PERINATAL NURSING STRATEGIES TO PROMOTE BREASTFEEDING FOR WOMEN WHO HAVE A HISTORY OF SEXUAL VIOLENCE: A RAPID EVIDENCE ASSESSMENT

by

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Abstract

For women with a history of sexual violence, establishing and continuing with breastfeeding can be challenging, with possible disruptions to the maternal-infant attachment process. This Rapid Evidence Assessment (REA) examined how perinatal nurses can optimize breastfeeding experiences and outcomes of increased breastfeeding initiation and duration rates for women who have experienced a history of sexual violence. The objective of this REA was to analyze existing evidence within the literature to construct nursing strategies and recommendations to support and enhance breastfeeding for women who have suffered a history of sexual violence.

There were fourteen research studies chosen to be further examined and analyzed to inform the research question. A comprehensive critical appraisal of each study was conducted. Further thematic analysis and coding process utilizing the ecological theoretical perspective identified ten themes within the four ecological systems: 1) microsystem (mother-infant dyad): higher initiation rates, dissociation, and influence of sexual violence on emotional well-being; 2) mesosystem (family and support system): quality of relationships; 3) exosystem (health care system): powerlessness, issues of control and safety, disclosure, and gaps in education and training; & 4) macrosystem (societal and cultural influences): physical exposure of the breast and taboo of sexual violence.

The findings of the REA revealed the complexities women face during the perinatal period when they have a history of sexual violence. The recommendations from this REA included nursing strategies within the categories of enhancing the mother and infant relationship, creating a safe and supportive environment, and facilitating women's empowerment and control. It was identified that nurses need to have the knowledge and skill set to support women and be

aware of the challenges they may face during the perinatal period. Further research was identified as needed in this area due to the limited research on the impacts of a history of sexual on the breastfeeding mother.

Preface

This thesis is submitted for partial fulfillment for the requirements of the Master Degree in Nursing for the author, C. Penrose. The research of the literature began on May 30, 2014 and continued for 4 weeks and utilized electronic databases for retrieval. Critical appraisal of the fourteen research studies was done by utilizing the Evidence for Policy and Practice Institute (EPPI) data extraction matrix tool for evaluating the quality of studies and utilizing scoring criteria to weigh the evidence from low to high levels of trustworthiness in answering the rapid evidences assessment question. The findings within this thesis is the original work of the author, yet is based upon the research of others. The reference list provides all the sources utilized for the contribution of this thesis. The members of the supervisory committee, Dr. H. Brown, Dr. W. Hall, and Dr. S. Campbell, all assisted in the revising and editing of this paper.

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Dedication

To my children Andrew and Megan,

who continuously inspire me every day,

I could not and would not have done this

without your unconditional love.

CHAPTER 1: Background and Research Question

1.1 Introduction

Breastfeeding has been internationally recognized as the best nutrition for infants in achieving optimal health, growth, and development (World Health Organization, 2011). Breastfeeding has been promoted for its many beneficial outcomes for both mother and infant, including reducing the mortality and morbidity rates (WHO, 2007, 2011). Exclusive breastfeeding for the first six months with continued breastfeeding for up to two years and beyond is the current recommendation for optimal infant nutrition made by Health Canada (PSBC, 2013). For women who have experienced sexual violence, however, establishing and continuing breastfeeding can be particularly challenging. Breastfeeding also involves "intimacy, trust, sensitivity, and connectedness between a mother and her baby" (Bowman, 2007, p. 95). Experiences of connectedness can be significantly disrupted for women who have experienced sexual violence, impacting both the mother-infant relationship and the potential for beneficial outcomes associated with breastfeeding.

It has been estimated that as many as one in three women will be sexually assaulted in their lifetimes with most of these women being abused before the age of twenty-four (Statistics Canada, 2008); of these women approximately twenty percent will be functionally affected by the violence in their adult lives (Walker, 2008). Many women who have experienced sexual violence may be unaware of how this type of violence can have negative influences resulting in immediate and long-term biophysical effects (Kendall-Tackett, Williams & Finkelhor, 1993). Some of the post-violence effects include psychological and physical responses: mental health issues such as depression, low self-esteem, anxiety or panic disorders, inability to trust, suicidal

ideation, and post-traumatic stress disorder can occur; as well as gynecological problems, morbid obesity, sleep disturbances, headaches, substance abuse, irritable bowel syndrome, and chronic pain (McGregor, et al., 2010; Hobbins, 2004).

There are several time periods during women's lives where the effects of a history of sexual violence can be magnified for women's functional, physical and emotional wellbeing. The perinatal period is an example, often described as a vulnerable time within a women's life. This vulnerability during pregnancy, birth and postnatal recovery is characterized by physical changes, pain of labour, stretching of the birth canal during delivery, and placing of the babe at the breast post-delivery (Klaus, 2010). Women with a history of sexual violence can have violent memories triggered during this sensitive time; they can relive their past experiences, which can create feelings of disappointment about the childbirth experience (Klaus, 2010). The physical closeness and affectionate interactions between mother and baby can be affected by an array of experiences during childbirth and breastfeeding. The triggering of negative memories by these experiences can result in inadequate mother-infant interactions that may negatively affect the attachment experience between mothers and infants (Johnson, 2013). Also shaping women's experiences of and decisions to breastfeed are social and cultural factors, particularly how the breast is both objectified and sexualised within contemporary societies (Purdy, 2010).

In this thesis, I will evaluate current evidence to generate nursing strategies to optimize breastfeeding experiences and initiation and duration rates for women who have a history of sexual violence.

1.2 Background

1.2.1 Breastfeeding Benefits and Rates

The health benefits of breastfeeding have been identified internationally as vital in the reduction of morbidity and mortality rates (WHO, 2007). Some of the benefits for mothers who breastfeed their infants include the reduced risk of reproductive system cancer, osteoporosis, and diabetes, as well as benefits of postpartum weight loss, involution of the postpartum uterus, and overall reduction in stress levels (Blincoe, 2005). For infants, some of the benefits of breastfeeding include nourishment in a form that is best suited to their developing bodies, prebiotics for gut maturation, antibodies and enzymes for protection against infections, and adjustments in essential nutrients within the mother's breast milk throughout the breastfeeding period (Hale, 2007).

The known benefits and importance of breastfeeding has been internationally recognized by the World Health Organization (WHO) with their establishment of the global health recommendation of exclusive breastfeeding for the infant for the first six months of life, followed by breastfeeding along with complementary foods for two years and beyond (WHO, 2007, 2011). These recommendations ensure that each infant is receiving adequate nutrition for optimal growth and development, as well as decreased mortality and morbidity (WHO, 2007). This recommendation also states the importance of individual government national policies reinforcing these guidelines. Canada's Public Health Agency has developed a national policy that embraces the WHO recommendations and has provided a statement enforcing these recommendations to be followed within provincial and territorial health organizations.

From development of these policies, the Baby Friendly Hospital Initiative was launched by WHO and UNICEF in 1991; it served as a global effort to further promote, protect and

support breastfeeding worldwide (Chalmers, Levitt, Heaman, O'Brien, Sauve, & Kaczorowski, 2009). This initiative was created to ensure that supportive environments for breastfeeding were available through hospitals and community resources that provided perinatal services, with the outcomes of increasing breastfeeding intention, initiation, duration and exclusivity following the WHO recommendations (Chalmers, et al., 2009). As of December 2013, Canada had five designated hospitals and fourteen community health centres that were recognized as Baby Friendly and follow the guidelines set forth by WHO and UNICEF (The Breastfeeding Committee of Canada, 2013). These facilities all had to meet requirements and have reassessments completed to ensure the guidelines are followed by all staff.

Chalmers, et al. (2009) found that proportions of women reporting both intention and initiation rates for breastfeeding throughout Canada were high, at 90.0% and 90.3% respectively, yet the duration and exclusivity of breastfeeding at three months of age at 51.7% and six months of age[1] at 14.4% was considerably lower than global recommendation set forth by WHO (Chalmers, et al., 2009). British Columbian rates are the highest in Canada with intention at 96.4% and initiation of breastfeeding at birth at 97.0%; however, proportions of women reporting exclusive breastfeeding at three months (61.4%) and at six months (19.2%) have fallen well below the recommended standards set by Health Canada and the WHO (PSBC, 2013).

The importance of effective breastfeeding support has become a public health priority as target breastfeeding rates remain low (Holmes, 2013). The promotion and advocacy for the advantages of breastfeeding through public health policies exist while the exclusivity and

[1] Chalmers et al. (2009) recruited women who were breastfeeding at 6 months of age and excluded women less than 6 months postpartum if they had not introduced additional solids or liquids to baby's diet at the time of the conducted interview. Six months is the global health recommendation for exclusive breastfeeding and six months is also the recommended age for the introduction of other liquids and solids into babe`s diet as complementary to breastfeeding. This recommendation has been made due to low iron stores in infants and the need to supplement with iron fortified or iron rich foods, such as meats.

duration rates continue to drop in Canada. Many hypotheses for low rates exist; for example, Chalmers et al. (2009) proposed that initiation and duration rates can be influenced by the differing types of health care providers with various levels of breastfeeding education in differing regions of the country working both in hospital environments and community centres. Furthermore, the differences in maternal access to care, local cultural practices, and maternal demographics can all influence breastfeeding outcomes (Chalmers et al, 2009). In order for nurses to promote longer and more exclusive breastfeeding practices, there needs to be a better understanding of the contributing factors that influence breastfeeding (Hector, King, & Webb, 2005). Perinatal nurses are aware of the long term health benefits of breastfeeding for both mothers and infants. For nurses, knowledge of contributing factors can enhance nursing practice by offering evidence-based strategies when interacting with and supporting breastfeeding women. Use of the Rapid Evidence Assessment (REA) will allow examination of women's history of sexual violence as a contributing factor to their breastfeeding practices.

1.2.2 Sexual Violence

Sexual violence can take a variety of forms, whether verbal, psychological, and/or physical (Klaus, 2010). Of the reported sexual assault cases in Canada during 2007, over half were reported by children and youth under the age of eighteen years old when the incidents occurred (Statistics Canada, 2008). The statistics reveal that over one in three women have had a history of sexual violence, which has a significant impact on their future overall health outcomes and perinatal experiences (Statistics Canada, 2008; Klaus, 2010). According to Statistics Canada (2008), data of this nature can never be accurate, as many victims do not ever disclose their history of sexual abuse. Thus, it is likely that the reported incidence is lower than the actual number of women who have experienced sexual violence.

Historically there have been many documented incidents of sexual abuse throughout cultures and centuries, mainly involving accounts of the exploitation of women and children; this occurred as early as Ancient Greece (Martin, 1995). Martin (1995) states that the true realization of these acts as abuse finally came to light in the late 1800s with the "sensibilities" of the Victorian age and Sigmund Freud's research in Vienna. Freud published the "Aetiology of Hysteria", otherwise referred to as "Seduction Theory", after he spent time hearing his female patients' reports of their abuse as children. Having his theory rejected, Freud then published his Oedipus complex theory within his "Interpretation of Dreams" manuscript in 1899. Although hidden, Martin (1995) states that childhood sexual abuse has prevailed in many societies. Recognition of its effects did not occur until the publishing of "The Battered Child Syndrome" in 1962 by Dr. C. Henry Kempe. The history of sexual violence and its effects on women over the centuries helps us better understand the complexities of societal and cultural effects of sexual violence in our most societies.

As studies began to focus on the feminist perspective of sexual abuse and its effects on women, whether abused as adults or children, power inequities between men and women became the focus. An emphasis on women's experiences and the identification of patriarchal oppression have been the focus of analysis of sexual violence from a feminist perspective (McCarter-Spaulding, 2008; Hulme, 2004).The perception of women as "sexual possessions" (Sangster, 2001, p. 19) implied male counterparts' rights to have sexual access to women; women were socialized to be submissive and subordinate (Sangster, 2001). Studies described sexual violence, mainly childhood sexual abuse, as affecting the long term health outcomes of women (McGregor, et al., 2010; Hobbins, 2004). The impacts can be far reaching; past trauma can leave women with little trust about their personal safety within intimate and social relationships. For

women, a hesitancy to disclose is common due to shame, self-blame, and fear of not being believed (McGregor, et al., 2010). These long term consequences of sexual violence can affect women's interactions with their infants, undermining their confidence and potentially disrupting effective parenting interactions (Roberts, O'Connor, Dunn, Golding, The ALSPAC Study Team, 2004).

Sexual violence creates trauma that can influence how women live their lives, form relationships, deal with adversity, cope in everyday situations, build connections with their children, and achieve health and well-being throughout their lifespan (Hobbins, 2004; Drauker et al., 2009). The relationship between mother and infant can be negatively affected due to a mother's emotional response to her pregnancy, childbirth and postpartum period adjustments. Infants are highly connected to and dependent upon their mothers and are therefore vulnerable to stressful conditions and experiences, including inadequate mother–infant interactions (Johnson, 2013). Poor interactions can have detrimental effects on infants' cognitive and socio-emotional development, including future personal relationships (Johnson, 2013). Women with a history of sexual violence may have re-emerging memories of the abuse and increased anxiety regarding their new parental roles; their memories can further affect the breastfeeding and attachment experience as the closeness that occurs during breastfeeding may increase a mother's anxiety about decreased personal boundaries between the mother and her infant (Roberts, et al., 2004). The effects of sexual abuse on the breastfeeding experience have only recently been examined, notwithstanding effects from centuries of sexual violence endured by many women in all cultures and societies.

1.2.3 Implications of Sexual Abuse on Breastfeeding

Western culture has sexualized the breast, so the conflict that women who have a history of sexual violence endure in their experiences with breastfeeding is not surprising (Purdy, 2010). Regarding breasts as representing both nourishment and sexual objects can create conflicts for breastfeeding mothers (Purdy, 2010). The objectification of the breast "as an erotic, sexual object in our society" may have mothers responding as though they are indecently exposing themselves when breastfeeding (Purdy, 2010, p. 365). Contributing to the sexualisation of the breast is the fact that the hormones, oxytocin, and prolactin, which regulate lactation, also regulate sexual arousal, causing some women to experience feelings of sensual pleasure during lactation (Walker, 2008). These normal feelings of sexual satisfaction can be regarded as threatening by women who have suffered sexual abuse, causing them to have "feelings of revulsion, fear, confusion, betrayal, and powerlessness" when it comes to breastfeeding their infants (Bowman, 2007, p. 95).

The sexualisation of the breast has also been associated with mothers' fear of breastfeeding in public. In Western societies, when breasts are sexualized similar views are expressed in regards to breastfeeding in public. In a study of British men, some of the participants identified breastfeeding as "closely associated to or synonymous with sexual activity" (Henderson, McMillan, Green, & Renfrew, 2011, p. 68). These views emphasize our cultural mass media representation of breasts as sexual objects. The sexualisation of breast in the media influences women who have been sexually violated because exposing their breasts in public when breastfeeding can be associated with re-surfacing fear of being violated or exploited (Bowman, 2007), thus resurfacing negative feelings for women who have experienced sexual violence.

The stigmatization of sexual abuse also has a significant impact on women's lives. Throughout history and within Western culture, sexual abuse has been kept a secret by perpetrators and survivors, creating an atmosphere of taboo about the topic (Martin, 1995). The act of disclosure for many women can create great embarrassment and unwanted attention. Having to recount the unbearable memories to health care providers has the potential to surface feelings that have been repressed for the woman, causing further trauma for the individual (Hobbins, 2004). For this reason, many women do not disclose their history of abuse. Avoiding disclosure may create an environment lacking in compassion as these women may react negatively to health care workers who they see as authority figures, especially in situations that potentiate the re-victimization through physical examinations (McGregor, et al., 2010). A negative reaction to nurses as authoritative individuals or persons holding power signifies the sexual abuse act where the woman had reluctantly given her power to the perpetrator.

There are many challenges that new mothers have to encounter during the early postpartum period involving the adjustment to breastfeeding. Some of these challenges include latch, positioning, sore nipples, engorgement, and possible milk supply issues (Davis, 2008). For a mother who has a history of sexual abuse, these challenges can be more intrusive and intense, causing some of these mothers to encounter flashbacks of past abuse situations, experience intense feelings of fear, and use avoidance behaviours, agitation or possibly disassociation when it comes to breastfeeding their babies (Hobbins, 2004). The physical act of breastfeeding itself has the potential to trigger old memories of abuse, resulting in the mother experiencing confusion about her care giving abilities, uncertainty about physical boundaries, and negative associations with the normal sensual sensations that can occur during breastfeeding (Hobbins, 2004).

1.3 Purpose

The purpose of this Rapid Evidence Assessment (REA) is to examine the literature to generate practice recommendations for perinatal nurses working with breastfeeding mothers who have a history of sexual violence. The outcomes of this REA are to identify strategies from the literature that will enhance positive outcomes for this population, and provide direction for educating perinatal nurses about how to provide effective care and support to these mothers. The importance of perinatal nursing support and education for mothers with a history of sexual violence is paramount to improve initiation and duration rates of breastfeeding and thereby optimize positive health outcomes for mothers and infants.

1.4 Research Question

The research question for this REA is: How can perinatal nurses optimize breastfeeding experiences and outcomes of increased breastfeeding initiation and duration rates for women who have experienced a history of sexual violence? In the process of using the REA, I will analyze existing evidence within the literature to construct nursing actions and practice recommendations to support and enhance breastfeeding for women who have suffered a history of sexual violence.

CHAPTER 2: Theoretical Perspective and Methodology

2.1 Theoretical Perspective

A theoretical perspective frames how the study will be undertaken and contributes to the construction of meaningful findings in relation to the research question. For this REA, the theoretical perspective guiding the inquiry is ecological. The ecological perspective focuses on the changing environment in which one lives and how one is affected by the relationships between immediate settings (Bronfenbrenner, 1977). Also, this perspective draws attention to the changing factors that can occur at any level of the system and the effects of those factors on an individual's social and cultural contexts (Bronfenbrenner, 1977). The ecological environment itself is conceived as a "nested arrangement of structures, each contained within the next" (Bronfenbrenner, 1977, p. 514).

Bronfenbrenner (1977) identified how individuals are nested within multilevel systems similar to Russian stacking dolls, one fitting inside the other. From this perspective, the breastfeeding mother and infant are at the center of the stacking dolls; the microsystem. The next level, or mesosystem, would be the family and immediate supporters of the dyad. The exosystem would include the community, encompassing nurses, physicians, and other health care professionals. The last system, the macrosystem, represents the culture and society where the mother and child live and is influenced by the economic, social, educational, legal, and political systems constructed by the other system levels (Bronfenbrenner, 1977). This system encompasses the explicit and implicit societal and cultural rules, including laws and regulations as well as customs, roles, and activities and the effects of the interrelations of these on the other system levels (Bronfenbrenner, 1977). This theoretical perspective will guide my analysis of how women's histories of sexual violence are influencing women's breastfeeding experiences at

personal and structural/contextual levels. It is my examination of the literature from the perspective of these interconnections and nested arrangements that may illuminate strategies to guide nursing care for breastfeeding women.

An ecological perspective also draws attention to how a history of sexual violence may affect a woman's life on many levels simultaneously; within the mother-child relationship, within families, communities and within the health care context, all of which can potentially influence breastfeeding experiences, and mothers' initiation and duration of breastfeeding. When examining the work of Bronfenbrenner (1977) within the context of breastfeeding, Tiedje et al. (2002) claimed the ecological model can assist researchers in identifying the contextual influences on the breastfeeding dyad. In their research, they identified how the ecological model can assist in guiding intervention approaches by depicting how different factors influence each of the multiple levels, including the individual, dyad, family, healthcare, community, and societal levels (Tiedje, et al., 2002). With the identification of influencing factors on breastfeeding, nurses can design intervention processes at various levels to enhance the positive outcomes of the breastfeeding experience for women with a history of sexual violence.

2.2 Methodology

Gough (2007) explains that "being specific about what we know and how we know it requires us to become clearer about the nature of the evaluative judgements we are making about the questions that we are asking, the evidence we select, and the manner in which we appraise and use it" (p.214). Examining evidence in the published literature can reveal the effects of sexual violence on breastfeeding mothers and assist me to develop clinical practice recommendations for perinatal nurses working with this specialized population.

The methodology for this thesis is a Rapid Evidence Assessment. In gathering evidence of what is known about a topic or intervention, the REA is similar to that of a systematic review utilizing many of the same methods to review and analyze relevant literature (Hemmingway & Brereton, 2009). As a systematic review is beyond the scope of this thesis, the REA approach will provide a more limited synthesis of the literature for this thesis topic. The REA process involves formulating the research question, defining the theoretical framework, conducting the evidence assessment, and assessing the quality and relevance of the studies utilizing inclusion and exclusion criteria. It directs me to analyze and weigh studies according to methodological quality and the relevance of the design and study focus for this REA question utilizing Government Social Research Service (GSRS, 2009) Weight of Evidence Assessment criteria.

2.2.1 Search Criteria

This REA was conducted following the UBC thesis option guidelines (Appendix A). The search began on May 30th and was completed within 4 weeks. The search terms used were:

1. Sexual: abuse, assault, violence, childhood
2. Breastfeed[2]*: mother, woman, women, infant feed*
3. Perinatal: period, nurse, outcome*
4. Postpartum: period, nurse
5. Maternity: maternal, nurse

The search was conducted utilizing UBC Library electronic bibliographic databases in medical, nursing, and allied health sources. These sources included CINAHL, EBSCO Host, PubMed, Medline, PsychINFO, and Cochrane Review. A World Wide Web search was also

[2] The asterisk (*) indicates the wild card search that was utilized within each of the search engines. The * symbol would enable the search engine to include words that have different suffixes to the first word, expanding the search results. An example would be searching "breastfeed*" with breastfeed, breastfeeding, and breastfeeds found within the search results.

conducted within Google Scholar to maximize the scope of the evidence in the identification phase, ensuring there was no study omitted that would be integral to this REA's findings.

2.2.2 Inclusion and Exclusion Criteria

The UBC thesis REA option guidelines for the School of Nursing require clear articulation of the inclusion and exclusion criteria to generate a rigorous selection approach. The inclusion criteria were:

1. Studies written and available in the English language only.
2. Studies published between the years 2000-2014.
3. Studies available in electronic format only.
4. Studies relevant in answering the above proposed question.

The studies that did not meet the inclusion criteria were excluded from this REA. Studies that were excluded were non-English language, before the year 2000, non-electronic formats, and the grey literature, which includes unpublished and less readily available literature.

2.2.3 Search Process

The GSRS (2009) proposes two search strategies in order to generate conclusions from the analysis and synthesis of literature: first, the strategy must be comprehensive and second, it must be purposive. In order to maximize the search to locate relevant research four approaches using the following combinations of terms were used:

1. "sexual violence" and variations of "breastfeed", "postpartum", "perinatal", and "maternity"
2. "sexual abuse" and variations of "breastfeed", "postpartum", "perinatal", and "maternity"
3. "sexual assault" and variations of "breastfeed", "postpartum", "perinatal", and "maternity"

4. “childhood sexual abuse” and variations of “breastfeed”, “postpartum”, “perinatal”, and “maternity”

The electronic databases included were CINAHL, EBSCO Host, PubMed, PsychINFO, MedLine, and Cochrane Review. A World Wide Web search was also performed, specifically within Google Scholar, to ensure no relevant study may be excluded. Due to the paucity of the studies found within these databases from 2000-present, a purposive hand search was also conducted from the retrieved relevant literature reference lists. The selected studies had to pertain to women with a history of sexual violence and the perinatal period to be relevant evidence to answer the proposed research question.

2.2.4 Data Collection

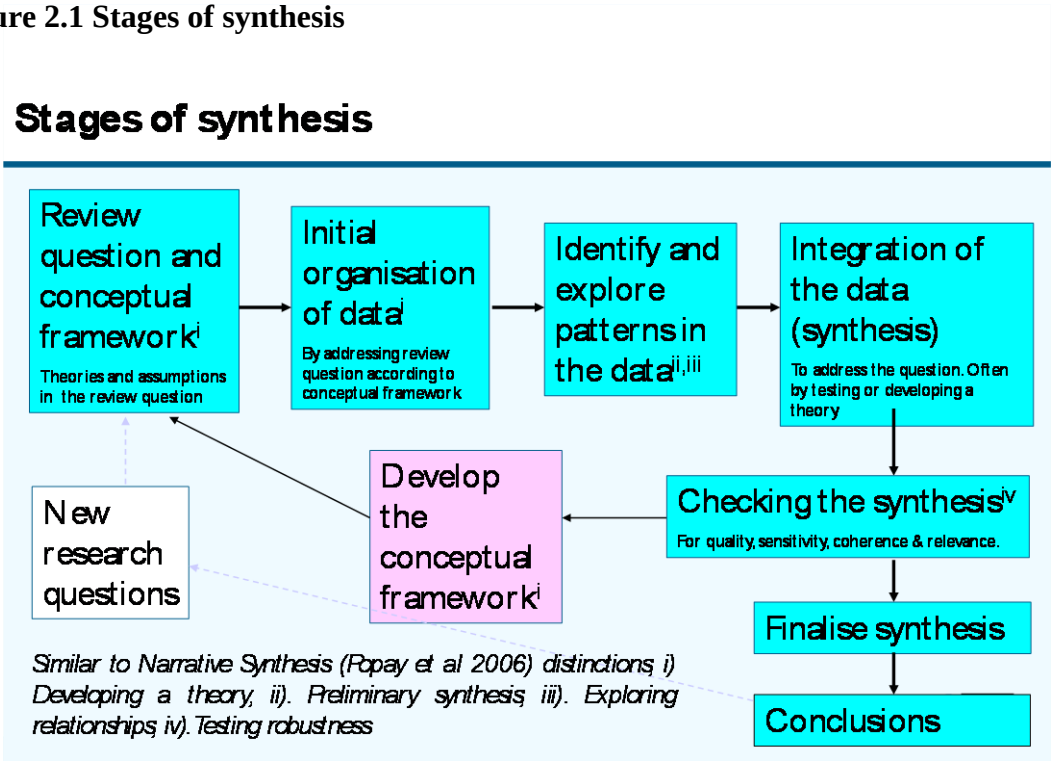
For the data collection stage of an REA there are 2 components: locating the studies and describing those studies (GSRS, 2009). Most of the selected studies were found within the CINAHL database. The research papers were collected and then stored using Refworks©, bibliographic management software, as well as on a spreadsheet to track the publication year of the study, country of origin, participants/sample size, research method, findings, limitations, and practice implications for each of the selected studies.

