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A study to assess the relationship of resilience, self-efficacy and social support among mothers who experienced stillbirth

Thesis presented by

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For the degree of

Doctor of Nursing

University College Cork, Ireland

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2021

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Declaration

This is to declare that the content of this thesis is my own work and has not been submitted for another degree, either at University College Cork or elsewhere.

Nilima Pandit **03.08.2021**

Signed: ---------- Date: ----------

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Abstract

Introduction: Person-centred health care involves exploring what matters most to individuals. It requires identifying their needs and preferences in clinical care and treatment and supporting and guiding them gently to achieve health goals. The person-centred approach also can provide parents with their own space rather than just following the rituals associated with an unexpected death. In a stillbirth context, taking pride as a bereaved mother and negotiating support could correspond to self-efficacy. Taking something positive from the stillbirth experience can relate to resilience. Also, helping others in a similar situation and finding positives in loss proposes the presence of resilience. With these perspectives, this study aimed to examine the relationship between social support, self-efficacy and resilience among mothers who have experienced stillbirth. **Method**: This was a correlational descriptive design using an online survey to examine the relationship between resilience, self-efficacy, and social support among mothers (n=117) who experienced a stillbirth in the previous five years. **Results**: The findings endorse the study hypotheses that a significant relationship exists between support (r=0.481, p<0.01), self-efficacy (r=0.755, p<0.01) and resilience. Regression analyses indicated that both social support and self-efficacy were significant predictors of resilience and explained 4% and 38% variance, respectively. Mothers reported that formal and informal social network resources provided various categories of functional social support. Mothers reported that high functional social support and having moderate action and coping self-efficacy might have helped them to manage and continue their efforts in dealing with stillbirth. No significant relationships were found between mothers age, education, and type of work with social support, self-efficacy and resilience. **Conclusion**: The study results identified a significant relationship between social support, self-efficacy and resilience in a present sample of mothers who experienced stillbirth. Mothers who have higher levels of self-efficacy and social support are more likely to have higher resilience. That may be helping them to navigate their way through stillbirth experience and negotiate the necessary resources they need. Social support for mothers who experienced stillbirth was necessary, which involved their self-efficacy and resilience. It further suggests that each woman's needs will differ depending on their social networks, access to formal support, availability and functionality. More research is necessary to explore these relationships further. The simultaneous consideration of social support, self-efficacy and resilience demonstrated new insights in relation to stillbirth experience.

Chapter 1 Introduction

The impetus of this study stemmed from my midwifery experience of working with mothers who experienced stillbirth. Sharing mothers' journey in their labour, delivery, and during their hospital stay provided insight into the uniqueness of each stillbirth experience, which is almost exclusive to midwives. This insight was driven by mothers' emotions, struggles, and emergence as a parent of a stillborn baby. The vital connection between a mother and a midwife during this time was invaluable. If the right things are said and done at the right time, then the overall experience becomes endurable for the mother and a midwife.

Further, I developed an awareness of maternal efficacy and the value of social support in dealing with overwhelming grief and then bringing life back to as normal as possible. It was here that I recognised that timely guidance, assistance, and support are much appreciated and never forgotten. The midwife individualises support, provides gentle guidance and empowers mothers by assisting through this unique childbirth experience based on their needs. Midwives emphasise individualising care by respecting the family's needs and building trusting relationships (Fenwick *et al*., 2007). It is reasonable to suggest that every mother usually has a set of capabilities and unique requirements to deal with the childbirth experience. The need increases many folds when giving birth is of a stillborn baby.

Stillbirth challenges the modern expectation of a healthy outcome of pregnancy (Human *et al*., 2014). The public view of stillbirths has changed over time. Interventions such as imparting information, respectful maternity care and empathetic support are vital to bereavement care (Shakespeare *et al*., 2019). Caring for women during stillbirth requires a range of social and personal skills beyond recognised professional midwifery competencies (McCreight, 2008).

The transmission of clear and understandable information about stillbirth is vital, as it is incredibly challenging for women to accept the stillbirth reality (Allahadadian *et al*., 2016). Understanding the information about stillbirth or pregnancy loss often helps parents pull through a hard time (Erlandsson *et al*., 2011) and help them deal with future pregnancy (Meaney *et al*., 2017). After that, women use inner resources to develop self-help strategies to cope after experiencing a stillbirth (Van & Meleis, 2003) and often desire to reach out for formal and informal support (Cacciatore *et al*., 2009). However, not enough is known about what precisely works in the coping process for parents in dealing with a stillbirth.

Given the significant impact of the loss of a pregnancy, it is imperative to understand what a pregnancy for a mother is and how it unfolds towards loss. The following paragraphs describe the stillbirth perspective for women after being pregnant for months.

1.1 Stillbirth

1.1.1 Pregnancy and loss of pregnancy

Pregnancy is usually a prolonged experience in a mothers' life, starting from confirmation of pregnancy to the baby's birth. Human Chorionic Gonadotropin Pregnancy tests are the most common diagnostic assays used by women at home and in a clinical setting (Gnoth & Johnson, 2014). Expectant parents may start preparing for the baby if pregnancy test results are 'positive'. Pregnancy is usually counted as 40 weeks from the first day of the last menstrual period to childbirth and is typically divided into three distinctively characterised trimesters (Cunningham et al., 2014).

The entire pregnancy period is associated with several anatomical and physiological changes that are essential to help women adapt to pregnancy and support foetal growth and survival (Yanamandra & Chandraharan, 2012). Up to twelve weeks into the pregnancy, the baby takes a human profile, and the heartbeat can be detected by ultrasonography, while during the second trimester, the baby grows and develops (Cunningham & Williams, 2010). Pregnant women consider the visualisation of the fetus on ultrasound as vital evidence towards motherhood (Molander *et al*., 2010). The mother feels the baby's existence from 24 weeks onwards in the third trimester (Cunningham & Williams, 2010). Therefore, an accurately assigned expected date of delivery (EDD) and precise estimation of gestational age is valuable information for parents (Crowther *et al*., 1999), regardless of pregnancy outcome – live birth or stillbirth. Gestational age is also significant for clinical care during stillbirth. The clinical care guidelines for management vary with the gestational age at fetal death (Health Service Executive, 2014a; Health Service Executive, 2014b; Health Service Executive, 2013).

In pregnancy, viability is used to describe the fetus's sustainability to live outside the womb. To be born alive does not necessarily mean to be viable to live and sustain outside the womb. Peri-viability is a term that represents the threshold of viability and is defined as the stage of fetal maturity that ensures a reasonable chance of extrauterine survival. With active intervention, many infants survive after being born alive at 22 to 24 weeks gestation (Kulali *et al*., 2019; Patel *et al*., 2017). Hence, loss of a pregnancy and viability are expected to be discussed gently and respectfully (Kavanaugh *et al*., 2010); when a fetus is not viable, comfort care is provided to the preterm newborn and parents.

Stillbirth is a hard-hitting and challenging experience for parents and involves intense emotions and various family disruptions (Flenady *et al*., 2014). It is crucial for parents to comprehend the multiple descriptions that are used to discuss stillbirth and pregnancy loss.

At present, a lack of consensus exists without any standard set of definitions relating to terminology and classification of stillbirth and pregnancy loss (Kolte *et al*., 2014, Delabaere *et al*., 2014). Despite being one of the most significant adverse pregnancy outcomes, stillbirth has varied but legally mandated definitions and different reporting requirements globally. These reporting requirements are based on parameters such as gestational age and birth weight (Da Silva *et al*., 2016).

1.1.2 Stillbirth Definitions and Prevalence

In Ireland, stillbirth is defined as a child born weighing 500gm or more or having a gestational age of twenty-four weeks or more who shows no sign of life (Stillbirths Registration Act, 1994). The World Health Organization (WHO & UNICEF, 2014) described stillbirth as a 'fetal death late in pregnancy' and allows each country to define the gestational age at which fetal death is considered a stillbirth. For international comparison of perinatal mortality, the World Health Organisation (1993) recommended the following definition of stillbirth as 'fetal death in the third trimester with more than or equal to 1000gm birthweight or more than or equal to 28 weeks of completed weeks of gestation'. Death is indicated by the absence of breathing or beating of the heart, lack of pulsation of the umbilical cord or definite movement of voluntary muscles. Numerous classification systems are used to understand the causes of stillbirths across the world (Reinebrant *et al*., 2018). International Classification of Diseases and Related Health Problems' (ICD-10) code denotes ICD-10-CMCode P95 as a stillbirth for diagnosis. International Classification of Diseases ICD (World Health Organization, 2019) suggests fetal death refers to the sudden intrauterine death of a fetus at any point in time during the pregnancy. Due to varied definitions and classification, stillbirth can be considered as a fetal death (has occurred) if the fetus delivers without any signs of life in the last half of the pregnancy.

