem precedes treating it, the intent of this study is to examine Ohio's understanding of the public health issue that was the impetus for the development of its education mandate. The model has nine phases: five in the precede, and four in the proceed phase (Glantz & Rimer, 1995). Precede-proceed provides structural steps in each phase that helps focus the intent of the health promotion. The five phases of precede are social, epedemiological, behavioral, educational and administrative and policy. The four remaining phases in the model are found under the proceed aim of the model; they include the implementation, process evaluation, impact evaluation and outcome evaluation.

When examining Ohio's mandate I looked at the workgroup's process, paying attention to community buy-in and involvement throughout the planning stages. I used guidance from the first phase of precede-proceed model to develop interview questions designed to understand the planning process used in creating Ohio's mandate. The first two phases allowed me to explore the intentions of the intervention. I examined what steps or processes were used to identify the communities self-identified issues related to shaken baby syndrome/abusive head trauma (SBA/AHT). Phase 3 and Phase 4 provided a process for examining behavioral and environmental issues identified by the workgroup and what measures were used to address any supports or barriers to the intervention. Similar to Phase 4, in Phase 5 I reviewed processes related to internal and external policies that may affect the management of the intervention. Phases seven, eight, and nine

framed the steps used to examine the mandates evaluation processes. Using the nine phases helped to guide my study by providing clearly defined activities. I applied the concepts in this model to structure my examination of Ohio's education mandate.

Nature of the Study

This is a qualitative case study focused on the development of Ohio's shaken baby education mandate that was signed into law on November 2007 (Ohio Rev. Code §3701.63). A key component of the law is the development of an SBS education program. Ohio had existing mandates on physical child abuse but not specific to SBS. This new mandate requires hospitals and birthing centers to use education programs to teach mothers about the risk of shaking a baby.

This study examined how and why the current law was developed, the processes used to develop the mandated education program, and the role of empirical research in its creation. The use of a case study approach will help inform why specific decisions were made in Ohio specifically, the implementation of those decisions, and results from those decisions. In-person interviews from representatives of the SBS work group provided information pertaining to the development, creation, and implementation of the mandate (37 Ohio Rev. Code, 2007). In addition, archived data consisting of meeting minutes, strategic plans, and other documents were reviewed, recorded, transcribed, and coded to further describe the process for developing the mandate.

Definition of Terms

Abusive Head Trauma (AHT): abusive head trauma is the scientific, medical term used to define characteristics generally referred to as SBS (Clark & Clark, 1989).

Birthing Hospital: a hospital that contains a birthing unit, usually containing obstetrics, gynecological, and newborn care (Ohio Hospital Association, 2009).

Caregiver: Individual responsible for the care of an infant or child (Lewis & Rosenblum, 1974).

Child abuse: Any act or lack of action from a caregiver or parent that may constitute serious injury, emotional harm, death, sexual exploitation, or abuse (Child Welfare Informational Gateway, 2008).

Child maltreatment: Refers to the spectrum of forms of abuse (Child Welfare Informational Gateway, 2008).

Child Neglect: The most common form of child maltreatment, the omission of supervision and care to a child (Child Welfare Information Gateway, 2004).

Education: The knowledge, skill and development gained from study or training (Webster's Dictionary & Thesaurus for Students, 2006).

Fathers: A male human parent (Webster's Dictionary & Thesaurus for Students, 2006).

Filicide: The murder of a child by a parent (Clark & Clark, 1989).

Hospital: A building for medical care, classified pursuant to rules adopted under section 3701.07 of the Revised Code as a general hospital or children's hospital (37 Ohio Rev.Code, 2007).

Incident: An act of child abuse or neglect that occurs to a child under the age of 18 in most states. Typically child protective services, law enforcement, medical facilities or professions that are mandated reporters document the act (Leeb, Pauluzzi, Melanson, Simon & Arias, 2008).

Inconsolable infant: An infant who is so distressed that there is no effective comfort that can ease their distress (Shaking Baby Alliance, 2010).

Infanticide: The murder of infants (Clark & Clark, 1989).

Maltreatment: An act or failure to act by a parent, caretaker, or person which results in physical abuse, neglect, medical neglect, sexual abuse, emotional abuse, which presents an imminent risk of harm to a child (National Child Abuse and Neglect Data System [NCANDS], March 2000; Webster's New World Medical Dictionary, 2008).

Mandate: An authoritative command, an order issue by the superior court of law to a lower court (Ohio State Bar Association, 2009).

Maternity unit: Any place in a hospital where women are regularly received and provided care during all or part of their maternity cycle, except the emergency department or similar place dedicated to providing emergency health care (37 Ohio Rev.Code, 2007).

Mothers: A female human parent (Merriam-Webster.com, 2000).

Parent: A reference to either mother or father, unless the parents are separate or divorced or their marriage has been dissolved or annulled, in which case "parent" means the person who is the residential parent and legal custodian of the child (37 Ohio Rev. Code, 2007).

Physical Child Abuse: Nonaccidental physical injury (ranging from minor bruises to severe fractures or death as a result of punching, beating, kicking, biting, shaking, throwing, stabbing, chocking, hitting, burning), that is inflicted by a parent, caregiver or other person who has responsibility for the child (Child Welfare Information Gateway, 2013).

Shaken Baby Syndrome (SBS): Non accidental head trauma defined as a preventable form of severe physical child abuse that involves violently shaking of an infant by the shoulders, arms or legs; and the whiplash motion can occur alone or with impact to the infants head region. (Carbaugh, 2004; Centers for Disease Control and Prevention, n.d.).

Shaken Infant Syndrome: Another term used to describe three separate medical conditions to infants as a result of shaking (National Center on Shaken Baby Syndrome, 2010).

Assumptions

In order to demonstrate the effectiveness of the work groups' process several assumptions were made:

1. Archived meeting minutes and agenda items accurately reflect what occurred during the workgroup sessions.
2. Workgroup members can accurately recall process and meetings that took place during the development of the mandate.
3. The use of evidence-based research would lead to developing a better education mandate.

Limitations

This study is limited to the state of Ohio and will not lend itself to generalization to all states with mandated SBS education. I followed the interview protocol to ensure the research questions were consistently applied of all participants, making notes when and if there was deference and addressing why the deference was undertaken. I reviewed all information for its accurate depiction and compilation as provided from the interview participants. The use of face-to-face interviews with SBS workgroup members provided opportunity to validate or confirm information. Limitation in interviews could have resulted from the lack of knowledge on behalf of the interviewee. Workgroup members may not have been interested in participating in the interview process although they'd agreed to take part in the study. Reliance on participant recall added to the limitations of the study. Participants may not have provided an accurate or complete report of information related to their experiences while serving on the SBS workgroup.

Lastly, phone interviews were conducted when interview participants were unavailable for face-to-face meetings. The accuracy of interpretation drops when face-to-face communication isn't possible. Phone interviews limit the researchers ability to observe behavioral and non verbal responses to interview questions (Creswell, 2007).

I reside in the state of Ohio and have some knowledge of the SBS mandate; this knowledge could lead to preconceived notions about the development of the mandate and therefore bias the study. I was the director of Prevent Child Abuse Ohio, an organization whose mission was to educate the general public on the prevention of child maltreatment. I am a licensed independent social worker with mandated reporting requirements per the

Ohio Counselor, Social Worker, Marriage and Family Therapist. I took every effort to ensure researcher bias was consistently documented throughout the study. I took notes detailing areas where my preconceive knowledge about SBS was confirmed or challenged by the information obtained through the interview process.

Delimitations

The scope of the study is the statewide health education mandate in Ohio. Laws on child abuse were derived from Federal Legislation guiding states' implementation within the parameters of child welfare (Child Welfare Gateway, 2004). There are 18 states with mandated SBS education in birthing hospitals (National Conference of State Legislatures, 2012). This study cannot be generalized to other states; however, the results of the study may be able to provide a framework for states that may consider legislating education on SBS. In addition, it may help other states understand why such actions are necessary and how legislation may influence public health programs. Ohio is the first state to track annual reports of physical child abuse cases, including cases of violent shaking. This study will focus on the development of Ohio's education mandate, but will not examine the effectiveness of the mandate regarding reducing incidence rates.

Significance of the Study

As states are looking for ways to address SBS incidence, information obtained from the examination of Ohio's mandate may prove useful. Examining the health education component of Ohio's SBS mandate can provide a useful framework for other states seeking similar mandated health education programs. The result of the research may lead to future hypotheses generated on mandated legislations' impact on behavior

changes. The opportunity to change behavior through policy enforcement could become instrumental in the design of prevention programs aimed at reducing incidences of SBS. The results of this study contribute to the existing body of literature by further exploring the ways in which policies can be formulated in order to address health behaviors.

Social Change

Understanding the development of the mandate can ultimately contribute to improved efforts to reduce SBS cases. The social change can be that fewer cases of SBS will occur as education is widely distributed to mothers. Another implication for social change is the possibility of broader and more in-depth research about how child abuse and neglect can be addressed on a state level beyond mandated education. Increase education on preventing child maltreatment can contribute to improved care for infants and toddlers overall.

Professional Application

Ohio's mandate requires public child service agencies to track SBS cases in the statewide automated child welfare information system (SACWIS), (Senate Bill, 144 127th General Assembly, 5101.135). Ohio's mandate also requires public health officials promote behavioral change through policy enforcement (Ohio Rev. Code § 3701.63, 2007). Child welfare workers and social workers' roles have evolved into a collaborative effort to address SBS. Social workers are providing support for long term care and share responsibility for investigating charges with law enforcement officers. The evolving roles are shaped by the increase in child abuse that result from SBS (Hudlett, 2001; Peinkofer, 2002). Public health professionals working in policy or program planning are challenged

to provide health promotion and education about SBS while meeting the requirements of the mandate. Everyone can play a role in protecting children, and policy implications may not be the only means to educate public health professional on how to do this.

Summary

SBS is the most violent form of physical child abuse (CDC, PCAA, 2002). Although the risk for being shaken is highest for infants less than1 year of age, other young children less than 5 years of age are also affected by SBS. According to the CDC (n.d.), SBS is a preventable form of physical child abuse and typically arises from a caregiver becoming frustrated and angry when they are unable to console a crying infant. States have responded to increased numbers of incidences of SBS by creating legislative mandates for education aimed at mothers in birthing hospitals (National Center on Shaken Baby, 2011).

Chapter 1 addressed the importance of the study by defining SBS and its devastating impact. Chapter 1 included a description of the study including assumptions, limitations, delimitations, and gaps in the literature. The research questions were presented. A framework for using the precede-proceed model to guide the data collection and exploration of the mandate was discussed. While addressing the significance of the SBS mandate, the problem statement and study purpose highlighted challenges faced by public health officials

In Chapter 2 includes the problem and purpose of the research study. Chapter 2 examined the literature pertaining to SBS. A list of key terms and identified databases and search engines are also presented in Chapter 2. Acknowledgement of available

research or lack there of were discussed in the chapter. Chapter 2 includes: literature addressing prospective outcomes of mandated education, barriers to educating the public about SBS, and the conceptual framework for the study as well as gaps in the literature. Chapter 2 includes a discussion on SBS models, health campaigns and learning methods. Chapter 2 concludes with a synthesis of the available literature on mandated education and its components, and a transition to methods described in Chapter 3.

Chapter 3 introduced the purpose of the study as described in Chapter 1. I discussed the research design and provided a rationale for the selected choice. The research questions were restated in Chapter 3. My role as the researcher and all inherent bias were presented with full disclosure on how those biases were addressed. The methodology of participant selection was detailed with specificity of participant identification, the recruitment method, saturation process and sample size. The identification of the chosen instrument for data collection was presented and the reputability of the data sources was provided. Content validity and the establishment of sufficiency in data collection were explored and presented. Instruction on participant consent and withdrawal from the study were addressed; in addition, references to appendices were provided that addressed ethical procedures and the protection of confidential information. The chapter concluded with clearly defined parameters on issues of trustworthiness such as: credibility, transferability, dependability, and confirmaility. A section on treatment of human subjects and IRB approvals preceded the transition to Chapter 4. In Chapter 4, I provided discussion on data collection, data analysis and evidence of trustworthiness, in addition to the overall results of the study.

Chapter 5 provided the conclusion of the research study through the interpretation of the findings.

Chapter 2: Literature Review

In this qualitative case study, I examine the development of a statewide health education mandate in the state of Ohio concerning SBS. Chapter 2 will include a review and synthesis of studies related to the research, the results of a literature search on key terminology, identification of the conceptual framework used to guide the research, and a summary transition to Chapter 3.