2.2.5 Screening and Selection of the Studies

After the studies were identified using the above search criterion, screening of each study was undertaken. First, the abstract was reviewed to determine if the study was relevant. The studies that did not meet the inclusion criteria were not analyzed further. Several study abstracts were unclear so further review was undertaken to ensure eligibility. This review entailed reading the articles to determine whether the inclusion criteria were met for this REA. If the study did not meet the inclusion criteria, it was excluded from further review and data extraction.

The relevant studies were further analyzed by reviewing the full-text articles including methodology, findings, discussion, conclusions and practice implications. In Figure 2.1, the stages of synthesis which were used for this REA are outlined (GSRS, 2009).

Figure 2.1 Stages of synthesis



Source: GSRS (2009): http://www.civilservice.gov.uk/networks/gsr/resourcesandguidance/rapidevidenceassessment/how-to-do-a-rea

2.2.6 Selected Research Studies for the Rapid Evidence Assessment

Following the initial search, 26 research studies were selected for more in-depth analysis (Appendix B). Of these 26 studies, 14 were chosen based on the criteria outlined earlier. Each of these 14 studies was then further critically assessed and appraised. Twelve of the studies were primary single studies which included six qualitative, five quantitative, and one mixed method design that used both qualitative and quantitative approaches. I also included one systematic review and one meta-synthesis. These two reviews, although not single studies, as specified in

the criteria, were included in the evidence assessment as they directly pertained to research question and were determined to have relevance to the practice issue under investigation. The rationale for their inclusion is presented in Table 2.1.

Table 2.1 Rationale for Review Inclusion

Author, Title, *Methodology*	**Rationale for Inclusion in Evidence Assessment**
Leeners, B., Richter-Appelt, H., Imthurn, B., & Werner, R. Influence of Childhood Sexual Abuse on Pregnancy, Delivery, and the Early Postpartum Period in Adult Women. *Systematic Review*	This review explored the influence of childhood sexual abuse (CSA) on pregnancy, delivery and postpartum. The review included an in depth analysis of the literature that was available for the perinatal period. The findings from this review were directly applicable for my evidence assessment on this topic and held significant potential for generating outcomes for perinatal nurse practice.
Montgomery, E. Feeling Safe: A Metasynthesis of the Maternity Care Needs of Women Who Were Sexually Abused in Childhood *Metasynthesis*	This metasynthesis explored the maternity care experiences of women who had a history of CSA. The key themes of this review were important components of my evidence assessment and assisted me in formulating evidence based practice recommendations.

Of the 14 studies selected, 6 studies directly described nursing actions to optimize women's breastfeeding experiences and increase breastfeeding initiation and duration rates for women who have experienced a history of sexual violence (See: Beck, 2009; Bowman, Ryberg, & Becker, 2009; Coles, 2009; Kendall-Tackett, Cong, & Hale, 2013; Prentice, Lu, Lange, & Halfon, 2002; & Wood & Van Esterik, 2010). The remaining 8 studies focused on the influence of sexual violence more generally during the perinatal period, with minor discussions of the effects on breastfeeding (See: Coles & Jones, 2009; Gilson & Lancaster, 2008; Jackson & Fraser, 2009; Leeners, Richter-Appelt, Imthurn & Rath, 2006; Marysko, et al., 2010; Montgomery, 2013; Roller, 2011; Seng, Sparbel, & Low & Killion, 2002).

There was one study that did not examine breastfeeding within the overall perinatal period. In this study, the authors addressed dissociation in the postpartum period due to a history

of sexual violence (Marysko, et al., 2010). Their findings extended the rigor of my analysis because dissociation was addressed numerous times within other selected studies. One other study (Jackson & Fraser, 2009) investigated midwives' knowledge and attitudes towards caring for women with a history of sexual violence. Their findings contributed to the midwives/health care provider perspective of caring for women with a history of sexual violence and identifying possible gaps in knowledge and skill set. I decided these studies, although not directly focused on breastfeeding in the context of a history of sexual violence, would contribute important evidence and knowledge towards my goal of generating nursing practice strategies and when formulating evidence-based recommendations from this REA. These studies both scored as medium weight of evidence after reflecting on the relevance of the study and the appropriateness of the research design for addressing the posed research question for this REA.

In searching the databases, intimate partner violence (IPV) studies were initially selected for review. After reflection, I decided to exclude these studies as my question focused on breastfeeding women with a history of sexual violence which was challenging to disentangle from the broader category of intimate partner violence[3]; I decided to focus on those studies that explicitly investigated a history of sexual violence and not IPV more broadly.

2.2.7 Participants

The participants in thirteen of the studies were childbearing women with a history of sexual violence. One study explored midwives perceptions of working with this population, with midwives as the participants. Two of the studies looked at adolescent mothers with a history of

[3] In the studies that focused on IPV, I found it difficult to disentangle physical violence from sexual violence in their findings. As well, many of the studies focused on women having current IPV in their lives that were impacting their perinatal and breastfeeding experiences. This REA's focus is on the women's history of sexual violence as a factor influencing breastfeeding outcomes; therefore, I decided to exclude these studies due to the complexity involved in looking at these as separate entities. While it is arguable that separating IPV from sexual violence is defensible; I narrowed my focus to a history of childhood sexual violence to manage the scope of this thesis.

sexual violence before the age of fourteen. The sample sizes varied: one study had a single case study, while another had a sample of 6,410 women from 59 countries. The participants in eleven of the studies self-identified as having a history of childhood sexual violence and in two of the studies had self-identified as having a history of sexual violence.

The countries of research origin are as follows: six studies were completed in the United States (US), three studies were completed in Australia, and two studies were completed in the United Kingdom (UK), as well as one study was completed in each of the countries of Switzerland, Canada, and Germany. The majority of the studies were undertaken in the US, which has similar cultural and societal norms to Canada, yet with differing health care systems. The limitation of one Canadian study is that the small sample size creates a problem generalizing the findings of the study to all Canadian women with a history of sexual violence. Nonetheless, this study had important findings which were congruent with studies in other nations.

2.2.8 Critical Appraisal

The appraisal of the selected studies included data extraction from each study by utilizing the Evidence for Policy and Practice Institute (EPPI) data extraction matrix tool (Appendix C). Using the tool I extracted information so that I could synthesize the studies. Specifically, it provided direction for me to determine how the studies were conducted so I could comment on relevance, quality and validity, as well as describe the study findings (GSRS, 2009). I utilized this tool to assess the quality of each study and relevance criteria to determine how much weight of evidence should be given to each of the studies' findings. The studies were scored on their contribution of their weight of evidence for the REA on the three dimensions defined by the GSRS weight of evidence assessment criteria and given an overall score. The findings from this appraisal process for this REA can be found in Appendix D.

The data extraction process involved extensive reviewing of each study to extract significant details to guide the appraisal of quality and relevance in relation to the REA question. I utilized that data extraction tool as a worksheet to guide me through the critical appraisal process identifying strengths and limitations in each of the studies. Next, following this comprehensive data extraction, the coding process continued using the GSRS Weight of Evidence Assessment (WoE) criteria (Appendix E) to appraise each study for relevance and reliability, also assisting with my synthesis of data and efforts to draw conclusions for this REA. Overall this process involved looking at both the cohesiveness and integrity of the selected studies in order to score the studies for the relevancy of their findings to inform the REA question. The evidence was weighed according to Gough's (2007) three main dimensions which are recommended to be considered in relation to quality and relevance appraisal of studies:

WoE A: The methodological quality of the considered study,

WoE B: The relevance of that research design in answering the REA question, and

WoE C: The relevance of the study focus for answering the REA question.

The studies were then scored using the WoE scoring criteria within each of the above dimensions looking at each individual study's level of evidence in answering the REA question, as either of high, medium or low level of evidence. This scoring criterion was utilized as justification for the impact of the findings contributing to the conclusions of this REA. These three dimensions were reviewed using the scoring criteria for each dimension, giving the evidence a score of 1-3 depending on level of evidence and then given an overall weight score, WoE - D, with the highest score being 9 and lowest at 3. The scoring criteria for each dimension of the WoE are as follows:

- High evidence – 3

- Medium evidence – 2
- Low evidence – 1

Section N of the EPPI data extraction tool involved looking at the overall quality of each study and narrowing the specific qualities of each in order to score each study with either high, medium or low levels of evidence on each of the three dimensions (Appendix C). I critically appraised each of the studies further, scoring them within the three dimensions according to the appraised quality determined from utilizing the data extraction tool. The scores were determined by answering the questions in section N in relation to quality of the research study in answering its research question, the appropriateness of the research design in answering this REA's question, and the relevance of the research study in answering the REA question. Each of the three scores for each dimension was then totalled to calculate an overall WoE score for each of the studies. The overall WoE scores for the selected REA studies can be found in Appendix D.

Another appraisal tool utilized for the selected studies was the Critical Appraisal Skills Programme (CASP) Qualitative Appraisal Tool (Public Health Resource Unit, 2006, retrieved from GSRS, 2009). This appraisal tool looks at qualitative research and scores each study based on ten questions (Appendix F). The score is based on how the ten questions are answered: Yes = 1 and No = 0. The CASP also has three levels of evidence based on these criteria scoring; where the scores themselves are assigned on the basis of research design, sample, data collection methods, reflexivity, ethical issues, data analysis, findings, and value of the research:

- High evidence – 8-10
- Medium evidence – 4-7
- Low evidence – 1-3

Once the studies were scored, the WoE and CASP scores guided the contribution of the studies with higher evidence scores to provide more impact to the findings and conclusion chapters. In other words, the more the weight the study was determined to have from the extraction process, the more the findings and data was utilized in this REA.

For mixed methods and systematic reviews the EPPI data extraction tool was utilized. The EPPI data extraction tool is indicated for single primary studies, yet I felt there was importance in including the systematic review and meta-synthesis within this REA to enhance the findings and outcomes of nursing implications. Gough (2007) indicates that the WoE framework can also be utilized for appraising reviews by looking at the specific aims and methods of each review and scoring the evidence according to how the review will inform the research question. I utilized the appraisal tool by reviewing the three dimensions of the WoE framework reviewing the following for each study: WoE A – the quality of the review as transparent and explicit, WoE B – the issues of the particular review design and the relevance to the REA question, and WoE C – the focus of the review in answering the REA question. I then utilized the scoring guidelines for low to high level of evidence (Appendix E) and assigned scores to each of the reviews. This appraisal tool provided a process for conducting a rigorous quality assessment of the reviews and provided the relevancy of each in providing more knowledge in answering the research question.

With the limited number of research studies on this topic, all of the studies that were appraised were used within this REA. GSRS (2009) states that studies which have been appraised and given lower level evidence scores are either excluded or given less weight within the synthesis process. All studies were included in this REA as they all scored high to medium levels of WoE. Attention is paid to the decision making process during the analysis phase

whether the study was scored of high or medium WoE in how the evidence was to used in addressing the research question. Studies which were given higher levels of WoE scores were determined to have more evidence in answering the REA question and were drawn upon frequently within the findings chapter.

2.2.9 Communicating the Findings

The final stage of the REA is to communicate the findings of the interpretation and application of the evidence in answering the research question. GSRS (2009) recommends presenting the findings within 1:3:25 format rule. This includes a one page format of the main messaging providing the implications of the research, a three page executive summary providing more information on the research method focusing on the condensed findings and practice implications, and a twenty-five page format presenting the complete findings in more detail. This format is presented as a modified version in this thesis as follows:

1. A one page abstract providing the details of this REA and the implications of the research.
2. A three page synthesis of the findings I generated from this REA, which can be found within the next section (2.3).
3. A twenty-five page format of the findings is presented in Chapter 3.

2.2.10 Synthesis of Findings

The findings from the data extraction varied for each of the 14 studies and each of the studies were analyzed using the ecological perspective as a theoretical lens. The findings were synthesized from the selected studies, addressing the weight score of evidence from the critical appraisal process, in order to answer the REA research question. For the first step of my analysis I created broad categories to synthesize the studies and then I developed a thematic analysis to

generate themes and subthemes informed by the following four ecological levels: microsystem, mesosystem, exosystem, and macrosystem.

2.3 Synthesis of Studies: 9 Categories

The results from the 14 studies were synthesized and 9 categories generated to reflect the evidence appraised[4]:

1. Initiation and Duration: Women who self-identify as having a history of sexual violence have an increased likelihood to initiate breastfeeding (Bowman, et al., 2009; Leeners, et al., 2006; & Prentice, et al., 2002). Yet, this same population has lower duration rates than women without a history of sexual violence (Prentice, et al., 2002). Initiation and intention was high within the studies with some women identifying to initiate breastfeeding yet had difficulty continuing to breastfeed due to the relationship these women had with their breasts, which was identified as a connection to their history of sexual violence (Beck, 2009; Coles, 2009; Leeners, et al., 2006; Wood & Van Esterik, 2010). Other women found breastfeeding as a component of healing from their history of sexual violence and connecting with their babies and chose to continue with breastfeeding (Coles, 2009; Wood & Van Esterik, 2010).
2. Dissociation: Dissociation is an adaptive process for women with a history of sexual violence. It is a learned behaviour that women use to attempt to detach from the abuse and becomes a coping strategy for later stressful events in their lives (Bowman et al., 2009; Leeners, et al., 2006; Marysko, et al., 2010; Wood & Van Esterik, 2010). Dissociation can occur during the perinatal period as a reaction to deal with pain,

[4] These categories were the initial step in the analysis and synthesis of the studies, reflecting my initial clustering of the evidence before refining further through the thematic analysis using the ecological perspective. These broad categories from this step assisted in refining my analysis to generate the specific themes and sub-themes within each of the ecological system levels. While the ecological levels provide an organizing framework for my findings, it is important to note how the system levels overlap in my discussion that follows.

childbirth, examinations, and breastfeeding assistance, as all of these can trigger memories of past sexual violence (Bowman et al., 2009; Leeners, et al., 2006; & Wood & Van Esterik, 2010). Dissociation can interfere with mother-infant attachment and impede parenting (Bowman et al., 2009; Marysko, et al., 2010). Breastfeeding has been found to assist in developing emotional attachment and decrease dissociation and disconnection, helping the mother feel more connected to self and her baby (Coles, 2009).

3. Mental Health Impacts: Increased stress, anxiety, and depression levels are associated with a history of sexual violence. Maternal infant attachment can be affected by depression and anxiety within the perinatal period. Breastfeeding has been found to potentially have a positive impact on mental health; oxytocin may hold the potential for decreasing anxiety and depression thereby contributing to overall well-being for breastfeeding women with a history of sexual violence (Coles, 2009; Gilson & Lancaster, 2008; Kendall-Tackett, et al., 2013; & Leeners, et al., 2006). The positive effects of breastfeeding may have the potential to counter-balance the negative effects of a history of sexual violence and may potentially impact the outcome of initiation and duration rates for this same population.
4. Representation of the Breast: Breasts can be seen as triggers to past sexual abuse encounters. Women describe the healing through breastfeeding, as their breasts transformed from sexual objects to providing nourishment for their children. Breastfeeding in public brought on the specific fear of exposure. Many women experience the dual role of the breasts as both sexual and nourishment, yet when women with a history of sexual violence identified the breasts as asexual, they identified the

ability to breastfeed in public as long as they were able to control the environment and maintain privacy (Coles, 2009; & Wood & Van Esterik, 2010).

5. Physical Touch and Examination: Perinatal touch by HCPs can be uncomfortable and intrusive for women with a history of sexual violence, whether the touch is for assessment, examination, or assistance with breastfeeding. Vulnerability and powerlessness are common words describing perinatal touch throughout the literature (Beck, 2009; Bowman et al., 2009; Coles, 2009; Coles & Jones, 2009; Montgomery, 2013; Roller, 2011; & Wood & Van Esterik, 2010).
6. Family and Social Support: Family and social support decreases the incidence of depression and anxiety in women with a history of sexual violence[5]. Providing family and community support and resources, including resources specific to breastfeeding, counteract the negative effects of the history of sexual violence. (Bowman et al., 2009; Gilson & Lancaster, 2008; & Wood & Van Esterik, 2010).
7. Trusting Relationships with Care Providers: Women with a history of sexual abuse have a wariness and ambivalence in regards to trust relationships. HCPs are seen as having a position of authority, creating a perceived power imbalance between HCP and women with a history of sexual violence. Women with a history of sexual violence describe feelings of vulnerability and powerlessness in their encounters with HCP due to lack of trust (Leeners, et al., 2006; Wood & Van Esterik, 2010). Shared power and control within health care interactions can create a respectful relationship which can facilitate trust, decrease feelings of powerlessness and vulnerability and support women's autonomous

[5] The influencing factors of ongoing threats from perpetrators are important in the analysis, yet this was not the focus of my review. As perpetrators can be members of the woman's biological or immediate family, family is determined to be defined by each woman and may not include the perpetrator within that definition. Family is determined by whoever the woman determines and classifies to be her family within this thesis.

decision making (Beck, 2009; Coles & Jones, 2009; Leeners, et al., 2006; Montgomery, 2013; Roller, 2011; & Wood & Van Esterik, 2010) Awareness of emotional safety within perinatal clinical encounters has been identified as vital in providing positive experiences for women with a history of sexual violence. Many triggers of past abuse can be re-experienced through touch, examinations, smells, and words used within this period. Women require supportive, trusting and compassionate relationships to ensure safe environments (Beck, 2009; Coles & Jones, 2009; Montgomery, 2013; Seng, et al., 2002; & Wood & Van Esterik, 2010).

8. Fear of Judgement & Stigmatization: Women fear judgment and stigmatization when disclosing history of sexual violence to HCPs. Women disclosed within the context of educated and trained professionals who were also trustworthy and sensitive health care practitioners. (Coles, 2009; Jackson & Fraser, 2009; Montgomery, 2013; Seng, et al., 2002; & Wood & Van Esterik, 2010).
9. Need for Education/Training: Women with a history of sexual violence wanted HCPs to increase their knowledge or skill set about sexual violence in the context of their work with the perinatal population (Coles, 2009; Jackson & Fraser, 2009; Seng et al., 2002; & Wood & Van Esterik, 2010).

2.4 Themes

The above categories were then further analyzed using the ecological theoretical perspective described by Tiedje (2002); an approach that focuses on the bidirectional influence of environments on breastfeeding. Using Tiedje's articulation of multi-system influences within

the context of breastfeeding, the 9 categories were collapsed into 4 themes and 10 sub-themes [6]: (1) mother-infant dyad (microsystem), (2) family and support system (mesosystem), (3) healthcare (exosystem), and (4) society and cultural influences (macrosystem):

1. Theme:1 Mother- infant dyad:
    a. Higher initiation rates
    b. Dissociation
    c. Influence of a history of sexual violence on emotional well-being
2. Theme 2: Family and support system:
    a. Quality of relationships
3. Theme 3: Healthcare system:
    a. Powerlessness
    b. Issues of control and safety
    c. Disclosure
    d. Gaps in education and training
4. Theme 4: Societal and cultural influences:
    a. Physical exposure of the breast
    b. The taboo of sexual violence

Each of these themes will be discussed in the following chapter. In Chapter 4, I discuss the practice implications of these themes for nurses working to promote optimal experiences and

[6] The ecological levels are used in this REA as an organizing framework to describe the themes and sub-themes. The sub-themes that I found within the studies and described in the findings section are not exclusive to each level, yet overlap within each of the other levels. All of the themes demonstrate the individual's contextual influences within each of the system levels, providing a reminder of the fluidity and complexity of social interactions. An example of this is dissociation and how it impacts the microsystem but can be found overlapping into the meso and exosystem levels within different contexts.

outcomes for women with a history of sexual violence. I also conclude with implications for further research, policy and education for this area.

2.5 Limitations

Several limitations were anticipated for this REA. First, restricting the REA to published research papers only (no grey literature) may eliminate articles and published words read and produced by childbearing women themselves. These sources may have enhanced the findings for the REA in ways that I could not anticipate. Yet, for the purpose of this thesis, evidenced-based studies are my focus. A systematic review would be able to provide a broader more encompassing review including the grey literature and non-English articles. Secondly, there is limited research conducted on this specific topic. This pre-existing limitation may restrict the volume of the evidence that I can utilize in generating perinatal nursing practice implications for this specific population of women. Also, this has the potential to create bias within the generated conclusions of this REA. Nonetheless, the state of the science does provide the opportunity to identify future research questions in this area to optimize breastfeeding experiences and outcomes.

2.6 Ethical Considerations

As there will be no human participants directly involved and only published research studies will be utilized, there will be no approval required from the University of British Columbia research ethics committee.

CHAPTER 3: Findings of the Rapid Evidence Assessment

In this chapter, I present the findings of this rapid evidence assessment (REA) to answer the research question: How can perinatal nurses optimize breastfeeding experiences and outcomes for women who have experienced a history of sexual violence? The findings are extracted from the fourteen research studies reflecting the inclusion and exclusion criteria stated in Chapter 2. The fourteen research studies included six qualitative, five quantitative, one systematic review, one metasynthesis, and one mixed method design that used both qualitative and quantitative approaches. As discussed in Chapter 2, these studies were all critically appraised using the EPPI-centre data extraction and coding tool for education studies and were given an overall score for their weight of evidence in relation to answering the REA question (Appendix D). Four themes with related sub-themes were constructed from the data extraction and synthesis with the ecological perspective. These 4 themes encapsulate the findings of the REA.

3.1 Mother-Infant Dyad – The Microsystem

The microsystem is the innermost layer of the multilevel system; it focuses attention on the mother-infant dyad through what Bronfenbrenner (1994) describes as the patterns of interactions the women bring to their encounters with pregnancy, birth, and postpartum period. This microsystem influence can be positive and/or negative within the context of the mother-infant dyad; it can be a nurturing environment or be a negative one, affected by a women's history and specifically a history of sexual violence (SV). This inner core of the ecological system can be impacted by the other levels in a fluid, bi-directional interplay of contextual relationships[7] (Tiedje, 2002). This REA revealed three emerging themes within the scope of this

[7] The overlapping influences are complex, and are not specific to each level as they interplay with the other levels within the systems. The microsystem is the inner structure and is impacted by the other levels while interrelating with each system.

microsystem: the impact of a history of sexual violence on higher breastfeeding initiation and duration rates, dissociation, and women's emotional well-being.

3.1.1 Higher Initiation Rates

Three research studies identified higher breastfeeding initiation rates with women who have a history of sexual violence, all scoring high levels of the GSRS Weight of Evidence (WoE) (Bowman, et al., 2009; Prentice, et al., 2002; & Leeners, et al., 2006). Prentice et al. (2002) (WoE - 7), in their study of 1220 women with 66% overall breastfeeding initiation, found a statistically significant proportion of women with a history of childhood sexual abuse (CSA) initiated breastfeeding (77% versus 65% of non-abuse history). They had 7% of the women in their study self-identify with a history of CSA. Prentice et al. (2002) further state that there was a correlation with this same group of mothers with a decrease in duration rate, stating only 73% of this same group continued to breastfeed beyond one month of age for the infant compared to 82% with the non-abused women. Therefore, they found that initiation rates higher and duration rates to be lower, even though duration rate did not have statistical significance. They related this to their small sample of self-reporting women with a history of sexual violence. An alternative explanation for this finding could be that women were committed to initiating breastfeeding, yet they were unable to continue due to their discomfort as a result of their history of sexual violence.

One conclusion drawn from Prentice et al.'s study was that 80% of the women who self-identified as having a history of sexual violence stated that they wanted to "raise their children differently than how they were raised" (p. 224) compared to less than half of the non-sexually abused women (Prentice, et al., 2002). Even though this can be interpreted in many ways, Prentice et al. (2002) concluded from their study that despite the prevalent intent to breastfeed

and higher initiation rates, the connection with the re-triggering of past abuse memories from the sensual experience of breastfeeding may be influencing the shorter duration rates for this population. This may be due to the mediating factors of the history of sexual violence impacting the women's intention to breastfeed with early cessation. While higher initiation rates exist for women with history of CSA, these do not necessarily correlate with longer duration rate given the ongoing impacts of trauma in women's lives and the re-traumatization reported in several studies as the reason for early cessation (Beck, 2009; Coles, 2009; Wood & Van Esterik, 2010).

Bowman et al.'s (2008) (WoE - 7) studied 78 adolescent mothers who had a history of CSA. Their findings claimed a higher breastfeeding initiation rate with this population; however, their findings lacked statistical significance so no conclusions can be drawn to compare breastfeeding rates to formula feeding mothers in the sample (Bowman et al., 2008). While Bowman et al.'s study was inconclusive, the question of how adolescent mothers engage in breastfeeding decision making warrants greater attention to determine if age related influences are important.