Globally, there are approximately 2.6 million stillbirths each year (Lawn *et al*., 2016). Internationally stillbirth rates have declined, although recent research suggests that the decline has slowed or stopped in many countries (Zeitlin *et al*., 2016). Zeitlin and colleagues indicated that the burden of perinatal mortality remains high, with an estimated 40,000 - 45,000 stillbirths and neonatal deaths per year in the European Union countries. Since 2008, the National Perinatal Epidemiology Centre (NPEC) collaborates with Ireland's maternity services to report perinatal data. In Ireland, 235 stillbirths, with a corrected stillbirth rate of 3.8 per 1000 births, were recorded from a total of 62,076 births in 2018 (O'Farrell *et al*., 2019). The primary causes of these babies' death were reported as placental conditions, congenital anomalies, infection, and growth restriction. It can be observed that the

percentage of unexplained stillbirths at 11.1% (n=26) was reduced from 15.2% in 2016, which is still a significant number.

1.1.3 Stillbirth and Maternity Care

Stillbirth is a crucial indicator of maternal health care (Lawn *et al*., 2016) and is also considered an economically and psychologically substantial and underappreciated burden (Heazell *et al*., 2016). The sustainable development agenda in the Global Strategy for Women's, Children's and Adolescents' Health recognised stillbirths as a crucial part of maternity care (Horton & Samarasekera, 2016). In Ireland, the National Standards for Bereavement Care following Pregnancy Loss (Health Services Executive, 2016) introduced integrated and multidisciplinary care and support measures of bereavement care and support for parents, families and staff in all 19 maternity units.

The enduring effect of stillbirth on parents, families, staff and society, and the health care system is undoubtedly high. Over recent years, substantial research has been undertaken on parental grief and bereaved parents' individual needs. The focus of care and interventions has currently shifted from protective to supportive. The examination and exploration of bereaved parents' experiences are essential in improving stillbirth support (Scott & Bevan, 2012). The central emphasis of bereavement interventions has shifted from parents being passive recipients of care to providing support for healing by assisting parents in making meaning of their loss (Capitulo, 2005).

Stillbirth is a life-shattering experience for parents who frequently remember vivid details of the event (Nuzum *et al*., 2018). The period between the diagnosis of the stillbirth and the delivery of the baby was highlighted as a critical part by parents where they find meaning in their loss and ways to deal with it (Nuzum *et al*., 2018; Kalu, 2019). Bakhbakhi *et al*. (2017) recommended transparency and flexibility in care, parental participation in decision making and a positive approach, should be part of support and care interventions in perinatal death.

1.2 Literature on Stillbirth

While decades of research have revealed a degree of feasibility in stillbirth prevention, the number of annual stillbirths remain unchanged since 2011 (De Bernis *et al.*, 2016). It seems that at present we cannot prevent stillbirths completely. In the last decade, stillbirth research focused comprehensively on the statistics of stillbirth (Lawn *et al*., 2016), disparities between countries stillbirth definitions and gestations for categorisations (Rowland Hogue & Silver, 2011), causes (Reinebrant *et al*., 2018), conditions at birth (Gardosi *et al*., 2005), preventive actions (Bhutta *et al*., 2015; Flenady *et al*., 2016) and care of mothers (Capitulo, 2005, Cacciatore, 2010, Radestad *et al*., 2009, Ellis *et al*., 2016, Nuzum *et al*., 2018). Various

studies have identified the psychological effects of stillbirth and have substantiated mothers' voices (Cacciatore & Bushfield, 2007, Trulsson & Radestad, 2004, Warland *et al*., 2018) that have served to enhance professionals' knowledge about parents' perspectives in stillbirth.

Studies also have described maternal perceptions of stillbirth (Erlandsson *et al*., 2011, Downe *et al*., 2013, Ryninks *et al*., 2014), parents' experiences of care following stillbirth (Flenady *et al*., 2014, Crispus Jones *et al*., 2015) and perceived support in stillbirth (Cacciatore *et al*., 2018). There are studies on parenting in stillbirth (Golan & Leichtentritt, 2016), creation of memories of a baby (Crawley *et al*., 2013), experiences of the first contact with a stillborn baby (Hennegan *et al*., 2015, Lindgren *et al*., 2014, Redshaw *et al*., 2016) and feelings of empowerment and powerlessness when losing the baby (Lundqvist *et al*., 2002)

In a systematic review and meta summary on 144 stillbirth studies to evaluate the psychological impact of stillbirth on parents, Burden *et al*.(2016) identified that most studies ranged from negative psychological symptoms, disfranchised incongruent grief, avoidance of memories, chronic physical symptoms to stillbirth impact on mother's quality of life, their economic difficulties, created anxiety over other children and fear in subsequent pregnancies. However, some studies included constructive implications such as parental pride in stillbirth, peer parents' motivation and participation in healthcare improvement, changed approached to life and death, self-esteem and parental identity. Some additional tenets of stillbirth literature related to my research are discussed following sections.

1.2.1 Stillbirth and Terminology

It is mentioned earlier, stillbirth and pregnancy loss definitions are not designed to imply that pregnancy experience at less than 22 to 24 weeks is of less value (Froen *et al*., 2011) but to determine appropriate care and treatment customized for the loss. It has been noted that the varied pregnancy loss terminology has had a psychological impact on parents (Wright 2010; Mulvihill & Walsh, 2013), and the prevention of stillbirth became complex and entangled in questions such as when life becomes worth saving (Froen *et al*., 2011).

Appropriate terminology can validate parental loss and can have a positive impact on parents' experiences of stillbirth, pregnancy loss and neonatal death (Smith et al. 2020). The distinctiveness of stillbirth is that it's a confounding reproductive event that combines both - birth and death (Sanger, 2012). For parents, a stillbirth certificate provides some form of recognition and authenticity to their baby. In Ireland, since 1995, parents can request a stillbirth certificate for stillborn babies equal to or more than 500 grams and equal to or more than 24 weeks gestation (Stillbirth Registration Act, 1994). As a midwife, we need to honour

mothers' feelings at the time of stillbirth. As a midwife, I have encountered mothers, that when we distinguish their baby with a name, identity bands and preparing memorabilia, provides mothers some respite.

1.2.2 Making Meaning of the Stillbirth

The importance of parenthood in the stillbirth experience is evident when parents try to make meaning of what happened. It starts with the first meeting with the stillborn baby and holding baby. Meeting the other family members and subsequently continues with cultural rituals such as dealing with the baby's burial, annual remembrance day or the anniversary of the birth/death. A myriad of emotional and psychological perceptions take place through various follow-up events. Meaning-making in stillbirth is often influenced by mothers' social milieu, which can contribute to the acuity of their grief (Uren & Wastell, 2002). Meeting the stillborn baby can be a crucial point where the mother starts realising and processing her baby's death (Üstünda-Budak *et al*., 2015). Cultural rituals usually provide an opportunity to substantiate social meaning-making (Neimeyer, 2005) and social recognition of the baby and the mother. This meaning-making may be hindered by the ambiguity of the situation and doubts infused in the experience (Golan & Leichtentritt, 2016).

Overall, stillbirth is an unexpected pregnancy outcome and uniquely devastating event in a mother's life (Bennett *et al*., 2008) that involves grieving for the loss of a baby and yearning for psychological identity that links the baby with the mother (Leon, 2009).

1.2.3 Psychological Perspectives of Stillbirth

Stillbirth is a psychosocial trauma that brings sadness and distress to the mother, father, family, society, healthcare professionals, doctors, and midwives who attend mothers in most stillbirth events (Homer, 2016). Mother's may sometimes experience a 'gut instinct' that something was wrong in pregnancy (Warland *et al*., 2018). The first encounter between mother and child occurs after the birth of a baby, where despair, emptiness, and grief characterise this encounter (Lindgren *et al*., 2014). Mothers have reported varied experiences of these first interactions with medical staff, family, friends and the broader community (Brierley-Jones *et al.* (2014).

The support and care provided to parents experiencing stillbirth can have a lasting impact on women's immediate and long-term psychological well-being (Lisy *et al*., 2016). What matters is sensitive and empathetic communication (Bakhbakhi *et al*., 2017), a respectful manner in facilitating care and cultural rituals (Cacciatore *et al*., 2013), participating in creating memories (Cholette, 2012), and arranging aftercare in a quiet and private

environment (Bond *et al*., 2018). Stillbirth intensifies emotional fragility in which bereaved parents recall precise details of staff interactions (Nuzum *et al*., 2018). It is recommended that psychological care during bereavement is provided through attunement, trust, therapeutic touch, egalitarianism, nuance and death education (Cacciatore 2013); so that parents know that they do not suffer alone.

The experience of creating and sharing memories of stillborn babies is associated with a mother's mental health and fewer post-traumatic symptoms (Crowley *et al*., 2013). Good mental health is also associated with the passage of time since the stillbirth, perceived professional social support and sharing memories. Acknowledging the psychological and emotional trauma caused by stillbirth, the World Health Organisation recommended the need for respectful bereavement support and care (Ateva *et al*., 2018).