A search of key terminology related to SBS, health policy, program planning and policy analysis was retrieved from Walden University library databases. Search engines such Google books, CINAHL Plus, Education Research Complete, MEDLINE with Full Text, ERIC, PubMed, Nexis Lexis Academic, ProQuest Ebrary, ProQuest Central, ProQuest Health and Medical Complete, Thoreau, and Sage Premier were also used to retrieve information. Key search terms and combination of search terms for the literature review were: *child maltreatment, child abuse laws, mandated education, shaken baby education, abusive head injury, mandated hospital based education, shaken baby mandates, abuse prevention, mandated abuse prevention programs, mandated education to mothers, state mandated education, effects of mandated shaken baby education, data surveillance for shaken baby syndrome, abusive head trauma, health policy, policy analysis, public health policy, statewide health education and mandated health policy.*

The prevention of SBS requires a high degree of cooperation between law enforcement, child protection, and the medical community. There is no known research available on the development of mandated SBS education and its reduction in SBS incidences. While addressing the gap in literature that pertains to the need to legislate

education and how the mandate would impact prevention efforts to reduce incidences, it is necessary to discuss available resources and to explore any connection between the availability of information and the perspective of further research inquiry. While mandated education in birthing hospitals has no historical research as to the efficacy of its effect on incident rates, the establishment of SBS laws in other states continue to develop as a prevention or intervention mechanism to SBS.

A literature search generated no available information on child abuse mandates and their impact on preventing SBS. Historically, child abuse mandates guide the responsibilities and actions of organizations such as child protection services, and their inherent responsibility for protecting children from harm. While exploring research on SBS, much of the generated information focused on SBS definitions, medical and diagnostic challenges, injury prevention techniques related to crying, community education programs, and creating effective health messages. Although these areas are not the focus of this study, it is important to explore available literature in order to address what is currently known about SBS. The literature review will focus on the existing research and methodologies currently available regarding mandated SBS, and the educational components within state mandates.

Conceptual Framework

Precede-proceed is a model used frequently to create health interventions (Green & Kreuter, 2005). The model has nine phases: five in the precede, and four in the proceed phase (Glantz & Rimer, 1995). Precede-proceed provides structural steps in each phase that helps focus the intent of the health promotion. The five phases of precede are social,

epedemiological, behavioral, educational and administrative and policy. The four remaining phases in the model are found under the proceed aim of the model; they include the implementation, process evaluation, impact evaluation and outcome evaluation. The precede-proceed has stages designed to capture the participation of the community in the creation of intervention. In several studies to examine health promotion and health program interventions, researchers have used the precede-proceed model. One such study examined the effectiveness of a domestic violence intervention model on Iranian high school girls (Ekhtiari, Shojaeizadeh, Foroushani, Ghofranipour, & Ahmadi, 2013). Utilizing the first four phases of the model an intervention plan was developed, implemented and evaluated (Ekhtiari et al., 2013). The qualitative aim of the study used focus groups and in-depth interviews with key individuals with specific interest and expertise in domestic violence. Ekhtiari et al. (2013) concluded the use of the precede-proceed model as a conceptual framework can contribute to enhancing quality planning in designing domestic violence prevention programs.

The precede model has been widely used and recommended for local program planning, as a federal guide to program planning, and as an organizational framework (Green & Kreuter, 1999). A study by Chaney, Hunt, and Schultz (2000) demonstrated the use of the precede component of the precede-proceed model may assist public health efforts in the creation of interventions and policies around school safety. Unlike Ekhatiari et al. (2013) use of the precede-proceed model, this study focuses on the role of the program planner in utilizing the five steps of precede as a theoretical foundation to developing components of a comprehensive program (Chaney et al.2000). The results of

this study indicate that prevention program interventions should be developed on multiple levels incorporating behavior and environmental factors (Chaney et al.,2000).

Differentiation Within the Scope of Shaken Baby Syndrome

The use of the term SBS has created some challenges in health care, public health, and the medical field. Many healthcare professionals refer to the collective body of injuries (fractured ribs, brain swelling, whiplash, retinal hemorrhaging), as SBS (National Center on Shaken Baby Syndrome, 2011). Duhaime et al. (1987) posited that SBS is the result of a collection of symptoms and physical injuries resulting from forceful shaking with or without blunt force trauma. Duhaime et al. (1987) performed a study involving clinical, pathological and biomechanical factors associated with SBS and determined that infants who die because of being shaking also suffered from impact injuries to the head.

Duhaime, Christian, Rorke, and Zimmerman (1998) posited the combination of injuries such as subdural hematoma, retinal hemorrhaging, whiplash, and fractures of the ribs of infants are unmistakably the result of shaking. The same study stated that symptoms related to SBS are only found in children who have been shaken or who have been injured in a high impact automobile roll over crash. However, Hoyle (2005) suggested the name SBS and the constellation of injuries might indicate deliberate abuse.

Hoyle (2005) also stated that brain injury to infants could also be accidental. Medical advancements have led to greater understanding by medical professionals that SBS diagnosis is more encompassing than the shaking of a child less than 5 years of age. A study by the National Center on Shaken Baby Syndrome (2000), suggests physicians diagnose abusive head trauma (AHT) in only one in five cases. The study hypothesized

AHT diagnosis was less likely when clinical features such as seizures and head and neck injuries were not present (National Center on Shaken Baby Syndrome, 2000).

Diagnosis

According to CDC (2010), SBS can result from the trauma of shaking alone or from a child experiencing shaking in addition to the physical impact of being hit or thrown into an object. As a result, the AAP Policy statement (2009) on SBS suggests that physicians understand related factors contributing to the injuries unrelated to shaking. Challenges with diagnosing cases of SBS start with the presentation of injuries at emergency departments. Many of the medical conditions discovered to be related to shaking, were initially explained away as other types of injuries or forms of physical child abuse (Bechtel, 2006; Caffey, 1972; Jenny, Hymel, Ritzen, Reinert, & Hay, 1999). The Shaken Baby Syndrome Policy Paper written by Christian, Block and the Committee on Child Abuse Prevention (2009), posits the terminology and understanding of SBS has evolved because of pathological and clinical findings associated with medical research around injuries to infants and children. The American Academy of Pediatrics Committee on Child Abuse and Neglect (2001) released a technical report declaring SBS a form of child abuse resulting from violent shaking or shaking with impact. Christian et al (2009), refer to SBS as mechanical terminology that fails to recognize the types of injuries sustained to the infants' head and brain.

The AAP position statement (Christian et al, 2009), suggests that physicians understand the signs and symptoms associated with shaking and refer to the collective set of injuries as abusive head injuries (AHI) or abusive head trauma (AHT). Within the

AAP policy statement (Christian et al, 2009), AHI/AHT includes those injuries that occur in infants and children because of being shaken or being shaken with additional injury to the head.

The AAP (2009) recommended medical professionals apply the term abusive head trauma (AHT) when referring to the collection of physical injuries typically diagnosed as SBS. The AAP continues to support the use of SBS in education material to teach the public about the dangers of shaking a baby, however they caution against its use in medical documentation and diagnosis (2009).

Other challenges contributing to the diagnosis of SBS/AHT are infants shaken with no injuries indicating impact to the head region. According to Case (2011), injuries to shaken children may not show the injury resulted from impact. Case (2011), indicated no visible marks after the injury should not imply that impact did not occurr; impact involving soft objects may not leave visible marks. When child protective service (CPS) workers investigate a case of SBS/AHT, the investigation process is typically a challenge in that the call for CPS made from the hospital staff to report a suspected abuse or neglect case. In most reported cases of SBS, injuries occur in isolation and the incident is reported to the mother from the male caretaker or father. Upon presentation in the emergency room, the mother cannot clarify, as a witness, as to what allegedly occurred prior to the hospitalization. Accordingly, Chadwick (2011) indicated child abuse injuries occurring in private settings cannot be objectively proven or disproved.

Components of Shaken Baby Education Mandate

No states currently require mandated education for men on the topic of SBS and only four states (Missouri, Nebraska, New York, and Virgina) mention fathers in their SBS laws (National Conference of State Legislatures, 2012). A study by the University of Colorado found that fathers or male caregivers were the perpetrators in over 60% of cases in the study (Starling, Holden & Jenny, 1995). Female caregivers comprised 17% of offenders in SBS cases (Starling, Holden & Jenny, 1995).

States have developed mandates for shaken baby education in an effort toprevent the physical abuse of infants that results from shaking (National Center on Shaken Baby, 2011). Much of the education of mothers on the risk of SBS relies on similar scientific facts from the National Center on Shaking Baby Syndrome or the CDC. State mandated shaken baby education emphasizes prevention through hospital-based education to mothers in birthing hospitals. Hospital-based SBS education offers an opportunity to reach an identified audience with a specific message (Joint Commission on Accreditation of Healthcare Organizations, 2006). In the United States, there are eighteen states with mandated hospital-based shaken baby education to mothers: Arkansas, California, Hawaii, Iowa, Maine, Missouri, Montana, Nebraska, New Jersey, New York, Ohio, Oklahoma, Puerto Rico, Rhode Island, Tennessee, Texas, Virginia and Wisconsin (National Conference on State Legislatures, 2012). Each state's mandate contains vastly different components to address the prevention of SBS. Twelve states have mandates that require some form of public awareness that educate and emphasize the dangers of shaking a baby. Eight states have mandates that require childcare providers be educated,

and only two states require that education takes place in school settings on the dangers of shaking a baby.

Perpetrators

Many public health campaigns develop their messages to educate mothers as the primary caretaker of infants. However, research indicates that mothers represent the smallest percentage of perpetrators inflicting trauma to infants (Starling, Holden & Jenny, 1995). Previous research indicated female nonparental caretakers have been identified as inflicting a larger percentage of incidents of SBS on infants than birth mothers inflict; however, together the total percentage of female perpetrators of SBS is significantly lower than the perpetration of SBS perpetrated by males (Starling, Holden & Jenny, 1995).

A recent study by Ersenio-Jenssen (2011), however, found that females were just as likely as males to inflict injuries by shaking a baby. Ersernio-Jenssen (2011) indicated that women shake as often as men; however, the resultant injury to infants and children may be more severe in cases involving men due to the greater strength men can exert. The study also indicates male perpetrators are more likely to confess to shaking an infant than female perpetrators when confronted. Ersernio-Jenssen (2011) posit that biological parents followed by unrelated boyfriends of the mother are likely perpetrators. This is vastly different from earlier research that indicated infants were more likely to be shaken by fathers. Infants are shaken by male caregivers, whether they are the biological father, stepfather, or mother's boyfriend in over 65% of the total number of incidences.

In contrast to other studies Hoyle (2005) found that perpetrators of SBS are typically young men in their 20's and females in care-taking roles at the time of incident. A study by the University of Colorado Health Sciences department analyzed 127 cases of SBS. The results of the study indicated infants are likely to experience injuries from shaking by males at two times the rate of injuries inflicted by females and that prevention messages targeting females may not be effective at reducing incidences of SBS (Starling, Holden & Jenny, 1995). The study found that fathers or male caregivers were the perpetrators in over 65% or 87 cases; female caregivers were indicated perpetrators in 17% or 22 of 127 cases analysed (Starling, Holden & Jenny, 1995).

In 1994, a research study to accumulate information about SBS cases by the Child Abuse Prevention Center in Ogden, Utah (Child Abuse Prevention Center [CAPC], 1994). Biological fathers and male caregivers made up 79% of perpetrators of SBS (CAPC, 1994, Hoyle, 2005). In 1998, the National Center on Shaken Baby Syndrome conducted a national study on cases of SBS/AHT from Child Fatality Review Teams . The study indicated male caregivers were the perpetrator in 70% of fatal child abuse cases that resulted from SBS (CAPC, 1998).

Surveillance and Tracking

Despite the recognition of SBS in the medical community, only two studies focus on incidence rates (Reece, Dias, Barr, Russell, Barr, & Runyan, 2010). Reece et al. (2010) postulate the incidence rates in both studies only address those cases of SBS that result in severe hospitalization or mortality to infants less than 1 year of age. Research posits child abuse remain underreported in the United States (Arias, 2008). According to

the Centers for Disease Control and Prevention there were 905,000 reported cases of child abuse and neglect in 2006 (ACF, HHS, 2008). State tracking systems do not have ability to produce accurate data on the number of reported cases of child maltreatment (Herman-Giddens, Brown, Verbist, Carlson, Hooten, Howell, & Butts, 1999). Insomuch as the numbers of child abuse cases are difficult to account for so are the numerous cases where child fatality may result from child abuse. Under reporting SBS occurs in about 27.5-32.3 per 100,000 cases (Ellingson, Levanthal, &Weiss, 2008). Hoyle (2005) posits nearly 50,000 cases of SBS occur annually in the United States. There is no uniform method to track incidences of SBS, no central reporting registry thus estimates of SBS cases are comprised of clinical experience and extrapolated medical records from hospitals (Reece & Kirschner, 1998, p 4). As the numbers of incidence of SBS continue to grow, the economic cost of care continues to rise. Some states are developing measures to capture data on the number of incidences of SBS. There are only 16 states within the United states that have shaken baby education mandates, of those 16 states only 2 mandates contain language that address a surveillance system for reporting (National Conference on State Legislatures, 2012). A statistically reliable account for incidences is nonexistent and likely to remain that way until a method to collect SBS data is established (Reece, Kirschner, 1998; Hoyle, 2005). When states are able to capture reliable data on number of incidences, it would not be surprising to discover the actual estimates are much higher than predicted (Hoyle, 2005).

