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Lactation Benefits, Experiences, and Education in Bereaved Mothers: A Literature Review

Grace Davis

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Abstract

Background: Parents who lose an infant through miscarriage, elective termination, or stillbirth experience perinatal bereavement (Centers for Disease Control and Prevention, 2022). A bereaved mother's grief could be influenced by lactation as most will still experience lactation regardless of their loss. Generally, these women are solely taught to suppress their milk production, oftentimes resulting in discomfort, leakage, clogged ducts, and even mastitis (Carroll et al., 2020). To prevent adverse effects, bereaved mothers need a comprehensive list of options and education regarding lactation including donation, expression, and suppression. Bereaved mothers' lactation experiences, education, and benefits are vital areas to be studied, understood, and promoted.

Purpose: The purpose of this literature review was to explore published literature containing information on lactation benefits, experiences, and education in bereaved mothers.

Methods: Three scholarly databases, Google Scholar, EBSCOHost, and the National Library of Medicine, were searched for appropriate literature. The literature review included 15 peer-reviewed articles that pertain to bereaved mothers' lactation experiences, education, and benefits.

Results: The benefits of lactation for bereaved mothers can directly affect them through their physical and mental health or indirectly affect others through donation. The experiences bereaved mothers have regarding lactation are unique but present uniform themes that lactation can promote healing and well-being. Lactation education for bereaved mothers should include suppression, expression, and donation options.

Discussion: Tiny Tusk Breastfeeding and Infant Support program and the UAMS Milk Bank help fill the gap in lactation education and services for bereaved mothers. Lactation benefits,

experiences, and the need for education in bereaved mothers represents a gap in literature.

Additional research is needed to identify areas for improvement and support bereaved mothers with lactation.

Reflection

Introduction

Through personal connections, nursing clinicals, and the Tiny Tusk Breastfeeding and Infant Support Internship I have seen firsthand the amazing things mothers can do. Many of my most educational and cherished experiences involved bereaved mothers. A bereaved woman is someone who carries a baby until miscarriage, early neonatal death, relinquishment, or stillbirth and is still a mother oftentimes capable of producing milk (Waldby et al., 2022). Through my experiences, I have noticed consistently that bereaved mothers were often left unrecognized or forgotten under the umbrella term of “mother.” In the past, it has been thought of as unconventional for bereaved mothers to continue lactation and they were vaguely taught about it, but current research now supports that lactation and breast milk donation is therapeutic and enables them to perform acts of service that maintain their maternal identities (Oreg, 2019). My personal experiences and immersion in this field have led me to compose my thesis on the lactation benefits, experiences, and education in bereaved mothers with the hope of creating new awareness and advocacy for the bereaved mothers.

Personal Significance

For two years I have worked on an oncology unit and have an incalculable amount of experience with dying, death, and loss. Once I began my internship with the Tiny Tusk Breastfeeding and Infant Support program and spent time in mother/baby unit settings, I became immediately engrossed with maternal bereavement and drawn to the mothers experiencing it. While parts of their grief were like the grief I’ve seen and experienced of those suffering the loss of someone due to cancer, there were profound differences. The bereaved mothers I encountered often blamed themselves, felt helpless, and expressed a sense of failure as a mother. I have

constructed my thesis to help serve those bereaved mothers who felt useless and grant them an opportunity for autonomy after their loss. While lactation and breast milk donation will not stop their grief or bring their baby back, it does present an opportunity for bereaved mothers to heal and help nourish others' babies.

Key Insights

Knowledge gained from my internship includes care for infants like immunization schedules, developmental milestones, sleep hygiene and safety, and nutrition. I also learned a substantial amount about lactation such as breastfeeding techniques, breastmilk storage, breast milk donation, and how to reduce breastfeeding complications like clogged milk ducts. One of the major lessons I learned is that bereaved mothers should be treated with respect, empathy, and be educated as mothers who have the option to continue lactation and donate their breast milk. I also learned how important it is for student nurses, registered nurses, and other healthcare professionals to advocate for bereaved mothers and ensure they receive the education and support they deserve. The implications of my internship for nursing practice include providing adequate education and supplying appropriate resources about lactation. It also includes advocating for appropriate lactation spaces and services to meet the needs of all breastfeeding and lactating women.