1.2.4 Support in Stillbirth

Mothers require comprehensive professional and informal support in dealing with grief and loss of a baby in stillbirth (Cacciatore & Bushfield, 2007). Mothers' professional support requirements include information and guidance, timely intervention, follow up and personalized care (Cacciatore and Bushfield 2007).

Other studies identified social support needs as unique and precise. Allahdadian *et al*. (2015) rationalized that with the stillbirth, a woman and her family suddenly face unique needs and identifying these needs becomes an essential part of providing comprehensive care and support. Similar findings were noted by Downe *et al*.(2013) with a meta-theme 'one chance to get it right' among mothers (n=15). The study identified support interventions that helped parents endure the loss, making inevitable moments precious and getting the best care possible in the worst imaginable situation.

Allahadadian et al. (2015) suggested that support from family and relatives was needed for sympathizing, performing everyday activities and escaping loneliness. Support from the social system was required for information, care, guidance and counselling. Further, peer group support was needed to exchange experiences. Involvement with support groups and talking with peer parents is often helpful. This type of support and acknowledgement provides a frame of reference to mothers for regulating their emotions and feelings.

A metasummary of 34 studies identified that mothers experienced a broad manifestation of grief that may not be recognised by healthcare professionals (Shakespeare *et al*., 2019). Stillbirth bereavement care usually starts with extending empathy, giving understandable information, discussing childbirth options and tailoring supportive care to accommodate parents' individual needs (Roberts & Montgomery, 2016). Perinatal bereavement care

requires organisational decisions and interventions, including bereavement counselling, specialised psychotherapy, and informal support (Ellis *et al*., 2016). Siassakos *et al*. (2017) recommended that a combination of evidence-based tools, integrated care pathways, and staff training on how to use these tools would improve care.

Understanding parents' needs and their resources may perhaps be the most crucial prerequisite for stillbirth support. In one study on support, parents and staff both identified the need for improved preparation (parents 25% & staff 57%); continuity of care (parents 15% & staff 36%); supportive practices & structures (parents 50%); and clear care pathways (parents 5%) to provide and to receive empathic support and care (Ellis *et al*., 2016). The key components of support include a sensitive and respectful attitude, guidance to creating memories, and follow-up care in a quiet and private environment and continue to be valued by families experiencing a stillbirth (Bond *et al*., 2018). Areas of social support processes include providing assistance where needed, protecting parents from hurt, and preserving parental functioning (Price *et al*., 2011).

Many studies have focused on mental health symptoms (Cacciatore *et al*., 2009; Crawley *et al*., 2013). In some studies, it has also been proposed that positive memories following stillbirth may depend on the quality of perceived social support (Downe *et al*., 2013; Nuzum et al., 2018). Over time, the requirement for professional support declines; this may be replaced by the ongoing support provided by family, friends, and social networks (Erlandsson *et al*., 2011). Support groups, online forums and social media have increasingly become sources of stillbirth support; and research is increasingly revealing data about the contribution of these sources.

Parents may come together to form peer groups to support each other. Support groups provide a resource for bereaved mothers where their hurt is comprehended by others who share the same experience (Wright & Shea, 2014) and are means to develop self-reliance, encourage purpose and decision-making, and promote social interactions (Barak *et al*., 2008). Increasingly, support groups, often online, form a crucial part of the multi-layered social support resources used by mothers of stillborn babies (Cacciatore *et al*., 2009).

Côté-arsenault & Freije (2004) report that support groups helped parents link to others with similar experiences, remember their babies together, develop relationships, and find ways to remember their babies. According to Gold et al. (2012), the culture of online support helps individuals share circumstances of stillbirth, provide a validation of their feelings, and indulged the feeling that they are not alone, within the privacy of their home. This helped mothers move forward in their life with the legacy of a stillborn baby.

Far from being passive sufferers of circumstances, parents in support groups were more likely to share grief and take positive from experience, are empowered, and often participate in raising awareness of stillbirth. Online forums appear to provide an opportunity for bereaved parents to communicate about their a stillborn baby, to move on in life and de-taboo the topic of discussing stillbirth in a safe environment (Christensen *et al*., 2017). In addition, parents can receive free, anonymous and immediate peer support (Gold *et al*., 2012). Mothers may use virtual identities for online communities (Capitulo, 2005); and these online communities are informal and are often under-evaluated for effectiveness (Eysenbach *et al*., 2004). Perceived benefits of online support communities include reducing the sense of isolation while providing convenient, easy access, which safeguards their anonymity and privacy (Gold *et al*., 2012).

1.2.5 Recognition of Maternal Efforts

Giving voice to women experiencing stillbirth was recommended by Horton & Samarasekera (2016). Exemplary attempts are made in many countries to include bereavement programmes in healthcare facilities and multiple support groups formed by parents and families that render support. Bereavement care starts with the diagnosis of stillbirth.

During labour and delivery, interactions with health care professionals hold great importance for parents (O' Connell *et al*., 2016). Parents express their needs to be tendered with sensitivity and empathy, they require validation of their emotions and feelings, want clear information, support and guidance in seeing and holding the baby (Crawley *et al*., 2013, Nuzum *et al*., 2018). Creating memories (Kavanaugh *et al*., 2011; Cholette, 2012; Crawley *et al*., 2013), continuing a bond with their baby (Dokken, 2013; Gear, 2014), providing a respectful farewell (Hedges, 2014) and meaningful remembrances and recognition as a parent (Crawley *et al*., 2013) can be considered as maternal efforts. Shakespeare *et al*. (2019) found women yearned for information, needed advice and needed support to cope with most of the stillbirth rituals.

Studies have recognised maternal strengths in bringing stability in their life through this event, such as a recasting hope after adversity (Lalor *et al*., 2009), coping (Van & Meleis, 2003; Swanson *et al*., 2009), psychological adjustment (Bennett *et al*., 2008; Lee & Rowlands, 2015), building support (Côté-arsenault & Freije, 2004; Gijzen *et al*., 2016) and creating a sense of empowerment (Lundqvist *et al*., 2002). Studies also explored the tasks of adaptation (Büchi *et al*., 2007) and to assess counselling to cope with the experience (Cacciatore *et al*., 2013). Some positivity in adaptation had been recognised and a need to focus on positivity in future studies (Burden *et al*. 2016, Lee & Rowlands 2015), including

the resilience of parents and support in fostering personal growth after stillbirth. Altruism was explored by Cacciatore *et al*. (2018), who also reported posttraumatic growth and resiliency among mothers of stillborn babies (Cacciatore *et al*., 2013). Similarly, Roberts and Montgomery (2016) examined self-practised mindfulness-based intervention to build resilience among mothers after stillbirth.

1.2.6 Finding Something Positive

Positivity is perceived as a successful means of coping in the context of stillbirth and pregnancy loss (Maker & Ogden, 2003), and studies have recognised resilience (Roberts and Montgomery, 2016), recasting hope (Lalor *et al*., 2009) posttraumatic growth (Cacciatore *et al*., 2013) and hardiness (Lang *et al*., 2004) among mothers.

The positive aspects may be obscured by maternal struggles and efforts to go through difficult times. Lee & Rowland (2015) suggested that this could be a pathway towards resilience. Murphy (2012) indicated that stillbirth, for some parents, initially contributed to social awkwardness and feeling of stigma, but parents gradually gained empowerment by taking on the bereaved parent's identity. This parenthood involved building a positive sense of self and raising awareness about stillbirth. Mothers sought to boost their support by connecting with other women who had experienced loss or conveying their needs openly (Lee and Rowland, 2015).

Cacciatore *et al.* (2018) identified that parents begin volunteering for peer parents after stillbirth. Traumatic grief transformed their awareness from introspection to a sense of compassion among peer parents, and this developed their own parental identity. Cacciatore *et al.* (2018) further reported that parents referenced their volunteering as a means of continuing the bond with their stillborn baby.

Positive findings are not a generalisation or motivational force as this may be inappropriate to consider in the context of bereavement. The general recommendation is to become mindful of positivity, e.g. honour the stillborn baby as a person and help parents to find an identity while managing the grief and distress in the loss. In doing so, evidence of positivity emerges and consequently assisting bereaved parents in seeing this as a legacy of their stillborn baby (Krosch & Shakespeare-Finch, 2017). The ability to deal constructively after adversities in life and their consequent emotional distress offers a resilience model that differentiates between poor mental health and positive coping processes (Lee & Rowlands, 2014). The importance of understanding mothers' efforts and needs for support can potentially optimise resilience (Lee and Rowland, 2015).