Age of Victim

Initially, research indicated the risk of SBS was greatest in children less than 1, although hospitals may report cases of SBS diagnosed in children through age three. New findings from research have shown that the number of shaken baby incidences has increased concerning age of victimization (National Center on Shaking Baby Syndrome, 2009). American Pediatric Academy (2001, Hoyle, 2005), reports that 1 in 4 infants or 25% of infants affected by SBS die from their injuries. American Pediatric Academy (2001p. 206; Billmire & Meyers, 1985; Hennes, Kini & Palusci, 2001), reports that most diagnosed cases of SBS occurred in children <2 year of age can also occur in children as old as 5 years of age. Accordingly, Hoyle (2005) reports cases of SBS can occur in infants as old as a few days up to the age of five. Hoyle (2005), reports the median age of infants affected by SBS is around six to eight months.

Focus on Crying

Crying is reportedly the number one risk factor for infants shaken by parents and caregivers (National Center on Shaking Baby Syndrome, 2008). Infant crying is part of normal healthy development that starts at birth. Infant crying can last anywhere from two minutes up to two or three hours at a time, typically peaking and declining around three months of age (Evanoo, 2000; [Brazelton, 1962]). Mandated laws requiring birthing hospitals to education mothers on the effects shaking a baby emphasize crying as a normal stage in child development (Ohio Senate Bill 144). Parents find inconsolable crying to be distressing often times viewing the infant cries as a reflection of their parenting skills (Evanoo, 2007). Infants who cry excessively or are unresponsive to care

givers' attempt to relieve their distress are at greater risk for SBS (Centers for Disease Control and Prevention, n.d.). Neither, normalizing crying, as a means of infant communication or a signal for immediate interaction, appears to relieve the parent or caregiver's sense of rejection from the infant. Thus, inconsolable crying is hypothetically a contributing factor to leading to SBS (National Center on Shaken Baby Syndrome, 2008).

Shaken Baby Education Models and Campaigns

Several SBS education programs are widely available in the United States. Many of these programs rely on the same or similar set of scientific facts from the National Centers on Shaken Baby or the Centers for Disease Control and Prevention to address the issue of preventing SBS. To date there are two evidence-based shaken baby programs that have been replicated across the United States (Barr, Barr, Fujiwara, Conway, Catherine, & Brant, 2009b; Dias et al., 2005).

Infant Crying

No research studies or scholarly articles pertaining to mandated education on SBS exist in the literature. Although states continue to adopt mandates for education on SBS the literature search only yield studies on the effects of crying related to SBS. This provides the basis for my research question on understanding how the mandate was expected to reduce incidences on SBS. The Dias model has not been the focus of large studies although it has replicated and supported by child protection and social service organizations. The Period of purple model studied for its effectiveness in reducing incidences of SBS by educating parents about infant crying in two studies (NIH, 2010).

Both the *Parents helping infants* study NCT0015422 and the *Prevention of shaken baby syndrome* study NCT00105963 were designed to measure the effectiveness of early intervention programming on preventing child abuse and neglect and by changing behaviors, attitudes and knowledge about crying (NIH, 2010).

Other studies related to crying focused less on parental education as a remedy to reducing shaken baby (SBS) incidences. A study by the University of Southern Denmark focused on colicky infants or excessive infant crying response to chiropractic care. *The Effect of Chiropractic Treatment on Infantile Colic, A Randomized Controlled Trial* NCT00954759, is a randomized control study designed to measure decrease in hours of crying by investigating the effect of chiropractic treatment on infantile colic (NIH, 2010). There is no scientific evidence to prove chiropractic care is an effective treatment intervention.

Lastly, crying measured in studies using the Dr. Harvey Karp's model the *Happiest Baby on the Block* and the *American Academy of Pediatric Infant Colic Counseling.* This study information released October 6, 2010 and last updated October 7, 2010 with an estimated completion date of March 2013.The assessments will test the hypothesis that the Karp intervention from *Happiest Baby* reduces the mean hours of crying that occurs at night and will increase maternal soothing behaviors while improving maternal anxiety and depression thereby reducing risk.

Dias Model

The Dias Model, founded by Dr. Mark Dias, a pediatric neurosurgeon, in Elyria, New York emphasizes reduction of SBS by providing nurse education to mothers in

birthing hospitals. The Dias model focused on educating mothers on hospital birthing units. The Dias model demonstrated effective reduction and has been duplicated in other cities and states across the U.S. (Reece et al., 2010). The Dias model aim was to educate every parent on the birthing unit prior to discharge, a signed commitment statement indicating parents received and understood the material before leaving the maternity unity and to monitor a regional incidences of abusive head trauma (Dias et al., 2005). A second evidence-based model of SBS education is the Purple period of crying.

Period of Purple Crying

The Period of purple crying previously known as the Purple period of crying is evaluated in two rigorous studies aimed at addressing the effectiveness of the intervention in reducing incidences of shaking. The program title stands for characteristics related to infant crying in the first months of life (Reece et al., 2010). P stands for peak of crying, the remaining letters are as follows: U for unexpected, R for resist soothing, P for pain facial expression, L for long lasting, and E for evening and late afternoon (Reece et al., 2010). The Purple period as an intervention is hypothesized to be effective at reducing incidences of SBS by changing parental attitudes, knowledge and reactions to infant crying. Both the Dias and the Purple period of crying model use an eleven minute video to educate parents about the dangers of shaking (Barr, Barr, Fujiwara, Conway, Catherine, & Brant, 2009b; Dias et al., 2005). Mandated education to mothers in birthing hospitals exists in 17 states. No mandate requires the use of evidence-based interventions, although many states reference the Dias or Period of purple models in their language (National Conference on State Legislature, 2012).

Many of the earlier videos on SBS to educate mothers had little information about the degree and intensity of force that causes injuries. Today, education materials designed to teach parents of the dangers of SBS contain visual demonstrations of infant head and body movement that correlate with the sustained injury detected after shaking a child. The Period of purple uses positive messages about soothing an infant, rather than warning messages about shaking a baby (Reece et al., 2010). Earlier video education tapes were focused on the non-offending parents' devastation in reaction to their child's disabling prognosis or the loss of a child at the hands of the caregiver. Overall, SBS education models include similar training components to educate parents. Education provided to parents in birthing hospitals is self administered or provided by a nurse, social worker or paraprofessional. According too Reece et al. (2010) an effective child abuse prevention program should be easily understood by the intended population.

Infants and children continue to enter emergency departments with injuries resulting from shaken despite the attempts of many states to volunteer and in some states mandate education to mothers in birthing hospitals. Written literature, videos, and commitment statements are an example of the activities utilized to educate mothers on the devastating effects of shaking a baby. In many hospitals, the education goes beyond the mother to include the father or other possible caregivers. The intention of hospital-based education is to decrease incidences of SBS by providing early education to mothers who traditionally take on the responsibility of finding and approving appropriate childcare for their infant. The education of mothers in birthing hospitals is in contrast to the research that indicates over 80% of infant head trauma are inflicted by fathers or male

caregivers (Herman-Giddes et al, 1999; Shower, 2003; National Center on Shaken Baby Syndrome, 2011). Although there are no true indicators of who is most likely to shake a child, there are factors that increase the risk of harm to infants and children. Risk factors subjectively divided into many categories such as environmental, developmental, and behavioral. The physical act of shaking is the primary cause of harm to infants in the cases of SBS.

Summary

Chapter 2 presented information on the current research on SBS and addressed the gaps in literature supporting SBS education. Despite states enacting SBS education mandates there is little evidence in the research that these laws contribute to decrease incidences of SBS cases. In fact, most of the forth-coming research in the field on SBS focused on crying and its relation to increased risk factors to infant shaking. In all the states that have SBS mandated education, many vary as to who should be educated, who should provide the education and the types of education modalities recommended. With limited data available and a novelty surveillance system in place, this study focused on the rationale and process that Ohio engaged in creating a policy response to address a public health issue. Ohio and other states have created SBS mandates aimed at educating mothers in hospitals and birthing centers, although few of these mandates include language encouraging surveillance systems to monitor and evaluate the outcome of education. In Chapter 3, I described the examination of the mandate. There is no reliable SBS data prior to the mandate; as a result, the ability to examine the effects or influence SBS rates is not possible. I reviewed archived data from the SBS workgroup. This

qualitative study will contribute to the gap in literature on the use of policy to influence the development of program interventions aimed at protecting children from physical child abuse.

Chapter 3: Introduction

The purpose of this qualitative study is to examine the development of Ohio's SBS mandate. In this chapter I describe the research study design, sample selection, data collection, and analysis procedures. The chapter will conclude with a discussion of human rights ethics and the protection of confidential data.

Research Design and Rationale

Qualitative Research Questions

Research Q_1: How did Ohio develop legislation that mandated statewide health education on SBS?

Research Q_2: What role did empirical research have in Ohio's decision to mandate maternal education on SBS?

The study design is a qualitative case study using in-depth interviews of SBS workgroup participants, field notes, and document reviews. Secker, Wimbush, Watson & Milburn (1995) posits the use of a qualitative methodology will allow presentation of the participants' perspectives through their self-described experiences. Qualitative data from structured interviews provide an opportunity to capture in-depth information from the SBS workgroup. Public documents such as meeting minutes, archived records, and memos may provide additional information for the study.

Before 2007, Ohio had no statewide health education mandate to address SBS. This case study's focus is Ohio's statewide mandate concerning SBS education that was signed into law November 2007. A key component of the mandate is the development of a maternal education program. I used a qualitative design and methodology to better

understand why use legislation to develop a statewide health education mandate. In addition, I sought to better understand the processes used in the development of the health education mandate.

Justification for Design

Role of the Researcher

My professional training and education have provided me with extensive knowledge of and therapeutic strategies for working with families affected by all forms of violence. I have over 25 years of experience as a licensed clinician and 13 years as an independent practitioner. I served as the Executive Director of a child abuse prevention organization for five years. My role and responsibilities for this research study include designing the study, creating all interview guides, and data collection tools for archived data. In addition I conducted interviews with all participants and conduct the data analysis.

Research Bias

Williams and Morrow (2009), posit research bias exists due to many factors. They encourage researchers to consider how their bias may impact the quality of the research (Williams & Morrow, 2009). My interest in this study came from my past experience as a director of a child abuse prevention organization. I am very interested in understanding the core ideas behind the development of the education mandate. I was not involved in the SBS workgroup in its formal state. Although I am only aware of the identification of one individual on the SBS workgroup, it is possible that I would know or be familiar with other participants. My knowledge of the participant mentioned above is due to their role

at the organization that I submitted a request for permission to review data. In my 20 years of service to individuals and families in the community, it is possible that I may be familiar with other SBS workgroup members. This knowledge can produce researcher bias from elicited from previous work experiences, perceptions of professional practices or simply personal preferences. Any bias will be consistently documented throughout the analysis and reviewed during the research. Constructing themes from participants' responses may also present a relative weakness in the design. Broad perspectives in participant responses can create difficulty when narrowing themes to a manageable number. In contrast limiting researcher bias is strengthened by the use of interviews in the research design (Gall, Gall &Borg, 2003).

Methodology

Participant Selection

The ODH was the lead organization that spearheaded the SBS workgroup in the State of Ohio. There were a total of 25 members on the SBS workgroup. I requested permission from ODH to contact the members of the SBS workgroup for purposes of interviewing. A literature search on the appropriate number of interviews for a qualitative study demonstrated vast opinions. According to a study conducted by Baker and Edwards (n.d.), the question of interview numbers can be answered by understanding the nature of the research itself. Baker and Edwards (n.d.) posits the response to how many interviews is sufficient for a research study depends on many factors, including: research aims, study objectives, cost, and time commitments. Based on these factors the number of interviews completed for this study was appropriate.

A request to participate in the interview was mailed to all identified workgroup members. I interviewed five members from this group based on their involvement and official assignment to the Ohio SBS workgroup as identified in the Ohio Rev. Code § 3701.63 (37 Ohio Rev.Code, 2007). According to Reid (1996), the use of a smaller sample size should focus on the importance of the information articulated rather than the expectation that the information obtained is representative of a larger group. It is anticipated that interviewing 10 of the 25 workgroup members will provide the best representation and knowledge of the groups' process before data saturation is reached. In addition to interviews, I requested from ODH any memos, meeting minutes, and other public documents related to the workgroups development of the SBS mandate.