Challenges

Bereaved mothers often do not receive adequate, if any, education regarding lactation following their loss. Additionally, all the emotions and initial grief can make it difficult for some bereaved mothers to make decisions regarding lactation. What most bereaved mothers don't know is that they have options to express milk, donate milk, or suppress it. While lactation suppression has been the primary intervention, many bereaved mothers have found that

continuing with lactation had a beneficial impact on their grief (Noble-Carr, 2023). Ward et al. (2023) stated “the expression and donation of breast milk was a healing ritual that allowed them to at least partially fulfill their mothering role, be of importance, and create positive associations with their loss.” (p. 12). The lack of education and bereaved parents' grief pose challenges to “normalizing” breast milk donation and lactation post bereavement, but through comprehensive education it can be an acceptable, potential option for some mothers.

Challenges of my internship include the limited amount of availability and potentially limited accessibility of the Tiny Tusk Breastfeeding and Infant Support program. The program operates during football and basketball games held in University of Arkansas arenas which limits the days of the week and number of hours our services can be provided. Additionally, the resources can only be accessed by those who purchased tickets to the football or basketball game which may be unattainable for many because of the price of admission to these events. These challenges could be addressed by providing programs that are expanded into the community. Ideally, these programs would be offered in public buildings, free of charge to those attending, and not be conditional based on economic status like programs such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Accessing breast milk banks could also be difficult for some mothers due to the fact that there is only 1 newly opened in Arkansas and a total of 33 in the United States (Vogler, 2023). All mothers, including those who are pregnant, postpartum, and bereaved, could benefit from accessible and acceptable lactation services in their communities.

Review of Literature

Introduction

The purpose of this literature review is to identify and examine the lactation benefits, experiences, and education in bereaved mothers. Perinatal bereavement affects parents who lose an infant through miscarriage, which is the loss of a baby before the 20th week of pregnancy, elective termination, or stillbirth, which is the death of a baby during or before delivery (Centers for Disease Control and Prevention, 2022). The bereavement that each parent faces can manifest as grief, is unique in length, complexity, and intensity, and is considered to be one of the most intense and devastating forms (Ahmadi & Zandi, 2021). According to the Centers for Disease Control and Prevention (2022) around 1 pregnancy out of 100 results in stillbirth, which equates to about 24,000 babies that are stillborn each year in the United States. Statistically, many of those 24,000 mothers will experience lactation and the education they receive is crucial. However, education about lactation and expression of breast milk is something most bereaved parents do not receive in the healthcare setting (Carroll et al., 2020). This results in many bereaved mothers being unprepared when lactation occurs, uninformed of the options available to them, and unaware of the benefits they are missing out on if they had participated in breast milk expression and potential donation (Carroll, 2020). By examining the lactation education, benefits, and experiences of bereaved mothers through this literature review, it will be possible to determine areas of success and potential areas for advancement to better care for bereaved mothers experiencing lactation.

Methods

Design

A literature review was performed to provide a greater and more comprehensive understanding of the aspects that affect bereaved mothers' lactation including benefits, experiences, and education.

Information Sources

Google Scholar, EBSCOHost, and the National Library of Medicine databases were explored to search for maternal health and human lactation peer-reviewed journals regarding lactation education, benefits, and experiences of bereaved mothers.