1.3 Discussion

Stillbirth and pregnancy loss comprise nearly 25% of all pregnancies (Lawn *et al*., 2016). The trauma of stillbirth is unexpected, and nothing prepares the mother for it (Wright, 2010). It is assumed that to suffer is to be vulnerable and dependent, but it does not inform the entire story (Lundman *et al*., 2010).

The needs of parents in stillbirth are unique (Flenady *et al*., 2014), but paying attention to a person's inner strengths may assist them in coping with this difficult and tragic situation. A person-centred care approach is important in exploring what matters most to parents, including their needs, preferences and choices in care and treatment while building supportive care and guiding them gently in this unique childbirth experience (Health Services Executive, 2016). The person-centred approach also can provide parents with their own space rather than just following the rituals associated with an unexpected death.

As a midwife, I have often noticed and revered mothers' efforts in becoming a parent of a stillborn baby while moving through their grief and suffering. Throughout their anguish, resilience seemed to emanate from their interactions. While meeting a bereaved woman, there are always questions during preparation for labour initiation and childbirth. After the birth, when the couple arrives on the ward with their stillborn baby, who will mostly be rooming-in with them during the hospital stay, I observed that parents want to speak about their baby espousing a parenting role. The elements of self-efficacy, confidence and surge of yearning for stillborn baby's care were apparent as parents adjusted to the unusual and very different parenting experience.

There is no remedy to take away sadness, hurt and helplessness experienced by these parents, but with appropriate social support and self-directed efforts, the mother can develop resilience (Roberts and Montgomery, 2016). It is noted that recognising maternal efforts and providing adequate support is helpful (Antonio, 2013) and may reduce the psychological cost of a stillbirth (Burden *et al*., 2016). The recognition of stillbirth as a significant and unique bereavement is relatively recent, parents' and healthcare professionals' stillbirth experiences can inform bereavement care, staff training and provision of supportive care (Ellis *et al*., 2016). Many parents who participated in research projects helped improve maternity care and practice (Murphy, 2013). Increasing collaboration of parents and health care professionals, as seen in International Stillbirth Alliance (ISA, 2018), manifested that the parents are willing to share their experience and help improve the experiences for staff and parents.

My experience in caring for parents of stillborn babies led to my interest in exploring maternal perceptions of social support, self-efficacy beliefs and resilience. Despite the

perception of positivity, its detection and evidence in stillbirth research are low and inner strengths are often concealed behind suffering in stillbirth (Lee & Rowlands 2014). The struggle with emotions and grief has been identified as a pathway to resilience, and this includes taking something positive from the stillbirth experience. Taking pride as a bereaved mother and negotiating support could correspond to self-efficacy. Similarly, perceiving social support and helping others in a similar situation and finding positives in loss proposes the presence of resilience. Self-efficacy, social support and resilience have been studied among mothers in the context of pregnancy loss (Antonio, 2013). Social support and resilience have been studied among mothers in the context of stillbirth (Roberts *et al*., 2016). However, to date, there is no published literature on the simultaneous examination of self-efficacy, social support and resilience in mothers who experienced a stillbirth. The literature review presented in Chapter Three provides more details on the literature on social support, self-efficacy and resilience.

1.4 Summary

This chapter discussed the impetus, background and introduction of the study. Stillbirth literature was reviewed to understand current research on the topic and to clarify the focus of this study. It was determined that research was needed to collectively focus on three concepts to understand its impact in the stillbirth context. Consequently, this study's broad aim was established to investigate self-efficacy, social support and resilience among mothers who experience a stillbirth. In Chapter Two, the theoretical perspectives of the concepts, social support, self-efficacy and resilience are explored. Chapter Three presents a review of literature on social support, self-efficacy and resilience. Chapter Four describes the research methodology for the study. The study findings aligning with research objectives and the significant relationships between variables are presented in Chapter Five. Chapter Six presented a discussion of the study findings followed by the study's conclusion, its limitations and recommendations. As a midwife, we need to honour what mothers feel at the time of stillbirth, and it is anticipated that this study which identifies and examines maternal perceptions of social support, their self-efficacy beliefs and resilience will contribute to this body of knowledge.

Chapter 2 Theoretical Perspectives

2.1 Introduction

The previous chapter presented the impetus for this study, how concepts evolved, and the related imperative knowledge. In Chapter Two, the theoretical perspectives of social support, self-efficacy and resilience are described. The theories, how the concept works, and the relevant definitions applied to the study are discussed.

2.2 Theoretical Perspectives of Social Support

This section aims to review social support theories, identify the concept and its characteristics, and identify its definition applicable to the study. Social support generally means having at least one person to whom one can turn in times of adversity or crisis to get help where a person halts, even merely to release stress and help a person to keep going. Social support has been researched across disciplines such as nursing, psychology, social science, and medicine. Social support primarily was examined to understand its role in providing psychological and material resources needed to cope with stress (Cohen, 2004). In a broad sense, social support is any process of social relationships that might enhance health and well-being through social relationships (Leahy-Warren, 2017). Theorists, researchers, and practitioners have acknowledged social support as having varied terminologies, sub-concepts, attributes, categories, aspects, and dimensions in various contexts (Leahy-Warren, 2017).

The Lancet Stillbirth Series in 2016 emphasised the enduring psychosocial costs of stillbirth and the need for understanding parents' views of care and suggesting that care providers must recognize the need for assistance, be willing and able to offer necessary support (Finfgeld-Connett, 2005). How health systems support and respect the affected family is a core component of how they will recover from their loss. In health and stress, social support has been one of the frequently studied concepts, both as a resource to be cultivated and use in coping (Lazarus & Folkman, 1984) and as a coping resource in stress-buffering (Lakey & Cohen, 2000). Social support is consistently used in bereavement care, often with inadequate theoretical interpretation or a constrained definition.

2.2.1 Social Support Theory

Social support theories describe social relationships and social exchange in various overlapping ways. Social support is a transactional process involving networks, resources, behaviour and appraisal (Vaux, 1988). Social embeddedness in a social network and social

resources responsive to stressful events have beneficial effects on well-being (Cohen and Wills, 1985).

Social Exchange Theory (Homans, 1958) envisions any social behaviour in the interactional process. In this interaction, people pursue social rewards and expend social costs - gaining something more than its value as a reward. For example, social exchanges rewards can be psychosocial responses such as being liked, loved, respected or socially accepted. These responses are subjective to the receivers' emotional status and feelings. Positively received social support yields gratification for the provider. Supportive interactions are objective transactions of social support, whereas the perceptions of being supported are subjective.

The explanation of the social exchange by Emerson (2008) relates to interactions and relationships between individuals. Emerson's Social Exchange Theory describes how individuals' relationships are organised and how individuals vary the use of support resources. Furthermore, how social relationships are utilized depends on the persons' needs and availability and its proximity to their social network. Dependence on the support network and the strength of social relationships influence the social support exchange process.

The Stress and Coping Theory (Lazarus and Folkman, 1984) and Relational Regulation Theory (Lakey & Orehek 2011) explain social support in bereavement. According to Lazarus and Folkman's (1984) Stress and Coping Theory, a person is stressed until they form negative thoughts about how to deal with the situation (appraisal). A person's appraisal involves the perception of threat and the assessment of social resources that are required to minimize, tolerate or eradicate the stressor. House (1987) described that an individual's behaviour in a stressful situation is influenced by three aspects of social relationships: their existence or quantity (social integration), their formal structure (social network) and their functional contents.

This was described by Cohen and Wills (1985) as stress-buffering, who postulated that the perception of support buffers the effects of stress and promotes coping at different stages during a stressful event. Cohen and Wills further suggest that the perceived availability of social support is more important for health and well-being than receiving support. The perception of social support operates on two tracks. First, a person's belief that others will help them cope with a stressful situation and second, perceived social support will reduce or eliminate negative emotions from the persons' behaviour. Cohen and Wills further described the mechanism of social relationships that create and nurture both close (strong) and peripheral (weak) ties within individuals' social networks and reduce negative social interaction opportunities.

In the Relational Regulation Theory (RRT) of social support, Lakey & Orehek (2011) proposed its main effect on mental health by describing how individuals adjust their affect through relational regulation of social support. Relational regulation is described as desired emotions, action or thought that results from interacting with or thinking about social relations. RRT hypothesizes that social support's main effects occur when people regulate their affect, thought, and action through ordinary yet significant exchanges and shared activities rather than discussions on coping with stress. The regulation is primarily interpersonal in that recipients regulate the types of support sources and social interactions subjective to individual preferences. This means that the recipient perceives the suitability of resources, adjusts their support and undertakes actions to obtain assistance in accordance with their requirements. RRT predicts recipients make their support judgements and shift their social interactions and control emotions optimally. A similar proposition offered by House (1987) indicate that in adversity, an individual may turn towards different individuals within their support network, depending on their support needs.