Instrumentation

I interviewed participants of the SBS workgroup using an open interview format. To achieve consistency in the interview process I created an interview protocol introduction. The interview questions were developed after reviewing literature on data collection in qualitative research. The interview protocol introduction provides guidance on how to structure the interview, including a formal introduction about the participant's interview experience, the specific time allotted for the interview, and the role the researcher has in the interview process should time become compromised (see Appendix A). In addition to the protocol introduction, I created an interview protocol (see Appendix B). The interview protocol provides a guide for consistency in interviews with several participants. The interview protocol includes the questions for the interviewee and a

guide to address matters that may occur during the interview such as recall time, framing interview questions, and how to re-direct an interviewee for clarity in their responses.

Data Collection Method

I undertook a standardized open-ended interview format for this case study. According to Gall, Gall and Borg (2003), standardized open-ended interview formats should be more structured than informal conversational and general interview guides are. The structure of standard open-ended interviewing allows participants to provide detailed experiences while providing opportunities for the researcher to delve further into participants' responses (Gall, Gall & Borg, 2003). For the purpose of this study I developed the interview questions based on the focus of the research design.

Face to face interviews will represent the primary method to gain information from study participants. All interviews were recorded; additional notes were transcribed from recordings reflecting interviewee's responses. In addition, I took field notes documenting informal encounters and observations during the interview process.

I conducted phone interviews when study participants were unavailable for face-to-face interviews. Creswell (2007) posit phone interviews may pose a relative drawback due to expense associated with calls. In addition to expenses associated with calls, phone interviews limit the researchers ability to observe informal communication. As the researcher, I wrote extensive notes to include my own impressions while engage in the research study. This practice will limit the problem of reactivity and researcher bias. Therefore, observing participant behaviors will not contribute or diminish the impact of the interview associated with the research study.

Analysis of Qualitative Data

The participant responses to structured open-ended questions were compiled based on similar themes, terminology, and concepts that had evolved from the process. Coding responses into themes provides opportunity to organize and give meaning to the data collected. The use of recordings provided opportunity for later review of responses and decreased opportunity for lost information. Taped interviews and transcription enhanced researcher accuracy of interpreted responses from participants. Note taking complement the use of audio recordings. The recordings were transcribed and NVivo, a qualitative software program, was used to analyze the transcripts. The use of NVivo software allow sorting information by categorizing similar words from the meeting minutes and transcriptions. The process involve mining interview responses for similar concepts. NVivo software provide a rigorous approach to formulate the information contained in the minutes avoiding pitfalls and researcher error as a result of manually analyzing data.

If discrepant information arise in the study I addressed the discrepancy by indicating where the discrepancy exist, what is believe to be the discrepancy, describe how the discrepancy was discovered, and how the discrepancy may or may not have an impact on the study. Addressing discrepancies and why they exist within the study strengthens the data analysis.

Issues of Trustworthiness

Threats to validity arise when flaws are present in the research design (Bergh, Hanke, Balkundi, Brown, & Chen, 2004). Threats to validity are identified in two

categories: internal and external (Creswell, 2009). Guba and Lincoln (1994), postulate alternative criteria to traditional standards in research. External threats arise when the intervention is unable to be generalized to different groups, individuals, or settings. Internal threats are more likely to show when others factors weigh as possible causal relationships to observed changes in the study. In contrast, establishing credibility in qualitative research may provide a richer understanding of internal threats (Lincoln & Guba, 1985).

Credibility results from establishing how believable the perspective of the participant in the research is. In order to bolster credibility I evaluate the data by using reflective commentary, employing participants to read transcripts of dialogue they provide and examining documents provided from the workgroup members. Guba and Lincoln (1994) suggest member checking can be the single most important way to ensure credibility and I employ member checking as a methodology to ensure credibility. A prepared draft was presented for participants to check the accuracy of their responses.

Transferability refers to the degree in which the results of the research can be transferred to other situations (Shenton, 2004). To address transferability I provide detailed descriptions of my data collection process with specific attention paid to the context and environment of the interviews. Researchers vary in their positions on transferability in qualitative research, however, there is broad base agreement that the researcher must diligently convey the boundaries of the study to the participants (Shenton, 2004). Shenton (2004) argues that the reader must determine the confidence in transferring the conclusive results of the researchers study to other situations.

Approaching validity and reliability in naturalistic work should not diminish the trustworthiness of qualitative research compared to quantitative research (Shenton, 2004).

Guba and Lincoln (2004) suggest that, in theory, the thoroughness of credibility should lend itself to dependability. Shenton (2004) states dependability could be achieved by using overlapping methods in a research study. To achieve dependability I wrote detailed notes describing every aspect of the study. I included in-depth coverage of the research design, documentation of fieldwork, and a reflective evaluation of processes used in the study.

Confirmability is similar to credibility as the researcher is actively engaged in corroborating information. Confirmability requires the researcher place emphasis on their biases, should any arise, during the research study. Shenton (2004) suggested purposeful use of reflective commentary throughout the research may enhance confirmability. I implemented detail checking of the data or an audit trail to document findings throughout the study. I conducted self-evaluations throughout the research process taking extensive notes of my impressions and details of events occurring during the study.

Vogt and Burke (2011), posits internal validity are more defined by the degree of causality between the study results and the independent variables, not the flaws in the design. Creswell (2009), identified maturation, history, regression, selection, and mortality as common threats to internal validity.

Ethical Procedures

The protection of human subjects by the researcher is necessary when conducting any kind of research that includes human subjects. The researcher is commited to

maintaining confidentiality and efficacy throughout the study. Walden University Institutional Review Board (IRB) application was submitted and approved in order to interview participants for the study and prior to data collection. Every participant interviewed signed an informed consent document prior to participation. The approved IRB, 09-18-14-0056427, included the required terms of agreement, written permission for use: to collect and access archived data.

The approval of the IRB by Walden University ensured that ethical concerns related to recruitment were adequately addressed. Adherence to the study design alleviated opportunities for deception that could occur when the researcher has one understanding of the study's purpose and the participants have another (Creswell, 2009). The purpose of the research was accurately conveyed to participants throughout the study. The participants selected for the study were over 18 years of age. The participants were informed of their rights as a voluntary participant, they're right to refuse participation, and guidance on early withdrawal from the study. There are no sponsors to the study, as such any discussions of sponsorships will be included in the cover letters, informed consent, and disclosed to participants during the interview process.

Prior to the data collection process I assessed potential risk related to the physical, psychological, socio economic, and legal harm to participants. An effort to eliminate these possible risks was taken. All information oral, observed, written or electronic data gathered for the purpose of this dissertation were stored in a secure and locked file system. The collection of individual level data is in the form of interviews with members of the SBS workgroup. The workgroup members were engaged in dialogue to provide

historical encounters of their experiences involving the development of Ohio's health education mandate on SBS.

Protection for confidential data, storage procedures and dissemination are addressed in the elements on the informed consent documents. Information in the study was de-identified prior to receiving it. Identifying personal data discovered during the data collection and interview was removed, and securely stored. Participants were informed of potential risk. All information and data from ODH or other requested resources is kept on a secured external hard drive, and used on a laptop that is password protected with anti-virus protection keeping data safe from public access. The researcher is the only individual with access to data collected for the purposes of this dissertation. The data collected for the purpose of the research will be kept for a period of five years after the final approval of the dissertation from Walden University. Permission from Walden University will be obtained before any data is destroyed.

The subject matter of the research study is not a part of my current work environment; this will alleviate ethical issues regarding research in one's place of work. There are no conflict of interest or personal incentives that could arise as a result of this research.

Summary

Chapter 3 describes the use of a qualitative case study to examine how the state of Ohio initiated a policy response to address a public health issue. In Chapter 3, I provided a discussion on why a qualitative approach is the best design for answering the research questions. The suitability of the study design best answer research questions. Threats to

validity, the method for data collection and analysis is presented. The independent and dependent variables are identified. The role of the researcher in the study is discussed with emphasis on the protection of human subjects and the requirements of the IRB process per Walden University. The chapter includes the process for informed consent, the role of participants, and their right to withdraw from the study. The purpose of the study was to examine Ohio's mandated heath education law. The result of the study analysis is presented in Chapter 4.

Chapter 4: Results

Introduction

This chapter begins with an introduction and purpose of the study that includes the research setting, data collection, analysis, and details on participant demographics in a table format. Evidence of trustworthiness is addressed by discussing credibility, dependability, confirmability, and transferability of the study. I present the results of interviews with members of the Ohio SBS workgroup and the review of public documents held by the workgroup. The chapter concludes with a summary of the study results.

Research Setting

The SBS workgroup was comprised of key stakeholders in the community and experts in the field of medical and health services. The members of the workgroup who agreed to participate in the study were informed of the interview process and provided a formal invitation and consent to participate document. The interviews took place in either a reserved conference room at the Main Library in Columbus, Ohio, at the participant's office, or a location of the participants' choice. If the research participant was unavailable for a face-to-face meeting, the interview took place via telephone. Two interviews took place over the phone. The limitations of phone interviewing were addressed by asking the interview participant if additional information was needed upon responding to the question. If silence was noted during the interview, the participant would be asked if there were points to clarify, if their silence was indicative of more to share, or if clarification of the research question was needed from the researcher.

The ability to observe a participant's actions adds to the richness of the interview process. My third interview took place at a participants' office. This setting was challenging in that there were numerous environmental issues that were out of the control ofthe participant or the researcher. Challenges such as office interruptions, the ability of the participant to focus on the interview questions uninfluenced by the surrounding, and the overall time commitment to complete the interview impacted the interview. The participant has an extensive background in medical knowledge that may have influence their responses to the interview questions. Their knowledge may have also influenced the responses based on how they felt about the questions asked in the interview process. The participants overall belief about SBS may have contributed to their responses to the interview questions.

The remaining interviews were conducted in the conference room of the Main Library in Columbus, Ohio. The interviews at the Main Library provided environmental freedom in that the opportunities for disruptions were minimized, and the location provided increase privacy for participant and researcher interaction. This public setting gave the researcher the perception that the interviews were strikingly different in that the participants were very open about the process. The participants were observed to be more vocal about their roles on the workgroup. The setting allowed participants to engage in raising questions and establishing warm greetings to the researcher prior to the formal interview.

Demographics

The participants of the workgroup were independent practicioners or employees of agencies and organizations with interest in SBS. There were 25 SBS workgroup members. An invitation to participate in the research study interviews was sent to all members of the SBS workgroup. Invitations were sent out to the workgroup on two separate occasions. An additional request to participate in the research study was sent to those workgroup members who had not previously responded. This third invitation was sent in attempt to gather more participants. The study intentions were to interview ten members or until information saturation occurs. Five workgroup members agreed to be interviewed as part of the research study (*see Table 1*). The demographic charecteristics of the participant pool included one male and four females. No other demographic information was considered as relevant to the study as the participant pool was represented by those who served on the SBS workgroup. The list of participants included individuals with experience in health care lobbying, hospital governance, abuse prevention advocates, child protection, and maternal and child health care. A sixth SBS workgroup member responded to the request for interview, but declined to participate. This workgroup member self-disclosed their inability to participate in the study was due to the perception that their organization would not support participation in the study. This member cited previous trouble with their organization obtaining IRB approval for past research interest as possible influences on the decision.

Table 1

Demographics

Interview	Gender	Type of Interview
1	Female	Face to Face
2	Male	Telephone
3	Female	Face to Face
4	Female	Face to Face
5	Female	Telephone

One participant is female registered nurse with experience in maternal child health. During the time of the workgroup, this participant self-identified as the co-chair of the workgroup. Another participant is male who identified his role during the operation of the workgroup as a parent and advocate. This participant is a registered lobbyer with experience in health care legislation and governance. A second female participant is a registered nurse, with experience in health education and abuse prevention.This participant self-identified role during the workgroup operation was a staff member of a prevention agency, and a volunteer. The third female participant is a social worker with experience in child welfare and abuse prevention. This participant self identified role during the workgroup as a prevention educator. The fourth female participant is a social worker with experience in parent education and served as a parent education coordinator at the time of their experience with the workgroup. The interview participants were randomly assigned a participant number which is how they are refered to throughout the study.

Data Collection

To address the research questions, data were collected via interviews with SBS workgroup members and archived documents were reviewed. The document review was completed using a document review guide designed to capture similar aspects between documents.

Interview Process

Interview data were collected from five individuals who agreed to participate in the study. Each participant was interviewed using a twelve-question tool developed by the researcher (Appendix B). Every participant in the study responded to all questions during the interview. Although participant number two provided more detailed responses somewhat unrelated to questions 2, 4 and 9. This was discovered during the transcribing of the interviews. However, Participant 2 made or requested no changes to the transcript during the member checking process. The interviews took an average of 30 minutes with the longest interview lasting 45 minutes. The interviews were taped using a hand held personal recorder. The audio recordings were uploaded via USB port into a password-protected computer. The recordings were labeled and imported into Nvivo 10 software for MAC. Nvivo 10 for MAC software provided the opportunity to timestamp audio recordings that were later transcribed and coded.