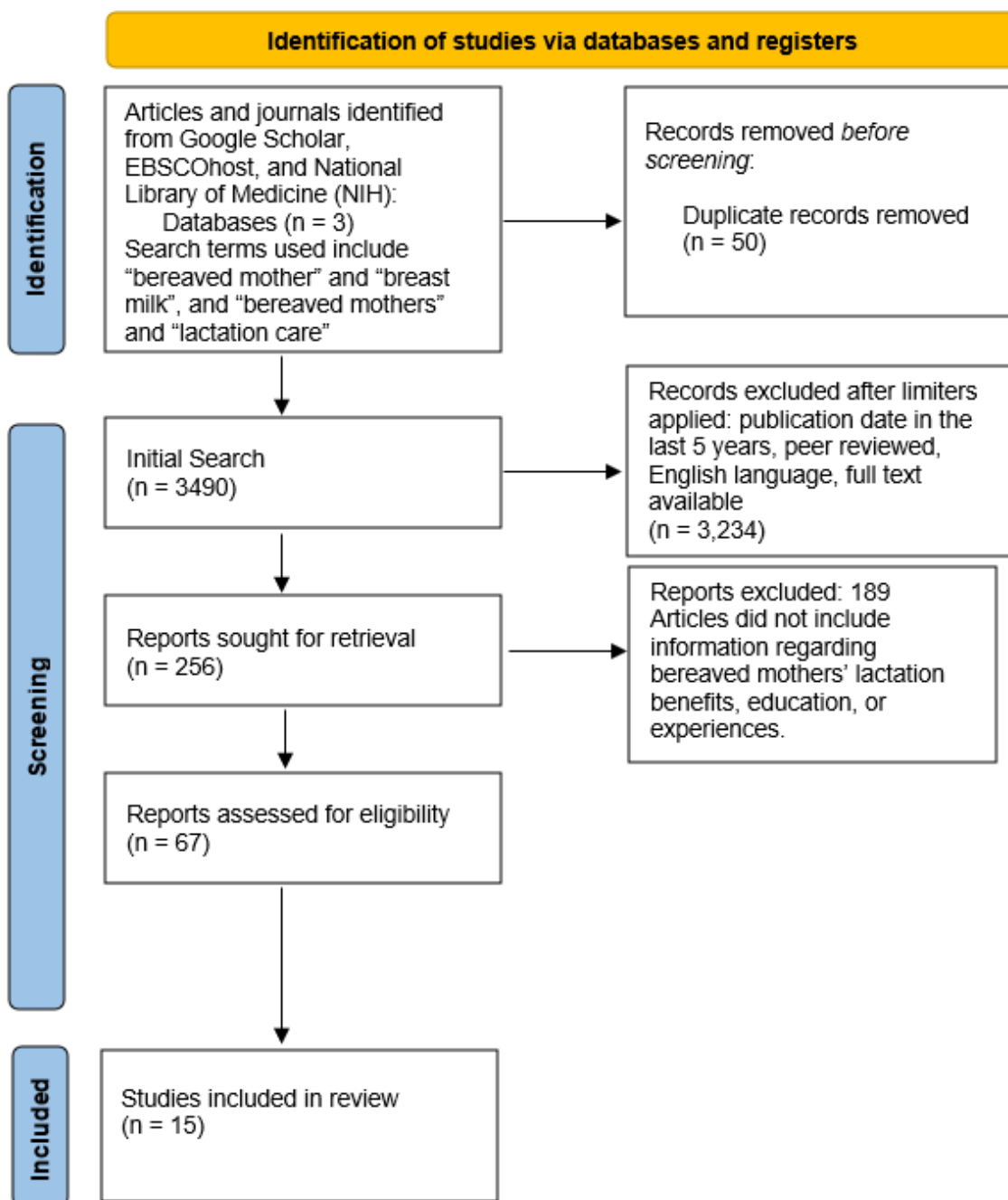
Search Strategy

The databases of Google Scholar, EBSCOHost, and the National Library of Medicine were employed in their entirety. To condense the extensive lists of articles each site provided there were several parameters set. The published date was set to any articles published in the last 5 years and article type was limited to peer-reviewed articles only. The first search terms utilized include “bereaved mother” and “breast milk”. The second search conducted included the search terms “bereaved mothers” and “lactation care”. Further search limiters implemented include the English language, included citations, and included patents.

Inclusion/Exclusion Criteria

Any articles obtained from the searches were excluded if they were outside of the timeframe set, not peer-reviewed, and/or if they were not in English. Each article abstract was obtained and reviewed for applicability and relevance to the topics of bereaved mothers' lactation experiences, benefits, and education. Figure 1 visually displays the procedure for obtaining published peer-reviewed articles meeting the inclusion requirements.

Figure 1: PRISMA diagram (Page et al., 2021).



Search Results

Following the initial search for literature, a total of 3,490 articles were attained. The first search contained key terms “bereaved mother” and “breast milk” and the second search used key terms “bereaved mothers” and “lactation care”. Limiting criteria was then applied including time

frame in the last 5 years, English language, and full text available which yielded a loss of 3,234 articles. Of those results, 256 were left for retrieval and 189 were excluded due to a lack of relevant information pertaining to this thesis topic. After those articles were eliminated a total of 67 articles were assessed for eligibility including their relevance to the thesis topic. Of those articles assessed a total of 15 were selected and deemed appropriate to be included in this literature review.

Analysis

The benefits, experiences, and education of bereaved mothers regarding lactation comprise three key areas for the mothers going through the bereavement period. The benefits of lactation for bereaved mothers are crucial for understanding how to better prevent adverse health effects and facilitate the grief process in these women. Additionally, recognizing these benefits will allow bereaved mothers to make informed decisions regarding lactation for their physical and mental well-being and potentially facilitate a sense of appreciation for lactation. The experiences of bereaved mothers lactating are significant in terms of recognizing what is going well, what can be improved to make the experiences more beneficial, and how to educate others. Identifying and assessing the education that bereaved mothers receive concerning lactation is essential so that evaluations and modifications can be made to better suit the educational and personal needs of these individuals.