Acknowledging that social support in adverse life circumstances can do more than stress-buffering, Feeney & Collins (2015) proposed a model of thriving identifying specific interpersonal processes of social relationships that produce the effects of thriving. Thriving is referred to as a persons' well-being and coping successfully with life adversities, harnessing personal growth with social support. The thriving model highlights two functional paths: strength support and catalyst support. Strength support enables safety and protection, providing emotional, physical comfort and a safe environment for expressing negative emotions. In contrast, catalyst support promotes thriving through full participation in life opportunities, growth and development. Thus, social support is conceptualised as an interpersonal process with a focus on thriving. In this way, the extent of support remains situational, empathetic and trustworthy. It preserves the receiver's self-esteem, acknowledges their feelings, respects their inclination and fosters confidence with motivation. The idea of thriving through adversity can relate to resilience (Bonanno, 2005), self-control and personal growth.

Research on social support and health has focused almost exclusively on the benefits of receiving support. Many bereavement studies mention the stress-buffering effect of support and social support's importance (Price *et al*., 2011; Domingo *et al*., 2016). In this review, social support theories were associated with the social network, social resources, social relations, social embeddedness, actual support, perceived support, stress-buffering effects and thriving. This suggests that social support evolves with an individual's perceived needs, awareness and actuality of support. Cohen & Wills (1985) postulated that evidence for a buffering model could be found when the social support measure assesses the perceived

availability of interpersonal resources responsive to the needs elicited by stressful events. The multiplicity of meanings aligned with the term 'social support' is evident and requires exploring its' conceptual identification.

2.2.2 The Concept of Social Support

Social support is described in abstract terms as perceived and received social support, formal and informal social support, quality and quantity of social support, functional and structural support and in relative terms as social interactions, social functioning, social behaviours, social network, appraisal of support (Leahy-Warren, 2009). Hupcey (1998) identified five social support areas (scopes): social networks, perception of support, support provider's behaviour, reciprocity of support and types of support. Support providers' behaviour and reciprocity of support do not apply to this study. Of the five, three of Hupcey's (1998) social support areas are relevant for this study's context and a mother's perspective, and these are her social networks, perception of support, and types of support.

In social support concept analyses, Langford *et al*. (1997) and Murray (2000) proposed the attributes as emotional, instrumental, informational and appraisal social support and antecedents as a social network, social embeddedness and social climate. The social structure was not considered an attribute as implicit in social network characteristics. The consequences of social support consist of personal competence, health maintenance behaviours, effective coping, perceived control, sense of stability, recognition of self-worth, positive affect, psychological well-being, and decreased anxiety and depression (Langford *et al*., 1997). In addition, improved self-esteem, increased knowledge, and understanding of the situation are important consequences of social support (Murray, 2000).

In a concept analysis of social support of new mothers, Leahy-Warren (2018) identified structural (formal - spouse, family, friends and informal - healthcare professionals, support groups), and functional (informational, instrumental, emotional, and appraisal) social support as mutually exclusive defining attributes. Leahy-Warren further explained that social support occurs only when there is a social network structure exists with social connectedness in a social climate of assistance and safety. Leahy-Warren described that the consequences of receiving social support are increased confidence and improved coping with baby care, enhanced self-efficacy, increased adaptation to motherhood, facilitation of baby bonding and attachment, and improved emotional well-being. These attributes and consequences can well apply to motherhood in general and may also be relevant in the stillbirth context.

House (1981) proposed that functional social support can be emotional (e.g. listening, caring, expressing, understanding, love, empathy), informational (advice, information),

instructional or tangible (providing support through assistance and aid) and appraisal (giving feedback, encouragement, appreciation). House (1981) suggests that no single type of social support should be considered more important than another. Functional support can occur naturally, discovered, invented or created as per requirement. Structural social support can include various social support relations in social networks and are established according to their strength and proximity to an individual (e.g. my husband, dear friend, work colleague, or support group). The relevance of support resources and different types of support varies as per the problem or situation. Thoits (2011) described structural social support connections and contacts with people are organized as primary and secondary social groups. The primary group is often smaller in size, informal, intimate, and enduring for a person. While the secondary social group is more extensive, formal and sometimes informal but less personal, maybe loosely linked, it may range from short to medium term. Formal support is generally intentional and structured, whereas informal social support can occur naturally and is less structured. Both types of support are needed for going through adversity, such as stillbirth.

The exploration of theories and concept has contributed to my comprehensive understanding of social support, and the next segment will explore how social support is defined.

2.2.3 Definitions of Social Support

A significant body of research has resulted in many social support definitions identifying shared and unique support categories. Williams *et al*. (2004) critically appraised social support definitions and argued that a contextualized approach to the meaning of social support is necessary to improve clarity in specific research. The role of social support is outlined in numerous diverse contexts: communication and mutual obligation (Cobb, 1976); interpersonal transaction (House, 1981); exchange of support resources (Shumaker & Brownell, 1984). Leahy-Warren (2018) defined social support for new mothers as the process through which social relationships promote health and well-being through structural and functional elements that are inextricably linked (Leahy-Warren, 2018, p.235). Cohen (2004) defined social support as the social network's provision of psychological and material resources intended to benefit an individual's ability to cope with stress (p.676). Cohen's definition is broad and could fit in the stress-buffering model of social support and indicates its impact on the mothers in the stillbirth context.

The key aspect of Cohen's definition is the 'ability to cope with the stress'. It suggests that the social support recipient perceives social support as providing stress-buffer in an adverse situation. As discussed in a previous segment on social support theory, social support eliminates or reduces distress by reducing threatening interpretations of adverse events and

helping to cope effectively (Cohen & Wills, 1985). Hence, Cohen's definition appears appropriate for the current study and sample of mothers who experienced stillbirth.

2.2.4 Discussion

Above section aimed to review social support theories applicable to the context of stillbirth, identify the concept with defining characteristics, and determine its relevant definition. This review demonstrated how social support theory provides a comprehensive guide to understand the complexity and multidimensional nature of social support in the stillbirth context. Social support includes two dimensions: structural (formal and informal social network) and functional (informational, instrumental, emotional and appraisal). Therefore, social support can be conceptualised as an interpersonal process that involves structural and functional components to deal with life after stillbirth. The next section presents a review of the literature to provide theoretical perspectives of self-efficacy.

2.3 Theoretical Perspectives of Self-Efficacy

This section reviews self-efficacy theories, definitions and concept analysis of self-efficacy to guide the framework of this study.

Self-efficacy refers to one's belief about one's self and one's abilities to achieve something (Bandura, 1982). Self-efficacy has been studied in several disciplines, including psychology, sociology, nursing, medicine, academics, science and technology, to understand performance outcomes, influences on health behaviour, and self-care. The concept of self-efficacy was first presented in psychology by Bandura as a key component of the social cognitive theory which later developed as the theory itself (Bandura, 1977, 1986). According to Bandura (1977), self-efficacy is an individual's belief in their ability to do well in a situation. Bandura explained that these beliefs are the motivation of how people think, act, and feel.

2.3.1 Self-Efficacy Theory

Bandura's Self-efficacy Theory has had a considerable influence on health psychology, clinical practice and research. Self-efficacy theory is based on a personal judgement about the self. Self-efficacy theory was derived from Bandura's Social Cognitive Theory that proposes individuals do not merely respond to the situations, instead they actively seek and interpret information. In this view, people are contributors to their life circumstances through four concurrent cognitive processes – self-evaluation, self-observation, self-reaction, and self-efficacy. According to theory, self-efficacy makes a difference in how people think, behave and motivate. Self-efficacy in dealing with one's environment is not a fixed act or merely a matter of knowing what to do. Instead, it involves a generative capability in which

cognitive, social, and behavioural skills are organized into integrated courses of action to serve various purposes.

An essential component of social cognitive theory, Bandura's self-efficacy theory (Bandura, 1977), postulates that any emotional incidence can influence a person's internal resources to create and strengthen the response and develop outcome expectations. Response expectations are meanings of what you believe you can do and how you act. Outcome expectations are what you think you can achieve. Bandura explained that the outcome is different from the response. In an individual's response, they may believe and expect to perform constructively for a particular outcome. Still, the outcome could be different from what was expected. Bandura (1997) noted that individuals with high self-efficacy tended to have faith in their strength and capabilities when faced with adversity.

Bandura (1982) explained the centrality of the self-efficacy mechanism as a human agency and proposed that self-perceptions of efficacy are not merely an inert estimation of action. Self-efficacy perceptions are operative capabilities, functioning as one set of proximal determinants of how people behave, their thought patterns, and their emotional reactions when facing adverse situations. Bandura (1994) further explained that individuals, with their existing and new capabilities, attempt to manage life events in order to gain control over their circumstances. Capabilities to produce desired effects and to prevent undesired outcomes, progress into a sense of personal control or self-efficacy beliefs. Bandura's focus is predominantly on perceived self-efficacy beliefs and proposes its influence on coping behaviour, levels of stress reactions, self-regulation, regaining personal control or feeling hopelessness in failure.