3.1.2 Dissociation

Women's dissociation was apparent throughout all 14 research studies. There were six of the 14 studies that had aspects of their study specifically addressing dissociation, all six having high to medium levels of WoE scores (Bowman et al., 2009; Coles, 2009; Gilson & Lancaster, 2008; Leeners et al, 2006; Marysko et al., 2010; & Wood & Van Esterik, 2010).

Dissociation is defined within the studies as the emotional and physical detachment triggered by abuse memories that acts as a coping strategy in reaction to the sensations during the perinatal period (Bowman et al., 2009; Leeners, et al., 2006; Marysko, et al., 2010; Wood & Van Esterik, 2010). Leeners et al. (2006) (WoE – 7) found in their systematic review that women

with a history of sexual violence were either hyper-vigilant, being very aware of every sensation, or they dissociated by becoming numb, essentially leaving their bodies in an attempt to withdraw or escape from the sensation. This dissociation would occur to deal with the pain of childbirth or the skin-to-skin contact with baby during breastfeeding. Furthermore, Leeners, et al. (2006) found that the dissociation was not only related to sexual violence which involved the breast, but all forms of sexual violence triggered the abuse memories during the physical sensations of breastfeeding.

Dissociation was identified as a contributing factor for depression due to emotional and physical detachment (Wood & Van Esterik, 2010). Gilson and Lancaster (2008) (WoE – 7) reported that women with a history of sexual violence had increased incidence of depression and anxiety in the postpartum period. They related this to the more salient cues and reminders of the abuse and the association of the differing postpartum experiences of childbirth and the interactions with the newborn, such as breastfeeding, diaper changes, and bathing (Gilson & Lancaster, 2008). These authors reported the potential connection to for parental rejection and dissociation towards the infant when the mother has a history of sexual violence (Gilson & Lancaster, 2008). The important connections that are made between a history of sexual violence, parenting, infant care, and women's mental health, while not conclusive in my analysis, is an area that warrants further attention and investigation.

An increase in dissociative behaviours in mothers with a history of abuse was also identified by Marysko et al. (2010) (WoE – 8). This study discussed its limitations of not assessing dissociation before childbirth and was unable to discriminate if the dissociation was a result of the birth or was present throughout the woman's lifespan (Marysko et al.). Marysko et

al. (2010) emphasized the relevance of dissociation in mothers with a history of CSA during the perinatal period and the potential of future child abuse on the part of the mother.

Dissociation also was relevant in Coles' (2009) study in terms of how association and connection were studied. (WoE – 9, CASP – 10). Women who had experienced CSA within Coles' study indicated that breastfeeding experience contributed to "developing emotional attachment and in building the mother-baby relationship" (p.319). The experience of breastfeeding in this study reflected either an ease or difficulty, thereby influencing either association/attachment or dissociation in forming a relationship with their infants. Overall breastfeeding was identified as an important aspect in the development of emotional attachment between mother and infant, as well as providing breast milk as nourishment. One mother in Cole's study said:

> *"It's the love. It's the giving of my milk to him and sharing with him. I am the only one that can do that for him and it is so strong that love. To have this little baby attached to you makes me feel a really strong connection"* (Coles, 2009, p.319).

Coles (2009) later affirmed the importance of breastfeeding in having the physical and emotional closeness from breastfeeding assisting in the development of a positive relationship. In this study, breastfeeding was found to decrease the negative influences on the maternal and baby relationship created through dissociation and disconnection and provide an opportunity for enhanced maternal-infant attachment.

While breastfeeding has been established as a facilitator of mother-infant attachment, Wood and Esterik (2010) (WoE – 9, CASP – 10) determined that when women associated breastfeeding with memories of sexual violence, they dissociated as a coping strategy. The mothers who had difficulty would dissociate physically or emotionally during breastfeeding,

some becoming clinically depressed and stopping breastfeeding altogether. Women's history of sexual violence may influence their breastfeeding experience negatively, further impacting the mother and baby relationship. This identifies that biological benefits of breastfeeding are outweighed by the negative responses to the breastfeeding experience, and may have negative effects on the mother-infant attachment relationship.

Bowman et al. (2009) (WoE – 7) demonstrated the impact of support for young mothers who have a history of sexual violence. They state that when there was a significant correlation between family and community supports for the young mother there are less dissociative symptoms identified (Bowman, et al., 2009). This evidence correlates with the other studies' findings in that preventative measures are important in decreasing dissociation to increase mother-infant connectedness. Support, as one such preventative measure will also be discussed further as a finding within the studies relevant to the mesosystem level of this ecological perspective.

3.1.3 Influence on Emotional Wellbeing

The influence of having a history of sexual violence on emotional well-being was identified within nine of the selected REA studies. Each of the nine studies discussed the impacts of a history of sexual violence on emotional well-being and the perinatal period, and how breastfeeding impacts emotional well-being and the process towards healing from a history of sexual violence. The studies have medium to high levels WoE scores (Beck, 2009; Coles, 2009; Coles & Jones, 2009; Gilson & Lancaster, 2008; Kendall-Tackett et al., 2013; Leeners et al., 2006; Montgomery, 2013; Roller, 2011; & Seng et al., 2002).

Several studies determined a correlation existed between perinatal touch and powerlessness when women identified as having a history of sexual violence[8] (Beck, 2009; Coles, 2009; Coles & Jones, 2009; Montgomery, 2013; Roller, 2011; Wood & Van Esterik, 2010). Wood & Van Esterik (2010) (WoE – 9, CASP – 10) described the differing kinds of touch that affect a woman's well-being during childbearing: self-touch, infant touch, and medical touch. Each of these forms of touch was interwoven in their findings with a negative body image associated with the history of sexual violence (Wood & Esterik, 2010). The participants described their feelings of touch from assessments, examinations and assistance with breastfeeding, including touching self in the presence of others, as provoking shame, powerlessness, vulnerability, and being generally regarded as abusive in nature (Beck, 2009; Coles, 2009; Coles & Jones, 2009; Montgomery, 2013; & Roller, 2011). The concept of vulnerability was identified by the participants in Montgomery's (2013) (WoE – 8) meta-synthesis; women felt vulnerable and unsafe, as if their bodies were being invaded when put in settings that made them feel unsafe, such as a nurse assisting with breastfeeding without asking consent before touching. Safety was often related to clinical encounters, including breastfeeding, and will be discussed further within the exosystem level.

Touch and shame in regards to breasts and the woman's ability to breastfeed affected self -esteem (Wood & Van Esterik, 2010). As breasts are often involved with sexual violence, women identified their difficulties overcoming the uncomfortable aspect of infant touch or touching self when breastfeeding. Coles (2009) (WoE – 9, CASP – 10) reported that many women blamed their bodies when they were having difficulties with breastfeeding, stating that they were 'bad' and could not be trusted to do the right thing. In Beck's study (2009) (WoE – 7,

[8] Perinatal touch and powerlessness is also connected to issues of control and safety. As stated earlier, the ecological levels are overlapping and the issue of safety and control will be discussed in the exosystem level, which encompasses the health care system influences on the mother and infant.

CASP – 7) women spoke of how breastfeeding can trigger emotions that result in the decision to not breastfeed or to shorten their duration of the breastfeeding period. Some women identified how the negative triggers of remembering can undermine any coping strategies to maintain emotional well-being, increasing the risk of depression and/or anxiety (Montgomery, 2013).

Coles' (2009) findings indicated how women experience the dual role of the breast as both sexual and biological (as nourishment). In that study, the women denied the sexual or sensual role of the breast and focused on the task-orientated role of breastfeeding as nourishment only in order to continue with breastfeeding (Coles, 2009). This resonates with the results from Wood and Van Esterik's (2010) study as women began relating less to their breasts as a significant memory of the abuse to focus on the positive, healthy aspects of the breasts as nourishment for their babies. For both of these studies, some of the participants described the transformation of their body image from sexual objects to the healing aspect of nourishment and emotional connection to their babies (Coles, 2009; Wood & Van Esterik, 2010).

Compounding how women felt about their bodies were the additional impacts on emotional well-being. For example, as stated earlier, Gilson and Lancaster (2008) (WoE – 2008) identified higher depression and anxiety in women who had experienced sexual violence. Leeners et al.'s (2006) (WoE – 8) review of the literature indicated high levels of stress, anxiety and depression for this population of women. Kendall-Tackett et al. (2013) (WoE – 6) found, in their study, that a history of sexual violence increased the incidence of depression, decreased maternal well-being, and reduced the sleep quality in postpartum women. They further compared women with a history of sexual violence to women with no abuse histories, utilizing the variables of breastfeeding versus mixed feeding and formula feeding. Their findings revealed with statistical significance that women with a history of sexual violence who were exclusively

breastfeeding had reduced incidence of depression compared to women with abuse histories who were either mixed feeding or formula feeding (Kendall-Tackett et al., 2013). They also found women with a history of sexual violence reported better sleep outcomes and less anger and irritability with marginal significance when comparing to mothers who were mixed feeding or formula feeding. They also found that their study revealed no significant difference in breastfeeding initiation and duration rates for their participants with a history of sexual violence and women without this history. They associated the improved overall health effects of decreased depression from breastfeeding due to the hormonal responses within the body – breastfeeding causes the down regulation of stress hormones and up regulates the release of oxytocin. When oxytocin is up regulated, the stress hormones are down regulated further creating an overall improved health and emotional well-being (Kendall-Tackett et al., 2013).

In addition to the bodily and emotional well-being, the participants in Roller's (2011) (WoE – 7, CASP – 10) qualitative study described the process of healing for them as a response to the perinatal period as 'moving beyond the pain'. Roller (2011) categorized the findings of their study into three phases: re-living the trauma, taking charge, and getting over it, with some of their participants moving through or at various stages of each phase. Each of these three phases was identified in their study within the scope of childbearing and the women's perinatal experiences, including breastfeeding. Roller (2011) discovered that the majority of study participants were in the first two phases of re-living the trauma through recognizing triggers and coping mechanisms and taking charge of their own self through empowering actions of control and responsibility. The healing phase of getting over it was dependent upon the woman's individualized coping strategies as well as healing through professional help (Roller, 2011). The

authors confirmed the importance for their participants to identify their individual stage of healing in order to provide and protect the woman's emotional well-being.

3.2 Family and Support Systems – The Mesosystem

The mesosystem is next layer of the multilevel systems. This system draws attention to the relational connections in which the mother-infant dyad lives and support networks. Bronfenbrenner (1977) defines the mesosystem as a system of microsystems that interact and interrelate with one another. For this REA, the mesosystem is the family, friends, and any other identified supports of the mother and infant dyad. One sub-theme, positive and healthy relationships, was identified from the evidence appraisal and synthesis of the studies.

3.2.1 Quality of Relationships

Women with a history of sexual violence report positive breastfeeding experiences when surrounded by supportive relationships. The benefits of positive and healthy relationships were found to be supportive interactions within the mother's defined support system and were determined to be significant within three of studies; each of these studies scored with high relevancy on the GSRS WoE data extraction tool (Bowman et al., 2009; Gilson & Lancaster, 2008; & Wood & Van Esterik, 2010).

Bowman et al. (2009) (WoE – 7) studied adolescent mothers with a history of CSA and determined that no correlation existed between a history of CSA and anxiety, breastfeeding versus formula feeding rates. The participants were described to have strong support networks, including supportive parents, friends, teachers, and other community members (Bowman, et al., 2009). The young mothers lived within an environment full of rich, supportive resources that were correlated with lower levels of anxiety, depression, dissociation, and negative parenting due

to the protective and counteracting effects of educational opportunities, child care availability and health care access (Bowman, et al., 2009).

Gilson and Lancaster (2008) (WoE – 7) investigated depressive and anxiety symptoms during pregnancy and postpartum for women with history of SV; their findings indicated the high levels of support during the antenatal period significantly reduced the anxiety and depression symptoms after childbirth and into the postpartum period. They proposed the explanation of high level of support networks during pregnancy helped women prepare for the birth of their infant; while the birth and postpartum period may have provided reminders to their history of abuse and the participants were vulnerable to anxiety and depression symptoms, the antenatal support interactions within a specialized clinic setting decreased high anxiety levels reported by the women (Gilson & Lancaster, 2008).

Wood and Van Esterik (2010) (WoE – 9, CASP – 10) confirmed the importance of support networks during the postpartum period to facilitate positive breastfeeding outcomes for mothers with a history of sexual violence within their study of six women living in a support home. One participant in their study reported being given the wrong advice and not feeling supported, therefore discontinuing breastfeeding and noting that lack of support impacted her experience. Another participant validated the support she received from the La Leche League, a breastfeeding support group, and how it facilitated a positive breastfeeding experience that increased breastfeeding duration, as well as a process of healing from the negative effects of her past history of sexual violence (Wood & Van Esterik, 2010). These specific examples from the participants of this study help to illustrate the association between support networks and positive outcomes for breastfeeding mothers with a history of sexual violence. Even though the findings

may not be generalizable to all breastfeeding women with a history of sexual violence, these participants understood the impact support had on their lived experiences.

3.3 Health Care System – The Exosystem

The external environment that is either directly or indirectly known to the individual and influences a person's lived experiences is defined as the exosystem (Bronfenbrenner, 1977). This system is an extension of the mesosystem. It embraces other social structures, both formal and informal, which can have positive or negative effects on the microsystem (Bronfenbrenner, 1977). Tiedje et al. (2002) described the processes within the exosystem as operating in a bi-directional manner that affects all the other system levels. The health care system is considered a formal system in which perinatal women are situated although this is not their immediate daily environment. Women have interactions within the health care system often during the perinatal period. The interactions or encounters with this system produce both positive and negative outcomes for women with a history of sexual violence. Various elements of relationships between HCPs and women with a history of sexual violence will be discussed within this system level. This will incorporate the importance of respectful relationships which can facilitate trust and decrease feelings of powerless and vulnerability, while supporting women's autonomous decision making. The context of the health care system relates to both the relationships with HCPs and how systems, programs, and services are structured. Four sub-themes within the exosystem level derived from this evidence synthesis are: powerlessness[9], issues of control and safety, disclosure, and need for education and training.

[9] Powerlessness can be situated at the microsystem level and demonstrates the overlapping of the themes into the differing system levels. In this REA, I associated powerlessness with the power imbalance women with a history of sexual violence may interpret from interactions with HCPs, as the position of authority is often an inherent role for HCPs.

3.3.1 Powerlessness

Women's perceptions of unequal power within the context of relationships with HCPs were a finding for three of the studies. Each of these three studies were appraised as having high level of relevance based on WoE score (Coles & Jones, 2009; Leeners et al., 2006; & Wood & Van Esterik, 2010). A focus on power relations was central to the studies when exploring how to best respond to and address the needs, wants, and goals of childbearing women with a history of sexual violence.

In Wood and Van Esterik's (2010) (WoE – 9, CASP – 10) study of infant feeding experiences of women with a history of CSA, the participants described HCPs as holding positions of authority where HCPs power was inherently connected to their professional knowledge. Participants indicated that it was especially challenging to question or confront their HCPs about their care or if they required information. This sense of vulnerability and powerlessness created the context for their tendency to not seek out HCPs or view them as a breastfeeding resource.

Coles and Jones' (2009) (WoE – 8) study reported women's sense of powerlessness and distress during specific perinatal procedures, such as nurses assisting with breastfeeding without asking permission or explaining before handling the breast. The women described feelings of vulnerability, guilt, and shame with clinical encounters; some describing the encounters as re-enactment of the original abuse (Coles & Jones, 2009). Four of the participants expressed concerns with examinations and procedures with HCPs, associating the examinations with feelings of powerlessness to protect themselves and their infants. The participants also identified ways to make the clinical encounter safer and less traumatic which included building a relationship with their HCP based upon trust and continuity of care (Coles & Jones, 2009). The

women identified that when they had procedures explained, were supported during procedures, and understood the reasoning and outcomes of these procedures they felt empowered and able to gain control over decisions in their perinatal experience, which will be discussed in the next section. The strategies identified by the participants will be further discussed in Chapter 4.

3.3.2 Control and Safety

Women's need for control over their perinatal experience to reduce their sense of powerlessness was a consistent finding within the studies. The need for control was connected to the powerlessness women experienced when seeking safe and trusting relationships with HCPs. Eight of the studies reporting women's need for control had high WoE scores (Beck, 2009; Coles, 2009; Coles & Jones, 2009; Leeners, et al., 2006; Montgomery, 2013; Roller, 2011; Seng et al., 2002; & Wood & Van Esterik, 2010).

Powerlessness was described in the studies when women spoke of how simple gestures and words, bodily smells, touch without warning, and lying down for examinations triggered past abuse. The data indicated how women felt the simple gestures and certain words were violating, abusive and intrusive, all replicating past abuse situations (Coles & Jones, 2009; Leeners, et al., 2006; Montgomery, 2013; Wood & Van Esterik, 2010). Participants wanted HCPs to validate the importance of 'routine' examinations or procedures, while describing the sensations the woman may experience in the clinical encounter to alleviate the unknown. Coles and Jones (2009) (WoE – 9, CASP – 10) discovered that women with a history of abuse felt powerless for both themselves and their infants when it came to professional touch and examination. Women stressed the importance of explaining procedures so they could validate the importance of the examination, and prepare for what was going to occur during the clinical encounter therefore alleviating the unknown. One participant described her experience with a nurse as leaving her

feeling disempowered, judged, and without any control within the encounter. During home visit, the nurse weighed the baby and assisted with breastfeeding without asking permission or explaining what the focus and purpose was of the examination. This woman's experience was consistent within the other women's data, indicating the importance of consent would ensure control and safety within interpersonal encounters with HCPs.

Montgomery (2013) (WoE – 8) concluded that control was both internal and external for women, and involves overcoming the powerlessness encountered both in the abuse situation and during encounters with HCPs. An environment of control decreased the sense of powerlessness, and enabled women to set boundaries and claim authority over their own bodies (Montgomery, 2013). Women being involved in decisions and how their decisions were enacted around their care reported increased satisfaction which correlated with the perception of maintaining "self-control and control over what is being done" (Leeners, et al., 2006, p.146). This enabled them to realize the expectations of their contribution to their own care outcomes and the perception of being an active participant in the decision making process.

In Beck's (2009) (WoE – 7, CASP – 7) case study research, the participant described her frequent loss of control and lack of safety in both the hospital setting with HCPs and when she had to return to her parents' home the first few weeks after the birth of her baby related to her history of sexual violence that occurred in the home from her father. She described her experience within the hospital as 'a mess'; she had feelings of distress and anxiety with the lack of privacy as she was sharing her room with two other new mothers. She described feelings of relief when they returned to their own home environment, stressing gratefulness for the safety and privacy of her own home. When this woman was able to control her own environment, she expressed feeling safe and able to continue on with her breastfeeding experience.

An atmosphere of privacy was identified as integral in creating safety for breastfeeding women with a history of sexual violence (Leeners, et al., 2006). Women identified the importance of providing safe spaces to breastfeed in clinics and hospitals, as well for woman to have control over who would be observing, assisting or touching them while they breastfed (Coles, 2009) (WoE – 9, CASP – 10). One participant in Coles' (2009) study described the vulnerability she felt when a hospital nurse had left her room curtain open while she was breastfeeding her twins. She described the experience as embarrassing when a group of teenagers walked past her open curtain; she recounted feeling unable to ask the nurse to close, almost frozen and immobilized through her own vulnerability. This example demonstrates the importance of privacy to ensure the woman feels safe during breastfeeding, enabling her to have control over who bears witness to her breastfeeding in order to maintain control.

3.3.3 Disclosure

All of the selected REA studies discussed issues surrounding disclosure of the history of sexual violence. The complexities of the act of disclosing were predominantly featured in 4 medium to high WoE scores (Jackson & Fraser, 2009; Leeners, et al., 2006; Montgomery, 2013; & Seng et al., 2002).

Montgomery (2013) (WoE – 8) identified that several encounters take place before a woman chooses to disclose with HCPs due to trust and intimacy issues that have evolved from the abuse history; further stating that women preferred HCPs who offered an opening to disclose and appeared prepared to discuss this topic. Fear of judgement and stigmatization leaves many women feeling hesitant to disclose, unsure if their HCP will believe their report or maintain confidentiality upon disclosure (Montgomery, 2013). Seng, et al. (2002) (WoE – 7, CASP – 10) discovered that it took some women many encounters with a HCP to build a sense of trust and

safety before they chose to disclose their history of abuse, while others chose not to disclose due to the lack of confidence in their providers. Other women, unable to build a trusting relationship with a particular HCP, will look for another one, searching until a HCP that facilitates trust, safety and control can be found, creating gaps within maternal care (Seng, et al., 2002).

In Leeners et al. (2006) (WoE – 8) study, HCPs responded to the disclosure of abuse by dismissing or downplaying the reports; their actions were determined in the study to create secondary psychological injury for woman, increasing the woman's sense of vulnerability. Participants expected HCPs to understand and respond sensitively to the report of abuse; however, when the power imbalance of downplaying a history of sexual violence was experienced by women, the potential for re-victimization occurred.

3.3.4 Gaps in Education and Training

The final theme found within the health care system was gaps in education and training for HCPs. Education and training was the focus of 3 studies with medium to high levels of relevancy according to the GSRS WoE appraisal (Jackson and Fraser, 2009; Seng, et al., 2002; & Wood and Van Esterik, 2010).

Jackson and Fraser (2009) (WoE – 6, CASP – 9) investigated the knowledge and attitudes reported by 372 midwives towards caring for women with a history of sexual violence. In their study, they found that more than half of the midwives (56%) did not feel adequately prepared to deal with disclosure of a history sexual violence, further indicating they did not have any specific knowledge, skills or experience in dealing with a disclosure. The midwives indicated that they had received very little training or no educational input on how to adequately address a disclosure of a history of sexual violence. The midwives also expressed the desire to receive more training and education to be able to provide better care to their perinatal clients.

Most of these midwives also indicated that did not feel that they would deal with a disclosure appropriately by providing poor advice, and were wary of doing more harm than good when responding to disclosures of sexual violence. Jackson and Fraser (2009) concluded that lack of knowledge, skills, and experience could negatively influence the quality of care for women presenting to perinatal services with a history of sexual violence.

Participants in Wood and Van Esterik's (2010) (WoE – 9, CASP – 10) research identified the lack of education and training some HCPs may have when caring for women with a history of sexual violence. The women with a history of sexual violence believed that "education about and awareness of CSA for health professionals" is important, further adding they wanted HCPs to "understand that any female patient might have been sexually abused" and that the sensitivity practiced by the HCP could positively influence the woman's perinatal health and outcomes (Wood & Van Esterik, 2010, p.e140). Seng et al. (2002) (WoE – 7, CASP – 10) also found that this population wanted their HCPs to be competent within their role and address trauma-related needs of the women. The participants further described wanting a HCP who would not function as a therapist, yet provide competent and respectful care by knowing how to respond appropriately by following each woman's individual needs. This finding incorporates the importance of training and knowledge as well as the possible gaps in the enacting of this training within practice settings.

3.4 The Macrosystem: Societal and Cultural Influences

The outermost level of the ecological perspective is the macrosystem. This system encompasses the institutional patterns of culture and sub-cultures of which the microsystem, mesosystem, and exosystem are "nested" (Bronfenbrenner, 1977). This system considers structural patterns in terms of ideologies manifested through customs and every day practices.

Those customs and everyday practices influence all of the other systems (Bronfenbrenner, 1994). Bronfenbrenner (1994) identifies the macrosystem as the "societal blueprint" to a culture, identifying belief systems, customs, and life course options embedded within this level. Culture is not an entity of static belief systems and customs, as it is dependent upon each individual's representation of life experiences and understanding of what shapes culture. For this REA, two sub-themes, physical exposure of the breast and the taboo of having a history of sexual violence, were identified within the REA. In this section I will discuss how both forms of exposure influenced the mother-infant dyad through cultural and societal views of sexual violence and how this impacts breastfeeding outcomes for women with a history of sexual violence.

3.4.1 Physical Exposure

The Westernized view of breasts as sexual objects was identified by women with a history of abuse as causing feelings of discomfort when breastfeeding in public. This theme emerged from three of the selected research studies and critical appraisal of these studies revealed high levels of relevancy on the GSRS WoE scoring (Bowman, et al., 2009, WoE-9, CASP -10; Coles, 2009; Wood & Van Esterik, 2010). The Westernized cultural view of breasts as sexual objects was prevalent within the literature and participants discussed how these societal influences impacted their breastfeeding experience.

Physical exposure of the breasts brought feelings of shame for women with a history of SV due to the underlying assumptions of breasts as sexual in function. Wood and Van Esterik (2010) (WoE – 9, CASP – 10) learned from their participants that embarrassment and shame affected the women's self esteem and comfort with breastfeeding due to the confusion of the dual of the breast. Many of the women discussed fear of breastfeeding in public as they "did not want their bodies being seen publicly"; their feelings were exacerbated by having to touch their

breasts publicly to assist with latching baby onto the breast (Wood & Van Esterik, 2010, p.e138). With the conflicting feelings of discomfort from the history of CSV and shame as potentially being seen as a sexual object, one participant in this study chose to discontinue her breastfeeding experience, which reflects back to the importance of well-being discussed in the microsystem level[10]. The impact of cultural influences such as the objectification of the breast was found to bring shame and discomfort for women with a history of SV.

