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Review

The Trauma of Perinatal Loss: A Scoping Review

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Abstract: Perinatal loss, the loss of a fetus or neonate between conception and 28 days after birth, is a worldwide phenomenon impacting millions of individuals annually. Whether due to miscarriage, stillbirth, life-limiting fetal diagnoses, or neonatal death, up to 60% of bereaved parents exhibit symptoms of depression, anxiety, and posttraumatic stress disorder. Despite the high prevalence of posttraumatic stress symptoms, perinatal loss is not framed using a trauma lens. The purpose of this scoping review is to gain insight into the trauma within the perinatal loss experience.

Keywords: perinatal loss; trauma; stillbirth; miscarriage; life-limiting fetal condition

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1. Introduction

Perinatal loss is a worldwide phenomenon impacting millions of lives every year [1]. In the United States alone, 2.4 million fetal and neonatal deaths occur in the perinatal period, which is 4 times greater than the annual number of deaths from cancer [2]. Perinatal loss, the death of a fetus or neonate between conception and 28 days after birth, is categorized as miscarriage (fetal death prior to 20 weeks gestation), stillbirth (fetal death after 20 weeks gestation), and neonatal death (death between birth and 28 days after birth). The grief associated with perinatal loss is unique, paradoxical in nature [3], and often goes unrecognized by society [3–5]. Long-standing stigmas and misconceptions regarding perinatal loss contribute to the shroud of silence which often obscures parents' grief from others [3,6]. In fact, perinatal loss was not recognized by many health care professionals as an emotional experience prior to 1970 [3]. Following medical recognition of perinatal grief as a psychosocial construct, studies have since uncovered multiple associated adverse biopsychosocial outcomes, including obesity, hypertension, diabetes, cancer, depression, anxiety, suicidal ideation, sleep disturbance, eating disorders, substance misuse, and posttraumatic stress disorder (PTSD) [7–9].

The prevalence of adverse outcomes, such as complicated grief, depression, anxiety, and PTSD, are unknown as such constructs are inconsistently measured in research and clinical practice. For example, reports of complicated grief following perinatal loss range from 25 to 75% [4,9]. These statistics are alarming considering that only 4% of the general population (those experiencing a loss other than perinatal loss) experience adverse outcomes associated with complicated grief [10].

Posttraumatic stress is an adverse outcome which has been increasingly identified in the wake of perinatal loss. Posttraumatic stress disorder (PTSD), a syndrome arising from exposure to a traumatic event, is characterized by adverse biopsychosocial outcomes which are disruptive to daily life [11]. Symptoms associated with PTSD are often debilitating and linked to multiple chronic physical and mental health conditions such as cardiovascular disease, diabetes, depression, eating disorders, substance misuse, and suicidal ideation [12]. In response to the qualitative studies exploring perinatal loss which have recorded parents' accounts of trauma, researchers have begun to further explore the nature of trauma following perinatal loss. Researchers in Australia, Europe, and the United States measuring symptoms of trauma in men and women following miscarriage, stillbirth, and neonatal death have reported that between 30 and 60% of the participants meet the clinical criteria for PTSD [7,13,14].

Millions of parents worldwide experience perinatal loss each year. Considering that up to 60% of parents experience PTSD following perinatal loss, it is critical to understand the traumatic nature of miscarriage, stillbirth, and neonatal death to effectively address parents' complex biopsychosocial needs following perinatal loss. Therefore, the purpose of this scoping review is to gain insight into the trauma within the perinatal loss experience.

2. Materials and Methods

2.1. Scoping Review Process

Scoping reviews are helpful to examine the extent, nature, and range of research activity; to clarify complex concepts; and to refine future research trajectories [13]. Thus, it is the ideal method for exploring trauma within the perinatal loss experience. This review follows the five-stage methodological framework outlined by Levac et al. (2012) [14]: (1) identifying the research question; (2) searching for relevant studies; (3) selecting studies; (4) charting the data; and (5) collating, summarizing, and reporting the results.

2.2. Literature Search

This scoping review was guided by the following question: *what is known about trauma within the perinatal loss experience*? A literature search was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for Scoping Reviews (PRISMA-ScR) [14] in PubMed, PsycINFO, and CINAHL Complete. Search terms included combinations of "perinatal loss", "trauma", "parents experience", "stillbirth", and "miscarriage" (Table 1). Inclusion criteria consisted of peer-reviewed articles published in English in the past 10 years reporting trauma within the perinatal loss experience from the parents' perspective.

2.3. Article Selection Process

Article titles were screened for eligibility using the inclusion criteria of "perinatal loss" and "parent". Abstracts of articles discussing perinatal loss from the parents' perspective in the form of miscarriage, stillbirth, life-limiting fetal conditions (LLFCs), and neonatal death occurring within the first 28 days of life were reviewed. Articles exploring the emotional aspect of perinatal loss were reviewed in full. All articles mentioning trauma within the parental perinatal loss experience were included in this review.

2.4. Data Extraction and Synthesis

Articles meeting the eligibility criteria were reviewed in full using the hermeneutic process. Hermeneutic interpretation is a century-old process of interpreting text by looking at the parts in respect to the whole [15]. By exploring the parts within the whole and with respect to the sum, subtle nuances within context come to light. This is especially important with topics about which little is known.

References to trauma within the articles were extracted and categorized according to the nature with which trauma was referenced. For example, studies measuring the extent of PTSD following perinatal loss were categorized as "prevalence of trauma". A summary of each article with supporting verbatim quotes is outlined in Table 1.

Table 1. Summary of Article Findings.