Document Review Process

The timeframe of the review of documents was eight weeks from the time of receiving the documents. The review of documents occurred parallel to the mailing and scheduling of interviews. A number of documents were provided from the SBS

workgroup. The documents included emails, minutes from meetings, processes to obtain organizational support, and proposed timelines for the workgroup. Every document was reviewed using the document guide for the purposes of focusing the review process within the stated intent addressed in Chapter 3. The document review guide was developed in relation to the research questions. Each document was given an alphabet identifier for ease of recording information contained in the document and to avoid confusion with document titles. Documents were logged according to the type of document, the date of the review, and the date the document was created (see Table 2).

Table 2

Document review process

Document	Date of review	Date created
A	10/25/14	2/29/08
B	10/25/14	2/4/08
C	10/25/14	2/29/08
D	10/25/14	12/11/07
E	10/25/14	2/27/09
F	10/25/14	2/27/09

The document review focused on several key components. After the documents were labeled for clarity, they were reviewed for the purposes of determining the extent to which they contained information or data revealing references to SBS research, information or data revealing SBS consultation, information or data revealing reference to SBS mandated education in other states, and information or data revealing references to effects of mandated maternal education. The documents were also reviewed for information or data revealing references to input from hospitals and birthing centers, information or data revealing public and community participation in crafting the mandate,

information or data revealing references to physical child abuse laws, and information or data revealing references to non-mandated health education.

Data Analysis

I used Nvivo 10 for MAC to analyze data from the interviews. Nvivo 10 helped organize the data before analysis, which contributes to the transparency of my research outcomes (QSR International, 2015). The coding process I used during the analysis is described below (see Figure 1).

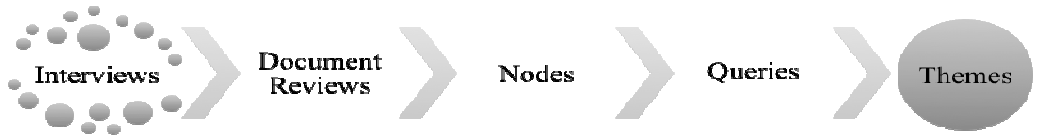

Figure 1. Coding process.

I transcribed each interview and grouped interview responses into categories, and nodes. Creswell (2003, 2007), posits coding helps the researcher make sense of the data collected. Coding the interview responses into nodes allows the researcher to gather material in one location that provides a clear focus and visualization of the work making connections with themes easier (QSR International, 2015). I only coded information from the interviews that were related to the research questions. I listened to the recorded interviews multiple times to familiarize myself with the interview responses. I created nodes, which are descriptive points that allow me to find connections within and between the transcribed interviews. The use of nodes provides ease in developing hierarchical

arrangements with the data that allow me to capture those data points most significant to the study (QSR International, 2015). I used topic nodes to structure my word choice that helped me remain focused on the purpose of the interviews. My nodes included terminology directly taken from the interview protocol such as Ohio's mandate, shaken baby research, workgroup efforts, community education, necessity of legislation, and decision to move forward. I read and assigned responses from the transcribed interviews to the nodes. During the coding process, I noticed a broad spectrum of information in the nodes. Upon closer review I discovered much of the coded content included information outside the parameters of the research questions. I had to return to the transcribed interviews and remove unrelated content and code only those segments that related to the interview questions. After creating nodes and reviewing the content in each node, I wanted to explore if there were frequent terms used between participant's responses assigned in each node. I then ran a word query on terminology frequency at each node. A word query was conducted in several nodes to determine how frequent certain terminology was reflective in each participant's response. For example a word query on the node "Ohio's mandate", revealed the top 3 terms used by all participants in the interview process were:

"Education" or "educational" represented 1.68% of the frequency of words;

"Baby" spoken 104 times or representing 1.41% of the word frequency, and

"Shaken" spoken 93 times representing 1.26% of the total word frequency to the node.

A query on the node “enforcement”, yields vastly different levels of responses. The query provided more words with less repetition between speakers. Some terminology although with high representation was filler words often used to describe an action of the participant such as the word “think”. The results of the node “enforcement” are as follows:

- “Think” was spoken only 11 times, but represented 5.5% of word frequency.
- “Enforced” was used 6 times representing 3.03% of total frequency, which tied with the term “really”, and
- “Greater”, “know” or “knowledge” and “law” were tied for the third most frequent word spoken 4 times representing 2.02% frequency.

A word query conducted on the node “necessity of legislation” revealed the following:

- “Think” was the number one word used, however this term is one often used by respondents to self identify behavior. Spoken 15 times representing 3.25% frequency.
- “Hospital”, “baby” and “education” tied for second place spoken 9 times, representing 1.95% frequency.
- “Need” or “needed” was spoken 8 times representing 1.73 % frequency.

I then combined the 3 nodes to determine overall frequency or word similarity. I was also interested in seeing if there were any themes that emerged as the analyses

progressed. A word query combining nodes “Ohio’s mandate”, “enforcement”, and “necessity of legislation” revealed the following word frequency:

- “Think logically” was represented as the highest frequently used word; spoken 37 times representing 3.29%. However, if we understand the term “think” to involved the participant speaking on behalf of their actions or expressions of thought;
- “Education” would rise to most frequent spoken word in all 3 nodes combined, spoken 26 times representing 2.32%.
- “Hospital(s)” was spoken 19 times represented 1.69%, and
- “Baby” was spoken 18 times, represents 1.60% frequency.

Discrepant Cases

Discrepant cases may arise when a response may represent an outlier to the total responses of the group. Discrepancy can also occur if a particular participant did not answer a question. In my research after reviewing all the transcripts I found that Participant 2 did not answer the Q9. This revelation that came much later after the interviews would represent a discrepancy in the coding of the interview questions to nodes. However, because the question inquired about the use of research to support or enhance the workgroups efforts I determined that the remaining 4 responses were valid, and therefore coded the question to a node. I made a notation in my memo regarding the absence of this response, as I could not recall how or why this omission occurred during the interview process. I did not return to the participant to ask this question after the fact.

In cases where the responses reflected differences between participants, I provided direct quotes, and presented all views having no bias or preference in reporting.

Evidence of Trustworthiness

Credibility

In order to achieve credibility member checks were engaged (Yin, 2014; Patton, 2002; Stake, 1995). Reflective commentary was used throughout the interview process and participants were able to read their completed transcribed interviews for accuracy. Member checking is considered the most important way to measure credibility (Guba & Lincoln, 1994). During the interview process I was careful not to interrupt the responses from the participants as allowing the participant to provide detail responses enhances credibility.

Transferability

Transferability is achieved when the researcher presents the findings in a manner that would allow further research opportunities in related studies or theory testing. Participant debriefing, keeping an audit trail and member checking were utilized to achieve transferability (Miles & Huberman, 1994; Patton, 2002). Debriefing is a method qualitative researchers can use in lieu of inter rater reliability if no other raters are available (Lincoln & Guba, 1985; Creswell, 2013), such was the case in this work. Participants were emailed transcripts of their own interview and asked to approve them to assure that what was recorded was what they intended to convey.

Dependability

Dependability measures the consistency of data over time and between researchers, and research methods (Miles & Huberman, 1994). In order to establish dependability the researcher has to be careful with data collection, interpretation of the findings, and reporting the results (Williams, 2011). Shenton (2004) states dependability could be achieved by using overlapping methods in a research study. To achieve dependability I attempted to write detailed notes describing aspects of the study. I did audit trails and triangulation to achieve dependability. The study may be desirable to other researchers interested in the development of heath education mandates in other states.

Confirmability

Shenton (2004) posits that confirmability is demonstrated when the study outcomes are a direct result of the data and not sentiments of the researcher. I noted biases and impressions experienced during the research process in order to ensure self-check and accountability for the overall study. Research can easily be replicated when the researcher maintains objectivity (Miles & Huberman, 1994). The research and interview protocols are included in the study appendices (Appendix A, B and D). I created memos throughout the process in Nvivo 10; the use of memos provided an opportunity to self-reflect while working through the data.

Results

Document Review

Of the six documents reviewed none revealed information that the SBS work group discussed or focused on SBS research. Although the workgroup was instrumental in the development of SBS education materials there was no indication of their consideration of SBS research in the context of their work nor did the workgroup discuss SBS within the context of existing child abuse laws. Of the documents reviewed only one of six had a reference to mandated maternal education. The reference to maternal education was contained in the discussion of concern that counties within the state were slow to respond to the enacted mandate on reporting SBS cases. The review of documents did not reveal the workgroup having formal input from hospitals and birthing centers other than the representation of a health care professional who may work at a hospital or birthing center; despite the mandate requiring the education take place in these settings. Nor was there indication that the workgroup considered engaging the public in their work other than the invitation of the workgroup members' participation. There was indication that the workgroup was largely focused on ensuring that hospitals were aware of the education mandate, and to distribute materials once they were created. Lastly, two of the six documents revealed reference to non-mandated health education programs related to SBS as Purple period of crying and a suicide prevention program (see Table 3).

Table 3

Document review summary

	SBS consultation	SBS mandated education in other states	Effects of mandated maternal education	Input from hospitals/birthing centers within the state	Public/community participation in crafting the mandate	References to physical child abuse laws	References to non-mandated health education
A	NO	NO	NO	NO	NO	NO	NO
B	YES, list of SBS members and their possible roles on SBS workgroup	NO	NO	NO	YES, potential workgroup members	NO	YES, logic model for results based decision making: Getting from talk to action: Suicide, SBS steering group/ SBS development timelines
C	NO	NO	NO	NO	NO	NO	NO
D	NO, but indicate the law requires convening a workgroup to develop education materials	NO	NO	NO, refers to contact with Cuyahoga Board of Health	NO, mandate signed	NO	YES, “many materials already in existence". Purple period of crying campaign from the National Office on Shaking Baby Syndrome
E	NO, indicate materials are available on the website and to request wide distribution	NO	NO	NO, informs hospitals and birthing centers to post to their peers and colleagues	NO, inform that information is available	NO	NO, only speaks to mandate
F	NO, discuss concerns with the 2008 annual report and only 9 counties have responded	NO	YES, concern that reports are slowly being reported by Counties	NO, informs group of mandate and request to get information distributed	NO, inform that information is available	NO	NO, only speaks to mandate

Interview Results

After coding content to topic nodes from each interview response, I coded the interview questions as nodes. I assigned each of the 12 interview questions as nodes and coded them as Q1, Q2 through Q12. The participant's responses were then assigned to a node representing the interview questions. The first set of questions in the interview Q1 through Q4 were about the specific roles and knowledge of members of the workgroup. Q3 asked "How knowledgeable were you about SBS while serving on the workgroup?" Participant 1 verbalized, "I was fairly knowledgeable, I had certainly read up a lot about it." Participant 2 statement was more intense and provided a personal frame of reference for the response:

> My knowledge at the time I believe was fairly extensive on the issue of SBS given the fact that my then infant daughter [name omitted] was shaken by a baby sitter and so through the course of time, from the time of the injury until the workgroup convened and essence were again I feel I was very knowledgeable of many aspect of education especially in the areas of the types of information that I thought would be effective for caregivers to learn as it relates to any type of care giving to a, a child and then in addition to that throughout the various medical appointments and various courses of therapeutic treatments for my daughter. I was also witnessing things first hand to that type of exposure to the health care delivery system not as a [profession] in which I am in my professional life, and not as a patient but as the parent of a child who at the time was receiving intensive medical and therapeutic treatment as a result of [gender] injuries.

Participants 3, 4, and 5 also felt their knowledge of SBS while serving on workgroup was fairly extensive, or above what the general public may have known at the time. In response to Q4, all participants agree that SBS is the worst form of physical child abuse and leads to debilitating life long challenges if the infant survives their injuries.

Questions 5 through Q9 were focused on the efforts of the workgroup.

Q5 Did the workgroup have an identifiable goal? Can you describe that goal?

There was consensus among workgroup participants that the goal of the workgroup was defined by the development of the statute which required educational material be made available via web medium. However, Participant 3 had concerns about the knowledge of workgroup members to achieve this goal. Participant 3 stated, “I think one of the negatives of the work group was that many that sat on the work group, really didn’t have a large base knowledge.” “I think that many of those done some wonderful small programming in doctors' offices and in class rooms, but really didn't come with the expertise of how to create systemic change.”

Q6 What actions or steps did the workgroup take to achieve the goals?

Q6 seem to elicit varying responses assumptive of the participants understanding of the question. Participants 2, 4 and 5 stated there were no specific steps taken to achieve the goals as the workgroup went about the process. Participant 1 referenced the number of meetings held and the task or expected outcome of the meetings as a description of steps taken to achieve the goal. Participant 1 cited the experience of determining experts who would be willing to serve; exploring what SBS materials were available across the

state and developing the educational materials as specific steps. Participants 3 stated, “I think one of the most important steps taken was the creation of online materials.”