The confusion of the dual role of the breast emerged for women in Coles' study (2009) (WoE – 9, CASP – 10). The participants discussed concern and confusion about the two roles that breasts have: "as an overt expression of western female sexuality and as a source of food for their baby" (Coles, 2009, p. 321). This 'confusion' of the role of the breast can have the potential for women with a history of sexual violence confronting emerging triggers of past abuse and fears. Coles (2009) discovered that participants discussed ways in which they moved beyond the conflicting societal views of the breast by splitting the sexual role of the breast from their breastfeeding experience, denying themselves the sensual aspect of breastfeeding. They did not identify with the sensual responses that breastfeeding hormones can enact in the body because they stated that these were not present during their breastfeeding experiences. In this aspect, their breasts were seen as asexual and task orientated to perform breastfeeding in areas of greater exposure - public settings. These participants described the need to control their environment to ensure safety, enabling protection from further fear of exposure. This identified with the underlying assumptions of the breast as a sexual object within society and the women fearing exposing the breast to draw unwanted sexual attention to themselves.

[10] Conflicting feelings and emotions occur at the microsystem level yet can be influenced by the societal pressures to breastfeed. These overlapping concepts demonstrate the complexities of each of the systems and the influence each system has on one another.

3.4.2 Taboo of Sexual Violence

Facing exposure to secondary trauma through their acknowledgment and disclosure of their abuse histories was identified within the literature as problematic for women with a history of sexual violence. This theme emerged from two of the selected research studies and critical appraisal of these studies revealed high levels of relevancy on the GSRS WoE scoring (Leeners, et al., 2006, WoE – 8; & Seng, et al., 2002). The societal view of sexual violence as a taboo topic was evident in the literature when women discussed issues of disclosure of past abuse.

When disclosing a history of sexual violence, findings from several studies indicated differing responses from HCPs, including silence, expression of shock, doubt, or expression of the view that the abuse had no relevance to their current medical care (Leeners, et al., 2006). These negative responses displayed the unease many HCPs may have in regards to this topic as taboo and the stigma that can be associated with the abuse history. The HCPs' responses to disclosure were found to impact women by having them describe feelings of re-traumatization and being ashamed of their abuse history, feeling more exposed to further secondary psychological trauma. Seng, et al. (2002) (WoE – 7, CASP – 10) explored similarities within their study as some of their participants who had a history of sexual violence did not feel safe in their current situations and sought psychological safety in order to avoid suffering from secondary trauma. The participants felt judged, stereotyped and stigmatized by their HCP, as well as feelings of fear, shame, guilt and embarrassment from their abuse histories (Seng, et al., 2002). These are all interwoven with the women's interpretations of sexual violence as being negatively perceived by society by not living up to its norms, and many of the participants addressed how they felt undermined by this barrier.

3.5 Summary of the Themes

In this chapter, I presented the themes reflecting the findings from this REA. The EPPI-Centre data extraction and coding tool for education was utilized to score the relevance of the fourteen selected studies on levels of low to high Weight of Evidence (WoE) scores. The identified themes emerged were examined through the ecological perspective. This perspective was found to be effective in understanding the influencing of external environments on breastfeeding and the contextual factors that can shape breastfeeding experiences and outcomes (Tiedje, et al., 2002). This chapter organized the themes within each of the system levels to assist in presenting the findings in a cohesive manner[11].

The first level discussed was the microsystem, looking at the mother and infant dyad at the individual level. The mother-infant is within the inner core of the ecological perspective and is influenced in bi-directional, fluid processes by the other levels. The themes which emerged from this microsystem level included: higher initiation rates, dissociation, and influence on emotional well-being. Women with a history of sexual violence were identified to have high intention and initiation to breastfeed, yet were conflicted with the emotional triggers of the history sexual violence. Dissociation, disconnection, depression and anxiety were all discussed as having an impact on emotional well-being and impacting a women's breastfeeding experience. Yet, breastfeeding was found to enable some of the women to enhance their mother and infant attachment experience through the close, intimate interactions shared with their babies.

[11] The complexity of an individual's context cannot be defined and restricted within each of the system levels. The findings of this REA reflect these complexities. The findings were organized within the levels to provide structure for this process. The findings did extend beyond each of the system levels, reminding the reader of the contextual factors that can influence the breastfeeding experience for women with a history if sexual violence.

The next system within the ecological perspective is the mesosystem. This system looks at the interconnections of microsystems and how they interrelate with one another. The only theme identified within this system was positive and healthy relationships. This theme identified with the significance of having a positive and supportive environment of friends and family in creating better breastfeeding outcomes for the mother-infant dyad. Also, there was the identification of an environment full of resources improved outcomes for young mothers with a history of sexual violence, including access to health care, access to child care, supportive parents, teachers, family, friends, and/or other community members (Bowman, et al., 2009). Support for breastfeeding decreased levels of depression and anxiety, increased mother's well-being, and created positive breastfeeding outcomes.

The health care system was identified as a part of the exosystem for this REA. The exosystem level is an extension of the mesosystem which can impact positively or negatively on the microsystem, the mother-infant dyad. Although the mother-infant dyad does not "live" within the health care system, the formal and informal processes of health care and the relationships women have with their HCPs can influence their outcomes. There were four themes synthesized from the data extraction that were discussed in the findings: powerlessness, issues with control and safety, disclosure, and need for education and training.

It was identified that many women felt the position of authority by HCPs distressing for them as it reminded them of their abuse situation, were the perpetrator held the power over the woman, thus creating a power imbalance in the relationship. In order for this population to gain power within this relationship, the studies found that women needed to be able to make decisions and feel autonomous in the care they received. Also, women expressed the importance of HCPs explaining all perinatal examinations and procedures before the encounter in order for the

women to feel safe and in control of the encounter. Once women with a history of sexual violence had control over their environments, this decreased their powerlessness, and enabled them to claim authority over their bodies within the perinatal experience. The women identified maintaining privacy as central to control. Women who were able to control their environments discussed feelings of safety and privacy within their perinatal and breastfeeding experiences. Once women felt safe and gained trust with their HCP, they had the ability to disclose their history of abuse. If the women did feel safe enough to disclose, fear of judgement and confidentiality issues were expressed as barriers to disclosure to the HCP due to their inability to trust and sense of powerlessness.

The need for education and training was the final theme within the exosystem level which emerged from both women with a history of sexual violence and HCPs own lack of knowledge for this sensitive topic. Women identified that HCPs need to be more knowledgeable and skilled in addressing trauma histories and know where to direct the women when disclosure occurs. Midwives identified that they lacked the knowledge and skills to deal with disclosure appropriately. The findings from this study may validate the need for better education and training opportunities for HCPs working with perinatal women, and the need for further research in this area is important to confirm this finding. This could have the potential to improve perinatal outcomes in this population and will be discussed in the next chapter.

The final system discussed within the findings was the macrosystem. This system encompasses the cultural and societal beliefs and norms, and how they influence the other systems at an underlying, encompassing level. The two themes that emerged dealt with the issue of exposure. Exposure was identified in two ways: the act of disclosing a history of abuse and the act of public breastfeeding. In both of these elements of exposure, shame of the body and

embarrassment were core fears for this population. In order to move beyond the fear of exposure in both of these situations, women required feeling safe and supported within their surrounding environments.

The next chapter will identify strategies supported from the findings of this REA to assist the perinatal nurse in optimizing the breastfeeding experience for women with a history of sexual violence, improving the outcomes of initiation and duration. The importance of minimizing re-traumatization by breastfeeding indicated by the evidence findings will also be integrated into the nursing implications. This will ensure nurses address the psychological well-being and importance of mother-infant attachment, as well as the potential psychological and physiological benefits of breastfeeding, when providing breastfeeding support to women with a history of sexual violence. The evidence based findings from this REA will also guide the implications to nursing practice, as well as provide recommendations to future education, policy and research in this area.

CHAPTER 4: Recommendations and Conclusions

In this chapter, I will discuss the findings presented in Chapter 3 to propose recommendations for nurses to support women with breastfeeding when they have a history of sexual violence. Specifically, I also draw on the evidence assessment to discuss how facilitating positive breastfeeding experiences for these women may contribute to increased duration rates. I also identify implications for future research, policy, and education in relation to the findings of this rapid evidence assessment (REA).

4.1 Discussion in Relation to Research Question

Breastfeeding has been internationally recognized by the World Health Organization (WHO) as the optimal nutrition for infants with exclusive breastfeeding recommended for the first six months of life. The initiation rates in Canada are high at 90.3%, yet the rates for women who do so exclusively at three months of age (51.7%) and maintain exclusive breastfeeding to six months (14.4%)[12] are lower (Chalmers, et al., 2009). Many personal and contextual factors influence women's intentions and initiation, and duration rates. Specific influences, such as the impact of a history of sexual violence, have been relatively unexplored. My goal in this REA was to contribute to evidence for nursing practice about particular impacts of sexual violence on breastfeeding, which influences initiation and duration rates.

This REA was informed by the ecological theoretical perspective to examine evidence related to personal and contextual factors impacting the breastfeeding mother-infant dyad when the mother has a history of sexual violence. The findings illustrate the complexities these women endure in their perinatal experiences, and with breastfeeding. This section will discuss 3 nursing

[12] Exclusive breastfeeding is the WHO recommendation up to six months of age, in which complementary foods are to be initiated. This recommendation also states continuation of breastfeeding 2 years and beyond with other liquids and solids added to the infant's diet.

strategies generated from the evidence synthesis and appraisal that hold potential for enhancing outcomes for women with a history of sexual violence: (1) enhancing the mother-infant relationship, (2) ensuring a supportive and safe environment, and (3) facilitating women's empowerment and control. Positive mother-infant relationships are influenced by the emotions and mental health needs of the mother and thus underscore the main recommendations from this REA.

4.1.1 Enhancing the Mother-Infant Relationship

Study reports of high breastfeeding initiation rates for women with a history of sexual violence are consistent with Chalmers et al.'s (2009) survey of Canadian breastfeeding women. While initiation rates were reported to be high, the emotional triggers from memories of past sexual violence hinder the maintenance of breastfeeding (duration rates). Breastfeeding rates decreased at one month post birth in comparison to women without this history (Prentice, et al. 2002). Throughout all of studies appraised there was evidence that women ended breastfeeding early due to conflicting emotions that arose from the triggers of past sexual violence. While women described the intent to provide optimal nutrition for their infants, maintaining breastfeeding was emotionally difficult. Women described how, over time, they began to dissociate and disconnect from breastfeeding and their babies in order to deal with their re-traumatization through memories of past sexual violence (Coles, 2009; Leeners et al., 2006; Wood & Van Esterik, 2010).

Women's tendencies to dissociate and disconnect from breastfeeding were described as 'coping strategies' in several studies analyzed within this REA (Beck, 2009; Coles, 2009; Leeners et al., 2006; Marysko et al., 2010; Montgomery, 2013; Wood & Van Esterik, 2010). Yet, other factors influenced disconnection and dissociation that undermine the view that these

'strategies' were primarily about adaptation to stressful experiences. For example, depression and anxiety for this population of women were also found to deplete women's capacities to maintain positive associations and connections with breastfeeding. While authors have defined dissociation and disconnection as ways in which women cope with the traumatic memories of sexual violence, these experiences are complex and multifaceted and may not benefit from being categorized as coping strategies (Leeners, et al., 2006; Marysko et al., 2010; Montogomery, 2013; & Wood & Van Esterik, 2010). Depression and anxiety are factors which also influence the very real experiences and challenges of staying engaged and connected to their infants, including when breastfeeding (Marysko, et al., 2010).

Nurses require tailored strategies to provide care within the context of these intense emotions and mental health issues associated with the ongoing trauma related to women's history of sexual violence. For example, Gilson and Lancaster (2008) documented decreased levels of anxiety and depression reported by prenatal women when health care practitioners (HCP) provided tailored education during antenatal visits, which includes answering any specific questions a mother may have in regards to bodily changes during pregnancy. These same participants identified with increased levels of anxiety, stress and depression following childbirth; this was analyzed in relation to decreased access to resources for women during that timeframe (Gilson and Lancaster, 2008). In order to address these increased levels during the postpartum period, nurses should provide support tailored to each mother's needs and ensure mothers are made aware of community resources they can contact for further support and/or counselling. Nurses can offer these resources to women when they interact with them on postpartum wards or within the community as public health nurses (PHNs). As some of these

resources may need a referral, nurses can provide referrals or advocate to primary physicians for the referral.

Also, if women are referred to PHNs during the prenatal period, the nurse can spend time reviewing preventative self-care strategies for mental well-being, by either phone consultation or clinic visit, as a way to improve outcomes for the woman in the postpartum period (Gilson & Lancaster, 2008). As an example, this practice has been recently implemented within the Interior Health Authority since the development of the Healthy Start - Public Health Program. This program focuses on improving perinatal outcomes through increasing public health nursing interactions beginning within the prenatal period to provide resource linkages that can extend into the postpartum period. Pregnant mothers are encouraged to call a PHN and register for the program. During the consult, the PHN asks the mother various questions about her health including if she is requiring any enhanced services in her community. If there are any needs or gaps addressed by the woman requiring further follow-up, the nurse refers the mother to a PHN in her area. The area PHN is then partnered with the mother, offering her supports as needed in both pregnancy and into the postpartum period, potentially enhancing her outcomes.

To support the developing mother-infant dyad relationship, women may also benefit from learning self-care strategies, such as deep breathing and visualization, to respond to and address memories of past sexual violence experiences. Within the REA, studies associated the negative emotions from past violence with lower duration rates; nurses need to support women to both develop and utilize self-care and personal resources specific to responding to these experiences. Since infants are highly sensitive to the stressful experiences their mothers endure, supporting women is critical for the infant's socio-emotional development. Because breastfeeding facilitates infant emotional attachment (Johnson, 2013), nursing priorities need to be oriented towards

facilitating connections during breastfeeding interactions. Facilitating connections can be as small as identifying positive attributes of the infant while breastfeeding and indicating these to the mother. Women's needs and experiences will vary, however the general nursing goal to devise individual strategies to promote mother-infant interaction may be one of the most important strategies for addressing re-traumatization to facilitate positive breastfeeding experiences and outcomes.

Based on the findings of this REA, nurses can support women to become aware about how their perceptions of their changing bodies are influenced by a history of sexual violence. For example, perinatal nurses can discuss expectations of childbirth, postpartum, and breastfeeding experiences with women and tailor those discussions to meet the needs of the individual, taking into account minimalizing mother's re-traumatization, such as skin-to-skin contact post-delivery. Nurses can describe to women what they may experience in the labour and delivery room and postpartum units, describing 'routine' procedures and examinations before performing them. This would include asking the mother what she would expect from her health care encounter and involving her in any implementation of care plans, including breastfeeding plans. The normal 'routine' practices should be discussed with every mother and mother's should be included in the decision making process in order to validate her experience and prepare her for the encounter. These are important strategies nurses can utilize daily within the fast paced health care system.

Perinatal nurses can discuss the impact breastfeeding will have on the body by reviewing the normal hormonal influences that cause let-down, engorgement, and milk-supply. These physiological responses have the potential to trigger memories of past sexual violence. Awareness of these changes has the potential to decrease anxiety and prepare women with a history of sexual violence to adjust to the normal hormonal response. Exclusive breastfeeding

positively influenced mothers' overall emotional and physical well-being in relation to hormonal responses in the body, thereby contributing to decreasing depression and anxiety reported by mothers with a history of sexual violence (Kendall-Tackett, et al., 2013).

The dual role of the breast as both sensual and nourishment was described in the findings of studies appraised within the REA. A strategy for nurses to facilitate breastfeeding duration can include the importance of discussing both the biological functioning of the breast and the sensual sensations which occur as a natural reaction to hormones associated when breastfeeding. It was reported that women who were able to see the functional role of the breast as nourishment for their infants had better breastfeeding outcomes and positive breastfeeding experiences promoting maternal-infant attachment (Coles, 2009). Nurses can facilitate women's understanding and acceptance of any conflicting emotions through explaining the dual role of the breast, as both sensual and functional interpretations of normal breastfeeding experiences (Coles, 2009). Explanation of these bodily responses can enable mothers to learn, accept and integrate their feelings with their normal responses in their bodies. This can have the potential for mothers to emotionally attach to their infants during the breastfeeding experience, enhancing the development of the mother-infant relationship.

4.1.2 Ensuring a Supportive and Safe Environment

Women with a history of sexual violence identified safe and supportive environments as beneficial during the entire perinatal period. Support from family[13], friends, community members, and HCPs, including nurses, was consistently linked to positive childbearing experiences. Because a history of sexual violence is associated with women feeling more detached, anxious, fearful, distrustful, and alienated compared to women without abuse histories

[13] Family can be defined as who the woman identifies as family. This may include immediate or distant family members, as well close friends and support people.

(Bowman et al., 2009), nurses creating a trusting, safe and supportive environment within their personal lives and within health care settings is important. The studies appraised point to the critical importance of positive and healthy support systems for women to counteract intimacy-related challenges; facilitating women's control within health care environments was identified as key component of developing trust that can promote women's empowerment.

Our current health care system is a fast-paced environment, limiting time for nurses to engage in lengthy relationships with women. Nurses' effective strategies provide supportive and safe environments for women with a history of sexual violence rely on their knowledge and skills, particularly understanding the effects of sexual violence during the perinatal period. The evidence-based strategies that will be discussed in this section can enable nurses to question their practice and implement them within the current health care context.

One way perinatal nurses can provide women a safe and supportive environment is by facilitating access to resources and support tailored to their specific needs. For example, nurses can provide women information on community resources and programs such as mental health services, counselling, lactation consultants, public health, Le Leche League, and other community programs, including parenting groups. These resources can help women develop a network of support that expands the typical supports of family, friends and health care providers. To best tailor what can help individual woman, nurses need to learn about how women themselves evaluate their supports at home and within the community. If nurses integrate the evidence from this REA by demonstrating the important influence of family, community and health care system support on positive breastfeeding experiences, they will play a key role in sustaining initiation rates and improving breastfeeding duration (Wood & Van Esterik, 2010).

A supportive environment also includes feeling safe within the health care system. Nurses should never assume consent and should always obtain informed consent before touching or examining breastfeeding women or their infants. This is important for all women and not exclusive to women with a history of sexual violence. Nurses need to explain procedures and interactions before performing them, get permission to undertake the activities, and ensure each women has an understanding of what each encounter entails. The findings from the REA indicated that this is frequently missed in the health care setting; the evidence indicates this is a crucial aspect of emotional and physical safety for all women within the health care environment.

Nurses should provide an environment that supports and facilitates the decision-making process for women choosing to discontinue or not initiate breastfeeding in order to decrease the risk of re-traumatization. The closeness and intimacy between mother and infant during breastfeeding can increase anxiety and fear responses in some of the women with a history of sexual violence. Nurses have the capacity to validate and support a mother's infant feeding choice when she may not be experiencing breastfeeding in a positive sense, or is disconnecting from her infant, thereby meeting her mental health and well-being needs (Beck, 2009). The evidence from this REA points to the critical importance of the potentially detrimental effects of dissociation and disconnection from the infant since these experiences have been associated with parenting stress, increased risk of child abuse, and psychosocial developmental issues for the infant (Marysko, 2010); all of which negatively affect the mother-infant dyad. Nurses can be empathic listeners and provide reproductive mental health resources and additional support as women make feeding decisions for themselves and their infants.

4.1.3 Facilitating Empowerment and Control

A history of sexual violence is fundamentally about gendered power relations, and is an abuse of trust and power when the act of violence occurred within childhood (Wood & Van Esterik, 2010). Sexual abuse can leave an individual feeling hurt, frightened, and confused, wondering if she did something wrong or is to blame for the violation (Klaus, 2010). The findings from this REA indicate the critical importance of HCP's understanding and awareness to this abuse of power and ways in which iniquitous health care relationships can exacerbate women's vulnerability. Nurses need to work to level the playing field (i.e. share power) with women to be sensitive to the link between power and violence. In particular, attending to unequal power dynamics is critical during conversations and nursing assessments when women are being asked to disclose their history of sexual violence. A sensitive care approach that reflects the evidence synthesis of this REA involves the nurse building rapport, respecting boundaries, and demonstrating an understanding of the impacts of sexual violence on the perinatal period (Beck, 2009; Coles, 2009; Coles & Jones, 2009; Wood & Van Esterik, 2010).

Strategies for facilitating women's empowerment and control within the context of the nursing relationship include: asking sensitively about any history of sexual violence; responding sensitively to disclosure of sexual violence; providing careful explanations and consent before any procedures, including assisting with breastfeeding; asking permission to touch for all clinical encounters; and responding sensitively to the emotional cues of the woman during the encounter which can decrease vulnerability (Coles & Jones, 2009; Leeners, et al., 2005; & Wood & Van Esterik, 2010). These strategies can help women feel informed about what will occur during the clinical encounter, the rationale behind the interaction, and be active participants and decision-makers in their own care. Providing women with safe environments to disclose any history of

abuse during any clinical interaction can help to decrease the feelings of blame or stigmatization that often accompanies the past trauma.

Beck (2009) identified three concepts to help nurses create an empowering and safe patient-nurse relationship: egalitarian work, exploring meaning, and framing and boundaries. Nurses can provide egalitarian work by focusing on the woman as having an increased level of power or equality within the patient-nurse relationship, enabling her to feel autonomous with her decision making for her breastfeeding experience (Beck, 2009; Coles & Jones, 2009). Nurses can explore meaning for this population by having sensitive conversations with a woman about how her symptoms of distress and abuse history are connected and looking at coping strategies for emerging emotions (Beck, 2009). Nurses should discuss with the woman the set of constraints that frame each encounter, ensuring the woman feels safe and comfortable; both the nurse and woman set boundaries as the limits between the framing constraints to maintain safety (Beck, 2009). These boundaries would limit what a woman can endure during the encounter and the nurse would stop any procedure when the woman felt unsafe or out of control. A sensitive care approach can be based on utilizing these concepts in practice for this population of women thereby decreasing the potential for re-victimization through facilitating safety and control, empowering women to play a more active role in their perinatal care outcomes.

From the results of their study, Coles and Jones (2009) advocate for 'universal precautions' when maternity care providers engage in perinatal touch and physical examination. They argued that these precautions should be utilized by HCPs to "protect vulnerable patients from physical and psychological trauma" during clinical interactions (Coles & Jones, 2009, p.230). These precautions were generated through the participants' data and reflect the ethical principles of informed consent for procedures. Nurses can use them when assisting all women

with breastfeeding: 1. Never assume consent; 2. Explain examinations or procedures – how they will be done and why; 3. Explain infant procedures, such as suck assessment; 4. Treat no procedure as 'routine'; 5. Obtain informed consent for mother and infant examinations or procedures; 6. Check in regularly with the woman during exams to ensure safety is met; and 7. Stop or slow examinations at the request of the woman (Coles & Jones, 2009). The strategies described by Cole and Jones could be followed by nurses for all interactions with breastfeeding mothers to decrease power imbalance and ensure the woman feels safe within the clinical encounter.

4.2 Education and Training: Impacts of Sexual Violence

Education and training for nurses to provide care for women with a history of sexual violence is necessary to promote women's positive breastfeeding experiences and outcomes, such as increased initiation and duration. The findings of the REA raise the question of the effectiveness of care this population receives within the health care system. HCPs adhere to the ethical principles of beneficence (prevent harm) and nonmaleficence (do no harm). Jackson and Fraser (2009) brought forth questions in regards to these two ethical principles in their study when midwives expressed concerns of causing more harm than good due to the lack of their knowledge and skills in dealing with disclosure of sexual violence. Their lack of knowledge and skills to address women with a history of sexual violence was expressed as a concern for the care and support of this population in the perinatal period.

Education and training in sexual violence and its effects during the perinatal period is critical for nurses and other maternity care providers to better understand the effects of sexual violence on breastfeeding. This knowledge can assist nurses in providing skilful, sensitive care practices, such as responding appropriately to disclosure, ensuring privacy when breastfeeding,

respecting women's boundaries, and enabling women to be autonomous in their care. Educational opportunities should be initiated within nursing curricula in undergraduate programs. For example, students can be given opportunities to discuss the impacts of sexual violence on health and during the perinatal period.

Post-graduate training or in-service opportunities should be available for nurses during their careers so they can improve their skill sets in working with women who have a history of sexual violence. These could be provided as evidence-based updates based on new research that has been critically assessed for implications for perinatal care, thereby improving nursing practice, standards, and outcomes for women with a history of sexual violence. Nurses need to be aware of how to respond sensitively to women who disclose or identify signs of past sexual abuse to respond appropriately to this population. Educating nurses who work with women during the perinatal period and assist women with breastfeeding is vital in creating a supportive, safe health care environment.

4.3 Recommendations for Nursing Policy

The importance of adhering to policies and standards within the nursing profession and individual health care facilities is a vital component for enhancing the breastfeeding outcomes for women with a history of sexual violence. One policy that was evident in the literature was ensuring safe spaces for mothers to breastfeed, which is inclusive of all breastfeeding women. Offering breastfeeding or family rooms where mothers can have the comfort to breastfeed and in control of their environments enhances breastfeeding outcomes. This recommendation can be incorporated either at the community level or at the provincial and national level. For example, statements could be published about all communities having breastfeeding friendly facilities and spaces available to mothers. Having this at the public policy level can normalize breastfeeding

within communities in public places, decreasing feelings of exposure for this population due to the westernized view of the breast as a sexual object.