This literature review identified many specific benefits of lactation for bereaved mothers. The benefits of continuing lactation instead of suppression in bereaved women can be both physiological and psychological. Some of these benefits include feedback inhibition of stress response, grieving period reduction, self-efficacy enhancement, and decreased risk for mood disorders during the postpartum period (Prakrithi et al., 2019). Additional benefits of long-term

breast milk expression for mothers include risk reduction of breast, ovarian, and endometrial cancers (Louis-Jacques & Stuebe, 2018). Further health benefits include decreased risks of metabolic syndrome, hypertension, myocardial infarction, and diabetes mellitus (Louis-Jacques & Stuebe, 2018). A major benefit for lactating bereaved mothers is the ability to donate their breast milk to a human milk bank that will provide it to an infant in need. The World Health Organization recommends infants be exclusively breastfed for the first 6 months for optimal growth and development, donor human milk can be utilized as the preferred alternative when a mother's own milk is unavailable (Jarmoc et al., 2021). Paraszczuk et al. (2022) list benefits for bereaved mothers donating breast milk to be "an outlet for grief, a meaningful life, still a mother, a positive from a negative, support and recognition, letting go and moving on, and finding my way." (p. 662). An additional benefit for the bereaved mother donating breast milk includes recognition for their acts of service from milk banks commemorating their deceased infants' names on memorial walls (Oreg, 2019). Breast milk donation is a practice that can empower the bereaved mother and promote emotional and physical well-being (Oreg, 2019). Overall, lactation for the bereaved mother benefits the healing and grieving processes individuals may go through and the physical and psychological health benefits are extensive.

A great quantity of bereaved mothers will experience lactation whether they desire it or not. The process of lactation in bereaved mothers can exacerbate the grief of loss due to the continual production of milk for a baby that is not there (Oreg, 2019). Waldby et al. (2023) concluded from their study that all mothers lactating post-loss found it emotionally painful, but it was also a redemptive process that allowed them the experience to bond with their lost child, confirm their maternal competence, and provide a life-saving substance to infants in need through breast milk donation. On a day-to-day basis, lactation for bereaved mothers can be a

transformative experience in which they can transition from feeling depressed and numb to being motivated with a sense of purpose (Oreg, 2020). To a certain extent, the breast milk bereaved mothers produce represents their last physical connection to their lost one, and through the experience of lactation, they can construct a new psychological relationship with their baby (Oreg, 2020). Additionally, Ward et al. (2023) found that bereaved mothers going through lactation felt the experiences made them feel purposeful, gave them back their sense of control, and promoted altruistic behavior through donation. Bereaved mothers donating their breast milk attribute their experiences to be a beneficial way to cope with loss and accept it (Fernández-Medina et al., 2022). Furthermore, bereaved women lactating with intentions to donate their breast milk elude that the experience encouraged them to care for themselves physically and mentally post-bereavement by maintaining a healthy diet, drinking enough water, avoiding alcohol and certain medications, and sleeping an adequate amount for their milk to be accepted by milk banks (Oreg, 2020). While the lactation experiences and potential breast milk donations can be difficult for the bereaved mother, largely literature findings indicated that it is a beneficial experience that promotes whole-body healing and empowerment.

Lactation education available and received by bereaved mothers will greatly affect their potential benefits and experiences with lactation. Analysis revealed that lactation care, if provided, for bereaved mothers was limited to brief encounters with the goal of lactation suppression (Noble-Carr et al., 2021). However, from the previously listed and discussed benefits and experiences of lactation for bereaved mothers, lactation suppression may not be the best course of action for all. Sharma et al. (2022) suggested potential reasons bereaved mothers do not receive adequate lactation care could be due to chronic short staffing and lack of formal training for qualified healthcare staff. Nonetheless, it is crucial for comprehensive lactation care

to be provided to bereaved parents, incorporated in hospital-based bereavement policies and procedures, inclusive of partners, respectful of individual circumstances, and supplemented by appropriate written material (Noble-Carr et al., 2023). Additionally, it was established that bereaved mothers would benefit exceedingly if established interdisciplinary teams of diverse, equipped healthcare professionals provided lactation care and education (Prakrithi et al., 2019). Cole et al. (2018) stated the role of obstetric nurses, lactation professionals, and advanced practice providers (nurse practitioners and physician assistants) is essential because they are ideally positioned to educate bereaved women about lactation and breast milk donation if applicable. Sufficient lactation education for bereaved mothers by qualified professionals should be deemed the standard of care. If healthcare professionals presented bereaved mothers with the complete list of options available to them regarding lactation, including suppression, expression, and donation, it would enable these women to make the choice best suited for them.