Article Title	Author	Country	Year	Methodology	Population	Findings	Quotes
The Impact of Anencephaly on Parents: A Mixed-Methods Study	Berry [4]	United States	2021	Interpretive Phenomenology	20 women and 4 men with a prior pregnancy complicated by anencephaly	Experiencing a pregnancy complicated by anencephaly is a traumatic experience for parents. Silence and stigma often complicate the parents' grieving process. Parents require patient-centered care from compassionate health care professionals. Despite parents requiring additional support as they attempt to reframe their new reality following perinatal loss, only one parent received follow-up care.	"I experienced a lot of trauma. I was very disassociated. Yeah, I just got bad. I was disassociated from like everything. Like I was going through the motions, but I was in haze. I wasn't fully present." (p. 4)
From "Silent Birth" to Voices Heard: Volunteering, Meaning, and Posttraumatic Growth After Stillbirth	Cacciatore [16]	United States	2019	Qualitative Analysis	191 parents who had previously experienced a stillbirth	Positive change and personal growth in the wake of trauma is an achievable outcome. Volunteerism has been found to "enhance loss accommodation".	"We were given a beautiful blanket that was handmade to wrap and hold our son in as we said goodbye . . . We didn't have many items for him. I wanted to repay the kindness that someone did for our family. Now I try to make blankets . . . " (p. 9)
Men's Experiences of Miscarriage: A Passive Phenomenological Analysis of Online Data	Chaves [17]	United States	2019	Phenomenological Analysis	31 men whose partner experienced a miscarriage	Forty-two percent of participants described their experience as "traumatic" or as having experienced "trauma". Men often felt abandoned and isolated by both professional and social support systems. The emotional trauma of miscarriage was a long-term experience.	"I will never forget what I saw . . . It's burned into my mind forever" (p. 670)

Table 1. *Cont.*

Article Title	Author	Country	Year	Methodology	Population	Findings	Quotes
Stillbirth, Still Life: A Qualitative Patient-Led Study on Parents' Unsilenced Stories of Stillbirth	Gillis [5]	Canada	2020	Qualitative	8 women and 3 men who had experienced stillbirth within the past 5 years	Parents desired to honor the birth and death of their neonate, yet were rarely afforded the opportunity to do so. The social pressure to remain silent about stillbirth experiences negatively impacted parents.	"Parents felt that specialized care should extend beyond the acute trauma and perceived a lack of care continuity. Parents described a feeling of being pelted with leaflets and bombarded by counsellors early on, which was unfitting for their acute state of trauma, and how this attention was later abandoned when they could have used it" (p. 128)
Perinatal Grief and Related Factors After Termination of Pregnancy for Fetal Anomaly: One Year Follow-up Study	GÜÇLÜ [18]	Turkey	2021	Quantitative	46 women who underwent termination for fetal anomaly	Termination for fetal anomaly is a traumatic event, yet most countries have no organized process for offering professional mental health to this patient population. Providing professional interventions and follow-up may help women to better assimilate to life after loss.	"Determining and treating the mental problems that may be caused by a perinatal loss is important for the maternal health. Most of the countries still have no organized proposal for professional help for these women and there is no evidence-based guide to help them with that process." (p. 226)
New Understandings of Fathers' Experiences of Grief and Loss Following Stillbirth and Neonatal Death: A Scoping Review	Jones [19]	United Kingdom	2019	Scoping Review	27 articles focusing on fathers' experiences with perinatal loss	The social pressures of fathers to appear strong and support their grieving partner often masked men's grief and symptoms of PTSD. Multiple studies included in this review document symptoms of PTSD in fathers following perinatal loss.	"Measures used to assess PTSD symptoms may fail to fully capture paternal experiences of grief. Lastly, fathers may be expected to be strong and support the mother which may result in the underreporting of symptoms or the seeking of professional support" (p. 4)

Table 1. *Cont.*

Article Title	Author	Country	Year	Methodology	Population	Findings	Quotes
Grief, Traumatic Stress, and Posttraumatic Growth in Women Who Have Experienced Pregnancy Loss	Krosch [20]	Australia	2016	Quantitative	328 women who had previously experienced miscarriage	Miscarriage is often a traumatic event which disrupts parents' core beliefs. Posttraumatic stress disorder was prevalent among participants.	"Reported levels of posttraumatic stress were considerably higher considering that the mean time since loss was just over 4 years. By this time, posttraumatic stress symptoms would typically be expected to have decreased considerably" (p. 429)
When Death Precedes Birth: The Embodied Experiences of Women with a History of Miscarriage or Stillbirth—A Phenomenological Study Using Artistic Inquiry	Kurz [21]	United States	2020	Phenomenological	3 women with a history of miscarriage	Miscarriage causes a developmental disruption in a woman's life. Many women who experience miscarriage become "stuck" and do not know how to move on following their loss. Grief is embodied, potentially for years.	"The emerging universal theme stuck in emptiness expresses the death being experienced in and towards the participants' body. Experiencing a state of being "stuck and frozen" and "paralyzed" contributed to feeling "like there's no reason to hurry or even be slow" and "you just can't move." The inability to move was related to their embodied experiences of emptiness." (p. 207)
"Ghosts" in the Womb: A Mentalizing Approach to Understanding and Treating Prenatal Attachment Disturbances During Pregnancies After Loss	Markin [22]	United States	2018	Psychotherapeutic Discussion	92 parents who had previously experienced perinatal loss	Forty percent of participants experienced posttraumatic stress disorder and complex posttraumatic stress disorder.	"For many participants, the non-trauma focused counselling did not 'touch' their traumatic experiences of perinatal bereavement, which were described by one participant as 'trying to heat up the North Sea with a hot water bottle'." (p. 4)