The principles of informed consent must be stressed for all procedures, even if they are considered 'routine'. Women with a history of sexual violence need to be informed of all procedures or examinations in order to feel safe and in control. This policy is currently recommended within health care facilities, yet it is often forgotten due to institutional routines and norms within the health care culture. The practice of routinely informing all women of breastfeeding procedures has the potential to enhance women's confidence in HCPs, ensure autonomous decision making, and maintain safety for this population.

4.3 Recommendations for Future Research

The literature search for this REA revealed the paucity of studies on the topic of breastfeeding and women who have a history of sexual violence. Leeners et al. (2005) discussed similar results from their systematic review, stating the current literature is small; many existing studies have poor methodological quality. The need for more studies to investigate consequences of sexual violence within the perinatal period and breastfeeding was a substantive and significant gap within the literature.

Breastfeeding experience within the context of a history of sexual violence needs to be investigated further with diverse groups of women (Wood & Van Esterik, 2010). For example, because the socio-cultural context of women's lives vary, it is important to develop knowledge of how specific experiences are shaped by women's histories, geographies, and other determinants of health. In addition, research that focuses on the effectiveness of specific nursing and health care interventions to promote breastfeeding initiation and duration for these women is also necessary. For example, I have proposed "sensitive care practices"; the evaluation of the

women's perceptions of the effectiveness of those strategies could advance the evidence to inform nursing actions. Studies examining nurses' perceptions of caring for breastfeeding women with a history of sexual violence would also contribute to understanding any challenges nurses may face when working with this population. Clearly a gap remains in nursing practice about caring for women and knowledge and evidence to guide nursing practice standards and policies are essential for improving the care of this population.

4.4 Conclusion

With an estimate of one in three women having a history of sexual violence within their lifetimes, understanding the effects of sexual violence in the perinatal period will assist in improving outcomes for all breastfeeding women. Nurses can play an integral part in optimizing positive outcomes for breastfeeding mothers. The provision of support for women with a history of sexual violence has the potential to increase breastfeeding initiation rates and longer duration rates for this population in Canada. It also has the potential to prevent women from being re-traumatized during breastfeeding by supporting their decisions to cease breastfeeding if they are disassociating and disengaging. Nurses require education and training to understand the negative influences sexual violence has on women's lives and respond to the vulnerabilities they face during the perinatal period.

In this thesis I utilized a rapid evidence assessment as a methodology to evaluate the current evidence to generate nursing strategies and recommendations to optimize breastfeeding experiences for women with a history of sexual violence. These recommendations and strategies were drawn from the analysis and appraisal of the findings within literature in order to propose evidence-based recommendations to advance nursing practice for breastfeeding women.

Recommendations were created from the findings in order to propose sensitive nursing care practices, establish policies, and educate nurses on the impact of sexual violence for the breastfeeding mother to achieve the public health goal of increasing initiation and duration rates for women during the postpartum period.

References

Beck, C.T. (2009). An adult survivor of child sexual abuse and her breastfeeding experience: A case study. *Maternal Child Nursing, 34*(2), 91-97.

Blincoe, A.J. (2005). The health benefits for breastfeeding for mothers. *British Journal of Midwifery, 13*(6), 398-401.

Bowman, K. (2007). When breastfeeding may be a threat to adolescent mothers. *Issues in mental health nursing, 28*, 89-99.

Bowman, K.G. (2009). Examining the relationship between a childhood history of sexual abuse and later dissociation, breast-feeding practices, and parenting anxiety. *Journal of Interpersonal Violence, 24*(8), 1304-1317.

Bronfenbrenner, U. (1977). Towards an experimental ecology of human development. *American Psychologist, 32*, 513-531.

Bronfenbrenner, U. (1994). Ecological models of human development. In M. Gauvain & M.Cole (Eds.), *International Encyclopedia of Education, Vol. 3*(2nd ed., pp.1643-1647). Oxford: Elsevier.

Chalmers, B., Levitt, C., Heaman, M., O'Brien, B., Sauve, R., & Kaczorowski, J. (2009). Breastfeeding rates and hospital breastfeeding practices in Canada: A national survey of women. *Birth, 36*(2), 122-132.

Coles, J. (2009). Qualitative study of breastfeeding after childhood sexual assault. *Journal of Human Lactation, 25*(3), 317-324.

Coles, J. & Jones, K. (2009). "Universal precautions": Perinatal touch and examination after childhood sexual abuse. *BIRTH, 36*(3), 230-236.

Davis, M. (2008). Breastfeeding assessment. In R. Mannel, P.J. Martens, & M. Walker (Eds.),

Core curriculum for lactation consultant practice (2nd ed., pp. 45- 66). Sudbury, MA: Jones and Bartlett Publishers.

Drauker, C.B., Martsolf, D.S., Ross, R., Cook, C.B., Stidham, A.W., & Mweemba, P. (2009). The essence of healing from sexual violence: A qualitative metasynthesis. *Research in Nursing and Health, 32*, 366-378.

EPPI-Centre (2007). Review guidelines for extracting data and quality assessing primary studies in educational research. Version 2.0 London: EPPI-Centre, Social Science Research Unit. Retrieved June 9, 2014, from: http://www.civilservice.gov.uk/networks/gsr/resources-and-guidance/rapid-evidence-assessment/how-to-do-a-rea

Gilson, K.J. & Lancaster, S. (2008). Childhood sexual abuse in pregnant and parenting adolescents. *Child Abuse & Neglect, 32*, 869-877.

Gough, D. (2007). Weight of evidence: A framework for the appraisal of the quality and relevance of evidence. *Research Papers in Education, 22* (2), 213-228.

Government Social Research Service (2009). Rapid evidence assessment toolkit. Retrieved July 9, 2013, from: http://www.civilservice.gov.uk/networks/gsr/resources-and-guidance/rapid-evidence-assessment

Hale, R. (2007). Infant nutrition and the benefits of breastfeeding. *British Journal of Midwifery*, *15*(6), 368-371.

Hector, D., King, L., Webb, K., & Heywood, P. (2005). Factors affecting breastfeeding practices: Applying a conceptual model. *New South Wales Public Health Bulletin,16*(4), 52-55.

Hemingway P, Brereton N., 2009. What is a systematic review? (2nd ed): What is...? series. Haywood Medical Communications. Retrieved April 30, 2014, from: http://www.whatisseries.co.uk/whatis/pdfs/What_is_syst_rev.pdf

Henderson, L., McMillan, B., Green, J.M., & Renfrew, M.J. (2011). Men and infant feeding: Perceptions of embarrassment, sexuality, and social conduct in white low-income British men. *Birth: Issues in Perinatal Care, 38*(1), 61-70.

Hobbins, D. (2004). Survivors of childhood sexual abuse: Implications for perinatal nursing care. *Journal of Obstetric, Gynecologic and Neonatal Nursing, 33*(4), 485-497.

Holmes, A.V. (2013). Establishing successful breastfeeding in the newborn period. *Pediatric Clinics of North America, 60,* 147-168.

Hulme, P.A. (2004). Theoretical perspectives on the health problems of adults who experienced childhood sexual abuse. *Issues in Mental Health Nursing, 25*, 339-361.

Jackson, K.B. & Fraser, D. (2009). A study of exploring UK midwives' knowledge and attitudes towards caring for women who have been sexually abuse. *Midwifery, 25*, 253-263.

Johnson, K. (2013). Maternal-infant bonding: A review of the literature. *International Journal of Childbirth Education, 28* (3), 17-22.

Kendall-Tackett, K., Cong, Z., & Hale, T. (2013). Depression, sleep quality, and maternal well-being in postpartum women with a history of sexual assault: A comparison of breastfeeding, mixed-feeding and formula feeding mothers. *Breastfeeding Medicine, 8*(1), 16-22.

Kendall-Tackett, K.A., Williams, L.M., & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. *Psychological Bulletin, 113* (1), 164-180.

Leeners, B., Richter-Appelt, H. Imthurn, B., & Rath, W. (2006). Influence of childhood sexual abuse on pregnancy, delivery, and the early postpartum period in adult women. *Journal of Psychosomatic Research, 61*, 139-151.

Martin, E. (1995). Incest/Child sexual abuse: Historical perspectives. *Journal of holistic nursing,13*(1), 7-18.

Marysko, M., Reck, C., Mattheis, V., Finke, P., Resch, F., & Moehler, E. (2010). History of childhood abuse is accompanied by increased dissociation in young mothers five months postnatally. *Psychopathology, 43*, 104-109.

McCarter-Spaulding, D. (2008). Is breastfeeding fair? Tensions in feminist perspectives on breastfeeding and the family. *Journal of Human Lactation, 24*(2), 206-212.

McGregor, K., Glover, M., Gautam, J., Julich, S. (2010). Working sensitively with child sexual abuse survivors: What female child sexual abuse survivors want from health professionals. *Women & Health, 50,* 737-755.

Montgomery, E. (2013). Feeling safe: A metasynthesis of the maternity care needs of women who were sexually abused in childhood. *BIRTH, 40*(2), 88-95.

Perinatal Services BC (2013). *Health promotion guideline: Breastfeeding healthy term infants*. Vancouver, BC: Author. Retrieved February 20, 2014, from: http://www.perinatalservicesbc.ca

Prentice, J., Lu, M., Lange, L., & Halfon, N. (2002). The association between reported childhood sexual abuse and breastfeeding initiation. *Journal of Human Lactation, 18*(3), 219-225.

Roberts, R., O'Connor, T., Dunn, J., Golding, J., & The ALSPAC Study Team (2004). The effects of childhood sexual abuse in later family life; mental health, parenting and adjustment of offspring. *Child Abuse & Neglect, 28*(5), 525-545.

Roller, C.G. (2011). Moving beyond the pain: Women's responses to the perinatal period after childhood sexual abuse. *Journal of Midwifery & Women's Health, 56*(5), 488-493.

Sangster, J. (2001). *Regulating girls and women: Sexuality and family, and the law in Ontario, 1920-1960*. Oxford: Oxford University Press.

Seng, J.S., Sparbel, K.J.H., Low, L.K., & Killion, C. (2002). Abuse-related posttraumatic stress and desired maternity care practices: Women's perspectives. *Journal of Midwifery & Women's Health, 47*(5), 360-370.

Statistics Canada. (2008). *Sexual assault in Canada: 2004 and 2007* (Catalogue No.85F0033M, No. 19). Ottawa: Canadian Centre for Justice Statistics.

The Breastfeeding Committee of Canada (2013). *Baby-friendly facilities in Canada (complied December 2013).* Retrieved March 1, 2014, from: http://www.breastfeedingcanada.ca/documents/Baby-Friendly_Facilities_in_Canada_English_Feb_2014.pdf

Tiedje, L.B., Schiffman, R., Omar, M., Wright, J., Buzzita, C., McCann, A., & Metzger, S. (2002). An ecological approach to breastfeeding. *The American Journal of Maternal/Child Nursing, 27*(3),154-161.

Walker, M. (2008). The parental role. In R. Mannel, P.J. Martens, & M. Walker (Eds.), *Core curriculum for lactation consultant practice* (2nd ed., pp. 45- 66). Sudbury, MA: Jones and Bartlett Publishers.

Wood, K. & Van Estrik, P. (2010). Infant feeding experiences of women who were sexually abused in childhood. *Canadian Family Physician, 56e,* 136-141.

World Health Organization (2007). *Planning guide for national implementation of the global strategy for infant and young child feeding*. Geneva, Switzerland: WHO.

World Health Organization (2011). *Exclusive breastfeeding best for babies everywhere*. Retrieved March 1, 2014, from: http://www.who.int/mediacentre/news/statements/2011/breastfeeding_20110115/en/

Appendix A: Rapid Evidence Assessment Thesis Option

The Rapid Evidence Assessment process is a cut-down form of systematic review and is suggested as a possible thesis option for Master's students. Conventionally, systematic reviews are needed to establish clinical and cost-effectiveness of an intervention. Increasingly, to support evidence based practice they are required to establish if an intervention or activity is actually feasible, if it is appropriate (ethically or culturally) or if it relates to evidence of experiences, values, thoughts or beliefs of clients and their relatives. However, health policy makers, clinicians and clients cannot always wait the year or so required for a full systematic review to deliver its findings, and this has led to the development of rapid evidence assessments (REAs), that can provide quick summaries of what is already known about a topic or intervention. REAs use systematic review methods to search and evaluate the literature, but the comprehensiveness of the search and other review stages are limited (Hemmingway & Brereton, 2009).

The UK Government Social Research Service (GSRS) has developed an REA toolkit that is recommended as the minimum standard for rapid evidence reviews (Hemmingway & Brereton, 2009; GRSS, 2009). This REA approach is designed to take from two to six months to complete as a rapid overview of existing research on a constrained topic and a synthesis of the evidence provided by these studies to answer the REA questions. REAs are a useful systematic literature review methodology when:

- When there is uncertainty about the effectiveness of a policy or service and there has been some previous research
- When a decision is required within months and policy makers/researchers want to make decisions based on the best available evidence within that time
- When a map of evidence in a topic area is required to determine whether there is any existing evidence and to direct future research needs.

1. Types of Question Suitable to explore with a REA

a. Impact questions

Reviewing methods are most developed for "What Works?" questions: for example, 'Do Teen Courts reduce rates of juvenile re-offending'? Methods for finding, coding, quality appraising and synthesizing such studies are well developed and available 'off the shelf' for you to use.

Methods for undertaking REAs are most developed for impact questions but an REA may still not be suitable for your specific impact question.

Answering impact questions through an REA relies on finding studies that have:
•investigated the population you are interested in;
•investigated the intervention that you are interested in;
•used a suitably rigorous method (i.e. they have at least used a control group); and
•measured (quantitatively) the outcomes that you are interested in.

If these types of studies do not exist in the area that you are interested in the findings from the REA are likely to be inconclusive.

The narrower the question (for example, in terms of how specific the population or intervention is defined) the more you may limit the available evidence. However, there is a trade off to be made because making your question broader is likely to take up more resources.

Non-impact questions
REA methods for answering non-impact questions are less developed than for impact questions. This is largely because systematic reviews have focused on synthesizing evidence from experimental and quasi-experimental research, and because there is a greater consensus on the hierarchy of available evidence on "what works?" (I.e. randomized controlled trials at the top and simple before and after studies at the bottom).

REAs, however, are still suited to answering a range of other questions, which can be grouped as:
•'Needs' questions
What do people want or need?
•Process questions
Why/how does it work?
•Implementation questions
What is required to make it work?
•Correlation questions
What relationships are seen between phenomena?
•Attitude questions
What do people think? What are their experiences?
•Economic questions
How much does it cost and with what benefit/harm?

2. Methods

The REA approach involves the following stages:

1. Setting out the conceptual framework(s) used. E.g. you might chose to apply an equity lens informed by critical theoretical perspectives as you move forward with developing the REA.
2. Formulating the REA questions. The research question is posed as an impact or non-impact question, and can also be written in the familiar PICO format.
3. Assessment of the quality and relevance of studies
   In deriving inclusion and exclusion criteria, there are three main dimensions to be considered in the appraisal of quality and relevance of studies (Gough 2007). These are:
   - The methodological quality of the study being considered;
   - The relevance of that research design for answering the REA question; and
   - The relevance of the study focus for answering the REA question.

   Criteria will be devised to weigh studies according to their quality and relevance (e.g. use of established and well-standardized pain assessment tools)
4. Search Strategy
   A systematic purposive search strategy is devised to include a comprehensive range of search terms. Sources searched should include English international electronic bibliographic databases in medical, nursing and allied health and computer science domains (Academic Search Complete; including PubMed, Medline, CINAHL, BioMed Central, Cochrane, EBM

reviews, EBMbase,Web of Science, PsychINFO; IEEEXPlore). Other sources that will be searched for coverage of some grey-literature include the World Wide Web (google and Google Scholar, Yahoo, Bing, and Meta Search Engines such as iBoogie, Infogrid, infonetware, Ithaki, ixQuiak, Metacrawler, and Answers.com). The actual detailed methods of this strategy should be written up in the final thesis so that others can see how the search was undertaken.

The time pressures of REAs mean that the searching process needs to be carried out quickly, and limitations will include:

- Limit the searching of grey literature
- English language only
- Only studies available in electronic format
- Only studies completed in the last 10 years

5. Final data Collection and storage should be performed using the Refworks (https://refworks.scholarsportal.info/refworks2/?r=authentication::init&groupcode=ubclibref) bibliographic management software application to create an electronic REA database (or equivalent electronic bibliographic software).
6. Once studies have been identified, the next stage is to screen them to check that they meet the inclusion criteria identified in stage 3. This involves reviewing abstracts and would normally be performed by two independent reviewers, as is common practice in systematic reviews. However, as this is a student thesis project the student may undertake a single person review.
7. Once selection from abstracts has been performed (and for those studies without abstracts using title) a full-text analysis is performed by the student and the key information from each study extracted and coded into a data extraction matrix (in an Excel spreadsheet for example). This is created from the research questions and inclusion/exclusion limitations. (See the following for an example http://resources.civilservice.gov.uk/wp-content/uploads/2011/09/data_extraction_form_economic_tcm6-7399.doc
8. Before conclusions can be drawn from the studies that have been selected for inclusion in the REA, they need to be critically appraised to ensure that they are both relevant and that their findings are reliable (Popay et al, 2006). There are three main dimensions considered as "weight of evidence" in quality and relevance appraisal of studies used in this method (Gough 2007). These are:
    A. The methodological quality of the study being considered,
    B. The relevance of that research design for answering the REA question, and
    C. The relevance of the study focus for answering the REA question

    The research question will have incorporated these three dimensions as part of the inclusion criteria and so only studies of the specified relevance should have been included. A final determination of the exact final appraisal tools to be used should be made after the initial results of the data gathering have been undertaken, and the number and nature of the published work established.
    a) For all studies each study will be weighted according to the GRSS REA weight of evidence tool that identifies dimensions A, B and C, and in conjunction with each other these judgments will be combined into a dimension D that signifies the overall WoE judgment (See Appendix A).
    b) In appraising impact studies The Maryland scale to establish methodological quality (Sherman et al, 1997) may be utilized to aid in establishing quality and rigor (See Appendix B)

c) For non-impact questions and qualitative research studies the Critical Appraisal Skills Program (or other well established) Qualitative Appraisal Tool may be utilized See: http://resources.civilservice.gov.uk/wp-content/uploads/2011/09/Qualitative-Appraisal-Tool_tcm6-7385.pdf These questions can also be scored to provide a quantitative research quality indicator.

9. Only those studies that remain in the REA after the critical appraisal stage will form a critically appraised map of evidence. The findings of lower quality studies will be either excluded, or will be given less weight in the final synthesis of evidence which is written up in the thesis.
10. The final thesis write up should include a comprehensive overview of the RAE process including an introduction establishing the rationale for inquiry, and research question, background, methods, results synthesis/discussion, and conclusion, referenced appropriately throughout.

5. Ethical considerations

As there are no human subjects directly involved and only secondary data will be involved from previously published studies an independent ethical review is not required. For security all research data should be kept in a secure locked cabinet within the researcher's office or stored on secure password protected computer network drives.

References

Government Social Research Service (2009). Rapid Evidence Assessment Toolkit. Retrieved from the Internet at http://www.civilservice.gov.uk/networks/gsr/resources-and-guidance (Accessed 9th July 2011)

Gough, David (2007) Weight of evidence: a framework for the appraisal of the quality and relevance of evidence. Research Papers in Education, 22 (2). pp. 213-228

Hemingway P, Brereton N., 2009. What is a systematic review? (2nd ed): What is...? series Haywood Medical Communications. Available at: http://www.whatisseries.co.uk/whatis/pdfs/What_is_syst_rev.pdf

Popay, J, Roberts, H, Sowden, A, Petticrew, M, Arai, L, Rodgers, M, Britten, N, Roen, K, Duffy, S. (2006) *Guidance on the conduct of narrative synthesis in systematic reviews.* Results of an ESRC funded research project. Lancaster, UK, University of Lancaster.

Sherman L.W., Gottfredson, D.C., Mackenzie, D.L., Eck, J., Reuter, P., Bushway, S.D. (1998) Preventing Crime, What works, what doesn't, what's promising. National Institute of Justice (USA). Retrieved from the web: https://www.ncjrs.gov/pdffiles/171676.PDF on July 12th, 2012.

Appendix B: Selected Studies for Rapid Evidence Assessment

Authors, Year, Country, Title and Brief description
1. **Prentice, J.C., Lu, M.C., Lange, L. & Halfon, N. (2002). United States**. The Association Between reported Childhood Sexual Abuse and Breastfeeding Initiation. • Quantitative study looking at the association of self-identified history of childhood sexual abuse (CSA) and breastfeeding initiation. This study utilized secondary data analysis using the data from the Commonwealth Survey of Parents of Young Children with a representative sample of parents with young children less than 3 years of age in 1995. The questions included asking women if they self-identified as having a history of CSA, as well as breastfeeding initiation. The authors found that there was a significant correlation between having the history of CSA and initiating breastfeeding, stating that they found this population to be more than 2.6 times as likely to initiate breastfeeding as women who did not self-identify. 2. **Leeners, B., Richter-Appelt, H., Imthurn, B., & Rath, W. (2006) Zurich, Switzerland.** Influence of Childhood Sexual Abuse on Pregnancy, Delivery, and the Early Postpartum Period in Early Adulthood. • This systematic review was performed to present the current knowledge on the influence of CSA on pregnancy, delivery, and early postpartum/parenthood. The authors reviewed the literature databases and cross references revealing 43 eligible studies. The authors found that memories could be triggered throughout the perinatal period, which can have an impact on the breastfeeding experience of this population. They discussed dissociation from the intimate aspects of

breastfeeding and postpartum depression as correlations with mothers who have had a history of CSA. Practice implications identified included caregivers enabling mothers to indicate boundaries within their care and emphasizing the breasts as having biological function rather than as sexual objects.

3. **Wood, K. & Van Esterik, P. (2010). Canada.** Infant Feeding Experiences of Women Who Were Sexually Abused in Childhood.
    - The purpose of this qualitative study was to explore the effects of CSA on women's breastfeeding and infant feeding decisions and experiences. The authors interviewed 6 mothers who had a history of sexual violence in childhood. They found that the history of CSA complicated the decisions mothers would make in regards to infant feeding practices. Also, the authors found reoccurring themes within their study such as dissociation, shame, and healing. The authors discussed the importance of a sensitive practice approach when working with this population.
4. **Bowman, K.G., Ryberg, J.W., & Becker, H. (2009). United States.** Examining the Relationship between a Childhood History of Sexual Abuse and Later Dissociation, Breast-feeding Practices, and Parenting Anxiety.
    - The purpose of this study was to compare Mexican American adolescent mothers with and without a history of CSA to examine the influence of CSA on dissociation, infant feeding method, and intimate parenting anxiety. The authors had 78 participants' complete four questionnaires. Their findings revealed that there was no significant correlation between CSA history and intimate parenting anxiety, no difference between breastfeeding and formula feeding mothers in

CSA severity, and no association between intimate parenting anxiety and dissociation. They did find that there was a higher breastfeeding rate in the mothers with a history of CSA, similar to the Prentice et al. (2002) study, further stating that both of these studies are inconsistent with other parenting studies. The authors went into detail in regards to the possible causes for the inconsistencies found in their study compared to others, stating support and response bias as possible causes.

5. **Coles, J. (2009) Australia**. Qualitative Study of Breastfeeding after Childhood Sexual Assault.
    - The purpose of this study was to explore the experience of successful breastfeeding with mothers having a history of CSA. Eleven women participated in the study and self-identified as having experienced CSA by a family member. The author found four themes that emerged from the data. These included enhancement of the mother-baby relationship, validation of the maternal body, splitting of the dual role of the breasts as maternal and sexual objects, and exposure and control when breastfeeding in public. Included in the discussion were the implications for practice, such as providing a safe and private environment for the mother, ensuring consent and approval before assisting with breastfeeding, and normalizing the sexual and sensual feelings that may occur during breastfeeding.
6. **Coles, J. & Jones, K. (2009). Australia**. "Universal Precautions": Perinatal Touch and Examination after Childhood Sexual Abuse.
    - The purpose of this study was to explore women's responses to perinatal

professional touch and examination of themselves and their babies. Eighteen women were recruited and interviewed exploring the impact of CSA on early mothering and women's experiences of perinatal health care. Themes that emerged from the interviews included safety issues faced by CSA survivors in the clinical encounter and ways to make the clinical encounter safer. As this study was not specific to breastfeeding alone, the authors did include the assisting of new mothers to breastfeed as a component of perinatal touch. The authors also recommended Universal Precautions for all care provided in the perinatal period by health care providers (HCP).

7. **Beck, C.T. (2009). United States**. An Adult Survivor of Child Sexual Abuse and Her Breastfeeding Experience: A Case Study.
    - This is a holistic, single case study that describes the story of one woman with a history of CSA and her experience with breastfeeding. The purpose of this study in to increase clinicians' understanding of the impact that CSA can have on women's breastfeeding experiences and outcomes. The case study went into great description in regards to this woman's experience with childbirth and breastfeeding. It also looked at the similarities from her story and what is found within the literature on CSA and the perinatal period. Some practice implications were included: egalitarian work, exploring meaning, and framing and boundaries.
8. **Roller, C.G. (2011). United States**. Moving Beyond the Pain: Women's Responses to the Perinatal Period after Childhood Sexual Abuse.
    - The purpose of this study was to construct a theoretical framework describing how women with a history of CSA manage intrusive re-experiencing of their CSA

trauma during the perinatal period. The author used grounded theory to develop the framework from the data collected from open-ended interviews. The study was not specific to breastfeeding, yet the data collected encompassed the perinatal period. The framework that evolved from the participants' discussion of how they managed CSA triggers during the perinatal period included: reliving it, taking charge of it, and getting over it. The author concluded that HCP can utilize the framework to tailor interventions to each phase that the women may be currently experiencing, enabling the perinatal encounter to have positive outcomes for the women.