Q7 How did the workgroup decide to move forward on the issue of SBS?

Participants were consistent in their responses to this question. All participants cited the decision to move forward with the issue on SBS was the result of concern for what to do. Participants were focused on how to address the issue of babies being seen in the emergency rooms across the state of Ohio. Two of the participants went further to express the concern of education to parents about the dangers of shaking a baby.

Q8 Was there a conceptual framework used to focus the groups efforts?

All but Participant 4 reference the Dias’ model when asked the question of a conceptual framework used in structuring the groups’ efforts. Participant 1 stated “Well quite honestly probably not, probably not, we, I don’t know what it would've been [referring to conceptual framework].” Participant 1 referenced an informal committee within their agency that “ kind of gave a little guidance on how we might go about the task, but I don’t believe there was a conceptual framework.” Participant 2 stated, “There were different examples [SBS material] talked about throughout the Country, including information that was reviewed from the Dias’ model, Dr. Mark Dias model from Upstate, New York. Participant 5 stated “There was education material and literature made available through the National Center on Shaking Baby Syndrome, so there was, you know, a large effort to organize a repository of information education literature.”

Q9 Was any form of research used to support or enhance the workgroup's efforts? If yes, what type and how was it utilized?

Participant 2 did not respond to this question, it was unknown at the time of the interview. This omission was undiscovered until the transcripts were being reviewed during the coding process. This omission constitute a discrepant in the responses as there was no response to code from this participant. The remainder of the responses to the interview question were seen as valid and therefore the question and responses were included in the study results. If the missing response had been noticed prior to the passing of time in the study I would have contacted the participant for clarification. The participant had reviewed the transcript of the interview and approved of its authenticity. I can only assume the response was not there as I listened closely to the interview transcripts there was no specific number stated before the question was asked. For example, what was missing from the audio recording was "My next question, number 9 is..." Other participants' responses to Q9 were:

> Participant 1: I think those of us who were involved in hospital based education shared how we went about educating, the multitude of workshops that we did, putting them on tape, assisting some on the discharge sheets, helping hospitals look at their budget, helping hospitals identify who was going to be in charge and monitor the education.
>
> Participant 3: Well I am not sure I am not sure we certainly presented a lot of research to the group probably that the biggest thing that we talked about was oh

what's the guys name. I am drawing a complete blank (referring to the creator of one SBS program).

Participant 4: Well I don't think so, except for the focus groups that we did and they weren't formal focus groups, it was the workgroup members sharing with their constituencies, the mothers, and families as well as their staff that they work with so it wasn't a formal focus group as you would call it accept for that I don't know of any research locally.

The remaining questions 10 through 12 were about the overall outcome of the workgroup. This set of questions contained one question about the workgroups discussion of SBS in the context of existing child abuse laws.

Q10 Did the workgroup discuss SBS in the context of existing child abuse laws?

The group as a whole suggested the discussion of SBS in the context of existing child abuse laws had not taken place. There was recognition from Participant 3 about the need to eliminate SBS as a form of child abuse, but acknowledged no discussion had occurred. "Not about the child abuse law, but the acknowledgement that it is, was a major form of child abuse, hurting so many of our infants." Participant 4 stated " Yes, so not necessarily comparing it to any other law, but the recognition that it is a form of child abuse and the need to eliminate it." The recurring response to the question about SBS in the context of child abuse laws was no; no, there was no discussion that brought the two issues together during the workgroups development of a health education program.

Participant 1 simply stated, “I don’t know that we ever really discussed about other child abuse laws, I don’t recall that we did.”

The remaining two questions were designed to elicit information about the workgroup anticipated or expected outcomes of their work.

Q11 Why do you think legislation was necessary to create education on SBS?

There was variation in responses to this question. One such response related a gender specification to the necessity of the mandate. Participant 3 expressed, “There are men, there are grandparents, but we need to say to mom, ‘you are your child's protector, you need to educate everyone,’ and we finally had a chance to do this.” Participant 3 implied “if the education was not mandated that perhaps it wouldn’t get the same level of response such as the child safety car seat or other more popular back to sleep infant SIDS prevention education.” This participant stated:

> This way, it has to happen and it’s forever. Life is constant change, and who's gonna be there today is not going to be there tomorrow, and our babies need to be protected. And without a law, we can’t guarantee that form of education is going to happen forever, and sadly we know our child abuse numbers don't seem to go down very far.

And yet another participants’ response of uncertainty of the interest in the mandate if it were not for the power of interested. Participant 1 response was, “well I think that there were certain very interested parties who were able to move the legislation to do that without those particular interested parties, advocates who pushed for it. I doubt that it would have been enough interest for the law to be created.” Lastly, Participants 2,

4 and 5 reflected of past efforts to bring forth education on SBS for many years, and before the existence of the workgroup Ohio had no education mandate. Participant 2 responded:

> Well first, there really was no current statute in Ohio and based on the fact that there has been or have been many efforts by many in Ohio to bring forth education of SBS that stems back many years even, even prior to the passage of Senate Bill 144. We had thought that there might be an opportunity to have some consistency in how SBS education was presented to parents and caregivers so that was really the driving force was to see some greater consistency and in greater frequency quite frankly in the delivery of that type of education.

Q12 Do you think mandated education would reduce incidences of SBS in Ohio?

Every participant affirmed their belief that the mandated education would reduce incidences of SBS. Coupled with a positive perception that reduction in SBS incidences would happen as a result of the mandate, there was some concern that the enforcement issue of the mandate or an evaluative process to ensure its compliance was not included in the workgroups efforts. Participant 1 summed up the responses stating:

> I have to think that it will, I have to think that there are folks who wouldn't know anything about this unless someone was required to teach them about this. I don't think that as a behavior that someone plans to do, I think it is impulsive, easier and unless someone has been forewarned that these kinds of frustrations are going

to happen when you have a baby. I think that some people are totally unprepared for it, so I have to think that on some level education will make the difference.

Emerging Themes

After reviewing the data and coding information into nodes and exploring word frequency, I categorized the data into emerging themes that were significant from data in the nodes, and interview transcripts. The research focuses on the state mandated health education program, therefore the themes that resonated from the participants represented interesting findings around and about the participant's responses to interview questions. Two of the five participants reference other public health issues in relation to their involvement with the workgroup and its subsequent outcome. For example, Participant 2 verbalized hope that the mandate could be strengthen through the educational opportunities, "given the attention being spent in legislative circles, and other public policy circles on the issue or infant mortality as a whole." Although the interview did not include references to infant mortality, and the mandate is specific to SBS, it was interesting to see the participant reference infant mortality as a measure to perhaps enhance this mandate. Participant 3 also interjected another public health issue in their statement about the SBS mandate. This participant addressed the difference in the Tina Croucher Act (Ohio Substitute House Bill 19, 2008), a teen dating violence prevention program by comparing the two mandates with emphasis on the SBS mandate that "we know for fact that at least majority of them (hospitals) are doing it (providing SBS education)."

Enforcement

Enforcement or the need for more enforcement appeared to be of concern discussed by all participants in the study related to the health education mandate. The participants each had a central focus on the value of enforcement or their perception that enforcement was an entity within the creation of the law that had not been thoroughly addressed. This was indicative of the responses by workgroup members, although none of the interview questions focused on enforcement. Members responses ranged from statements of

> I feel there might be ways to strengthen that statute to ensure that there is greater enforcement of the education component to which the hospitals are required to provide to parents of newborns and their related family members, to interest in the overall impact of hospitals actually doing the education as mandated in the law. This same participant stated:
>
> I get the sense that its not being enforced in the way I think it should be enforced, and I say the way I think it should be enforced, as a parent advocate I would like to see there be greater enforcement of it so we can be assured at a greater level that this education is reaching those families on a very frequent basis, and my hope is that again that the time and attention now being spent on infant mortality as a whole I think can be sort of a driving force of sorts to have greater enforcement of the shaken baby statute.

Participant 1 expressed concern that "no one would know about this unless someone was required to teach it."

Necessity of Legislation

Throughout the data combing process the emergence of a collective view from participants that legislating SBS was a necessary process in order to ensure SBS education was occurring in Ohio's hospitals. Participants never veered from their perception that this form of education could not have been achieved without the legislative actions despite their competing concerns of whether the mandate was actually being enforced. This theme was widely held in conjunction to the assertion by members that there was education occurring in some hospitals albeit the degree and methodology may not have been widely known. Throughout the interview responses the perception that the legislation was a necessary faction in order to educate the public on SBS. Despite the availability of research or best practices that supported this perception, it was widely held by the workgroup members. From the review of documents and the interview responses, no other provision for educating Ohio's mothers was considered.

Unknown Factors

This theme of the unknown arrived out of responses from members that seemed to resonate with the concern around the effectiveness of the mandate, it's ability to be measured and the notion that the group failed to plan for an evaluative measure associated with the law. I assigned these responses to the unknown theme as they were largely issues raised in the interview, but participants did not seem to have considered them in the process of their work. Participant 2 was concerned with the notion that no one would know if the law were effective.

> After I talked to many in the Pediatric Hospital, you know environment here in Ohio is hard to truly tell that this law is having that type of effect because they are seeing as many documented or reported cases. What they don't know are how many cases go unreported, and so there could be very much a possibility that for the cases of unreported that there could in fact be a possible lowering or decrease number of those types of incidences but there is really no way to tell because they are not reported.

Coupled with the evaluative concerns, other factor that arose from the interviews was Participant 3 verbalized uncertainty of Ohio's hospitals budgets and their ability to implement the mandated education with no designated funds. The SBS education program is an unfunded mandate. Participant 5 identified differentiation in hospital size, staffing and operational expenditures as a missed opportunities for the workgroup to concern themselves with. These missed opportunities led to concern over the laws effectiveness or how to evaluate progress. Participant 3 stated:

> I think where we fell short as a workgroup is there really needed to be a designated smaller committee to contact these hospitals now, two years and four years and see what's working," "Were these materials that we developed good and appropriate?" "Do nurses need re-training, and social workers need re-training?

Research Questions

Research Q_1: Why did Ohio mandate statewide health education on SBS?

From the research and after the review of documents I find the reason behind mandating a statewide health education program on SBS was largely due to the push for

accountability. Health care professionals, prevention and public health advocates sought out legislation to address the increase number infants and children presenting in the emergency rooms across the state of Ohio with injuries as a result of being shook. This group was effective at mobilizing parties interested in using legislation to mandate action on behalf of their concerns. Based on responses to interview Q11 and Q12 the participants cited their concerns that legislation was the only sure way to know that mothers were getting the education. Participant 3 stated, "without the law we cannot guarantee the education was going to happen forever, and sadly we know our child abuse numbers don't seem to go down very far." Or as stated by Participant 1 "very interested parties who were able to move the legislation to do that without those particular interested parties, advocates who pushed for it. I doubt that it would have been enough interest for the law to be created." Participant 2 cited the past history of unsuccessful passage of bills to mandate education, while indicating the increase SBS cases around the state created the right climate to move forward with legislation to mandate education.

From the review of all documents obtained from the SBS workgroup, there appears to be no record that supports the development of the education mandate. The results of the documentation review provided no supportive data could be used to address research question 1. There was one exert that described the ODH in a favorable position of the new law "because we understand that SBS is a preventable tragedy", and the Department of Health's view that the education program would provide opportunity to improve the lives of Ohio's children and families (Shaken Baby Syndrome Education Program Community Workgroup Meeting Minutes, May 2008). The documents

contained information about the workgroups' schedule, discussion of educational materials, budget and material dissimination. A notation in one document captured the concern of a workgroups member related to the mandate, but unrelated to the focus of the group. The member expressed that the impact of the mandate would be measured "merely by numbers."

Research Q_2: What role did empirical research have in Ohio's decision to mandate maternal education on SBS?

From the research and as outlined in the responses from the participants of the workgroup there was little to no empirical research used in the decision to mandate education on SBS. As mentioned in the nodes and demonstrated in the responses to the interview questions, as well as the document review. The Dias' model was the only program cited by the workgroup. The Dias' model was a very intense nurse driven model with video based presentation, and signed commitment statement (Upstate New York Shaken Baby Syndrome Program, 2015). The workgroups use of this model appeared to be based on the limited number of existing programs available. The Dias' model was only one of two programs said to specifically address SBS at the time the workgroup was convened. Research Q2 was strongly tied to interview Q9, which asked about forms of research if any, used to support or enhance the work groups' efforts. Based on responses from the participants there was only the Dias' model explored in the process. It's use as described by several participants was limited to looking at the delivery method and trying to determine what education program best serve the state of Ohio within the limitations of

funding. The Dias' model was held in high regard, but the workgroup seemed to focus on the creation of an education program with fewer components.