Lactation for the bereaved mother is an extensive, complicated branch of study that will require an extensive amount of continuing research before it is adequately addressed and understood. The direct benefits of lactation for the bereaved mother can positively affect physical and psychological health (Prakrithi et al., 2019). Health benefits for the mother include decreased risks of cancers and conditions like hypertension and diabetes mellitus (Louis-Jacques & Stuebe, 2018). The benefits can also be indirect in that they promote altruism and benefit other infants through the acts of service donating breast milk (Ward et al. 2023). Experiences bereaved mothers have with lactation will oftentimes be both negative and positive. However, these experiences empower bereaved women and aid in the healing process. The lack of education for bereaved women about lactation can be directly related to the majority of them only pursuing breast milk suppression. Adequate lactation and potential breast milk donation education is

essential for bereaved mothers to make an informed decision concerning lactation. Lactation benefits, experiences, and education of bereaved women are all essential topics for continuing research and for bereaved mothers to be taught about. Once these concepts are better understood, advocated for, and educated about, then lactation and breast milk donation can be suitable options for bereaved mothers.

Characteristics of Studies

Each of the 15 studies selected to be included in the peer review presents information uniquely. To condense and present the relevant information from these articles in a uniform fashion the key components of each were obtained. These components include the author(s), publication year, study design, sample size, study location, study purpose, and significant findings. This information is recorded in Table 1 below.

Table 1

Author(s), Publication Year	Study Design, Sample Size (n)	Study Location	Study Purpose	Significant Study Findings
Carroll, K., Noble-Carr, D., Sweeney, L., & Waldby, C. 2020	Systematic review of literature, n = 21	Australia	Improve the quality of written information available to parents in anticipation of, and/or subsequent to, infant death.	The Lactation AID Framework contributes to the goal of improved quality of written information for parents experiencing infant death by designating 25 OHI criteria to assist health organizations in providing comprehensive information to bereaved families so they can better understand and manage lactation and optimize their health and wellbeing.
Cole, J., Schwarz, J.,	Qualitative study, n = 2	United States	The purpose of this article is to examine milk	Grieving the loss of nurturing through breastfeeding can be an

<p>Farmer, M., Coursey, A., Duren S., Rowlson, M., Prince, J., Oser, M., & Spatz, D.</p> <p>2018</p>			<p>donation in the context of perinatal palliative care.</p>	<p>important part of mourning. Families who face life-threatening fetal diagnoses during pregnancy may find comfort in the idea of providing life-saving human milk to critically ill infants. The role of obstetric nurses in the initiation and support of pumping for milk donation is essential. Obstetric nurses, lactation professionals, and APPs are ideally positioned to educate women and their families about milk donation within the context of perinatal palliative care.</p>
<p>Fernández-Medina, I., Jiménez-Lasserrotte, M., Ruíz-Fernández, M., Granero-Molina, J., Fernández-Solá, C., & Hernández-Padilla, J.</p> <p>2022</p>	<p>Hermeneutic phenomenology study, n = 13</p>	<p>Spain</p>	<p>The aim of this study was to explore women's experiences of donating their breast milk following a perinatal loss.</p>	<p>Two main themes emerged from the data: (1) lactation after loss: a forgotten aspect of the care, with the subthemes “the silence surrounding grieving lactation” and “experiencing lactation amidst a sea of tears”; and (2) milk donation: a resource to alleviate pain and offer hope, with the subthemes “expressing and donating breast milk: a healing ritual” and “breaking the taboo of the grieving lactation”. Women's experiences highlight the need for the support of health care professionals. Donating milk helps some women to cope with the loss and accept and integrate it into their daily lives. Milk donation is also an opportunity to educate society about options following a perinatal loss.</p>