Table 1. *Cont.*

Article Title	Author	Country	Year	Methodology	Population	Findings	Quotes
ICD-11 Complex Post Traumatic Stress Disorder (CPTSD) in Parents with Perinatal Bereavement: Implications for Treatment and Care	Martin [23]	United Kingdom	2020	Mixed-Methods	74 women with a history of perinatal loss within the past 5 years	Forty percent of participants met criteria for traumatic stress and 39% experienced PTSD, yet there is no direct strategy for routinely detecting and treating PTSD following perinatal loss.	"All participants interviewed supported that flexible therapies require to be developed to alleviate complex trauma symptoms." (p. 6) "Clearly and in relation to any additional complexities that may coexist with a diagnosis of PTSD, which represent as CPTSD, there are wider unmet needs, which may include for example PND, complicated grief, and/or anxiety disorder" (p. 6)
Psychological Consequences of Pregnancy Loss and Infant Death in a Sample of Bereaved Parents	Murphy [24]	Ireland	2014	Quantitative—Survey	455 (253 women, 191 men) participants who experienced perinatal loss between 18 weeks gestation and birth within the past 5 years	Parents who experienced perinatal loss were susceptible to symptoms of PTSD up to five years following the loss, including interpersonal sensitivity and aggression.	"Bereaved parents had elevated levels of trauma-specific and psychological outcomes following the loss of an infant. However, when examining differences between the type of loss, there were no significant differences found on any of the TSC subscales." (p. 65)

Table 1. *Cont.*

Article Title	Author	Country	Year	Methodology	Population	Findings	Quotes
Post-Traumatic Stress Disorder After Subsequent Birth to a Gestational Loss: An Observational Study	Ordonez [25]	Spain	2020	Observational Mixed-Methods	115 women who had suffered previous gestational losses	Twenty-two percent of participants experienced PTSD. Type of loss, gestational age (including voluntary and involuntary termination of pregnancy), and educational level were not predictors of PTSD following perinatal loss. Subsequent pregnancies acted as a stressor and increased the risk of PTSD, particularly following multiple gestational losses.	"PTSD continues to be poorly recognized after a perinatal loss and, consequently, its symptoms are treated as symptoms of grief. This is problematic since these two entities do not share the same protective factors or the same risk factors, and they do not in parallel." (p. 134) "Erroneously, professionals may consider that the effects of a gestational loss are resolved after a pregnancy that ends successfully; however, the symptoms can be reactivated and endure, affecting the health of the mother and the child." (p. 134)
Mothers' Perspectives on the Perinatal Loss of a Co-Twin: A Qualitative Study	Richards [26]	United Kingdom	2015	Qualitative	14 women who experienced the loss of a co-twin	Gestational loss in a twin pregnancy introduced a new layer of complexity for women. Women placed their grief on hold to care for the surviving twin. Study participants felt the trauma of their experience influenced their perspective and interactions with the surviving twin. Though bereavement resources were offered in the care setting, women were not ready for support. Repeated offers for bereavement resources did not occur post-discharge. Consequently, when symptoms of trauma arose, the women did not have professional support.	"Mothers also talked of the need to keep their emotions 'on hold', whilst caring for the surviving baby. As a result, a strong grief reaction often emerged weeks, months or even years after their babies were discharged from hospital" (p. 4)

Table 1. *Cont.*

Article Title	Author	Country	Year	Methodology	Population	Findings	Quotes
Parents' Experiences of Care Following the Loss of a Baby at the Margins Between Miscarriage, Stillbirth and Neonatal Death: A UK Qualitative Study	Smith [27]	United Kingdom	2020	Qualitative Interview	38 (28 women, 10 men) parents experiencing perinatal loss at 20–23 weeks gestation	The way women are treated during miscarriage and stillbirth impacts the grief direction and trajectory. Words played a significant role in the trauma of perinatal loss. Health care professionals play an important role in decreasing the overall trauma of the perinatal loss experience.	"Our findings reinforce the need to use language in healthcare encounters that validates the loss of a baby, acknowledges the hopes and dreams associated with that loss, and prepares parents for the experience of labour and birth" (p. 873)
Depression, Anxiety, PTSD, and OCD After Stillbirth: A Systematic Review	Westby [13]	Norway	2021	Systematic Review	13 qualitative articles discussing anxiety, depression, and PTSD following stillbirth	Women who experience stillbirth have an increased risk for developing PTSD following the loss when compared to women with healthy, live births.	"To conclude, the present review finds that parents who experience SB display a considerably higher risk of experiencing symptoms of depression, anxiety, and PTSD compared to parents with live births." (p. 15)

3. Results

Search results produced a total of 210 articles. Of those, 34 articles were duplicates. Twenty-five abstracts and 19 full articles were reviewed. Fifteen articles met the inclusion criteria (Figure 1).