According to Bandura (1993), people's perception of self-efficacy beliefs influence most life circumstances and are developed through four sources. The first source of self-efficacy is through performance outcomes (own accomplishments) or a person's life experiences. Previous experience that was endured reasonably will contribute positively to the current situation. However, failures may aggravate the stress. The principal sources of performance accomplishments are participant modelling, performance desensitization, performance exposure and self-instructed performance (Bandura, 1977).

The second influential source for strengthening self-efficacy is vicarious experiences (learning through other people's experiences). The vicarious experiences are constructed on and influenced by the perceived similarity of circumstances, through other person's behaviour, expressed thoughts by others, and others' competency in managing demands. The principal sources of self-efficacy through various experiences are live modelling and

symbolic modelling (Bandura, 1977). The building of self-efficacy through vicarious experiences can also be achieved through social interaction with peers.

The third source of self-efficacy development is verbal persuasion (encouragement or discouragement) and is related to self-efficacy beliefs in influencing human behaviour. According to Bandura (2012), if people are persuaded to believe in themselves, they are more perseverant in the face of difficulties. The principal sources of verbal persuasion are suggestions, exhortation, encouragement, self-instructions and interpretive treatments (Bandura, 1977). Strong self-efficacy is achieved through timely motivation and appropriate appraisal, accomplishing improvement rather than triumph.

Emotional arousal and feedback follow verbal persuasion and is the fourth source of self-efficacy. Feedback includes emotional stimulation and physical perceptions that rely on stress reactions and vulnerability. These are sourced through attribution, biofeedback, relaxation, desensitization, exposure (Bandura, 1977). Feedback and positive emotions enhance perceived self-efficacy and physiological strength (Bandura, 1986). In circumstances that need strength and stamina, people judge their fatigue and incapability as signs of physical weakness rather than emotional distress. As previously discussed, appraisal and feedback are also components of social exchange theory (Homans, 1958) of social support. People tend to appraise and give others feedback about their capabilities in performing certain tasks and mobilising resources. Bandura's theory suggests this feedback is essential to build self-efficacy.

Bandura (1993) further discusses how perceived self-efficacy is influenced by four processes (cognitive, motivational, affective and selection) that operate in tandem and regulate human functioning. Cognitive processes are organised in thoughts. In cognitive processes, people form beliefs about their capabilities and mobilise their resources and formulate the plan for their actions, cognition further progress towards motivation. Self-efficacy beliefs play a key role in the self-regulation of cognitive motivation and exert self-influences – self-satisfaction, goal attainment and readjustment of goals. Self-influences are developed by determining a person's self-efforts, perseverance through difficulties, resilience to failures, and contributing to one's emotions.

Further, motivation progresses into affective processes whereby persons realise how much emotional stress or anxiety they have experienced in difficult situations. When a difficult situation is perceived as unmanageable, it is acknowledged as a threat that follows with worries, distress and impaired level of functioning (Lazarus & Folkman, 1984). When people gain control over an adverse situation, functioning improves, and distress lessens or becomes less threatening. Selection processes determine individuals' choices, potentials and activities,

but they judge themselves to be capable of managing or not managing. By making choices, individuals cultivate competencies and social networks that influence their self-efficacy. Social influences continue to promote specific competencies, values and interests long after the initial appraisal of self-efficacy beliefs. As discussed previously, social networks create and nurture social ties and help build a person's ability to cope with stressful situations.

According to Bandura (1997), self-efficacy beliefs can have three aspects: magnitude, strength, and generality. The magnitude of self-efficacy refers to the ability to withstand difficulty of the tasks. The strength of self-efficacy beliefs refers to the power to withstand. Weak self-efficacy beliefs become rapidly ineffective by barriers. Generality refers to the ability of a person to continue to keep going in many difficult situations. Collectively three aspects of self-efficacy determine scope of persons self-efficacy.

Benight & Bandura (2004) suggested that coping self-efficacy is the focal mediator of post-traumatic recovery. This belief system is ingrained in social cognitive theory and specifies the modes of influence for building a resilient sense of self-efficacy. Making a resilient sense of self-efficacy is not inherently instructive but is enabled through cognitive processing of efficacy relevant information.

Relatively new dimensions of self-efficacy proposed by Schwarzer & Renner (2000) are described as phase-specific: action self-efficacy and coping self-efficacy. The action self-efficacy operates in a pre-intentional phase and takes place before a task or action occurs. A person with high action self-efficacy takes the initiative to act. A person with low action self-efficacy may have self-doubts and thus hesitate to take the initiative. When action self-efficacy is low, the individual needs persuasion to initiate action; however, if it is high unrealistically, an individual will need to be persuaded to slow down. The coping self-efficacy operates in the second or post intentional phase. In this phase, a person with high coping self-efficacy invests confidently, persists and sustains the efforts longer. When a person receives setbacks, they recover quickly and maintain commitments. A person with low coping self-efficacy would not sustain longer or succumb to setbacks. Action and coping self-efficacy work in tandem.

Most transformations or transitions in life situations or adversity are subjective and are influenced by social norms. Social norms regulate human behaviour and decide standards of social conduct. People may vary in the different areas in which they cultivate their efficacy and the levels to which they cultivate it within their pursuits (Bandura, 2006). Thus, self-efficacy beliefs cannot be considered as a global trait but can be distinguished as a set of self-beliefs linked with functioning in specific contexts under the influence of social norms. Concept analysis of self-efficacy is discussed next.

2.3.2 The Concept of Self-Efficacy

In an in-depth analysis using 'Rodger's model', Zulkosky (2009) explained that self-efficacy is an imperative concept for a person to acquire in the adversity and struggles they encounter. Self-efficacy is seen as a vital set of proximal determinants of human behaviour, affect and action, Zulkosky (2009) identified defining attributes as cognitive (thoughts) and affective processes (emotional reactions) and locus of control (level of self-control).

Social experience precedes self-efficacy and determines if a person has high or low levels of self-efficacy. A person does not carry out all that is learned in life to enact the behaviour. A person needs the motivation to regulate behaviour and action. Moreover, a person senses self-efficacy through self-efficacy sources (performance accomplishment, vicarious experiences, verbal persuasion and feedback). Self-efficacy is not only concerned with specific coping skills one has but also include a person's judgement about the functionality of these skills. Consequences of self-efficacy are particular behaviours that self-efficacy beliefs influence. In other words, it is how a person behaves after thinking, feeling, and encouraging themselves. Self-efficacy beliefs determine a person's level of motivation, reflecting on how much effort is applied and how long achievements will persevere in the face of obstacles (Bandura, 1989). The self-efficacy definition is reviewed next to determine the concept's operationalisation in the study.

2.3.3 Definition of Self-Efficacy

Bandura's self-efficacy definition evolved over the years. As a concept, it was embedded in social learning theory, later known as social cognitive theory. Self-efficacy refers to individuals' beliefs about their capabilities to produce designated levels of performance that affect their lives directly or indirectly (Bandura, 1982, 1994, 2012). Bandura (1989, 1994) proposed self-efficacy as one's ability to perform a specific task and is a key concept in understanding health-related behaviours. Perceived self-efficacy is related to judgments of how well one can execute a course of action required to deal with situations (Bandura, 1989). Comprehensively, Bandura (1994) defined perceived self-efficacy as 'people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives' (p.71).

2.3.4 Discussion

This section's purpose was to review theory, definitions, and concept analysis of self-efficacy to guide the framework of this study. Self-efficacy theory is based on a personal judgement about self. An essential component of social cognitive theory, Bandura's (1977) self-efficacy theory, postulates that any emotional incidence can influence a person's internal resources

to create and strengthen the response and develop outcome expectations. Self-efficacy can be conceptualised in this study as an internal attribute that develops self-beliefs.

The most evolved definition of self-efficacy refers to perceived self-efficacy as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over the events that affect their lives. Benight & Bandura (2004) suggested that coping self-efficacy is the focal mediator of post-traumatic recovery. This belief system is ingrained in social cognitive theory and specifies the modes of influence for building a resilience sense of self-efficacy. Self-efficacy is an important attribute in cognitively overcoming adversity and can help rebuild a life after trauma with a sense of control.

The next part discusses the theoretical perspectives of resilience.

2.4 Theoretical Perspectives of Resilience

Resilience research is based on the salutogenic paradigm that focuses on discovering resources that contribute to healthily functioning (VanBreda, 2001). According to Garmezy (1991), individuals with higher resilience levels tend to perceive life challenges with a positive perspective. The application of resilience theory helps to promote understanding of the healing process in a more in-depth and most effective way through adversity (Richardson, 2002). Although started as an inquiry into the resilience of children, resilience theory has grown into a broad and dynamic field of study addressing individuals (both children and adults), families, communities, workplaces, and policies. There are not many life domains that have not been touched in one or another way by resilience theory. Resilience does not oppose negative emotions but acknowledge their presence along with emerging positivity (Seligman & Pawelski, 2003). After global traumatic events, the concept of resilience has prominently emerged in theory applicable to adults and all adversities (Bonanno, 2005; Tedeschi *et al*., 2018).