<p>Jarmoc, G., Bar-Yam, N., Hagadorn, J., Tosi, L., & Brownell, E.</p> <p>2021</p>	<p>Retrospective cohort study, n = 3,764</p>	<p>New England Region in the United States</p>	<p>The purpose of this study was to characterize mothers donating milk to a northeastern milk bank with respect to age, geography, and other factors, and to explore secular trends in donor characteristics.</p>	<p>Donors ($n = 3,764$) were of mean age 32.5 years (median 32; IQR 30–35) and most donated more than once (median 2; IQR 1–3; range 1–41). Median total volume donated per donor was median 11,396 mL (380 Oz); IQR 6,020–24,242 mL. Mothers of preterm compared with term infants were more likely to be bereaved ($p < 0.01$) and donated larger volumes ($p < 0.01$).</p>
<p>Noble-Carr, D., Carroll, K., Copland, S., & Waldby, C.</p> <p>2023</p>	<p>Qualitative thematic data analysis, n = 17 mothers and n = 7 fathers</p>	<p>Eastern Australia</p>	<p>The study aimed to identify how, from the perspective of bereaved parents, hospital-based health professionals can better meet their lactation care needs.</p>	<p>Participants experienced lactation after infant death as hard and challenging, while at the same time they received limited lactation care. The negative impact of lactation, however, could be mediated by anticipatory guidance, assistance to make sense of lactation, support to make decisions from available lactation and breast milk management options, and support with breast care for as long as required. Bereaved parents explained lactation care was best provided by health professionals they had come to know and trust rather than by a particular professional role. Care should be provided with compassion, in a manner respectful of individual circumstances, inclusive of partners, and supplemented by quality written information. When bereaved parents felt supported to manage their</p>

				lactation in a manner consistent with their unique needs, lactation for some could have a positive impact on grief.
Noble-Carr, D., Carroll, K., & Waldby, C. 2021	Thematic and interactional data analysis, n = 113	Australia	The study aimed to identify and map the factors that shape the delivery of hospital-based lactation care for bereaved mothers to inform quality improvement initiatives targeting hospital-based lactation care.	A bereaved lactation care pathway was generated from health professionals' reports. Bereaved lactation care, if provided, was limited to brief encounters aimed at facilitating lactation suppression. The type of lactation care offered, and any exploration of the variable biopsychosocial significance of lactation after infant death, was conditional on (i) availability of health professionals with suitable awareness, knowledge, capacity, confidence, and comfort to discuss lactation; (ii) hospital culture and mode of suppression primarily practiced; (iii) mother's breast milk being visible to hospital staff; (iv) mother expressing interest in expanded lactation management options; (v) availability of, and eligibility to, donate to a HMB; and (vi) support beyond the hospital setting being facilitated. Mothers should be presented with the full array of lactation management options available after stillbirth or infant death.
Oreg, A.	Qualitative, interpretive, study using a	Israel	The study aimed to further explore and describe	Most significantly, the study determined that taking on a temporary donor identity

2019	phenomenological approach, n = 80		experiences of bereaved women who donated their milk, focusing specifically on the role of their donor identity.	allowed grieving mothers the time to process their loss and reconstruct their shattered maternal identity and their physical identity as females. As I elaborate below, their donor identity served as a transformative identity, allowing them to transition from the pre-loss identities of mothers and healthy females to their post-loss identities of bereaved mothers with regained confidence in their identity as healthy females. Overall, the research demonstrated that the process of becoming a milk donor is empowering and both emotionally and physically healing.
Oreg, A., 2020	Qualitative thematic data analysis, n = 88	Israel	Study aimed to uncover the complex characteristics of ritual structures and praxes along with the transformative, embodied processes that take place during milk donation in times of loss.	Discussed below are the ritualistic attributes of the embodied experience of lactating, extracting, and donating milk after a loss, and the transformation of meanings it entails for the performing mothers. Through this ritual, mothers gradually wean themselves from the milk and, symbolically, wean from the sense that the infant is fully present. The milk presents their last physical connection to their dead baby, and through the process of weaning they establish a new psychological relationship with their baby.
Oreg, A., Perez, A., &	Autoethnographic methodology, n	Israel	Study is aimed to contribute to the understanding of	Ultimately, this type of donation can lead to interactional and relational

Timor-Shlevin, S. 2022	= 3 authors		maternal bereavement and continuing bonds through lactation and donation. In addition, we will suggest that the prevailing policy of care following pregnancy loss and infant loss in Israel needs reconsideration to include the presentation of milk donation as an option to bereaved mothers.	processes of both grieving and healing. Through this research, we wish to challenge current conservative conventions, perspectives, and policy regarding stillbirth and lactation, in the hope that our stories will encourage women who experience perinatal loss to claim their right to determine if and when to dry up their milk, and to consider the option of donating their milk, either to a milk bank or to families in the community.
Paraszczuk, A., Candelaria, L., McGuire, K., & Spatz, D. 2022	Qualitative study, n = 21	United States	The purpose of this study was to explore the experience of women choosing to continue to express milk after a perinatal loss specifically for donation to a nonprofit milk bank governed by the Human Milk Banking Association of North America (HMBANA).	Seven themes clearly demonstrate the importance of milk donation for bereaved mothers and the benefit they derived from this after experiencing a perinatal loss: (1) created a ritual format that facilitated an outlet to express grief, (2) attributed a degree meaningful life to the deceased infant, (3) confirmed that the mother was still a “mother,” (4) converted to a positive and helping end what was initially a most negative experience, (5) allowed for the mothers to receive support and recognition from the community and decreased the mother's sense of isolation, and (6) facilitated the mother's ultimate letting go and moving on. This research