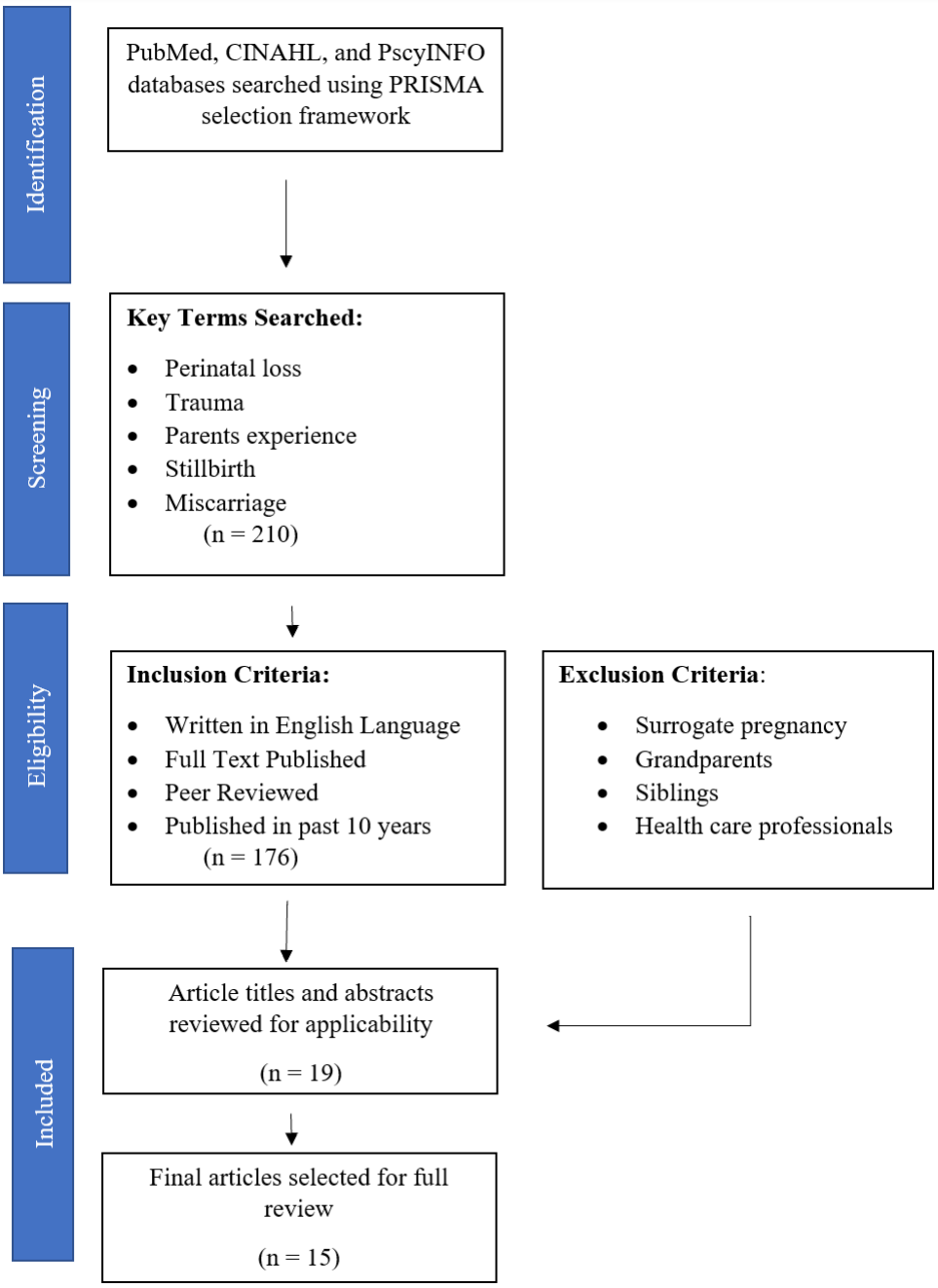


Figure 1. *PRISMA-ScR* flow diagram [15].

3.1. Study Characteristics

Methodological approaches were described as quantitative (n = 3), qualitative (n = 6), mixed-methods (n = 2), reviews (n = 2), and discussion (n = 1). Sample sizes ranged from 11 to 455 participants and included both men (n = 235) and women (n = 869). Data were collected via survey (n = 2), psychometric questionnaire (n = 4), and interview (n = 8). Reported etiologies of perinatal loss were reported as miscarriage (n = 3), stillbirth (n = 4), death of a co-twin (n = 1), life-limiting fetal anomalies (n = 1), termination for fetal anomaly (n = 1), "perinatal loss" (n = 4), and "gestational loss" (n = 2). The timeframe for the perinatal

loss experience extended to 12 years following the loss. While all studies reported took place in Westernized societies such as the United States, United Kingdom, Australia, and Canada, the geographic location of data collection were not consistently reported. Demographic characteristics beyond participant gender were also not consistently reported.

3.2. Content Categories

Three content categories emerged during the literature analysis: the prevalence of trauma, the characteristics of trauma, and key milestones which potentiate the traumatic nature of the perinatal loss experience. A key milestone is a significant event in an individual's life which triggers change. Milestones often influence development and are important when considering an individual's response to a traumatic event. Key milestones were further categorized into subcategories. Subcategories included the trauma of (1) the diagnosis, (2) the birth experience, (3) communicating with others, and (4) following the loss experience. Each category will be examined in depth.

3.2.1. Prevalence of Trauma

Emotional trauma was reported across the etiology of perinatal loss, gestational age at the time of loss, and participant gender. Jones et al. (2019) reported PTSD in 39% of women and 15% of men, finding that the symptoms of PTSD were similar in prevalence and intensity across loss experiences (i.e., miscarriage vs. stillbirth) and gestational age at the time of loss. Ordóñez et al. (2020) also report that the etiology of perinatal loss is not a statistically significant predictor of PTSD, with 22% of participants meeting the criteria for PTSD. When further broken down by etiology of loss, clinically significant levels of PTSD were identified following spontaneous abortion (19%), voluntary termination (17%), termination for fetal anomaly (38%), and neonatal death (67%) [7].

Martin et al. (2021) measured both PTSD and Complex PTSD (CPTSD), a new classification of PTSD issued by the World Health Organization. In the study, 10% and 30% of the participants met the criteria for PTSD and CPTSD, respectively. Chavez et al. (2019) report that 42% of men describe emotional trauma both during and following their partner's miscarriage. In the Krosh et al. (2017) study of 328 women, PTSD was reported in 44% of women up to four years following the perinatal loss experience. The authors reported concern over the high levels of PTSD so far out from the loss experience, stating "by this time, posttraumatic stress symptoms would typically be expected to have decreased considerably" (p. 429). In a systematic review, Westby et al. (2021) found that up to 60% of research participants met the criteria for PTSD.

The trauma of perinatal loss was found to impact parents for up to 12 years following the loss experience [4,23,24]. At one year post-loss, the diagnosis of PSTD was 2 times higher than a diagnosis of depression or anxiety [28]. Symptoms of trauma remained clinically significant up to seven years following the loss experience, and 4% of participants develop chronic PTSD [7,18]. Authors hypothesized that measures used to assess PTSD were inadequate to fully capture the extent and burden of grief the parents experienced [24].

3.2.2. Characteristics of Trauma

Participants described being debilitated by trauma [5] and being in a disassociated state with little memory of the year following the loss [4,24]. The trauma was often embodied and women described being "stuck", unable to move forward following their loss experience [19]. Murphy et al. (2021), exploring trauma-related symptoms rarely discussed in perinatal loss literature, found that anger, hostility, and interpersonal sensitivity were prevalent characteristics of PTSD among parents following perinatal loss. A lack of social support was associated with adverse outcomes common with interpersonal sensitivity, such as loneliness, isolation, and difficulty interacting with others [18]. Somatic symptoms, such as sleep disturbance, eating disorders, dizziness, and headache, were also found to be common characteristics associated with the trauma of perinatal loss [18].