2.4.1 Resilience Theory

Resilience theories have emerged from the emphasis on strengths rather than deficits (Fletcher & Sarkar, 2013). Resilience theories provide the conceptual framework for learning and understanding why some individuals do well on exposure to adversity (Garmezy, 1991; Werner, 1997; Rutter, 1987; Masten, 2001). The foundation of resilience theories was laid by the substantial research done in the field of child development and child psychology. Currently, resilience theory is integrated into a social and health concept. Resilience research is advanced in four major waves (Richardson, 2002; O'Dougherty Wright *et al*., 2012). The first wave of research focused on recognising the qualities of resilient individuals. The second wave explored contextual resilience. The third wave of

research explored various influencing factors within individuals and the environment that promoted resilience. The fourth wave, now developing, focuses on multiple resilience levels linking to genes, neurobiological adaptation and behaviour. Some resilience theories are specific to populations, such as children (Masten, 2001), military (Van Breda, 2001), adults (Richardson, 2002). Nevertheless, the emphasis of resilience theories remains diverse, such as individual's resilience patterns (Polk, 1997), resilient reintegration (Richardson, 2002), individual differences in resilience (Bonanno, 2004) and resilience factors along with environmental factors (Ungar, 2004).

Polk's (1997) theory of resilience centres on the idea that resilience is an ability that transforms disaster into growth and suggests that, for example nursing (healthcare professionals), is involved with individuals who are moving through a process of developing resilience. Polk defined four patterns of resilience, specifically dispositional, relational, situational and philosophical. Dispositional patterns manifest resilience with physical and psychosocial attributes (health, temperament, intelligence, sense of self). Relational patterns influence resilience through relationships in the social network. Situational patterns surface when an individual faces adversity through cognitive and problem-solving skills and make a realistic assessment to act. Philosophical patterns manifest as personal beliefs. The synergistic relationship of four patterns forms a unitary pattern and can be recognized as resilience.

Ungar's (2008) theory suggested that resilience is more than an individual set of characteristics and is structured around and influenced by the individual's capacity to navigate through adversity and with their sociocultural resources. Ungar (2012) presents three principles that explain a social-ecological representation of resilience. These are equifinality (many good means to good ends), differential impact (different protective processes influence resilience differently depending on the individual's exposure to risk) and contextual-cultural moderation, i.e., protective processes are valued and made available differently in different contexts and cultures. The theory is applied in the studies on parents of children with congenital anomalies (Plumb, 2011) and women in crisis pregnancy (Jana *et al*., 2016).

Bonanno (2004) proposed that resilience in the face of loss or potential trauma represents a distinctive trajectory from recovery, and resilience is more common than often believed, with multiple and sometimes unexpected pathways to resilience. Furthermore, Mancini & Bonanno (2009) proposed that resilience can be achieved through various means; this pathway range might be responsible for observable individual differences in resilient adaptation among individuals facing similar adversity. The role of ethnic and cultural beliefs

and natural life variations also can influence resilience. Resilience theory has been applied in studies on bereavement (Bonanno, 2005; Chidley *et al*., 2014).

Richardson's (2002) Resilience Theory is frequently referred to as a generic theory and accompanies a resiliency model (the process of resilience) and is collectively referred to as the meta-theory of resilience and resiliency. Richardson's theory postulates that ecological sources trigger resilience in people. The inner energy or the inner force drives a person to survival and self-actualisation in adversity. The theory proposes that every individual has a biopsychospiritual (biological, psychological and spiritual) balance in their life. This balance gets challenged continuously by adversity, stressors or life circumstances. Resilient qualities and previous experiences influence a person's ability to withstand, cope and adapt to adverse events. A person's coping and adaptation with adversity leads to one of four reintegration outcomes: 1) resilient reintegration 2) return to a previous balanced state with no new change, or 3) recovering from the loss with a lower level of balance, or 4) dysfunctional state of mind or maybe maladaptation. Richardson explained that resilient reintegration includes the experience of insight, personal growth, learning new skills and putting life's perspective back on a path.

Richardson and colleagues (1990) proposed that individuals reacting to disruptive life events choose resilient reintegration consciously or unconsciously. Multiple layers of emotions, appraisal responses, and multiple reintegrating phases co-exist or co-occur in an adverse situation. Similarly, one adverse event can have multiple stressors that may possibly demand several resiliency processes taking place simultaneously. Resilient reintegration can happen many times in adversity, with each distinct phase having a new challenge and new knowledge. Repeated disruptions can lead to resilience and increasing wisdom upon wisdom. Richardson's theory is often criticised for its linear presentation, in that a person's life can have more than one difficulty or adversity.

Overall, this section reviewed various resilience theories and described Richardson's meta-theory of resilience and resiliency in detail. The theory has been endorsed in the theoretical literature (Agaibi & Wilson, 2005) and has been applied to construct resilience instruments (Connor & Davidson, 2003). The theory is potentially applicable to the broader population and at the individual level. It is the only resilience theory described as a meta-theory (Fletcher & Sarkar, 2013) that comprehensively encompasses resilience as both an outcome and a process. The complexity of the term resilience is evident from the above discussion and requires further examination.

2.4.2 The Concept of Resilience

Resilience is increasingly studied to explain the complexities of responses to adversity and trauma (Aburn *et al*., 2016). In order for resilience to be achieved, a consensus within research is for the role of protective factors or attributes. These are recognized as crucial in achieving resilience and, through their dynamic interplay, enable the ability to respond positively to risks and alter or reduce the effects of adversity. The most frequent attributes of resilience are rebounding, self-efficacy, social support. Rebounding is a frequently cited attribute (Gillespie *et al*., 2011; Dyer & Mcguinness, 1996; Earvolino-Ramirez, 2007; Garcia-Dia *et al*., 2013), and is described as the ability to bounce back after facing adversity.

The meaning of rebounding indicates that individuals who face trauma or adversity recover. However, rebounding denotes coming back to where it was started. Self-efficacy is attributed to resilience in that self-efficacy beliefs may help ascertain how much effort individuals can expend on activity and how long they will persevere when faced with adversity (Gillespie *et al*., 2007; Garcia-Dia *et al*., 2013). An individual having a higher sense of self-efficacy will expend more effort, have persistence and resilience. Social support is considered as the presence of at least one significant meaningful relationship of a person for resilient outcomes (Dyer & McGuiness 1996; Gillespie *et al*., 2007; Earvolino-Ramirez 2007; Windle *et al*., 2011; Simmons and Yonder., 2013; Garcia-Dia *et al*., 2013). Social support may be provided from the social network an individual already has while adding new resources which emerge through adversity to help the individual cope and manage.

Other attributes were identified, such as a sense of humour, hope and flexibility. Sense of humour is considered to play an important role in coping and can moderate emotional intensity (Earvolino-Ramirez, 2007). This from within, a sense of humour may be subtle or overtly observable even when surrounded by adversity. Hope is also essential in the development of resilience as it ameliorates the effects of stress. Flexibility refers to adaptability when a person can move with the changes (Earvolino-Ramirez, 2007). A flexible person is cooperative, amiable, tolerant and has an easy temperament.

Adversity was unanimously considered the antecedent of resilience (Gillespie *et al*., 2007; Earvolino-Ramirez 2007; Windle 2011; Simmons & Yoder 2013). The disruption due to trauma or loss allows an individual to utilise resilient capabilities and resources to accomplish resilient reintegration (Richardson, 2002). Challenge, change, and disruption in life are the other aspects of adversity and are noted as antecedents that occur before the process of resilience begins (Earvolino-Ramirez, 2007).

The significant outcomes or consequences of resilience are identified as effective coping, integration, control, positive adaptation and mastery. Effective coping is considered one of

the fundamental consequences of resilience (Dyer & McGuiness, 1996). It is best described as effectively managing the adversity or loss or trauma and functioning at a favourable level (Earvolino-Ramirez, 2007). Windle (2011) suggested that effective coping is not merely recovery from adversity but the sustainability of a resilient state and its reintegration into the life forward. Effective coping can be anticipated when an individual consciously validates adversity, uses internal and external resources, and returns to life's natural functioning with new meaning. An integration is noted as one of the consequences of resilience in the presence of adversity (Gillespie *et al*., 2007; Windle, 2011). The person progresses to incorporate adversity into the life that needs personal control. Personal control is considered the ability individuals possess and acquire to manage the difficult situations that affect their lives (Gillespie *et al*., 2007). Personal control can be self-detected by an individual and reduces fear. It is not the strength of personal control that matters, but its presence that makes the difference.