				demonstrated that these women who chose to continue milk expression for the sole purpose of donation after they experienced perinatal loss found this to be a critical part of their grieving process.
Prakrithi, S., Chandran, M., & Kishor, M. 2019	Qualitative systematic review	India	This paper highlights the psychological benefits of lactation in the grieving mother.	Bereaved mothers would benefit considerably by the appointment of lactation management teams in each hospital, comprising the treating obstetrician, who would handle the surgical aspects, a psychiatrist, who would assess and manage the mental health of these mothers, and would assist in conveying information and providing the available choices for exercising control over their lactation in an empathetic manner. The psychologist would provide the nonpharmacological therapies, involving the mother and the couple. The psychiatric social worker would help in recognizing the geographical and sociocultural variations in perception of lactation and taboos associated with milk donation so that a comprehensive management plan is tailored for the particular mother and her unique psychosocial situation. This would lead to the optimization of a bereaved mother's lactation care and psychological support and form an ethical approach to recruit them for

				breast milk donation.
Sharma, B., Kulshreshtha, S., Aggarwal, N., Suri, V., & Nehra, R. 2022	Qualitative study, n=281	India	The objective of this study is to describe the experience, views, and practices of health-care professionals while managing women with stillbirths.	Majority (92%) feel that such women need specialized care, still it is not given. The common reasons for not being able to provide special attention are shortage of staff and lack of confidence as no formal training is provided. Most of the participants had witnessed such women suffering from self-guilt, despair, self-blame, and having anger outbursts. Majority of the participants (166 [59.7%]) were not aware of the option of donating breast milk to other babies as a measure to help them cope up with their grief.
Waldby, C., Noble-Carr, D., & Carroll, K. 2022	Qualitative study, n = 131 (n = 17 + n = 114)	Australia	The study aimed to understand bereaved mothers' experiences of lactation after infant death.	We find that while all the mothers found post-loss lactation emotionally painful, many also found redemptive meaning in their milk-production, as a bond with the lost child, as confirmation of their maternal competence and as a life-giving substance that they could donate to other needy infants. These complex meanings and positive connotations were at odds with hospital cultures that regard post-loss lactation as valueless and best dealt with through medical suppression, despite the more complex insights of individual health-care professions.

<p>Ward, G., Adair, P., Doherty, N., & McCormack, D. 2023</p>	<p>Qualitative study, n = 7</p>	<p>Northern Ireland</p>	<p>This study aimed to explore the lived experience of mothers who have expressed and donated their breast milk following the loss of their infant.</p>	<p>After transcription and analysis, three superordinate themes emerged; (1) fulfilling the mother role; (2) the power of being able to 'Do'; (3) making good from the bad. The stories of these women reflect the independent and individual nature of grief. Each mother gained a great deal of comfort in having the ability to express milk. For some this created a physical connection to their child, for others, it created time alone to process what had happened and for all, it created a sense of autonomy and ownership in what was otherwise a very turbulent time in their lives.</p>
<p>Wambach, K., Bateson, T., Matheny, P., & Easter-Brown, K. 2019</p>	<p>Cross sectional descriptive study, n = 50</p>	<p>United States</p>	<p>The study purpose was to describe the personal and social aspects of mothers' milk donation to a milk bank in the Midwest United States.</p>	<p>Six themes represented experiences of discovering donation, reasons and motivations for donating, benefits and barriers to donation, confidence in donating, and support for donation. Practical and altruistic motivations for donation were prevalent. Confidence for donation was instilled by adequate milk supply and the milk bank process and professionalism.</p>

Discussion

This literature review regarding lactation benefits, experiences, and education in bereaved mothers identified a substantial amount of information available to help determine the relationships and effects of these topics. The benefits of lactation in bereaved mothers are

essential to identify and analyze due to their effects on the lactating mother and potential breast milk recipient if the mother is donating her breast milk. Some of these benefits can be improved physical and emotional health of the bereaved mother and lactation can facilitate the grieving process (Oreg, 2019; Oreg et al., 2022). The experiences that bereaved mothers have with lactation can be both good and bad, but the majority found that the experience empowered them as women and allowed them to practice altruism when donating breast milk. Previous educational models for bereaved mothers experiencing lactation were focused on suppressing breast milk. Analysis now shows that lactation education for bereaved mothers should include all options available, including suppression, expression, and donation, and be provided by multidisciplinary healthcare teams. One of the reasons that lactation in bereaved mothers is an under-researched and undereducated topic is due to social stigma around discussing and advertising topics such as bereavement and lactation. Present recommendations require healthcare professionals and communities to facilitate solutions to the lack of lactation care for bereaved mothers.