9. **Montgomery, E. (2013). United Kingdom**. Feeling Safe: A Metasynthesis of the Maternity Care Needs of Women who were Sexually Abused in Childhood.
    - The purpose of this metasynthesis was to synthesize the research on maternity care experiences of women who have a history of CSA to answer the two questions posed: what do women need during the childbearing experiences and what can HCP do about it. The synthesis included a database search of relevant qualitative research studies from 1990-2011 to compare concepts and themes to answer the questions. The author found key themes within the literature search: control, remembering, vulnerability, dissociation, disclosure, and healing. This synthesis was not specific to breastfeeding, yet encompassed the perinatal period. The relevance of the themes and findings of "feeling safe" within this period can be reflected upon breastfeeding mothers.
10. **Gilson, K.J & Lancaster, S. (2008) Australia**. Childhood sexual abuse in pregnant and parenting adolescents.

- The purpose of this study was to examine the CSA in childbearing adolescents and the contribution of sexual and physical abuse on antenatal and postpartum depression and anxiety. The authors for this study contact the young mothers at three intervals during the antenatal and postpartum period: third trimester, 6 weeks postpartum, and 6 months postpartum. The mothers were given a self-report questionnaire that went into detail in regards to history of sexual and/or physical abuse before the age of 13 years and a demographic sheet. The authors also administered the Edinburgh Postnatal Depression Scale and the Hospital Anxiety and Depression Scale. The authors found that there was a correlation with depression and anxiety in the postnatal period for the young mothers who revealed physical and/or sexual abuse in childhood. This study does not look at breastfeeding specifically, yet the outcomes of depression and anxiety can have an impact on the breastfeeding experience.

11. **Kendall-Tackett, K. Cong, Z., Hale, T.W. (2013). United States**. Depression, Sleep Quality, and Maternal Well-Being in Postpartum Women with a History of Sexual Assault: A Comparison of Breastfeeding, Mixed-Feeding, and Formula Feeding.
    - This study examined the relationship between sexual assault and the variables of sleep, depression, and maternal well-being in a large sample of women with a history of sexual assault. They also explored whether infant feeding method was related to the outcome variables for both sexually or non-sexually assaulted women. Of the 6410 participants, there were 994 women who had a history of sexual assault. All participants completed an online Survey of Mothers' Sleep and Fatigue to provide the results for this study. The authors found that there was a

correlation between the history of sexual assault and a number of sleep disturbances, increased risk of depression, and overall poor well-being. The authors also found that there was a lower risk on all the above variables when women who had a history of sexual assault were breastfeeding than the ones who were using mixed feeding or formula feeding their infants.

12. **Marysko, M., Reck, C., Mattheis, V., Finke, P., Resch, F. & Moehler, E. (2010). Germany**.

    - The purpose of this study was to examine dissociation in a sample of young mothers who have a history of childhood abuse in comparison to a control group, as dissociation has been recognized as a relevant factor within the context of traumatization. The authors had recruited mothers with and without a history of abuse with similar demographic information, such as socioeconomic status, education level, gender of child, and number of children. The authors found that mothers with a history of physical and/or sexual abuse had significantly more dissociative experiences identified within their data collection. The authors concluded that a history of childhood abuse increases maternal dissociative experiences and discussed the relevance for preventative efforts in targeting at risk mothers for treatment and support programs.

13. **Seng, J.S., Sparbel, K.J.H., Low, L.K., & Killion, C. (2002). United States**. Abuse-related Posttraumatic Stress and Desired Maternity Care Practices: Women's Perspectives.

    - This study was conducted to determine what women who have had a history of CSA and abuse-related posttraumatic stress during the childbearing year perceive

as optimal maternity care. From their analysis of the literature, the authors identified a need to formulate best care practices to guide clinicians working with diversity of women affected by posttraumatic stress during the childbearing year. They interviewed women with a history of abuse (both sexual and physical) and formulated key messages to HCP as "desired practices". These included asking about a history of abuse, acknowledging that trauma can have long term effects, assessing for risks of associated problems that are critical to perinatal outcomes, assuming history of abuse in the presence of posttraumatic stress reactions when the women has not disclosed, and responding therapeutically. Also HCPs should avoid the triggers identified by the individual client, arrange referrals for more extensive treatment options, advocate for appropriate program and financial resources, and ascertain thorough follow-up and evaluation of practice to ensure perinatal goals are being met.

14. **Jackson, K.B. & Fraser, D. (2009). United Kingdom**. A Study Exploring UK Midwives' Knowledge and Attitudes for Women Who Have Been Sexually Abused.

- The purpose of this study was to investigate midwives' knowledge and attitudes in relation to caring for women who have been sexually abused. The self-report questionnaire was mailed to 489 community and hospital midwives within two areas of the United Kingdom. The questionnaire included both fixed response and open-ended questions to gather an enhanced data about the midwives' knowledge and attitudes towards different aspects of sexuality and childbirth. The authors found that the majority of midwives did not feel comfortable with disclosure of sexual abuse or adequately prepared to deal with the act of disclosure. Also, the

	findings revealed that only a small number of the midwives felt comfortable about the topic of sexual violence and had some experience in dealing with these types of situations in their practice. The authors stressed the importance of more educational opportunities for midwives within their curriculum and post-educational updates. Discussed the need for further research conducted in this area in order for midwives and other HCPs to provide the best care possible for this population.

Appendix C: EPPI-Centre Data Extraction Tool

EPPI-Centre data extraction and coding tool for education studies V2.0

Purpose and use of this tool

This tool is designed to help those conducting systematic reviews on educational topics identify extract and code information about a particular research study that is to be included in a systematic review.

It is designed to help the reviewer obtain all the necessary information to

- assess the quality of the study or its internal validity
- Identify the relevant contextual information that may have affected the results obtained in the specific study
- Identify the contextual information about a study that will be relevant to any assessment of the generalizability of findings in the individual study
- Identify relevant information about the design , execution and context of a study for the purpose of synthesizing (bringing together) results from all the studies that are included in a particular review

The tool is designed to be used to extract data from a single primary study. That is the report(s) of a piece of research i.e. not a review (systematic or otherwise), a scholarly paper, treatise or opinion piece.

The study may be reported in more than one paper for which a single data extraction is completed

Each separate study included in a review will require a separate data extraction

For the purposes of producing a 'map' review groups will usually include questions from sections A,B,C, D, E (if relevant), G.

Questions B2 and G3 must be included in the coding questions for the map

Additional questions used will depend on the purpose of the map and the type of review. The questions to be used should be agreed with the funder and the EPPI-Centre prior to starting coding

Other sections and questions are completed only on studies included in the 'in-depth review'

Section A: Administrative details
Use of these guidelines should be cited as: EPPI-Centre (2007) Review Guidelines for Extracting Data and Quality Assessing Primary Studies in Educational Research. Version 2.0 London: EPPI-Centre, Social Science Research Unit.

A.1 Name of the reviewer	A.1.1 Details
A.2 Date of the review	A.2.1 Details
A.3 Please enter the details of each paper which reports on this item/study and which is used to complete this data extraction. (1): A paper can be a journal article, a book, or chapter in a book, or an unpublished report.	A.3.1 Paper (1) Fill in a separate entry for further papers as required. A.3.2 Unique Identifier: A.3.3 Authors: A.3.4 Title: A.3.5 Paper (2) A.3.6 Unique Identifier: A.3.7 Authors: A.3.8 Title:
A.4 Main paper. Please classify one of the above papers as the 'main' report of the study and enter its unique identifier here. NB(1): When only one paper reports on the study, this will be the 'main' report. NB(2): In some cases the 'main' paper will be the one which provides the fullest or the latest report of the study. In other cases the decision about which is the 'main' report will have to be made on an arbitrary basis.	A.4.1 Unique Identifier:
A.5 Please enter the details of each paper which reports on this study but is NOT being used to complete this data extraction. NB A paper can be a journal article, a book, or chapter in a book, or an unpublished report.	A.5.1 Paper (1) Fill in a separate entry for further papers as required. A.5.2 Unique Identifier: A.5.3 Authors: A.5.4 Title: A.5.5 Paper (2) A.5.6 Unique Identifier: A.5.7 Authors: A.5.8 Title:
A.6 If the study has a broad focus and this data extraction focuses on just one	A.6.1 Not applicable (whole study is focus of data extraction)

component of the study, please specify this here.	A.6.2 Specific focus of this data extraction (please specify)
A.7 Identification of report (or reports) Please use AS MANY KEYWORDS AS APPLY.	A.7.1 Citation Please use this keyword if the report was identified from the bibliographic list of another report. A.7.2 Contact Please use this keyword if the report was found through a personal/professional contact. A.7.3 Handsearch Please use this keyword if the report was found through handsearching a journal. A.7.4 Unknown Please use this keyword if it is unknown how the report was found. A.7.5 Electronic database Please use this keyword if the report was found through searching on an electronic bibliographic database. In addition, if the report was found on an electronic database please use ONE OR MORE of the following keywords to indicate which database it was found on: aidsline For AIDSLINE appsocscience For Applied Social and Abstracts artscitation For the Arts and Humanities Citation Index aei For the Australian Education Index bei For the British Education Index bibliomap For the EPPI-Centre's specialist register of research cabhealth For CABhealth

	cei For the Canadian Education Index ceruk For CERUK cinahl For the CINAHL cochranelib For the Cochrane Library dissabs For Dissertation Abstracts dislearn For the Distance Learning Database eduabs For Education Abstracts educationline For Education-line embase For EMBASE eric For ERIC healthplan For Health Planning healthpromis For HealthPromis intbibsocsci For the International Bibliography of the Social Sciences langbehrabs For Linguistic and Language Behaviour Abstracts medline For MEDLINE psycinfo For PsycINFO

	regard For REGARD sigle For SIGLE socscicitation For the Social Science Citation Index socservabs For the Social Services Abstracts socioabs For Sociological Abstracts spectr For the Social, Psychological, Educational & Criminological Trials Register
A.8 Status Please use ONE keyword only	A.8.1 Published Please use this keyword if the report has an ISBN or ISSN number. A.8.2 Published as a report or conference paper Please use this code for reports which do not have an ISBN or ISSN number (eg. 'internal' reports; conference papers) A.8.3 Unpublished e.g. thesis or author manuscript
A.9 Language (please specify)	A.9.1 Details of Language of report Please use as many keywords that apply If the name of the language is specified/known then please use the name as a keyword. For example: Dutch English French If non-English and you cannot name the language: non English

Section B: Study Aims and Rationale

B.1 What are the broad aims of the study? Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are the reviewers' interpretations. Other, more specific questions about the research questions and hypotheses are asked later.	B.1.1 Explicitly stated (please specify) B.1.2 Implicit (please specify) B.1.3 Not stated/unclear (please specify)
B.2 What is the purpose of the study? N.B. This question refers only to the purpose of a study, not to the design or methods used. A: Description Please use this code for studies in which the aim is to produce a description of a state of affairs or a particular phenomenon, and/or to document its characteristics. In these types of studies there is no attempt to evaluate a particular intervention programme (according to either the processes involved in its implementation or its effects on outcomes), or to examine the associations between one or more variables. These types of studies are usually, but not always, conducted at one point in time (i.e. cross sectional). They can include studies such as an interview of head teachers to count how many have explicit policies on continuing professional development for teachers; a study documenting student attitudes to national examinations using focus groups; a survey of the felt needs of parents using self-completion questionnaires, about whether they want a school bus service. B: Exploration of relationships Please use this code for a study type which examines relationships and/or statistical associations between variables in order to build theories and develop hypotheses. These studies may describe a process or processes (what goes on) in order to explore how a particular state of affairs might be produced, maintained and changed. These relationships may be discovered using qualitative techniques, and/or statistical analyses. For instance, observations of children at play may elucidate the process of gender stereotyping, and suggest the kinds	B.2.1 A: Description B.2.2 B: Exploration of relationships B.2.3 C: What works? B.2.4 D: Methods development B.2.5 E: Reviewing/synthesising research

of interventions which may be appropriate to reduce any negative effects in the classroom. Complex statistical analysis may be helpful in modelling the relationships between parents' social class and language in the home. These may lead to the development of theories about the mechanisms of language acquisition, and possible policies to intervene in a causal pathway. These studies often consider variables such as social class and gender which are not interventions, although these studies may aid understanding, and may suggest possible interventions, as well as ways in which a programme design and implementation could be improved. These studies do not directly evaluate the effects of policies and practices. C: What works A study will only fall within this category if it measures effectiveness - i.e. the impact of a specific intervention or programme on a defined sample of recipients or subjects of the programme or intervention. D: Methods development Studies where the principle focus is on methodology. E: Reviewing/Synthesising research Studies which summarise and synthesise primary research studies.	
B.3 Why was the study done at that point in time, in those contexts and with those people or institutions? Please write in authors' rationale if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretation.	B.3.1 Explicitly stated (please specify) B.3.2 Implicit (please specify) B.3.3 Not stated/unclear (please specify)
B.4 Was the study informed by, or linked to, an existing body of empirical and/or theoretical research? Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretation.	B.4.1 Explicitly stated (please specify) B.4.2 Implicit (please specify) B.4.3 Not stated/unclear (please specify)
B.5 Which of the following groups were consulted in working out the aims of the study, or issues to be addressed in the	B.5.1 Researchers (please specify) B.5.2 Funder (please specify)

study? Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretation. Please cover details of how and why people were consulted and how they influenced the aims/issues to be addressed.	B.5.3 Head teacher/Senior management (please specify) B.5.4 Teaching staff (please specify) B.5.5 Non-teaching staff (please specify) B.5.6 Parents (please specify) B.5.7 Pupils/students (please specify) B.5.8 Governors (please specify) B.5.9 LEA/Government officials (please specify) B.5.10 Other education practitioner (please specify) B.5.11 Other (please specify) B.5.12 None/Not stated B.5.13 Coding is based on: Authors' description B.5.14 Coding is based on: Reviewers' inference
B.6 Do authors report how the study was funded?	B.6.1 Explicitly stated (please specify) B.6.2 Implicit (please specify) B.6.3 Not stated/unclear (please specify)
B.7 When was the study carried out? If the authors give a year, or range of years, then put that in. If not, give a 'not later than' date by looking for a date of first submission to the journal, or for clues like the publication dates of other reports from the study.	B.7.1 Explicitly stated (please specify) B.7.2 Implicit (please specify) B.7.3 Not stated/unclear (please specify)
B.8 What are the study research questions and/or hypotheses? Research questions or hypotheses operationalise the aims of the study. Please write in authors' description if there is one. Elaborate if necessary, but indicate which aspects are reviewers' interpretation.	B.8.1 Explicitly stated (please specify) B.8.2 Implicit (please specify) B.8.3 Not stated/ unclear (please specify)

Section C: Study Policy or Practice Focus

C.1 What is/are the topic focus/foci of the study?	C.1.1 Assessment (please specify) C.1.2 Classroom management (please specify) C.1.3 Curriculum (see next question below)

	C.1.4 Equal opportunities (please specify) C.1.5 Methodology (please specify) C.1.6 Organisation and management (please specify) C.1.7 Policy (please specify) C.1.8 Teacher careers (please specify) C.1.9 Teaching and learning (please specify) C.1.10 Other (please specify) C.1.11 Coding is based on: Authors' description C.1.12 Coding is based on: Reviewers' inference
C.2 What is the curriculum area, if any?	C.2.1 Art C.2.2 Business Studies C.2.3 Citizenship C.2.4 Cross-curricular C.2.5 Design & Technology C.2.6 Environment C.2.7 General C.2.8 Geography C.2.9 Hidden C.2.10 History C.2.11 ICT C.2.12 Literacy - first languages C.2.13 Literacy - further languages C.2.14 Literature C.2.15 Maths C.2.16 Music C.2.17 PSE C.2.18 Phys. Ed C.2.19 Religious Ed. C.2.20 Science C.2.21 Vocational C.2.22 Other C.2.23 Coding is based on: Authors'

	description C.2.24 Coding is based on: Reviewers' inference
C.3 What is/are the educational setting(s) of the study?	C.3.1 Community centre C.3.2 Correctional institution C.3.3 Government department C.3.4 Higher education institution C.3.5 Home C.3.6 Independent school C.3.7 Local education authority C.3.8 Nursery school C.3.9 Other early years setting C.3.10 Post-compulsory education institution C.3.11 Primary school C.3.12 Pupil referral unit C.3.13 Residential school C.3.14 Secondary school C.3.15 Special needs school C.3.16 Workplace C.3.17 Other educational setting C.3.18 Coding is based on: Authors' description C.3.19 Coding is based on: Reviewers' inference
C.4 In which country or countries was the study carried out? Provide further details where relevant e.g. region or city.	C.4.1 Explicitly stated (please specify) C.4.2 Not stated/unclear (please specify)
C.5 Please describe in more detail the specific phenomena, factors, services or interventions with which the study is concerned. The questions so far have asked about the aims of the study and any named programme under study, but this may not fully capture what the study is about. Please state or clarify here.	C.5.1 Details

Section D: Actual sample

If there are several samples or levels of sample, please complete for each level

D.1 Who or what is/ are the sample in the study? Please use AS MANY codes AS APPLY to describe the nature of the sample of the report. Only indicate a code if the report specifically characterises the sample focus in terms of the categories indicated below	D.1.1 Learners Please use this code if a population focus of the study is on pupils, students, apprentices, or other kinds of learners D.1.2 Senior management Please use this code if a sample focus of the study is on those with responsibility in any educational institution for the strategic leadership and management of a whole organisation. This will include the person with ultimate responsibility for the educational institution under study. In the school setting, the term 'head teacher' is typically used ('principal' in the U.S.A., Canada and Australia); the term 'principal' is often used in a college setting, the term 'vice-chancellor' in a university setting. D.1.3 Teaching staff Please use this code if a sample focus of the study is on staff who teach (or lecture) in a classroom/lecture-hall setting D.1.4 Non-teaching staff Please use this code if a population focus of the study is on staff who do not teach, but whose role within the educational institution is administrative/ organisational, e.g. equal opportunities coordinators, other support staff D.1.5 Other educational practitioners Please use this code if the sample focus of the study includes representatives from other educational bodies, including interest/advisory groups; school governing bodies and parent support groups D.1.6 Government Please use this code if the sample focus of the study is on representatives from government or governing bodies e.g. from the DfES (Department for Education and Skills), BECTA (British Educational Communications and Technology Agency), LSDA (learning and Skills Development Agency, formerly FEDA - Further Education Development Agency) etc. D.1.7 Local education authority officers Please use this code if a sample focus of the study is people who work in a local education authority

	D.1.8 Parents Please use this code if the sample focus of the study refers to the inclusive category of carers of 'children' and 'young people', which may include natural parents/mother/father/adoptive parents/foster parents etc D.1.9 Governors Please use this code if the sample focus of the study is on members of the governing body, which may include teachers or parents. They play a role in the management and vision of the educational institution D.1.10 Other sample focus (please specify)
D.2 What was the total number of participants in the study (the actual sample)? if more than one group is being compared, please give numbers for each group	D.2.1 Not applicable (e.g. study of policies, documents etc) D.2.2 Explicitly stated (please specify) D.2.3 Implicit (please specify) D.2.4 Not stated/ unclear (please specify)
D.3 What is the proportion of those selected for the study who actually participated in the study? Please specify numbers and percentages if possible.	D.3.1 Not applicable (e.g. review) D.3.2 Explicitly stated (please specify) D.3.3 Implicit (please specify) D.3.4 Not stated/unclear (please specify)
D.4 Which country/countries are the individuals in the actual sample from? If UK, please distinguish between England, Scotland, N. Ireland and Wales, if possible. If from different countries, please give numbers for each. If more than one group is being compared, please describe for each group.	D.4.1 Not applicable (e.g. study of policies, documents, etc.) D.4.2 Explicitly stated (please specify) D.4.3 Implicit (please specify) D.4.4 Not stated/unclear (please specify)
D.5 If the individuals in the actual sample are involved with an educational institution, what type of institution is it? For evaluations of interventions, this will be the site(s) of the intervention. Please give details of the institutions (e.g. size, geographic location mixed/single sex etc.) as described by the authors. If individuals are from different institutions, please give numbers for each. If more than	D.5.1 Not applicable (e.g. study of policies, documents, etc.) D.5.2 Community centre (please specify) D.5.3 Post-compulsory education institution (please specify) D.5.4 Government Department (please specify) D.5.5 Independent school (please specify age range and school type)

one group is being compared, please describe all of the above for each group.	D.5.6 Nursery school (please specify) D.5.7 Other early years setting (please specify) D.5.8 Local education authority (please specify) D.5.9 Higher Education Institution (please specify) D.5.10 Primary school (please specify) D.5.11 Correctional Institution (please specify) D.5.12 Pupil referral unit (please specify) D.5.13 Residential school (please specify) D.5.14 Secondary school (please specify age range) D.5.15 Special needs school (please specify) D.5.16 Workplace (please specify) D.5.17 Other educational setting (please specify) D.5.18 Coding is based on: Authors' description D.5.19 Coding is based on: Reviewers' inference
D.6 What ages are covered by the actual sample? Please give the numbers of the sample that fall within each of the given categories. If necessary refer to a page number in the report (e.g. for a useful table). If more than one group is being compared, please describe for each group if follow-up study, age of entry to the study	D.6.1 Not applicable (e.g. study of policies, documents etc) D.6.2 0-4 D.6.3 5-10 D.6.4 11-16 D.6.5 17 to 20 D.6.6 21 and over D.6.7 Not stated/unclear (please specify) D.6.8 Coding is based on: Authors' description D.6.9 Coding is based on: Reviewers' inference
D.7 What is the sex of the individuals in the actual sample? Please give the numbers of the sample that fall within each of the given categories. If necessary refer to a page number in the	D.7.1 Not applicable (e.g. study of policies, documents etc) D.7.2 Single sex (please specify)

report (e.g. for a useful table). If more than one group is being compared, please describe for each group.	D.7.3 Mixed sex (please specify) D.7.4 Not stated/unclear (please specify) D.7.5 Coding is based on: Authors' description D.7.6 Coding is based on: Reviewers' inference
D.8 What is the socio-economic status of the individuals within the actual sample? If more than one group is being compared, please describe for each group.	D.8.1 Not applicable (e.g. study of policies, documents etc) D.8.2 Explicitly stated (please specify) D.8.3 Implicit (please specify) D.8.4 Not stated/unclear (please specify)
D.9 What is the ethnicity of the individuals within the actual sample? If more than one group is being compared, please describe for each group.	D.9.1 Not applicable (e.g. study of policies, documents etc) D.9.2 Explicitly stated (please specify) D.9.3 Implicit (please specify) D.9.4 Not stated/unclear (please specify)
D.10 What is known about the special educational needs of individuals within the actual sample? e. g. specific learning, physical, emotional, behavioural, intellectual difficulties.	D.10.1 Not applicable (e.g. study of policies, documents etc) D.10.2 Explicitly stated (please specify) D.10.3 Implicit (please specify) D.10.4 Not stated/unclear (please specify)
D.11 Please specify any other useful information about the study participants.	D.11.1 Details

Section E: Programme or Intervention description

E.1 If a programme or intervention is being studied, does it have a formal name?	E.1.1 Not applicable (no programme or intervention) E.1.2 Yes (please specify) E.1.3 No (please specify) E.1.4 Not stated/ unclear (please specify)
E.2 Content of the intervention package Describe the intervention in detail, whenever possible copying the authors' description from the report word for word. If specified in the report, also describe in detail what the control/ comparison group(s) were exposed to.	E.2.1 Details

E.3 Aim(s) of the intervention	E.3.1 Not stated E.3.2 Not explicitly stated (Write in, as worded by the reviewer) E.3.3 Stated (Write in, as stated by the authors)
E.4 Year intervention started Where relevant	E.4.1 Details
E.5 Duration of the intervention Choose the relevant category and write in the exact intervention length if specified in the report When the intervention is ongoing, tick 'OTHER' and indicate the length of intervention as the length of the outcome assessment period	E.5.1 Not stated E.5.2 Not applicable E.5.3 Unclear E.5.4 One day or less (please specify) E.5.5 1 day to 1 week (please specify) E.5.6 1 week (and 1 day) to 1 month (please specify) E.5.7 1 month (and 1 day) to 3 months (please specify) E.5.8 3 months (and 1 day) to 6 months (please specify) E.5.9 6 months (and 1 day) to 1 year (please specify) E.5.10 1 year (and 1 day) to 2 years (please specify) E.5.11 2 years (and 1 day) to 3 years (please specify) E.5.12 3 years (and 1 day) to 5 years (please specify) E.5.13 more than 5 years (please specify) E.5.14 Other (please specify)
E.6 Person providing the intervention (tick as many as appropriate)	E.6.1 Not stated E.6.2 Unclear E.6.3 Not applicable E.6.4 Counsellor E.6.5 Health professional (please specify) E.6.6 parent E.6.7 peer E.6.8 Psychologist E.6.9 Researcher