3.2.3. Key Milestones

Parents within the identified studies spoke to key milestones which potentiated the emotional trauma of perinatal loss. Key milestones included the communication of the diagnosis of actual or imminent perinatal loss, the delivery and birth experience, sharing the news of loss with others, and attempting to return to daily life following the loss.

Trauma of the Diagnosis

The first key milestone contributing to emotional trauma within the perinatal loss experience was learning of the non-viable nature of the pregnancy. Whether due to miscarriage, stillbirth, or a diagnosis of a life-limiting fetal condition (LLFC), parents recounted feeling intense emotions, being in a state of shock, and feeling as if the world had collapsed around them [4,5,17,29]. Both mothers and fathers spoke of the trauma of miscarriage and stated being horrified, angry, and confused [21]. Despite both men and women experiencing emotional trauma at the diagnosis of miscarriage or an LLFC, men rarely received emotional support from health care professionals or members of their social circle [4,17]. According to Chaves et al. (2019) one man stated, "It was the third or fourth miscarriage before someone at the hospital even thought to ask if I was okay" (p. 670).

Receiving a diagnosis of a life-limiting fetal condition was also emotionally traumatic for parents [4,18]. Parents described being in a state of shock, being blind-sided by the news, and being pushed to make life-altering decisions immediately upon diagnosis. Parents desired to make a decision they could live with [4,5] and felt especially emotionally traumatized when pressured to decide to continue or terminate the pregnancy at the diagnostic appointment [4]. Interactions with health care professionals heavily influenced the intensity of parents' emotional trauma [4,27]. The terminology used throughout the diagnosis was important to parents. Health care professionals whose interactions were described as cold and clinically detached negatively impacted parents' emotional state [4]. Health care professionals who were supportive, guided parents through the decision-making process, and discussed the potential consequences of each decision positively influences parents' overall experience [5,22].

Trauma of the Delivery and Birth

Both men and women described labor and birth as an acute phase of trauma within the perinatal loss experience [4,5,17]. Parents who described a traumatic birth experience also described persistent PTSD in the years following their loss [4]. Health care professionals played an important role in mitigating the emotional trauma of the birth experience [4,5,27]. Parents expressed wishes for a dedicated bereavement team, which they felt would have decreased the emotional trauma of their experience [5]. Health care professionals who facilitated memory making, showed kindness towards the deceased fetus or neonate, allowed unlimited visitors, and roomed parents away from expectant women and healthy neonates were described as extremely helpful [4,5,17].

Trauma of Interacting with Others

Fathers were expected to convey the news of perinatal loss to family, friends, and coworkers and described the task as a traumatic experience [4,5,17]. Reactions of those receiving the news also contributed to the emotional trauma. Fathers described receiving judgment or insensitive and hurtful comments from others [4,22]. Fathers also discussed the difficulty in being strong and comforting others as they shared the news as a time when they needed to be supported [4,5,17]. Many parents described relationships with friends and family as ending following insensitive or judgmental comments [4].

The trauma of interacting with others was further exacerbated by the expectations of society for parents to operate as if perinatal loss had not occurred [4,5]. Parents, particularly fathers, were expected to hide their grief and refrain from talking about their loss with others [4]. Parents' social circles also expected parents' grief to resolve with the completion of the pregnancy [4]. Legal acknowledgment of the fetus or neonate via a birth certificate is

issued based on gestational age at the time of loss. Miscarriages are often not legally recognized as the death of a "person", which furthers the lack of social recognition of the loss [17]. The lack of social support which resulted in stigmatization, silence, and disenfranchised grief was found to be a predictor of PTSD [28].

Trauma following the Loss Experience

Symptoms of trauma persisted for years following the perinatal loss experience [4,5,18,25,26]. Hypersensitivity, hyperreactivity, triggering events, and nightmares were disruptive to many parents' lives [4]. The grief and trauma of the loss were embodied by participants, who felt chronically "stuck" in emptiness [19]. Parents described feeling alone and abandoned by both social and professional support systems following the "end" (i.e., delivery or birth of the fetus or neonate) of the perinatal loss experience [4,5]. The absence of social support and follow-up care required parents to actively seek help following their loss, which contributed to feelings of being alone and abandoned and often prevented parents from receiving the psychological support they needed [13,18,23].

Social support was a protective factor in the development of PTSD [28]. Within the realm of social support were ritual and ceremonial acknowledgments of the fetal or neonatal death. Parents' grief was negatively impacted when they were not "allowed" or offered the opportunity to engage in cultural rituals surrounding their loss [19]. Subsequent pregnancies and twin pregnancies complicated parents' preexisting grief and trauma following perinatal loss. Women who experienced a pregnancy subsequent to perinatal loss were especially vulnerable to developing PTSD [29]. Pregnancies after loss were wrought with depression, anxiety, and PTSD [5]. Societal expectations of a subsequent pregnancy to "fix" the grief of prior loss often prevented parents from receiving psychosocial support [4,5,18]. Similarly, the loss of a co-twin was described as a traumatic event with multiple unique and complex emotional stressors [4,26]. The coexistence of joy and heartbreak amidst caring for the surviving twin took a substantial biopsychosocial toll on both mothers and fathers. Parents reported needing to put their emotions on the back burner to care for the surviving twin, which consequently prolonged the emotional trauma of the loss experience [4,26]. Figure 2 illustrates the identified themes in the form of a timeline.