A program that presents a solution to address the lack of lactation care available is the Tiny Tusk Breastfeeding and Infant Support program we have established at the University of Arkansas. This program supplies lactating women, bereaved or not, with a safe and clean space to breastfeed or pump. Additionally, this program provides educational resources in several modalities for these women on various topics. The bereaved mother would benefit unmeasurably from having access to a program such as this to learn about the options available regarding lactation and potential breast milk donation.

Another advancement available to help lactating mothers with lactation care and breast milk donation is the UAMS Milk Bank located in Little Rock, AR, which opened on September

6th (Vogler, 2023). Women from all over the state of Arkansas can easily donate their breast milk through dropoff or mail-in options to the milk bank (Vogler, 2023). The milk bank has services in place to screen, pasteurize, and perform nutritional analyses of the breast milk donated (Vogler, 2023). The milk bank will supply neonatal intensive care units (NICU) across the state with donor breast milk which will help decrease the Arkansas infant mortality rate (Vogler, 2023). The benefits identified for the lactating women donating their breast milk include a reduction of risk for diabetes, myocardial infarction, and stroke (Vogler, 2023). The facility will also serve as a community resource by providing designated lactation spaces, breastfeeding classes, infant safety programs, virtual and in-person lactation services, and bereaved milk donation support (Vogler, 2023). Facilities and programs such as those offered at the UAMS Milk Bank will save the state of Arkansas millions of dollars that can be reinvested in women's healthcare and lactation services and support for women in need. The UAMS Milk Bank took a tremendous step by including lactation and milk donation services for bereaved mothers. Providing bereaved mothers with accessible, comprehensive lactation education and support is crucial to ensure they have the knowledge and resources they need for lactation and potential donation of their breast milk. With further expansion of programs like Tiny Tusk Breastfeeding and Infant Support and facilities such as the UAMS Milk Bank, more lactating mothers would be able to access necessary lactation services, education, and support.

Limitations

Lactation care should be provided and adapted on an individualized basis to encompass each mother's unique preferences and needs. Additionally, bereaved mothers should be provided with a complete, comprehensive list of lactation options available to them. However, certain cultural and religious preferences may limit the lactation options presented. The abundance of

lactation care for bereaved mothers is Westernized and lacks applications to other cultures and religions. For example, within the Jewish tradition bereaved mothers do not give the infant a name, do not mark the burial site, and commonly suppress lactation if it occurs (Eidelman, 2022). Due to the potential for differing cultural and religious preferences, healthcare professionals must provide culturally competent lactation care to bereaved women. To do this appropriately many healthcare professionals may have to learn about post-bereavement lactation in cultures and religions they are unfamiliar with but may encounter in their practice.

Conclusion

My time as an intern with the Tiny Tusk Breastfeeding and Infant Support program granted me countless opportunities to engross myself in the maternal health field. Due to my past clinical experience, I became exceptionally interested in lactation in bereaved mothers. Lactation in the post-bereavement mother was a topic I scarcely experienced. However, during my internship, I met several lactating bereaved mothers who expressed their breast milk for the sole purpose of donation. Additionally, during my experience working with oncology patients, I got to meet women whose infants would be receiving donor breast milk since they were unable to provide it to their babies themselves due to chemotherapy or radiation. Meeting members of both parties was a full circle moment that showed me there is a need for better lactation support for bereaved mothers to allow them the opportunity to choose breast milk donation. Breast milk donation for bereaved mothers allows them to provide a life-sustaining substance for another infant in need, support other mothers who may have an inadequate milk supply, prevent physical ailments like mastitis, help normalize breastfeeding in society, and empower them as mothers capable of lactating. After my internship and this literature review, I have a newfound passion for lactation care specifically for bereaved mothers. I have also learned the importance behind the

roles of educating and advocating as a nurse for bereaved mothers on lactation benefits, experiences, and education.

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