	E.6.10 Social worker E.6.11 Teacher/lecturer E.6.12 Other (specify)
E.7 Number of people recruited to provide the intervention (and comparison condition) (e.g. teachers or health professionals)	E.7.1 Not stated E.7.2 Unclear E.7.3 Reported (include the number for the providers involved in the intervention and comparison groups, as appropriate)
E.8 How were the people providing the intervention recruited? (Write in) Also, give information on the providers involved in the comparison group(s), as appropriate.	E.8.1 Not stated E.8.2 Stated (write in)
E.9 Was special training given to people providing the intervention? Provide as much detail as possible	E.9.1 Not stated E.9.2 Unclear E.9.3 Yes (please specify) E.9.4 No

Section F: Results and conclusions
In future this section is likely to incorporate material from EPPI reviewer to facilitate reporting numerical results

F.1 How are the results of the study presented? e.g. as quotations/ figures within text, in tables, as appendices	F.1.1 Details
F.2 What are the results of the study as reported by the authors? Before completing data extraction you will need to consider what type of synthesis will be undertaken and what kind of 'results' data is required for the synthesis Warning! Failure to provide sufficient data here will hamper the synthesis stage of the review. Please give details and refer to page numbers in the report(s) of the study, where necessary (e.g. for key tables)	F.2.1 Details
F.3 What do the author(s) conclude about the findings of the study? Please give details and refer to page numbers in the report of the study, where necessary	F.3.1 Details

Section G: Study Method

G.1 Study Timing Please indicate all that apply and give further details where possible -If the study examines one or more samples but each at only one point in time it is cross-sectional -If the study examines the same samples but as they have changed over time, it is a retrospective, provided that the interest is in starting at one time point and looking backwards over time -If the study examines the same samples as they have changed over time and if data are collected forward over time, it is prospective provided that the interest is in starting at one time point and looking forward in time	G.1.1 Cross-sectional G.1.2 Retrospective G.1.3 Prospective G.1.4 Not stated/ unclear (please specify)
G.2 when were the measurements of the variable(s) used as outcome measures made, in relation to the intervention Use only if the purpose of the study is to measure the effectiveness or impact of an intervention or programme, i. e. its purpose is coded as 'What Works' in Section B2 - If at least one of the outcome variables is measured both before and after the intervention, please use the 'before and after' category.	G.2.1 Not applicable (not an evaluation) G.2.2 Before and after G.2.3 Only after G.2.4 Other (please specify) G.2.5 Not stated/unclear (please specify)
G.3 What is the method used in the study? NB: Studies may use more than one method please code each method used for which data extraction is being completed and the respective outcomes for each method. A=Please use this code if the outcome evaluation employed the design of a randomised controlled trial. To be classified as an RCT, the evaluation must: i). compare two or more groups which receive different interventions or different intensities/levels of an intervention with each other; and/or with a group which does not receive any intervention at all AND ii) allocate participants (individuals, groups,	G.3.1 A=Random experiment with random allocation to groups G.3.2 B=Experiment with non-random allocation to groups G.3.3 C=One group pre-post test G.3.4 D=one group post-test only G.3.5 E=Cohort study G.3.6 F=Case-control study G.3.7 G=Statistical survey G.3.8 H=Views study G.3.9 I=Ethnography G.3.10 J=Systematic review G.3.11 K=Other review (non systematic)

classes, schools, LEAs etc) or sequences to the different groups based on a fully random schedule (e. g. a random numbers table is used). If the report states that random allocation was used and no further information is given then please keyword as RCT. If the allocation is NOT fully randomised (e. g. allocation by alternate numbers by date of birth) then please keyword as a non-randomised controlled trial B=Please use this code if the evaluation compared two or more groups which receive different interventions, or different intensities/levels of an intervention to each other and/or with a group which does not receive any intervention at all BUT DOES NOT allocate participants (individuals, groups, classes, schools, LEAs etc) or sequences in a fully random manner. This keyword should be used for studies which describe groups being allocated using a quasi-random method (e. g. allocation by alternate numbers or by date of birth) or other non- random method C=Please use this code where a group of subjects e.g. a class of school children is tested on outcome of interest before being given an intervention which is being evaluated. After receiving the intervention the same test is administered again to the same subjects. The outcome is the difference between the pre and post test scores of the subjects. D=Please use this code where one group of subjects is tested on outcome of interest after receiving the intervention which is being evaluated E=Please use this code where researchers prospectively study a sample (e. g. learners), collect data on the different aspects of policies or practices experienced by members of the sample (e. g. teaching methods, class sizes), look forward in time to measure their later outcomes (e. g. achievement) and relate the experiences to the outcomes achieved. The purpose is to assess the effect of the different experiences	G.3.12 L=Case study G.3.13 M= Document study G.3.14 N=Action research G.3.15 O= Methodological study G.3.16 P=Secondary data analysis

on outcomes. F=Please use this code where researchers compare two or more groups of individuals on the basis of their current situation (e. g. 16 year old pupils with high current educational performance compared to those with average educational performance), and look back in time to examine the statistical association with different policies or practices which they have experienced (e. g. class size; attendance at single sex or mixed sex schools; non school activities etc). G= please use this code where researchers have used a questionnaire to collect quantitative information about items in a sample or population, e. g. parents' views on education H= Please use this code where the researchers try to understand phenomena from the point of the 'worldview' of a particular, group, culture or society. In these studies there is attention to subjective meaning, perspectives and experience'. I= please use this code when the researchers present a qualitative description of human social phenomena, based on fieldwork J= please use this code if the review is explicit in its reporting of a systematic strategy used for (i) searching for studies (i. e. it reports which databases have been searched and the keywords used to search the database, the list of journals hand searched, and describes attempts to find unpublished or 'grey' literature; (ii) the criteria for including and excluding studies in the review and, (iii) methods used for assessing the quality and collating the findings of included studies. K= Please use this code for cases where the review discusses a particular issue bringing together the opinions/findings/conclusions from a range of previous studies but where the review does not meet the criteria for a systematic review (as defined above)	

L= please use this code when researchers refer specifically to their design/ approach as a 'case study'. Where possible further information about the methods used in the case study should be coded M=please use this code where researchers have used documents as a source of data, e. g. newspaper reports N=Please use this code where practitioners or institutions (with or without the help of researchers) have used research as part of a process of development and/or change. Where possible further information about the research methods used should be coded O=please use this keyword for studies which focus on the development or discussion of methods; for example discussions of a statistical technique, a recruitment or sampling procedure, a particular way of collecting or analysing data etc. It may also refer to a description of the processes or stages involved in developing an 'instrument' (e. g. an assessment procedure). P= Please use this code where researchers have used data from a pre-existing dataset, e. g. The British Household Panel Survey, to answer their 'new' research question.	

Section H: Methods-groups

H.1 If Comparisons are being made between two or more groups*, please specify the basis of any divisions made for making these comparisons Please give further details where possible *If no comparisons are being made between groups please continue to Section I (Methods - sampling strategy)	H.1.1 Not applicable (not more than one group) H.1.2 Prospective allocation into more than one group e. g. allocation to different interventions, or allocation to intervention and control groups H.1.3 No prospective allocation but use of pre-existing differences to create comparison groups e.g. receiving different interventions or characterised by different levels of a variable such as social class H.1.4 Other (please specify)

	H.1.5 Not stated/ unclear (please specify)
H.2 How do the groups differ?	H.2.1 Not applicable (not in more than one group) H.2.2 Explicitly stated (please specify) H.2.3 Implicit (please specify) H.2.4 Not stated/ unclear (please specify)
H.3 Number of groups For instance, in studies in which comparisons are made between group, this may be the number of groups into which the dataset is divided for analysis (e. g. social class, or form size), or the number of groups allocated to, or receiving, an intervention.	H.3.1 Not applicable (not more than one group) H.3.2 One H.3.3 Two H.3.4 Three H.3.5 Four or more (please specify) H.3.6 Other/ unclear (please specify)
H.4 If prospective allocation into more than one group, what was the unit of allocation? Please indicate all that apply and give further details where possible	H.4.1 Not applicable (not more than one group) H.4.2 Not applicable (no prospective allocation) H.4.3 Individuals H.4.4 Groupings or clusters of individuals (e. g. classes or schools) please specify H.4.5 Other (e. g. individuals or groups acting as their own controls - please specify) H.4.6 Not stated/ unclear (please specify)
H.5 If prospective allocation into more than one group, which method was used to generate the allocation sequence?	H.5.1 Not applicable (not more than one group) H.5.2 Not applicable (no prospective allocation) H.5.3 Random H.5.4 Quasi-random H.5.5 Non-random H.5.6 Not stated/unclear (please specify)
H.6 If prospective allocation into more than one group, was the allocation sequence concealed? Bias can be introduced, consciously or otherwise, if the allocation of pupils or classes or schools to a programme or	H.6.1 Not applicable (not more than one group) H.6.2 Not applicable (no prospective allocation)

intervention is made in the knowledge of key characteristics of those allocated. For example, children with more serious reading difficulty might be seen as in greater need and might be more likely to be allocated to the 'new' programme, or the opposite might happen. Either would introduce bias.	H.6.3 Yes (please specify) H.6.4 No (please specify) H.6.5 Not stated/unclear (please specify)
H.7 Study design summary In addition to answering the questions in this section, describe the study design in your own words. You may want to draw upon and elaborate on the answers already given.	H.7.1 Details

Section I: Methods - Sampling strategy

I.1 Are the authors trying to produce findings that are representative of a given population? Please write in authors' description. If authors do not specify, please indicate reviewers' interpretation.	I.1.1 Explicitly stated (please specify) I.1.2 Implicit (please specify) I.1.3 Not stated/unclear (please specify)
I.2 What is the sampling frame (if any) from which the participants are chosen? e. g. telephone directory, electoral register, postcode, school listings etc. There may be two stages - e. g. first sampling schools and then classes or pupils within them.	I.2.1 Not applicable (please specify) I.2.2 Explicitly stated (please specify) I.2.3 Implicit (please specify) I.2.4 Not stated/unclear (please specify)
I.3 Which method does the study use to select people, or groups of people (from the sampling frame)? e. g. selecting people at random, systematically - selecting, for example, every 5th person, purposively, in order to reach a quota for a given characteristic.	I.3.1 Not applicable (no sampling frame) I.3.2 Explicitly stated (please specify) I.3.3 Implicit (please specify) I.3.4 Not stated/unclear (please specify)
I.4 Planned sample size If more than one group, please give details for each group separately. In intervention studies, the sample size will have a bearing upon the statistical power, error rate and precision of estimate of the study.	I.4.1 Not applicable (please specify) I.4.2 Explicitly stated (please specify) I.4.3 Not stated/unclear (please specify)
I.5 How representative was the achieved sample (as recruited at the start of the study) in relation to the aims of the sampling frame?	I.5.1 Not applicable (e.g. study of policies, documents, etc.) I.5.2 Not applicable (no sampling frame)

Please specify basis for your decision.	I.5.3 High (please specify) I.5.4 Medium (please specify) I.5.5 Low (please specify) I.5.6 Unclear (please specify)
I.6 If the study involves studying samples prospectively over time, what proportion of the sample dropped out over the course of the study? If the study involves more than one group, please give drop-out rates for each group separately. If necessary, refer to a page number in the report (e.g. for a useful table).	I.6.1 Not applicable (e.g. study of policies, documents, etc.) I.6.2 Not applicable (not following samples prospectively over time) I.6.3 Explicitly stated (please specify) I.6.4 Implicit (please specify) I.6.5 Not stated/unclear (please specify)
I.7 For studies that involve following samples prospectively over time, do the authors provide any information on whether, and/or how, those who dropped out of the study differ from those who remained in the study?	I.7.1 Not applicable (e.g. study of policies, documents, etc.) I.7.2 Not applicable (not following samples prospectively over time) I.7.3 Not applicable (no drop outs) I.7.4 Yes (please specify) I.7.5 No
I.8 If the study involves following samples prospectively over time, do authors provide baseline values of key variables, such as those being used as outcomes, and relevant socio-demographic variables?	I.8.1 Not applicable (e.g. study of policies, documents, etc.) I.8.2 Not applicable (not following samples prospectively over time) I.8.3 Yes (please specify) I.8.4 No

Section J: Methods - recruitment and consent

J.1 Which methods are used to recruit people into the study? e. g. letters of invitation, telephone contact, face-to-face contact.	J.1.1 Not applicable (please specify) J.1.2 Explicitly stated (please specify) J.1.3 Implicit (please specify) J.1.4 Not stated/unclear (please specify) J.1.5 Please specify any other details relevant to recruitment and consent
J.2 Were any incentives provided to recruit people into the study?	J.2.1 Not applicable (please specify) J.2.2 Explicitly stated (please specify) J.2.3 Not stated/unclear (please specify)

J.3 Was consent sought? Please comment on the quality of consent, if relevant.	J.3.1 Not applicable (please specify) J.3.2 Participant consent sought J.3.3 Parental consent sought J.3.4 Other consent sought J.3.5 Consent not sought J.3.6 Not stated/unclear (please specify)

Section K: Methods - Data Collection

K.1 Which variables or concepts, if any, does the study aim to measure or examine?	K.1.1 Explicitly stated (please specify) K.1.2 Implicit (please specify) K.1.3 Not stated/ unclear
K.2 Please describe the main types of data collected and specify if they were used to (a) to define the sample; (b) to measure aspects of the sample as findings of the study? Only detail if more specific than the previous question	K.2.1 Details
K.3 Which methods were used to collect the data? Please indicate all that apply and give further detail where possible	K.3.1 Curriculum-based assessment K.3.2 Focus group interview K.3.3 One-to-one interview (face to face or by phone) K.3.4 Observation K.3.5 Self-completion questionnaire K.3.6 self-completion report or diary K.3.7 Examinations K.3.8 Clinical test K.3.9 Practical test K.3.10 Psychological test (e. g. I.Q test) K.3.11 Hypothetical scenario including vignettes K.3.12 School/ college records (e. g. attendance records etc.) K.3.13 Secondary data such as publicly available statistics K.3.14 Other documentation K.3.15 Not stated/ unclear (please specify)

	K.3.16 Please specify any other important features of data collection K.3.17 Coding is based on: Author's description K.3.18 Coding is based on: Reviewers' interpretation
K.4 Details of data collection instruments or tool(s). Please provide details including names for all tools used to collect data, and examples of any questions/items given. Also, please state whether source is cited in the report	K.4.1 Explicitly stated (please specify) K.4.2 Implicit (please specify) K.4.3 Not stated/ unclear (please specify)
K.5 Who collected the data? Please indicate all that apply and give further detail where possible	K.5.1 Researcher K.5.2 Head teacher/ Senior management K.5.3 Teaching or other staff K.5.4 Parents K.5.5 Pupils/ students K.5.6 Governors K.5.7 LEA/Government officials K.5.8 Other educational practitioner K.5.9 Other (please specify) K.5.10 Not stated/unclear K.5.11 Coding is based on: Author's description K.5.12 Coding is based on: Reviewers' inference
K.6 Do the authors' describe any ways they addressed the repeatability or reliability of their data collection tools/methods? e. g. test-re-test methods (where more than one tool was employed, please provide details for each)	K.6.1 Details
K.7 Do the authors describe any ways they have addressed the validity or trustworthiness of their data collection tools/methods? e. g. mention previous piloting or validation of tools, published version of tools, involvement of target population in development of tools.	K.7.1 Details

(Where more than one tool was employed, please provide details for each)	
K.8 Was there a concealment of which group that subjects were assigned to (i.e. the intervention or control) or other key factors from those carrying out measurement of outcome - if relevant? Not applicable - e. g. analysis of existing data, qualitative study. No - e. g. assessment of reading progress for dyslexic pupils done by teacher who provided intervention Yes - e. g. researcher assessing pupil knowledge of drugs - unaware of whether pupil received the intervention or not.	K.8.1 Not applicable (please say why) K.8.2 Yes (please specify) K.8.3 No (please specify)
K.9 Where were the data collected? e. g. school, home	K.9.1 Educational Institution (please specify) K.9.2 Home (please specify) K.9.3 Other institutional setting (please specify) K.9.4 Not stated/ unclear (please specify)

Section L: Methods - data analysis

L.1 What rationale do the authors give for the methods of analysis for the study? e. g. for their methods of sampling, data collection or analysis.	L.1.1 Details
L.2 Which methods were used to analyse the data? Please give details (e.g., for in-depth interviews, how were the data handled?) Details of statistical analyses can be given next.	L.2.1 Explicitly stated (please specify) L.2.2 Implicit (please specify) L.2.3 Not stated/unclear (please specify) L.2.4 Please specify any important analytic or statistical issues
L.3 Which statistical methods, if any, were used in the analysis?	L.3.1 Details
L.4 Did the study address multiplicity by reporting ancillary analyses, including sub-group analyses and adjusted analyses, and do the authors report on whether these were pre-specified or exploratory?	L.4.1 Yes (please specify) L.4.2 No (please specify) L.4.3 Not applicable
L.5 Do the authors describe strategies used in the analysis to control for bias from	L.5.1 Yes (please specify)

confounding variables?	L.5.2 No L.5.3 Not applicable
L.6 For evaluation studies that use prospective allocation, please specify the basis on which data analysis was carried out. 'Intention to intervene' means that data were analysed on the basis of the original number of participants, as recruited into the different groups. 'Intervention received' means data were analysed on the basis of the number of participants actually receiving the intervention.	L.6.1 Not applicable (not an evaluation study with prospective allocation) L.6.2 'Intention to intervene' L.6.3 'Intervention received' L.6.4 Not stated/unclear (please specify)
L.7 Do the authors describe any ways they have addressed the repeatability or reliability of data analysis? e. g. using more than one researcher to analyse data, looking for negative cases.	L.7.1 Details
L.8 Do the authors describe any ways that they have addressed the validity or trustworthiness of data analysis? e. g. internal or external consistency, checking results with participants. Have any statistical assumptions necessary for analysis been met?	L.8.1 Details
L.9 If the study uses qualitative methods, how well has diversity of perspective and content been explored?	L.9.1 Details
L.10 If the study uses qualitative methods, how well has the detail, depth and complexity (i.e. the richness) of the data been conveyed?	L.10.1 Details
L.11 If the study uses qualitative methods, has analysis been conducted such that context is preserved?	L.11.1 Details

Section M: Quality of study - reporting

M.1 Is the context of the study adequately described? Consider your previous answers to these questions (see Section B): Why was this study done at this point in	M.1.1 Yes (please specify) M.1.2 No (please specify)

time, in those contexts and with those people or institutions? (B3) Was the study informed by, or linked to an existing body of empirical and/or theoretical research? (B4) Which groups were consulted in working out the aims to be addressed in this study? (B5) Do the authors report how the study was funded? (B6) When was the study carried out? (B7)	
M.2 Are the aims of the study clearly reported? Consider your previous answers to these questions (See module B): What are the broad aims of the study? (B1) What are the study research questions and/or hypothesis? (B8)	M.2.1 Yes (please specify) M.2.2 No (please specify)
M.3 Is there an adequate description of the sample used in the study and how the sample was identified and recruited? Consider your answer to all questions in sections D (Actual Sample), I (Sampling Strategy) and J (Recruitment and Consent).	M.3.1 Yes (please specify) M.3.2 No (please specify)
M.4 Is there an adequate description of the methods used in the study to collect data? Consider your answers to the following questions (See Section K) What methods were used to collect the data? (K3) Details of data collection instruments and tools (K4) Who collected the data? (K5) Where were the data collected? (K9)	M.4.1 Yes (please specify) M.4.2 No (please specify)
M.5 Is there an adequate description of the methods of data analysis? Consider your answers to previous questions (see module L) Which methods were used to analysis the data?	M.5.1 Yes (please specify) M.5.2 No (please specify)

(L2) What statistical methods, if any, were used in the analysis? (L3) Did the study address multiplicity by reporting ancillary analyses (including sub-group analyses and adjusted analyses), and do the authors report on whether these were pre-specified or exploratory? (L4) Do the authors describe strategies used in the analysis to control for bias from confounding variables? (L5)	
M.6 Is the study replicable from this report?	M.6.1 Yes (please specify) M.6.2 No (please specify)
M.7 Do the authors state where the full, original data are stored?	M.7.1 Yes (please specify) M.7.2 No (please specify)
M.8 Do the authors avoid selective reporting bias? (e. g. do they report on all variables they aimed to study, as specified in their aims/research questions?)	M.8.1 Yes (please specify) M.8.2 No (please specify)

Section N: Quality of the study - Weight of evidence

N.1 Are there ethical concerns about the way the study was done? Consider consent, funding, privacy, etc.	N.1.1 Yes, some concerns (please specify) N.1.2 No (please specify)
N.2 Were students and/or parents appropriately involved in the design or conduct of the study? Consider your answer to the appropriate question in module B.1	N.2.1 Yes, a lot (please specify) N.2.2 Yes, a little (please specify) N.2.3 No (please specify)
N.3 Is there sufficient justification for why the study was done the way it was? Consider answers to questions B1, B2, B3, B4	N.3.1 Yes (please specify) N.3.2 No (please specify)
N.4 Was the choice of research design appropriate for addressing the research question(s) posed?	N.4.1 yes, completely (please specify) N.4.2 No (please specify)
N.5 Have sufficient attempts been made to establish the repeatability or reliability of data collection methods or tools? Consider your answers to previous questions:	N.5.1 Yes, good (please specify) N.5.2 Yes, some attempt (please specify) N.5.3 No, none (please specify)

Do the authors describe any ways they have addressed the reliability or repeatability of their data collection tools and methods (K7)	
N.6 Have sufficient attempts been made to establish the validity or trustworthiness of data collection tools and methods? Consider your answers to previous questions: Do the authors describe any ways they have addressed the validity or trustworthiness of their data collection tools/ methods (K6)	N.6.1 Yes, good (please specify) N.6.2 Yes, some attempt (please specify) N.6.3 No, none (please specify)
N.7 Have sufficient attempts been made to establish the repeatability or reliability of data analysis? Consider your answer to the previous question: Do the authors describe any ways they have addressed the repeatability or reliability of data analysis? (L7)	N.7.1 Yes (please specify) N.7.2 No (please specify)
N.8 Have sufficient attempts been made to establish the validity or trustworthiness of data analysis? Consider your answer to the previous question: Do the authors describe any ways they have addressed the validity or trustworthiness of data analysis? (L8, L9, L10, L11)	N.8.1 Yes, good (please specify) N.8.2 Yes, some attempt (please specify) N.8.3 No, none (please specify)
N.9 To what extent are the research design and methods employed able to rule out any other sources of error/bias which would lead to alternative explanations for the findings of the study? e.g. (1) In an evaluation, was the process by which participants were allocated to, or otherwise received the factor being evaluated, concealed and not predictable in advance? If not, were sufficient substitute procedures employed with adequate rigour to rule out any alternative explanations of the findings which arise as a result? e.g. (2) Was the attrition rate low and, if applicable, similar between different groups?	N.9.1 A lot (please specify) N.9.2 A little (please specify) N.9.3 Not at all (please specify)
N.10 How generalisable are the study results?	N.10.1 Details

N.11 In light of the above, do the reviewers differ from the authors over the findings or conclusions of the study? Please state what any difference is.	N.11.1 Not applicable (no difference in conclusions) N.11.2 Yes (please specify)
N.12 Have sufficient attempts been made to justify the conclusions drawn from the findings, so that the conclusions are trustworthy?	N.12.1 Not applicable (results and conclusions inseparable) N.12.2 High trustworthiness N.12.3 Medium trustworthiness N.12.4 Low trustworthiness
N.13 Weight of evidence A: Taking account of all quality assessment issues, can the study findings be trusted in answering the study question(s)? In some studies it is difficult to distinguish between the findings of the study and the conclusions. In those cases, please code the trustworthiness of these combined results/conclusions.	N.13.1 High trustworthiness N.13.2 Medium trustworthiness N.13.3 Low trustworthiness
N.14 Weight of evidence B: Appropriateness of research design and analysis for addressing the question, or sub-questions, of this specific systematic review.	N.14.1 High N.14.2 Medium N.14.3 Low
N.15 Weight of evidence C: Relevance of particular focus of the study (including conceptual focus, context, sample and measures) for addressing the question, or sub-questions, of this specific systematic review	N.15.1 High N.15.2 Medium N.15.3 Low
N.16 Weight of evidence D: Overall weight of evidence Taking into account quality of execution, appropriateness of design and relevance of focus, what is the overall weight of evidence this study provides to answer the question of this specific systematic review?	N.16.1 High N.16.2 Medium N.16.3 Low

Section O: This section provides a record of the review of the study

O.1 Sections completed Please indicate sections completed.	O.1.1 Section A: Administrative details O.1.2 Section B: Study aims and rationale O.1.3 Section C: Study policy or practice focus O.1.4 Section D: Actual sample O.1.5 Section E: Programme or

	intervention description O.1.6 Section F: Results and conclusions O.1.7 Section G: Methods - study method O.1.8 Section H: Methods - groups O.1.9 Section I: Methods - sampling strategy O.1.10 Section J: Methods recruitment and consent O.1.11 Section K: Methods - data collection O.1.12 Section L: Methods - data analysis O.1.13 Section M: Quality of study - reporting O.1.14 Section N: WoE A: Quality of the study - methods and data O.1.15 Section N: WoE B: Appropriateness of research design for review question O.1.16 Section N: WoE C: Relevance of particular focus of the study to review question O.1.17 Section N: WoE D: Overall weight of evidence this study provides to answer this review question? O.1.18 Reviewing record
O.2 Please use this space here to give any general feedback about these data extraction guidelines	O.2.1 Details
O.3 Please use this space to give any feedback on how these guidelines apply to your Review Group's field of interest	O.3.1 Details