Disruption of core beliefs was a positive predictor for PTSD [26]. Parents described needing to relearn how to live in a world without their child, stating that the way the world worked no longer made sense [4,5,20]. Parents expressed their desire for professional help in learning how to reconstruct meaning in the years after their loss, stating they struggled to understand their new identity [4,5]. As parents relearned how to live in a new reality and find their new identity, they stated that maintaining relationships with their spouse or partner, living children, and social network was also challenging [4]. Parents' perception of value evolved with the disruption of their core beliefs, lending to value conflicts within their social circle. Value conflicts, relationship strain, and lack of support exacerbated the emotional trauma parents were experiencing [4,13,21].

Positive outcomes amidst the trauma were reported in the literature. Some parents found solace in volunteering, and "altruism born of suffering" was found to foster posttraumatic growth [25]. When exploring the effects of therapeutic approaches to support women following perinatal loss, non-trauma-focused counseling was ineffective in providing the support women needed [20].

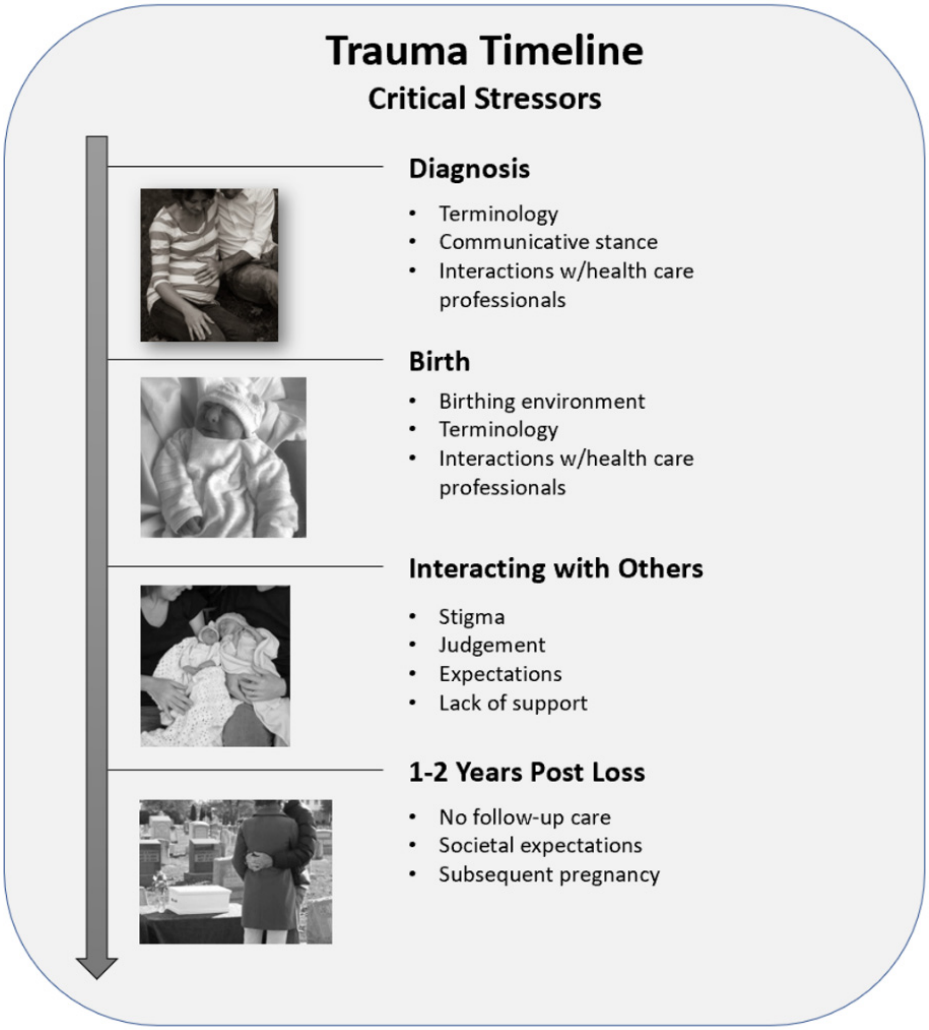


Figure 2. Trauma timeline and key milestones.

4. Discussion

Emotional trauma is prevalent throughout the perinatal loss experience, with up to 60% of parents meeting the criteria for PTSD. Many parents continued to experience PTSD for years following their loss experience. This paper provides important insight into the prevalence of emotional trauma and PTSD within the perinatal loss experience. The findings speak to the critical importance of addressing the emotional trauma immediately, during, and in the years following perinatal loss. Social support, both professional and personal, was found to be a protective factor in the development of PTSD [28]. Interactions with health care professionals were also found to impact the severity of PTSD [17].

Key milestones affecting the degree of emotional trauma were identified in this review and included trauma of the diagnosis; of the birth; of sharing the news with others; and in the days, weeks, and months following the loss. Such findings are significant in that they align with critical milestones which influence an individual's propensity to achieve wellness or become susceptible to illness. According to Meleis's Transitions Theory [30], change is a life process (transition) during which health care professionals can facilitate well-being and healthy coping. Common properties of a transition include critical milestones (i.e., birth, parenthood), disruption in the status quo in daily life, and/or loss. Outcomes following transitions are influenced by the individual's understanding and attributed meaning of the transition, the associated stigmas attached to the transition, interactions with others throughout the transition process, and "environmental conditions that expose individuals to potential damage, problematic or extended recovery, or delayed or unhealthy

coping" [16]. Each milestone identified in this paper (diagnosis, birth, communicating with others, and the post-loss timeframe) align with critical transition milestones which influence an individual's well-being or susceptibility to illness. These findings suggest the prevalence and degree of PTSD associated with perinatal loss may be mitigated by strategic interventions by the health care team. Considering that up to 60% of parents experience PTSD following perinatal loss, the need to address adverse biopsychosocial outcomes associated with perinatal loss is of the utmost importance.