> Participant 1: I think those of us who were involved in hospital based education shared how we went about educating.
>
> Participant 3: Well, I am not sure, I am not sure we certainly presented a lot of research to the group probably that the biggest thing that we talked about was (referring to the creator of one SBS program).
>
> Participant 4: Well, I don't think so, except for the focus groups that we did, and they weren't formal focus groups, it was the workgroup members sharing with their constituencies the mothers and families as well as their staff that they work with so it wasn't a formal focus group as you would call it accept for that I don't know of any research locally.

The document review supported the responses of interview participants about the lack of empirical data used by Ohio in creating an education mandate. The available documents from the SBS workgroup referenced Dr. Mark Dias' model as the only evidence based program available at the time of the creation of the mandate. Dr. Dias model was an education program that originated in Upstate New York with the goal of educating parents about the dangers of shaking a baby. The Dias model provides nurse led video and written education on SBS to parents prior to discharge from birthing hospitals (Dias et al, 2005). The review of documents revealed no other mention of research data or evidence based programs pertaining to SBS or abusive head trauma. The review did demonstrate that Ohio was unaware of the various types of education related

to SBS was being taught around the state. The review also revealed many organizations were doing something, but no two organizations were doing simular programming and most were not evaluating the work that was being done. The document review demonstrated the workgroup had no guiding process for developing education programs, used limited research or evidence promising processes to gain content expert in developing neither programming, nor demonstrated interest in developing an evaluative process to measure the education outcomes.

Summary

This research was an exploration of the development of a state health education mandate. The case was Claire's Law, a health education mandate on SBS (Ohio Rev. Code §3701.63). The chapter includes the viewpoints of workgroup member's response to the interview protocol developed with three core concepts:

a) Members specific role and knowledge of SBS,

b) Efforts of the workgroup,

c) Outcomes of the workgroup.

Chapter 4 included details of the data analysis including the summary of word queries that provided patterns in responses that evolved into themes. Charts and tables that support the study findings are presented. Demographic data is displayed in table format. The chapter details information on how the evidence of trustworthiness was established by addressing areas of credibility, transferability, confirmability and dependability. An explanation of discrepant cases is provided which includes discussion on factoring data from such cases into the analysis. In Chapter 4, I provide direct quotes

from participants to support the themes elicited from interview questions. The research questions were addressed and supported by the findings that will be further discussed in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this qualitative case study was to examine the creation of the state mandated health education program on SBS in Ohio. The mandate was an unfunded legislation that would require all birthing hospitals in the state to educate mothers at the time of delivery or before discharge on SBS. The study was conducted in order to understand the use of the legislative process in addressing a public health issue. I examined how and why the law was developed, the process used to develop the mandate, and the role of empirical research in its development.

I used a case study approach. Ohio's health education mandate signed into law in November 2007 provided the parameters for the bounded system of time relevant to the case study approach. My study takes on a pragmatic worldview in that it is not generalizable to other states.

Findings

Finding 1: The study found a lack of methodology in the development of the mandate and its required health education program.

The document reviews and interview of participants provided no research context to which a specific methodology or process was utilized by the SBS workgroup in its creation of the SBS health education program. In exploring the development of Ohio's mandate within the conceptual framework of the precede-proceed model, the initial process starts with addressing the health concern with clearly stated outcomes. The model would then guide the user backward to address how to apply interventions that will lead

or support the intended outcome. The precede-proceed model is a community based participatory process. The model has five phases in the precede component and four phases in the proceed process. Based on the first two phases of the model a community health issue is addressed, and processes for developing interventions are defined. The last phase of the precede arm is the process for examining the internal and external resources and policies that may impact the implementation of the intervention conceptualized in the first two phases. The model guides the planning process to address the issue of what a community is capable of achieving, how to plan an intervention, how to develop a threshold for sustainability, and concludes with a defined method to measure program outcomes.

The workgroup represented a variety of professionals with practical experience and knowledge about SBS (Ohio Rev. Code §3701.63, 2007). Given the extent to which the education program would become law, a recommendation to ensure the workgroup included members with knowledge and experience in program planning would ensure the education program was better designed. This issue was recognized by particiants of the workgroup. Participant 3 expressed concerns about the depth of experience workgroup members had in developing education programs:

> I think one of the negatives of the workgroup was that many that sat on the workgroup really didn’t have a large base knowledge. I think that many of those done some wonderful small programming in doctors' offices, and in classrooms, but really didn't come with the expertise of how to create systemic change. I think the people that sat at the work group had the biggest hearts and the biggest

commitments to children's' wellbeing. I don't think that they necessary and truly had the experience to really know how to create programming and materials that were affect such a large group and would be sustained for a long period of time.

Finding 2: The study found that workgroup members expressed beliefs that the development of the education program would provide opportunities to impact incidences of SBS in Ohio.

The current body of research does not contain studies on the development of mandated education and its impact on reducing incidences of SBS. Even as the workgroup developed program components of required statewide education, some participants' responses expressed concern over whether the mandate was effective or missed opportunities to develop an evaluation process within the mandate. Using the precede-proceed model to help guide the work at this conjunction, the model would have provided opportunity to restructure or to realign the overall intent of the mandated education. Specific use of phases six through nine: implementation, process, impact, and outcome evaluation in the proceed component of the model may have provided supportive guidance in redirecting efforts and resources as the work would necessitate. In hindsight there was no outcome measure addressed within the mandate, and there were no documented findings that the mandate would impact the rate of incidences or risk of SBS in the state of Ohio. Members valued their time served on the workgroup and each thought the work contributed to a larger cause such as the improved outcome of health for infants and children who might be at risk for SBS. However, within this belief was no recognition that SBS could or would address the concerns of increase protection of SBS.

Finding 3: Shaking a baby is dangerous and mothers will receive SBS education in Ohio hospitals during their birthing experience as a result of the mandate.

As previously mentioned, the workgroup verbalized concerns about the surveillance and tracking of efforts aimed at reducing incidences of SBS. Although this was not the focus of the study it was worth mentioning, as this was one of the core concerns addressed in Chapter 2 with regard to effectiveness of mandating health education. In 2006, the Joint Commission on Accreditation for Healthcare Organizations (JACHO) recognized and supported public health efforts in providing SBS education. JACHO standard on leadership (LD.1.30) required hospitals comply with applicable SBS laws, rules, and regulations in their state (The Source, 2006). Thus all JACHO accredited hospitals within a state with mandated SBS education was expected to provide SBS education as a measure of compliance (The Source, 2006). Many states have enacted SBS legislation; Ohio joined the rank in states enacting hospital-based education in November 2007. States with mandated SBS education include California, Florida, Illinois, Indiana, Maryland, Massachusetts, Missouri, Nebraska, New York, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, Washington and Wisconsin. Despite the growing number of states enacting SBS laws, the research has yet to provide studies where the effectiveness of those mandates is studied beyond the Dias model, which had positive results based on a specific teaching method in Upstate New York. To data none of the 16 states have provided research to indicate the mandates are impacting the incidence rates of SBS. Additionally, the Dias model showed positive results as a non-mandated hospital based, nurse led education program (Dias et al, 2005).

In addition, there was no indication that the mandate of SBS would provide additional protection than that of Federal mandates on child abuse and neglect. This study did not explore the impact of the mandate in relation to existing child abuse laws, however, based on the literature review, the overarching attention on SBS is to prevent it. There was no inclusion of how the current laws would complement, challenge, or provide additional protective factors for infants in order to decrease the number of incidents within the state of Ohio. The law did not include a surveillence system. Medical professionals in emergency rooms would have no knowledge that a mother had received SBS education during the birthing experience in hospital settings.

Finding 4: The study found little evidence of public inclusion and involvement in crafting the mandate and education program beyond the selection of the workgroup members.

This study was focused on the exploration of the creative process used to develop the SBS mandate. It is clear that all participants in the workgroup believed that education would subsequently impact the incidence rate but there was no conceptual framework used to structure the process of developing such tools for measuring that. One could say that the group operated with like-minded goals but single-minded processes. Prevention efforts of SBS require a high degree of cooperation between law enforcement, child protection and the medical community; however the workgroup seemed comprised of mostly those in the medical community. This heavily medical cooperation could reasonably underrepresent opportunity to explore the workgroups efforts within the parameters of existing child abuse laws.

Limitations of the Study

Limitations of the study were various, including the opportunity to interview members of the SBS workgroup. Opportunities to gain insight from participants via interviews were limited to the use of 5 of the 20 available workgroup members. Attempts to limit issues of trustworthiness in the study were derived by extending invitations to participate in the interview to all members of the SBS workgroup. Bouma & Atkinson,1995 posits this form of inclusion without randomization can also be limiting in that the participants chosen or agree to the study may not be engaging or verbaly expressive. One of the other limitations of the study was that this study will not lend itself to all states with mandates, however these findings can be useful to other states that develop interest in exploring the use of legislation to mandate health programming. States can explore the influence of legislation in supporting or limiting the development of other none mandated health interventions. States can also seek to understand the perception of policymakers on prevention efforts addressing child maltreatment.

The current body of research does not contain studies on the development of mandated education or its impact on reducing incidences of SBS. Even as the workgroup developed program components of the required statewide education program, some participants response represented concern over whether the mandate was effective or missed opportunities to develop an evaluation process within the mandate. The workgroup may have been presumptive about the generalized expectations of their collective efforts, as there was no concesus on intended outcomes. In hindsight there was no outcome measure addressed within the mandate, and there were no documented

findings that the mandate would impact the rate of incidences or risk of SBS in the state of Ohio.

Another limitation to the study was that only 5 interviews were completed, a sixth person responded, but declined based on their organizations' recommendations. Two interviews were conducted via telephone, which limited ability to observe behaviors of the participant.

My previous role as director of Prevent Child Abuse Ohio could have biased the study. In my previous role as director of Prevent Child Abuse, I created training programs held at many agencies who may have had members serving on the SBS workgroup. My previous role had no impact on members chosen to participate in the study. All members of the SBS workgroup were invited to particpate in the study which reduced the liklihood of bias in participant selection. I have extensive experience in the field of child maltreatment, as such it was important to ensure fidelity during the interview, coding and data analyses. I put notations in the margins of interview questions when preconcieved responses or reactions would enter my thoughts throughout the interviews.

When engaged in coding I entered the data into Nvivo 10 software. There was no shortening of words or attempts to reframe information by this researcher. I read the guidebook and familairized myself with the process for coding data using the Nvivo 10 software prior to the process. Data was presented in its authentic nature. I as the researcher maintained consistent oversight of the process. All coding information was kept in secure locked location when not in use. Data was consistently backed up and rechecked for most updated information when in use. Maintaining bias during the

analysis is important and can be avoided if there is more than one analyst available to review the data that's not involved in the study (Turner, 2010). I did not have another set of eyes to analyse data therefore it was essential to maintain objectivity, and not allow my experiences, attitude about the study, or feelings to interfere with the integrity of coding the data.

Recommendations

The literature search undertaken in Chapter 2 revealed limited availability of information about SBS. The available research pertains to charecteristics of perpetrators, the science behind SBS injuries, and related concerns with infant crying and effective teaching tools. Although the exploration of the development of the mandate provided little room for expansion; further research can encourage opportunities for future studies. States that have created health education mandates can explore the compliance rates of hospitals implementation of mandated SBS education. Additional studies may include a comparartive analysis of hospital education interventions, or the perceptions of hospital staff on the provision of mandated SBS education; even the opportunity to do longitudinal studies exploring the impact of education on the incidence rates.

Ohio's childbearing population is not stagnant and maternity demands will continue to increase; as such, Ohio hospitals should gauge the extent to which they prepare for on-going public health education efforts. These education efforts include the preparation of educational materials appropriate for all cognitive, and linguistic needs.

Additionally, the mandate in Ohio was very broad and included web based material for purposes of downloading at the hospital sites, since the materials were

developed in English and Spanish, opportunities to explore other languages spoken by mothers in birthing hospitals and the availability of resources to print such material at the local level based on this non funded mandate. Further research may include studies on the delivery methodology and a comparative analysis between hospital classifications i.e. full-scale maternity versus birthing centers.

SBS is the most dangerous form of physical child abuse. While many states have mandated SBS education, every state is bound by Federal laws regulating child abuse prevention. The current SBS mandate could be enhanced to include more opportunities to partner with the community in providing education and training and less emphasis on requiring public health officials promote behavior change through policy enforcement.

Implications

Implications of the study could be the use of data to inform the development of prevention materials for the purpose of the mandate. However, for this study the implications were to increase the overall knowledge of the general public on the risk of shaking a baby. The use of legislation may or may not provide the opportunity for increase in positive outcomes, particularly if policy makers are to assume that the mandating of health education is the only necessary measure to achieve the goal. This study provided opportunities to see that improved health education by legislation has to be multifaceted with varying layers of intervention. Absent of empirical research, health education programs need to be developed to include clearly defined outcome measures that are easily understood and provide opportunity for consistent feedback. Policy makers

and health promotion professionals must work together toward directing health behavior in ways that the public makes the connection between the mandate and the education.