Appendix D: Appraisal of Studies

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
1. Prentice, J.C., Lu, M.C., Lange, L., & Halfon, N. 2002 United States	To examine the association between self-identified CSA and breastfeeding initiation	Quantitative Secondary data analysis from statistical survey	Women with children under the age of 3; Caucasian, African American, & Hispanic women	1220 childbearing women with children under the age of 3.	Random-digit-dial sample of structured telephone interviews. Questions involved self-identification of being sexual abused as a child or not and looking at whether breastfeeding was initiated.	Significantly greater proportion of women who self-identified as having a history of CSA initiated breastfeeding vs women who did not disclose (77% vs 65%); positive association between having a history of CSA and initiating breastfeeding **Limitations:** women had to self-identify a history CSA – control group may have had some who did not identify – may be denying history, which may influence initiation rates; recall of breastfeeding experience up to 3yrs before survey; survey did not clearly define	None identified in the article. Reviewer ideas: women who self-identify a history of CSA may want to provide a better life for the children than they had, therefore, this population may initiate breastfeeding, even though they may not continue to breastfeed past the first month of age. Authors concluded that factors mediating the relationship between CSA and breastfeeding may have less influence on duration rates.	High -7	

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						breastfeeding initiation; unable to control for current experiences of abuse			
2. Leeners, B., Richter-Appelt, H., Imthurn, B., & Rath, W. 2006 Zurich, Switzerland	To present the current knowledge on the influence of CSA on pregnancy, delivery and early parenthood	Systematic Review	English, German & French literature on this subject from primary and secondary literature from Pubmed, PsychInfo, & Psyndex published after 1970, excluding adolescent pregnancy studies. Must include the terms CSA or childhood traumatisation and pregnancy, birth, delivery, labor, childbearing, breast feeding or postpartum	43 primary and secondary research studies: 21 original data, 6 systematic or non-systematic reviews, 7 clinical experiences, 3 personal experiences of women with a history of CSA, & 5 others. All published between 1992-2005.	Investigated the studies using a meta-content analysis which looked at the methodology, type of data researched, participants/ sample sizes, and type of correlation data researched.	Studies revealed for breastfeeding: memories of CSA can be triggered through skin-to-skin contact, milk ejection reflex, and physical sensation of milk on the breasts or hands. Dissociation during breastfeeding has been identified. Higher percentage of this population intend to breastfeed compared to non-abused counterparts (Prentice et al. study). **Limitations:** found that methodological quality of many of the studies were poor, yet utilized in the systematic	Emphasize the biological function of breasts rather than as sexual objects. Mothers need to be allowed to set boundaries.	High - 8	

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						review due to lack of research conducted on this specific topic. 3 of the articles reviewed were personal experiences (grey literature)			
3. Wood, K. & Van Esterik, P. 2010 Canada	To explore the effects of CSA on women's breastfeeding & infant feeding decisions and experiences	Qualitative	Women living within Tamara's House (healing centre for women who were sexually abused in childhood) in Saskatoon, Sask; Had to have professional support available to them in order to be included in study	6 women living within Tamara House	2 semi-structured, interviews	Themes emerged from the data analysis: Shame: women described how they were ashamed of their bodies which further impacted their comfort with breastfeeding. Touch: uncomfortable with 3 types of touch – self, infant & medical, some of these felt like violations Breasts: retriggered thoughts of unwelcome attention, with one mother revealing the positive health benefits of breastmilk	Caregivers have the responsibility to respond sensitively to the needs of all perinatal women, whether they disclose a history of SA. Sensitivity from HCPs can facilitate a successful breastfeeding experience and recommendations made for HCPs to follow guidelines recommended in the research on sensitive practice in order to create safe encounters for women with a history of SV – as they require an environment of safety,	High - 9	CASP - 10

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						Dissociation: some dissociated breastfeeding as they had the CSA experience- emotional detachment to infant Medical Care: discussion re: position of authority being difficult Healing: transformative experience of knowing that this was what their body was meant to do **Limitations:** all participants were associated with a healing centre – all have an understanding of the effects of CSA; conclusions might be limited to the research participants;	acceptance, sensitivity and understanding.		
4. Bowman, K.G., Ryberg, J.W., & Becker, H. 2009	To compare Mexican American adolescent mothers with and without	Quantitative, Cross-sectional statistical survey	Mexican American adolescent mothers, ages 15-19yrs old, English	78 Mexican American adolescent mothers with the average age	Childhood Trauma Questionnaire, Adolescent Dissociative Experience	No correlation between CSA history & intimate parenting anxiety, no difference between infant	None noted in the study. Reviewers thoughts: educational opportunities,	High - 7	

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
United States	CSA histories to examine the influence of CSA on dissociation, selected infant feeding practice, and intimate parenting anxiety		speaking, attending school or working, no health conditions to interfere with child care. Mothers with infants born before 35 wks gestation, having a severe disability or hospitalized for more than 2wks since birth were excluded	of 17yrs. All recruited from adolescent parenting classes, pediatric clinic & a parenting fair	Scale II, Intimate Aspects of Parenting Questionnaire, and a demographic form	feeding choices, & intimate parenting anxiety did not predict dissociation; The study did find the correlation between a CSA history and breastfeeding choices, same as the Prentice et al study BUT inconsistencies with other parenting studies The participants in this study also revealed that they had good support systems & resources – could have counterbalanced the negative effects of CSA on anxiety, dissociation & parenting; Possibly provided socially desirable responses to be consistent with "good mothering" **Limitations:** small convenience sample recruited	child care availability, & health care availability, as well as a support networks of family & friends may help to diminish the usual negative effects of sexual abuse during childhood		

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						from adolescent parenting classes, pediatric clinic & parenting fair - all sources of support networks for adolescent mothers; response bias may have been a factor due to participants knowing each other			
5. Coles, J. 2009 Australia	To explore the experience of successful breastfeeding with mothers with a history of CSA	Qualitative	Women self-identifying as having a history of CSA by a family member, children under the age of 2yrs, either breastfeeding or had breastfed	11 women recruited from advertisements in family medical & breastfeeding clinics, child health centers, & free newspaper	Semi-structured in-depth interviews	Identification of 4 themes: enhancement of mother-baby relationship by breastfeeding, validation of maternal body through breastfeeding, coping with breastfeeding through a maternal-sexual split, and breastfeeding in public raising issues of exposure & control **Limitations:** women volunteered to provide data for this study which	Provision of safe areas for breastfeeding, importance of careful explanations and consent before assisting women to breastfeed, openly discussing the dual role of breasts as sexual & maternal, and discussing the normal sensual & sexual feelings women may experience when breastfeeding	High - 9	CASP - 10

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						may have excluded women with severe SV histories; lack of pleasure identified during breastfeeding may have been due to small sample size			
6. Coles, J. & Jones, K. 2009 Australia	To explore women who have a history of CSA and their responses to perinatal professional touch and examination of themselves and their babies	Qualitative	Women self-identifying as having a history of CSA by a family member; Had given birth to a child	18 women recruited from advertisements in family medical & breastfeeding clinics, child health centers, & 3 differing newspapers (rural and urban)	Semi-structured in-depth interviews	Themes emerged from the data analysis: 1. safety issues faced by CSA survivors in the clinical encounter (distress, vulnerable, loss of control, trust issues) 2. ways to make the clinical encounter safer (relationship built with health care provider, access to services, and practitioner's knowledge of trauma and its effects) **Limitations:** small sample of women – generalized recommendations made from small	Recommendations made by participants for Universal Precautions in Postnatal Care: 1. never assume consent 2. explain all examination touch before doing 3. explain baby examination 4. no procedure should be "routine" – discuss with mother first 5. obtain informed consent for all touch 6. check in with women during examinations 7.stop or slow at request of mother or in response to her distress	High - 9	CASP - 10

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						sample size			
7. Beck, C.T. 2009 United States	To increase clinicians' understanding of the impact that CSA can have on women's breastfeeding experiences	Qualitative, Single revelatory case study	n/a	One woman with a history of CSA recruited from a previous study on birth trauma and impact on breastfeeding	Report of one woman's story describing her CSA and how it affected her birth and breastfeeding experience; collected from internet correspondence	Case study description relative to current literature on CSA and the perinatal period. Awareness and recognition of impact of CSA on women's childbearing experiences needs to increase, offering supportive, caring and compassionate care that is appropriate for this population. **Limitations:** single participant's lived experience – unable to generalize to larger population; recruited from other CSA study	To help create an empowering and safe patient-provider relationship: 1. egalitarian work focussing on helping one to have an increased level of equality and ability and knowledge to make autonomous decisions 2. exploring meaning through the helping them understand how their symptoms, distress and abuse history fit together 3. framing and boundaries: framing is the constraints surrounding clinician and woman to maintain safety, while the boundaries are the limits between them; Author states that if women are struggling with	High - 7	CASP - 7

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
							breastfeeding, nurses might help by giving them permission to stop breastfeeding if they need to for their own mental health		
8. Roller, C.G. 2011 United States	To construct a theoretical framework describing how CSA survivors manage intrusive re-experiencing of their CSA trauma during the perinatal period	Qualitative, Grounded Theory	Women who self-identified as having a history of CSA, are pregnant and/or have had a child in the past 3yrs, 18yrs and older.	12 women, 18-39yrs old, extreme low socioeconomic status, all with a history of severe CSA trauma before the age of 16yrs; African American, Caucasian, Latina ethnicities.	Open-ended interviews and a demographic sheet	All the women's histories of CSA affected their perinatal outcomes, whether it was prenatal care or coping strategies. Framework developed that reflects the process of the management of symptoms of PTSD during the perinatal period: 1. Reliving it: reliving the CSA experience through flashbacks, triggers included the physical sensations of pregnancy, prenatal care, labor and birth and the invasiveness of	Theoretical framework developed: Moving Beyond the Pain. To help HCP working with women with a history of CSA a different way to conceptualize and interface with this population during the perinatal period. Discussed helping women cope with any symptoms of PTSD that may have resulted from the CSA. Establishing a comfortable environment allowing this population to have control and autonomy. HCP also have the	High - 7	CASP - 10

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						the procedures 2. Taking charge of it: control over the gender of physician, telling HCP of the history of abuse, instructing HCP to explain procedures to maintain control, the use of substances in pregnancy to "settle nerves" 3. Getting over it: recover from the experience – only 2 participants discussed this phase. Both received professional counseling and developed healthy coping strategies **Limitations:** data was mostly retrospective – may have been distorted in recollection; homogenous sample – primarily African American; participants were	privilege to facilitate the healing process, possibly decreasing negative perinatal behaviour.		

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						not formally screened for PTSD; low socio-economic status may have skewed responses			
9. Montgomery, E. 2013 United Kingdom	To synthesize the research on maternity care experiences of women who have a history of CSA to answer the questions: what do women need during childbearing experiences and what can HCP do about it?	Metasynthesis	Qualitative studies from 1990-2011, written in English, focus on maternity care experiences of adult women with a history of CSA	8 studies from 1994-2011, from Australia, United States, Canada and United Kingdom found from database search using CINAHL, Medline, MIDIRS, PsycINFO, & Web of Science	Thematic analysis identifying key concepts and themes which were later extracted into a grid. Interpretations and original meanings were utilized to identify any new meanings and explanations from the literature review.	Themes were identified to answer the questions: 1. Control: taking control internally or externally 2. Remembering: flashbacks and/or triggers 3. Vulnerability: related to feeling safe 4. Dissociation: loss of control made some dissociate 5. Disclosure: many chose not to disclose or waited to feel safe before disclosing 6. Healing: childbirth can be healing as a new beginning, reframing themselves **Limitations:** lack of high quality literature to guide	Maternity care can be extremely traumatic – identified that when women with SV are able to maintain control, experience can remain positive. HCP should provide a safe environment, as safety left many women having control. If women feel safe, they often will disclose. Lack of control can lead to dissociation and lack of disclosure. HCP should avoid replicating an abusive situation for the women so that they will feel safe. Ensuring that all women feel safe within their care	High - 8	

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						review	as not all women disclose past abuse		
10. Gilson, K.J. & Lancaster, S. 2008 Australia	To examine CSA in childbearing adolescents and the contribution of physical and/or sexual abuse to antenatal and postpartum depression	Quantitative	Young women, aged 13-19yrs old, primiparous, English speaking	79 completed all 3 intervals of data sets from third trimester, 6 weeks postpartum, and 6 months postpartum	Demographic sheet Self-report questionnaire in regards to history of physical and/or sexual abuse Edinburgh Postnatal Depression Scale Hospital Anxiety and Depression Scale	Results showed that 9% of the participants self-disclosed a history of sexual abuse Study found that this population had a higher mean depression score at 6 months postpartum then the non-abused group. Also found higher anxiety in both the 6 week and 6 month postpartum scores. No correlation of the same was found in pregnancy for this population in this study – further discussed that this was not reflective of other studies in that there was decreased anxiety/depression during pregnancy in their findings. Authors speculate that	Discussion on the relationship of abuse and parenting may be indirect, such as depression/anxiety may increase stress and compromise parenting abilities. The importance of abuse as a contributing factor to adverse outcomes for children is stressed. The authors discuss the importance of screening of abuse through routine assessments at antenatal visits to identify a history of abuse and offer/provide support or assist these young mothers with preparation for labour and delivery, and to develop self-care strategies.	Med - 7	

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						these participants are well supported during their pregnancy, yet the increase in depression/ anxiety scores in the postpartum period may have been reflected by the more salient cues and reminders of past abuse experiences as a reflection on an increase in anxiety and depression when it comes to labour, birth, breastfeeding, and caretaking or parenting **Limitations:** self-reporting of SV can have some participants not disclose; small sample size constraints the ability to generalize the findings; co-existence of physical abuse in some of the participants –			

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						inability to disentangle			
11. Kendall-Tackett, K. Cong, Z. & Hale, T.W. 2013 United States	To examine the association between sexual assault and several indices of sleep, depression, and maternal well-being in women with a history of sexual assault, also exploring whether feeding method was related to the outcome variables for both sexually or non-assaulted women.	Quantitative	Women with babies between 0-12 months of age, regardless of feeding method	6,410 women participated from 59 countries, 994 of these women self-identified as having a history of sexual violence	Web survey: 253-item Survey of Mothers' Sleep and Fatigue; Patient Health Questionnaire to screen for depression	Sleep quality poorer in women with a history of SA. Maternal well-being and daily energy were higher for women who breastfeed, regardless of history of SA. Women with a history of SA who breastfed felt less anger and irritability. Anxiety was found to be decreased in women who breastfed and had a history of SA compared to women with a history of SA doing mixed/formula feeds. Depression was higher amongst women with a history of SA, but less when they breastfed. **Limitations:** lack	Women who have a history of SA should be encouraged and supported in their decision to breastfeed. Breastfeeding contributes to a down-regulation of the stress response, decreasing risk for postpartum depression. Breastfeeding increases sleep quality, decreases fatigue, and increases overall well-being, which all decreases risk of depression.	Med - 6	

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						of standardized measures for anxiety; questions within study may have been misinterpreted; under-reporting of SV by participants; could not eliminate the possibility of reverse causation where previous depression made women less likely to initiate breastfeeding; sleep quality was self-reported; small sample of formula feeding mothers			
12. Marysko, M., Reck, C., Mattheis, V., Finke, P., Resch, F. & Moehler, E. 2010 Germany	Examine dissociation in a sample of young mothers with a history of abuse in comparison to a control group	Quantitative	Women giving birth to a singleton term baby (>37wks) in the cities of Heidelberg and Mannheim, Apgar scores >7, reaching a cut-off score for sexual and/or physical	58 mothers with a history of abuse and 61 mothers from a control group without a history of abuse	Childhood Trauma Questionnaire , Scale of Dissociative Experiences for Adults, Demographic questions for matching criteria	Mothers with a history of abuse have significantly higher scores in self-reported dissociation than mothers without a history of abuse. The authors state that the data show an increase in dissociative symptoms in women with a history of abuse	Preventative strategies against the cycle of abuse are extremely important from an individual, societal and political perspective. Mothers with a history of abuse might benefit from therapeutic treatment aimed at perspective	Med – 5	

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
			abuse on the Childhood Trauma Questionnaire and/or selected for the control group by matching mothers by criteria: child gender, marital status, maternal education, and number of children			throughout the first year after childbirth – yet the dissociation before childbirth was not assessed so it cannot be concluded whether the increase in dissociation is a result of the childbirth as a re-traumatization or is present throughout the lifespan of the women with the history of abuse **Limitations:** there was no screening done for coexisting psychological disorders which may have impacted the findings	integration – reflecting on the link between dissociation and the risk of child abuse, decreasing maternal dissociation and increasing mother-infant interaction and improving child development (this treatment may be difficult for many mothers to attain due to financial or other constraints)		
13. Seng, J.S., Sparbel, K.J.H., Low, L.K. & Killion, C. 2002 United States	To determine what pregnant women with a history of SV who have experienced abuse-related posttraumatic	Qualitative, Exploratory Descriptive design	Women who self-identified as having a history of abuse (sexual or physical) and posttraumatic stress that	15 women who gave birth 1 week to 26 years before the interview	Interview had four components: 1. 2min version of her birth story 2. more in-depth version with anything	The results were broken down into 4 assessment areas: 1.Extent of the knowledge about trauma and stress in general and in relation to own	HCP should make efforts to become more skilled and comfortable addressing trauma-related needs or cultivate a team approach or make referrals	High - 7	CASP - 10

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
	stress during their maternity care experience want from their maternity care providers		affected their pregnancy and childbirth experiences, speaking retrospectively to the effects of the trauma		in regards to the abuse history/PTSD 3. focus on elements that addressed care she would want ideally from her HCP and to formulate as "bullet points" 4. next day, interviewer would contact to ensure participants' well-being and ask if there was anything to add	life 2.Extent of knowledge about how abuse and posttraumatic stress affected childbearing (ex: dissociation) 3.Extent of ability to advocate openly for self – firmly and clearly state what they need from their HCP 4.Extent of her current safety and well-being – determined her health care needs; the role of the HCP depended on where the women were determined to be in the assessment categories. From the assessment areas, 3 groups emerged of where women were in their recovery: 1. Far along in recovery from trauma 2. Not safe	to other providers, including mental health or counselors. Complexity is inherent to providing care for this population as their individual presentations and goals for care vary. HCP should take the time within prenatal visits in an attempt to provide better outcomes for the mother – organizing their assessments to include the possibility that the women has a history of abuse, as many do not disclose until they form a trusting relationship with their HCP Desired Practices developed from data: ask about abuse history, acknowledge that trauma has long-term effects,		

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						because they were being battered and/or abusing drugs 3. Not ready to "know" and acknowledge the effects of CA on their lives. Findings discussed 3 differing provider roles: collaborative ally, compassionate authority figure, and therapeutic mentor. **Limitations:** retrospective study with no formal diagnosis of PTSD required for participation; none of the women sought mental health care during pregnancy and only a few did afterwards; small sample size – cannot be generalized; participants all reflected on the maternity experiences as	assess risks for associated problems, assume posttraumatic stress reactions in the absence of disclosure, avoid triggering stress reactions by discussing individual triggers, arrange referrals from other HCP, advocate for appropriate programs and financial resources, & ascertain that outcomes are being met in concert with perinatal goals.		

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						causing PTSD			
14. Jackson, K.B. & Fraser, D. 2009 United Kingdom	To investigate midwives' knowledge and attitudes in relation to caring for women who have been sexually abused	Mixed Methods: Quantitative and Qualitative	All midwives working at sites within the East Midlands and West Midlands	372 midwives participated anonymously (76% response rate)	Self report questionnaire with both quantitative and qualitative aspects of research in the design with open ended questions	Hospital based midwives responded that they were less likely able to deal with disclosure of SA than community midwives. Themes and concepts emerged in regards to identifying women with a history of SA: difficulty with intimate examinations, negative reactions, gender of carers (preferring female caregivers), verbal/behavioural indicators (ex: withdrawn behaviour), & physiological indicators (ex: genital scarring, frequent early STIs). Caring for this population: 7 themes emerged: referral, lack of	Authors stated that there may be implications for the quality of care received by women with a history of SA due to the midwives responses in regards to how they responded to disclosure. Inadequately prepared midwives could be responding inappropriately or insensitively which may inadvertently compound the feelings of powerlessness in this population. Midwives should have education within their curriculum and post-education for updates or introduce midwives to this topic.	Med - 6	CASP - 9

Author, Year, Country	Purpose	Study Design	Inclusion Criteria	Participants/ Sample	Measures & Methods	Outcomes, Findings, Limitations	Practice Implications	GSRS - WOE Score	CASP Score
						knowledge/skills, employment of basic skills, possessing knowledge/skill, avoidance of harm, education/training, & personal or professional experiences **Limitations:** sample consisted of midwives in 2 areas of UK only with a response rate of 76% - difficult to generalize to all HCPs.			

Appendix E: GSRS Weight of Evidence Assessment Criteria

A Weight of evidence A: Taking account of all quality assessment issues, can the study findings be trusted in answering the study question(s)? High Evidence = Score 3 Medium Evidence = Score 2 Low Evidence = Score 1
B Weight of evidence B: Appropriateness of research design and analysis for addressing the question, or sub-questions, of this specific systematic review. High Evidence = Score 3 Medium Evidence = Score 2 Low Evidence = Score 1
C Weight of evidence C: Relevance of particular focus of the study (including conceptual focus, context, sample and measures) for addressing the question, or sub-questions, of this specific systematic review High Evidence = Score 3 Medium Evidence = Score 2 Low Evidence = Score 1
D Weight of evidence D: Combined overall weight of evidence (based on A-C) High Evidence = Scores 7-9 Medium Evidence = Scores 4-6 Low Evidence = Scores 3

Source: EPPI-Centre (2007) Review Guidelines for Extracting Data and Quality Assessing Primary Studies in Educational Research. Version 2.0 London: EPPI-Centre, Social Science Research Unit. Retrieved from: http://www.civilservice.gov.uk/networks/gsr/resources-and-guidance/rapid-evidence-ssessment/how-to-do-a-rea

Appendix F: Critical Appraisal Skills Programme (CASP) Tool

Critical Appraisal Skills Programme (CASP)

-making sense of evidence

10 questions to help you make sense of qualitative research

This assessment tool has been developed for those unfamiliar with qualitative research and its theoretical perspectives. This tool presents a number of questions that deal very broadly with some of the principles or assumptions that characterise qualitative research. It is *not a definitive guide* and extensive further reading is recommended.

How to use this appraisal tool

Three broad issues need to be considered when appraising the report of qualitative research:

Rigour: has a thorough and appropriate approach been applied to

• key research methods in the study?

• Credibility: are the findings well presented and meaningful?

• Relevance: how useful are the findings to you and your organisation?

The 10 questions on the following pages are designed to help you think about these issues systematically.
The first two questions are screening questions and can be answered quickly. If the answer to both is "yes", it is worth proceeding with the remaining questions.
A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.
The 10 questions have been developed by the national CASP collaboration for qualitative methodologies.

Screening Questions

1. Was there a clear statement of the aims of the research?
□ Yes □ No
Consider:
– what the goal of the research was
– why it is important
– its relevance

2. Is a qualitative methodology appropriate? □ Yes □ No
Consider:
– if the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants

Is it worth continuing?

Appropriate research design

3. Was the research design appropriate to address the aims of the research?

Consider:
– if the researcher has justified the research design (e.g. have they discussed how they decided which methods to use?)

Sampling

4. Was the recruitment strategy appropriate to the aims of the research?
Consider:
– if the researcher has explained how the participants were selected
– if they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study
– if there are any discussions around recruitment (e.g. why some people chose not to take part)

Data collection

5. Were the data collected in a way that addressed the research issue?
Consider:
– if the setting for data collection was justified
– if it is clear how data were collected (e.g. focus group, semi-structured interview etc)
– if the researcher has justified the methods chosen
– if the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews were conducted, did they used a topic guide?)
– if methods were modified during the study. If so, has the researcher explained how and why?
– if the form of data is clear (e.g. tape recordings, video material, notes etc)
– if the researcher has discussed saturation of data

Reflexivity (research partnership relations/recognition of researcher bias)

6. Has the relationship between researcher and participants been adequately considered?
Consider whether it is clear:
– if the researcher critically examined their own role, potential bias and influence during:
– formulation of research questions
– data collection, including sample recruitment and choice of location
– how the researcher responded to events during the study and whether they considered the implications of any changes in the research design

Ethical Issues

7. Have ethical issues been taken into consideration?
Consider:
– if there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained

– if the researcher has discussed issues raised by the study (e. g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)
– if approval has been sought from the ethics committee

Data Analysis

8. Was the data analysis sufficiently rigorous?

Consider:
– if there is an in-depth description of the analysis process
– if thematic analysis is used. If so, is it clear how the categories/themes were derived from the data?
– whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process
– if sufficient data are presented to support the findings
– to what extent contradictory data are taken into account
– whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation

Findings

9. Is there a clear statement of findings?

Consider:
– if the findings are explicit
– if there is adequate discussion of the evidence both for and against the researcher's arguments
– if the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst.)
– if the findings are discussed in relation to the original research questions

Value of the research

10. How valuable is the research?

Consider:
– if the researcher discusses the contribution the study makes to existing knowledge or understanding (e.g. do they consider the findings in relation to current practice or policy, or relevant research-based literature?)
– if they identify new areas where research is necessary
– if the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used

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