Health care systems have recently adopted a framework to guide health care professionals in providing care to patients who have experienced trauma, known as trauma-informed care (TIC). The TIC framework has successfully equipped health care professionals with tools to avoid the retraumatization of patients with a history of trauma [12]. Adoption of TIC practices has addressed issues of underutilization of health care resources and mistrust of health care providers which subsequently lead to adverse health outcomes in survivors of trauma [11]. Based on the findings in this review, the adoption of a TIC framework specifically adapted to meet the needs of bereaved parents may improve patient outcomes following perinatal loss.

4.1. Implications for Practice

Health care professionals have the responsibility of facilitating a healthy transition from "healthy pregnancy" to "non-viable pregnancy". Such a responsibility is admittedly a herculean task. It is necessary to recognize perinatal loss as a traumatic event. In recognizing the trauma of perinatal loss, health care professionals can begin to address parents' unique biopsychosocial needs throughout the perinatal loss experience. Utilization of a TIC framework equips health care professionals with the specialized tools necessary to mitigate the risk of further traumatizing grieving parents. Within the TIC framework, health care professionals may improve parents' experiences by acknowledging the loss of both parents; normalizing both parents' emotional responses; facilitating memory making, rituals, and ceremonies; and providing follow-up care for at least one year following the loss.

Pregnancies subsequent to perinatal loss are often wrought with anxiety and PTSD. Identifying pregnant persons with a history of gestational loss is necessary to recognize those who require additional psychological and emotional support throughout the pregnancy. Developing automated flagging systems in electronic health records may facilitate early identification and resource allocation to those with prior gestational loss. Providing early interventions and emotional support may decrease the anxiety and trauma of pregnancy subsequent to gestational loss.

4.2. Future Research

Considering the unique nature of perinatal loss, it is necessary to adapt current TIC models to meet the needs of grieving parents. Several non-profit organizations (String of Pearls, Be Not Afraid) utilize TIC when attending to the needs of families experiencing perinatal loss. Examination of an adapted TIC model and exploration of biopsychosocial outcomes of parents who have had TIC are important next steps for future research.

Follow-up care in the wake of perinatal loss is not yet a standard of care. In the 2019 position statement of perinatal palliative care issued by the American College of Obstetricians and Gynecologists (ACOG), the provision of follow-up care was not mentioned. Considering the longevity of adverse biopsychosocial outcomes, providing follow-up care after perinatal loss is mandatory. Research is needed to develop follow-up care protocols and recommendations.

4.3. Limitations

This scoping review was conducted by a single author. While the utilization of a team approach when conducting a scoping review is recommended, it is not a requirement to maintain rigor within the process of study selection. Due to the scant literature discussing

trauma in perinatal loss, the study elimination contained few to no nuances. Therefore, the rigor of this scoping review was not compromised by the work of a single author.

An additional limitation to this review is the homogeneous sample within the literature. While more men have been included in perinatal loss literature as of late, inclusion of minority populations, homosexual and transgender parents, and parents of lower socioeconomic status is severely lacking. Thus, the findings of this review cannot be generalized to all populations experiencing perinatal loss.

5. Conclusions

Perinatal loss is a long-term, emotionally traumatic experience for many parents. With up to 60% of parents meeting the criteria for PTSD, it is critical to approach perinatal loss through a lens of trauma. Health care professionals are influential in mitigating the traumatic nature of the loss experience and in addressing the subsequent posttraumatic stress parent experience. Adopting a trauma-informed framework in the event of perinatal loss is critical. While more research is necessary, health care professionals may positively influence grieving parents' experiences by adopting a trauma-informed approach, acknowledging the loss, normalizing the emotional response, facilitating memory making, and providing follow-up care for at least one year after the perinatal loss experience.

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References

1. World Health Organization. Newborns: Improving Survival and Well-Being. 2020. Available online: https://www.who.int/news-room/fact-sheets/detail/newborns-reducing-mortality (accessed on 4 May 2022).
2. Ely, D.M.; Driscoll, A.K. National vital statistics reports infant mortality in the United States, 2018: Data from the period linked birth/infant death file. *Natl. Vital Stat. Rep.* **2020**, *69*, 1–18.
3. Berry, S.N.; Marko, T.; Oneal, G. Qualitative Interpretive Metasynthesis of Parents' Experiences of Perinatal Loss. *J. Obstet. Gynecol. Neonatal Nurs.* **2021**, *50*, 20–29. [CrossRef]
4. Berry, S.N.; Severtsen, B.; Davis, A.; Nelson, L.; Hutti, M.H.; Oneal, G. The impact of anencephaly on parents: A mixed-methods study. *Death Stud.* **2021**, 1–10. [CrossRef] [PubMed]
5. Gillis, C.; Wheatley, V.; Jones, A.; Roland, B.; Gill, M.; Marlett, N.; Shklarov, S. Stillbirth, still life: A qualitative patient-led study on parents' unsilenced stories of stillbirth. *Bereave. Care* **2020**, *39*, 124–132. [CrossRef]
6. Browne, C. *National Standards for Bereavement Care Following Pregnancy Loss and Perinatal Death*; HSE National Standards for Bereavement Care: Dublin, Ireland, 2016.
7. Fernández-Ordoñez, E.; González-Cano-Caballero, M.; Guerra-Marmolejo, C.; Fernández-Fernández, E.; García-Gámez, M. Perinatal Grief and Post-Traumatic Stress Disorder in Pregnancy after Perinatal Loss: A Longitudinal Study Protocol. *Int. J. Environ. Res. Public Health* **2021**, *18*, 2874. [CrossRef]
8. Fernández-Sola, C.; Camacho-Ávila, M.; Hernández-Padilla, J.M.; Fernández-Medina, I.M.; Jiménez-López, F.R.; Hernández-Sánchez, E.; Conesa-Ferrer, M.B.; Granero-Molina, J. Impact of Perinatal Death on the Social and Family Context of the Parents. *Int. J. Environ. Res. Public Health* **2020**, *17*, 3421. [CrossRef] [PubMed]
9. Hutti, M.H.; Myers, J.; Hall, L.A.; Polivka, B.J.; White, S.; Hill, J.; Kloenne, E.; Hayden, J.; Grisanti, M.M. Predicting grief intensity after recent perinatal loss. *J. Psychosom. Res.* **2017**, *101*, 128–134. [CrossRef] [PubMed]
10. Enez, O. Complicated grief: Epidemiology, clinical features, assessment, and diagnosis. *Curr. Approaches Psychiatry* **2018**, *10*, 269–279.
11. Kartha, A.; Brower, V.; Saitz, R.; Samet, J.; Keane, T.; Liebschutz, J. The Impact of Trauma Exposure and Post-Traumatic Stress Disorder on Healthcare Utilization Among Primary Care Patients. *Med Care* **2008**, *46*, 388–393. [CrossRef]
12. Elisseou, S.; Puranam, S.; Nandi, M. A Novel, Trauma-Informed Physical Examination Curriculum for First-Year Medical Students. *J. Teach. Learn. Resour.* **2019**, *15*, 10799. [CrossRef]
13. Westby, C.L.; Erlandsen, A.R.; Nilsen, S.A.; Visted, E.; Thimm, J.C. Depression, anxiety, PTSD, and OCD after stillbirth: A systematic review. *BMC Pregnancy Childbirth* **2021**, *21*, 782. [CrossRef] [PubMed]