Positive Social Change

The exploration of this mandate has shown how the lack of guidance or experience, and use of research can yield program interventions with inherent limitations for evaluating outcomes. The creation of SB 144 demonstrates the use of legislative policy for addressing a public health issue. Unfortunately, the conceptulization of the bill did not provide a basis for understanding the intended change in the publics' behavior; the focus was largely on the workgroups concensus that there was a need for on-going education on SBS. Physical child abuse accounts for more than 15% of reported cases of child maltreatment (National Children's Alliance, 2012). SBS is a form of physical child abuse with even higher rates of morbidity and mortality. SBS can occur in children under the age of five although most injuries resulting from SBS occur to children under the age of two (AAP, 2001; NLM, 2011). An important social impact of the study may help states focus on their individual preparedness to provide appropriate education inclusive of cultural and linguistic needs within their states. The use of legislation to advance this public health issue may prove challenging in that there are no known research to indicate causal relationship between risk for harm and developing mandated educational programs. Everyone can play a role in preventing child maltreatment, and education is best when provided by widespread means of dissemination (National Center on Shaken Baby Syndrome, 2012). A positive social change of this mandate lies within the statutory requirements that provide increase opportunities for health professionals to educate the

public on the effects of shaking a baby. Increased health education will produce lasting behavioral changes. This education mandate is the premise for ensuring that parents and care givers are educated, and aware that shaking a baby can lead to lifelong disabilities or death. The state of Ohio has an additional means to ensure widespread education on SBS through the creation of this mandate.

Conclusions

This study explored the development of Ohio's mandate to answer the research question of why develop the mandate, and what role did research play in its development. Mandates are largely unfunded and typically address individual behaviors. Behavior change is an individual construct. Ohio's mandate requires public health officials promote behavior change through policy enforcement. The first law related to hospital based SBS education was passed in the state of New York. Since August 6, 2001 many states have followed this practice. Six years later, Ohio passed legislation addressing SBS education. Today fourteen years later, literature searches on SBS are still limited to the two studies on the prevention aspect of SBS (Dias et al., 2005). The use of legislation for promoting public health initiatives has growing support as noted in the recognition by the Joint Accreditation of Healthcare Organizations standard LD.1.30. Many researchers agree that education is the best form of preventing this public health issue. However, the use of policy to influence the development of education interventions aimed at protecting children may not be. Mandating education may keep the information prominent, and ensure those responsible for the action required by the mandate are providing education. When engaged in the literature review, I discovered no mandate had focused on

developing research to demonstrate the effectiveness of such statutory obligation. As states convene workgroups aimed at legislating health programs, this study provide a foundation to consider processes in developing the workgroup, and it's intended outcomes.

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Appendix A: Interview Protocol Introduction

Introductory Protocol:

This interview is designed to take no more than an hour of your time. There are various points to cover in the interview questionnaire. For the sake of time, when necessary we may speed up the process to ensure we have addressed all the questions.

For note taking, I will utilize audio taping. The audio tapping will be accessible to no one other than the researcher. All audio tapes will be destroyed after the completion of the research and dissertation acceptance. All audio and transcribed information will be kept confidentially and stored in a secured and locked environment.

You will be asked to sign a release of information form and a form that meets the requirements for Walden University Institutional Review Board. This form states that your participation is voluntary and can be stopped at any time, that we intend to do no harm and all information will be kept confidential.

Thank you for agreeing to participate.

Introduction:

You have been chosen to participate in the research study because of your expertise and role on the workgroup chosen to provide recommendations to the Director of Ohio Department of Health and led to the development of Ohio Senate Bill 144 (SB 144 Claire's Law).

The research focuses on Ohio's development of an education mandate in response to a public health issue. The research is not designed to evaluate your expertise or the workgroups process. The research study is to learn more about the process of creating the SBS mandate and understanding the efforts to educate mothers on the effects of shaken baby syndrome. In addition, the research can provide an understanding of the mandate in relation to incidences of shaken baby syndrome.

Appendix B: Interview Protocol

As mentioned during our phone call, I would like to talk with you about the development of Ohio's mandated shaken baby syndrome education law SB 144. ***The first sets of questions are about your specific role and knowledge of shaken baby syndrome.***

1. As a member of the SBS workgroup convened to advise the director of health on the development of Senate Bill144, what were your title and or official role in the work group?
2. Please define (*in your words*) what is shaken baby syndrome?
3. How knowledgeable were you about SBS while serving on the workgroup?
4. Do you think SBS is a form of child abuse?

The next set of questions is about the efforts of the workgroup*.*

5. Did the workgroup have an identifiable goal? Can you describe the goal?
6. What actions or steps did the workgroup take to achieve the goals?
7. How did the workgroup decide to move forward on the issue of shaken baby syndrome?
8. Was there a conceptual framework used to focus the group's efforts?
9. Was any form of research used to support or enhance the work groups' effort? If yes, what type and how was the research utilized?

(You may suggest types of research such as think tanks, original research, databases or consultants. Probe for more specific use of research, was it from local outcomes, diverse areas such as maternal child, child welfare, or others.)

The last set of questions is about the outcome of the workgroup.

(You wanted something to happen with the issue of babies being shaken in the State of Ohio. Allow interviewee time for recall, being careful to time allotment)

10. Did the workgroup discuss SBS in the context of existing child abuse laws?
11. Why do you think legislation was necessary to create education on SBS?

12. Do you think mandated education will reduce incidences of SBS in Ohio?

Appendix C: Request for information

Ohio Department of Health
246 N. High Street
6th Floor
Columbus, Ohio 43215

April 15, 2014

Merrily Wholf, RN, MPH;

I am a doctoral student completing my dissertation in the College of Health Science, school of Public Health at Walden University. I am conducting a qualitative case study on the development of Ohio's mandated health education on shaken baby syndrome, known as Claire's Law. Thank you for your previous responses to my inquiries related to shaken baby syndrome data. Professor JaMuir Robinson guides my research; Dr. Robinson's contact information is Jamuir.Robinson@waldenu.edu

I am requesting permission to review meeting notes, memos, agenda items and documentation from the SBS workgroup created by the Director of Ohio Department of Health per Ohio Revised Code 3701.63.

I am also requesting permission to contact members of the SBS workgroup to invite them to participate in structured interviews. I understand that not all members of the work group may be employees of Ohio Department of Health.

My research study is designed to answer the following questions:

> Q_1: Why did Ohio develop legislation that mandated health education on shaken baby syndrome?
>
> Q_2: What role did empirical research have in Ohio's decision to mandate maternal education on shaken baby syndrome?

I look forward to working with you. Thank you in advance for your time. If you have further questions or concerns, reach me at (614) 546-7815.

Sincerely,

Appendix D: Ohio Revised Code 3701.63 Shaken baby syndrome education program

(A) As used in this section and section 3701.64 of the Revised Code:

(1) “Child day-care center,” “type A family day-care home,” and “certified type B family daycare home” have the same meanings as in section 5104.01 of the Revised Code.

(2) “Child care facility” means a child day-care center, a type A family day-care home, or a certified type B family day-care home.

(3) “Freestanding birthing center” has the same meaning as in section 3702.51 of the Revised Code.

(4) “Hospital” means a hospital classified pursuant to rules adopted under section 3701.07 of the Revised Code as a general hospital or children’s hospital.

(5) “Maternity unit” means any unit or place in a hospital where women are regularly received and provided care during all or part of the maternity cycle, except that “maternity unit” does not include an emergency department or similar place dedicated to providing emergency health care.

(6) “Parent” means either parent, unless the parents are separated or divorced or their marriage has been dissolved or annulled, in which case “parent” means the parent who is the residential parent and legal custodian of the child. “Parent” also means a prospective adoptive parent with whom a child is placed.

(7) “Shaken Baby Syndrome” means signs and symptoms, including, but not limited to, retinal hemorrhages in one or both eyes, subdural hematoma, or brain

swelling, resulting from the violent shaking or the shaking and impacting of the head of an infant or small child.

(B) The director of health shall establish the shaken baby syndrome education program by doing all of the following:

(1) By not later than one year after the effective date of this section, with the advice of the work group appointed under division (D) of this section, developing educational materials that present readily comprehendible information on shaken baby syndrome;

(2) Making available on the department of health web site in an easily accessible format the educational materials developed under division (B)(1) of this section;

(3) Beginning in 2009, annually assessing the effectiveness of the shaken baby syndrome

education program by evaluating the reports received pursuant to section 5101.135 of the Revised Code.

(C) In meeting the requirements under division (B) of this section, the director shall not develop educational materials that will impose an administrative or financial burden on any of the entities or persons listed in section 3701.64 of the Revised Code.

(D) The director of health shall appoint and convene a work group to advise the director on the shaken baby syndrome educational materials the director is required to develop under division (B) of this section. The work group shall include at least one representative of each of the following:

(1) Child abuse prevention advocates;

(2) The staff of the "help me grow" program established pursuant to section 3701.61 of the Revised Code;

(3) Experts in the field of infant care, particularly in the area of infant calming methods;

(4) Maternity unit directors;

(5) Parenting skills educators;

(6) Child care facilities.

The work group may also include, at the director's discretion, representatives of other professions whose members have practical experience regarding shaken baby syndrome and representatives of citizens' organizations whose members are knowledgeable about shaken baby syndrome.

Appendix E: Ohio Revised Code 3701.64 Distribution of shaken baby syndrome educational materials

(A) A copy of the shaken baby syndrome educational materials developed under section 3701.63 of the Revised Code shall be distributed in the following manner:

(1) By childbirth educators and the staff of pediatric physicians' offices and obstetrician's offices, to an expectant parent who uses their services;

(2) By the hospital or freestanding birthing center in which a child is born, to the child's parent before the child is discharged from the facility;

(3) By the staff of the "help me grow" program established pursuant to section 3701.61 of the Revised Code, to the child's parent during home-visiting services conducted in accordance with that section;

(4) By each childcare facility operating in this state, to each of its employees.

(B) Each entity and person required to distribute educational materials pursuant to division (A) of this section is immune from any civil and criminal liability for injury, death, or loss to person or property resulting from the dissemination of, or failure to disseminate, those educational materials.

Appendix F: 5101.135 Shaken baby syndrome notation in child abuse report

(A) A public children services employee who is entering a report of an investigation of child abuse in the statewide automated child welfare information system, as required by section 5101.13 of the Revised Code, shall make a notation on each case of child abuse that indicates whether the child abuse arose from an act that caused the child to suffer from, or resulted in the child suffering from, shaken baby syndrome.

(B) Beginning March 1, 2009, and each first day of March thereafter, the department of job and family services shall report to the director of health the number of reports of child abuse that arose from an act that caused the child to suffer from, or resulted in the child suffering from, shaken baby syndrome and that arose during the calendar year immediately preceding the calendar year in which the report is made, as determined by an examination of the statewide automated child welfare information system established and maintained under section 5101.13 of the Revised Code.

(C) As used in this section, "shaken baby syndrome" has the same meaning as in section 3701.63 of the Revised Code.

Effective Date: 2007 SB144 02-29-2008

Appendix G: SBS workgroup permission

Lyons, Patricia

From: Patricia Lyons [patricia.lyons87@gmail.com]
Sent: Wednesday, June 19, 2013 12:49 PM
To: Lyons, Patricia
Subject: Fwd: SBS workgroup for research

Sent from my iPhone

Begin forwarded message:

From: "Wholf, Merrily" <Merrily.Wholf@odh.ohio.gov>
Date: June 19, 2013, 11:39:06 AM EDT
To: patricia Lyons <patricia.lyons87@gmail.com>
Cc: "Eschbacher, Lisa" <Lisa.Eschbacher@odh.ohio.gov>, "Davis, Amy" <Amy.Davis@odh.ohio.gov>, "Deacon, Lori" <Lori.Deacon@odh.ohio.gov>, "Bouchard, Jo" <Jo.Bouchard@odh.ohio.gov>
Subject: RE: SBS workgroup for research

Good morning, Pat!

I have direction from my superiors that I will be the contact person for your records request. An email or written letter, with your specific request, will be sufficient.

To help you plan your request, I can tell you most of the electronic records of the SBS development and workgroup were lost when my computer crashed a few years ago. I do have a very extensive binder notebook, which you can schedule to come view. It probably will be much more useful than all the things lost on the computer. It includes agendas, my meeting notes, rosters, and sign-in sheets.

Your research has the potential to inform policies on development of important prevention programs and we look forward to working with you.

Merrily Wholf, RN, MPH
Child Fatality Review Coordinator
Ohio Department of Health
246 N. High Street, 6th Floor
Columbus, Ohio 43215
614-728-0773

From: patricia Lyons [mailto:patricia.lyons87@gmail.com]
Sent: Monday, June 10, 2013 1:21 AM
To: Wholf, Merrily
Cc: Lyons, Patricia
Subject: SBS workgroup for research

Good Morning Mrs. Wholf,