14. Levac, D.; Colquhoun, H.; O'Brien, K. Scoping studies: Advancing the methodology. *Represent. Interv.* **2012**, *69*, 1–18. [CrossRef] [PubMed]
15. Tricco, A.C.; Lillie, E.; Zarin, W.; O'Brien, K.K.; Colquhoun, H.; Levac, D.; Moher, D.; Peters, M.D.J.; Horsley, T.; Weeks, L.; et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Ann. Intern. Med.* **2018**, *169*, 467–473. [CrossRef]
16. Cacciatore, J.; Blood, C.; Kurker, S. From "Silent Birth" to Voices Heard: Volunteering, Meaning, and Posttraumatic Growth After Stillbirth. *Illn. Crisis Loss* **2017**, *26*, 23–39. [CrossRef]
17. Chavez, M.S.; Handley, V.; Jones, R.L.; Eddy, B.; Poll, V. Men's Experiences of Miscarriage: A Passive Phenomenological Analysis of Online Data. *J. Loss Trauma* **2019**, *24*, 664–677. [CrossRef]
18. Guclu, O.; Senormanci, G.; Tuten, A.; Gok, K.; Senormanci, O. Perinatal Grief and Related Factors After Termination of Pregnancy for Fetal Anomaly: One-Year Follow-up Study. *Arch. Neuropsychiatry* **2021**, *58*, 221–227. [CrossRef] [PubMed]
19. Jones, K.; Robb, M.; Murphy, S.; Davies, A. New understandings of fathers' experiences of grief and loss following stillbirth and neonatal death: A scoping review. *Midwifery* **2019**, *79*, 102531. [CrossRef]
20. Krosch, D.J.; Shakespeare-Finch, J. Grief, traumatic stress, and posttraumatic growth in women who have experienced pregnancy loss. *Psychol. Trauma Theory Res. Pract. Policy* **2017**, *9*, 425–433. [CrossRef]
21. Kurz, M.R. When Death Precedes Birth: The Embodied Experiences of Women with a History of Miscarriage or Stillbirth—A Phenomenological Study Using Artistic Inquiry. *Am. J. Dance Ther.* **2020**, *42*, 194–222. [CrossRef]
22. Markin, R.D. "Ghosts" in the womb: A mentalizing approach to understanding and treating prenatal attachment disturbances during pregnancies after loss. *Psychotherapy.* **2018**, *55*, 275–288. [CrossRef]
23. Martin, C.J.H.; Patterson, J.; Paterson, C.; Welsh, N.; Dougall, N.; Karatzias, T.; Williams, B. ICD-11 complex Post Traumatic Stress Disorder (CPTSD) in parents with perinatal bereavement: Implications for treatment and care. *Midwifery* **2021**, *96*, 102947. [CrossRef] [PubMed]
24. Murphy, S.; Shevlin, M.; Elklit, A. Psychological Consequences of Pregnancy Loss and Infant Death in a Sample of Bereaved Parents. *J. Loss Trauma* **2013**, *19*, 56–69. [CrossRef]
25. Ordóñez, E.F.; Díaz, C.R.; Gil, I.M.M.; Manzanares, M.T.L. Post-traumatic stress disorder after subsequent birth to a gestational loss: An observational study. *Salud Ment.* **2020**, *43*, 129–136. [CrossRef]
26. Richards, J.; Graham, R.; Embleton, N.D.; Campbell, C.; Rankin, J. Mothers' perspectives on the perinatal loss of a co-twin: A qualitative study. *BMC Pregnancy Childbirth* **2015**, *15*, 143. [CrossRef] [PubMed]
27. Smith, L.K.; Dickens, J.; Atik, R.B.; Bevan, C.; Fisher, J.; Hinton, L. Parents' experiences of care following the loss of a baby at the margins between miscarriage, stillbirth and neonatal death: A UK qualitative study. *BJOG Int. J. Obstet. Gynaecol.* **2020**, *127*, 868–874. [CrossRef] [PubMed]
28. Ironside, P.M. New Pedagogies for Teaching Thinking: The Lived Experiences of Students and Teachers Enacting Narrative Pedagogy. *J. Nurs. Educ.* **2003**, *42*, 509–516. [CrossRef] [PubMed]
29. Denney-Koelsch, E.; Cote-Arsenault, D. Life-limiting fetal conditions and pregnancy continuation: Parental decision-making processes. *BMJ Support. Palliat. Care* **2021**, 1–7. [CrossRef]
30. Meleis, A.I.; Sawyer, L.M.; Im, E.-O.; Messias, D.K.H.; Schumacher, K. Experiencing Transitions: An Emerging Middle-Range Theory. *Adv. Nurs. Sci.* **2000**, *23*, 12–28. [CrossRef]