Positive adaptation is considered a resilient outcome or consequence because it happens when resilience is effective at a personal level (Earvolino-Ramirez, 2007). The levels of adaptation depend on the degree of individual resilience. The complexity of the conceptual understanding of resilience necessitates how resilience is defined in the literature.

2.4.3 Definitions of Resilience

Though there are various resilience definitions, it is consistently proposed that resilience is related to the processes and abilities that result in healthy outcomes despite adversities or difficulties (Masten, 2001; Bonanno, 2005; Richardson, 2002; Ungar, 2006; Caldeira & Timmins, 2016).

Differences in definitions of resilience are due to its varied perception as process, trait, ability or outcome. Resilience is considered as the ability to bounce back and thrive in the face of trauma or adversity (Southwick *et al*., 2014) or viewed as a trait that may be inherent (Jacelon, 1997). Bonanno (2005) considered resilience is a natural trajectory of healthy functioning after a brief disruption due to an adverse event. Further, Bonanno proposed resilience as a common phenomenon (Bonanno, 2005) and Masten (2001) refers to resilience as ‘ordinary magic’. Masten (2011) defined resilience as the capacity of a person's dynamic system to withstand or ‘recover’ from significant changes that threaten its stability, viability, or development. Later, he modified the definition as the capacity of a person's dynamic system to ‘adapt’ successfully to disturbances that threaten system function, viability, or development (Masten, 2014). The change from ‘to recover’ to ‘to adapt’ successfully reflects the comprehensive conceptual understanding of the resilience process where a person accomplishes more and extends beyond recovery.

Richardson (2002) described resilience as the energy that arises from inside the human spirit and in the presence of external resources that transcends personal control in life. Ungar (2008) suggests resilience is culturally and context specific. With exposure to significant adversity, resilience is both the capacity of individuals to navigate towards psychological, social, cultural, and physical resources. Also, resilience is the capacity to sustain well-being and the ability to negotiate for resources to be provided in culturally meaningful ways.

Caldeira & Timmins (2016) proposed a definition of resilience as 'an ability to recover from the perceived adverse or changing situation, through a dynamic process of adaptation, influenced by personal characteristics, family and social resources, manifested by positive coping, control and integration' (p.197). Caldeira and Timmins' definition delineates the conceptual and theoretical understanding discussed above and, therefore, emerges as the most comprehensive and standard definition of resilience so far. Further, it is evident that definitions of resilience are convoluted and diverse; hence the operationalisation of resilience in research needs contextual application.

2.4.4 Discussion

This section's purpose was to review theory, definitions, and concept analyses of resilience to guide the framework of this study. Most theories proposed that resilience is a dynamic process that changes over time. Furthermore, most theories acknowledged that, within the resilience process, the interaction of a wide range of factors determine the extent of resilient reintegration. However, in terms of explaining individual characteristics, the theoretical emphasis often varies with its perspective contextually. This review indicates that various resilience theories can navigate research and theoretically comprehend individuals' struggles in adversity. Further, this review theoretically acknowledged the relationship between social support, self-efficacy and resilience. Richardson's (2002) meta-theory of resilience and resiliency appears to be comprehensive for applying and developing the conceptual framework of this study.

2.5 Summary

This chapter described theoretical perspectives of social support, self-efficacy and resilience. And suggest that adversity could be overwhelming, but resilient people respond to the challenges with courage and strength. Feeney and Collins (2015) indicated that adversity might enhance the functioning of the person by thriving, and resilience is a prominent element in thriving. Theories, concept analyses, and definitions from diverse disciplines projected various underlying characteristics that suggest resilience is more than recovering from adversity and include progression to new growth and thriving.

A resilient person has their individual strength and ability (e.g. self-efficacy) to effectively use available and acquired resources (e.g. social support). Social support and self-efficacy are mutually considered the most crucial attributes of resilience (Dyer & McGuiness 1996; Gillespie *et al*., 2007; Earvolino-Ramirez 2007; Windle 2011; Simmons *et al*., 2013; Garcia-Dia *et al*., 2013; Eells 2015). Cohen (2004) refers to social support comprehensively as a social network's provision of psychological and material resources intended to benefit an individual's ability to cope with stress (p.176). Bandura (1994, p.71) refers to perceived self-efficacy, which is defined as 'person's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives'.

There are many stressful situations during a typical pregnancy, but stillbirth is perhaps the most unexpected, unplanned and stressful situation of all pregnancy outcomes. In such adversity, challenges are unique and may continue during the mothers' life forever. The previous chapter discussed that the stillbirth experience put the mother's mental health under stress; however, not everyone succumbs to facing difficulties. While never forgetting the loss, most women bounce back to a state of normality to some extent. Some experience thriving while making use of trauma to drive them into a new rewarding life and helping others. At the same time, others may need support to develop self-efficacy and resilience.

Exploration of the theoretical perspectives on social support, self-efficacy and resilience facilitated my understanding of the concepts, definitions and theoretical application that enabled developing a conceptual framework for this study. It is evident from the discussion in this chapter that the concepts of social support, self-efficacy and resilience are theoretically related and have an active role in adversity and stress. The next chapter reviews the empirical literature on social support, self-efficacy and resilience to highlight the significant findings that informed this study.

Chapter 3 Review of Literature

3.1 Introduction

An integrative review is a specific method that encapsulates diverse data from past empirical and theoretical literature to understand the research phenomenon comprehensively. The integrative review method was selected for the literature review as it has the potential to contribute to theoretical enhancement and have direct applicability to practice and policy initiatives. The steps for an integrative literature review were developed using Whittemore and Knafl (2005) guidelines and followed the five stages – problem identification, literature search, evaluation of data (searched studies), data analysis and interpretation and presentation. Theoretical perspectives related to the concepts outlined in Chapter Two theoretical perspectives suggested that social support, self-efficacy and resilience are important in buffering stress and coping in adversity. However, it needs to be established if the concepts can be applied in the context of stillbirth. Hence, the literature review was undertaken to identify and analyse literature related to maternal social support, self-efficacy and resilience. The literature review's subsequent purpose was to inform the focus of the study on the issues that were not yet fully explored in previous research. The review enabled an exploration of the quality of evidence, ascertain if a literature gap existed and helped identify prospective steps for the study. Previous research entailed a significant understanding of the study concepts. Evidence produced from the integrative review contributed to developing the conceptual framework and methodological approach for the study.

A literature search was undertaken for each of these concepts separately, as will be seen below. While the search was for studies that included mothers who had experienced a stillbirth, due to the paucity of literature in this area, studies were also included if they related to women who experienced miscarriage, neonatal or child death. Some studies related to child disabilities were included to understand how mother's self-efficacy and resilience are examined or explored. This chapter presents a review of the empirical literature on social support, self-efficacy and resilience. Details of the literature search, search outcome and overview of selected studies are first presented. Studies on social support, self-efficacy and resilience are discussed next. The chapter ends with summarising the literature review and has identified the need for this study.

3.2 Literature Search

The PECO framework (Boudin *et al*., 2010) was used to direct individual literature searches on social support, self-efficacy and resilience. The component of control or comparison is

omitted because it is non-applicable for this study. Therefore, the PEO format for this literature review has the components: population, exposure and outcome. Population refers to the people who are affected. In this study, this means mothers. Exposure refers to the specific condition that people are exposed to. In this study, exposure refers to the experience of stillbirth. The component of outcome refers to what the study measures or explores. In this study, outcome refers to self-efficacy, social support and resilience.

As stated, the PEO format was used in three independent literature searches for self-efficacy, social support and resilience (Appendix 1). The first search was: Population as mothers, Exposure as stillbirth and Outcome as self-efficacy. The second search was conducted with: Population as mothers, Exposure as stillbirth and Outcome as social support. The third search was conducted with: Population as mothers, Exposure as stillbirth and Outcome as resilience. The studies on social support, self-efficacy and resilience were limited; therefore, pregnancy loss, neonatal death, child death and severe child disabilities contexts were also included to get more literature on the related concepts and to understand how these concepts are examined and explored.

3.2.1 Information Resources

A literature search was done using the electronic databases CINHAL, PubMed, Medline, PsycINFO, PsychArticles, SOCIndex and applying limiters 'English' and 'Human'. The key terms self-efficacy, social support, resilience, mothers and stillbirth with different combinations. The initial search was limited from 2010 January to 2020 December. However, some key relevant studies were included even though published before 2010. Details of key terms and selection criteria are illustrated in Appendix 2.

3.2.2 Selection of Studies

The selection of studies was made from multiple screenings, reading titles, abstract and full text published literature. The main aim was to select studies relevant to the context and the concepts of the study. Initial screening was done by reading titles and abstracts. Selected titles and abstracts were reviewed thoroughly to shortlist relevant publications. Further, reference lists of selected studies were scanned, and relevant publications were included based on inclusion criteria (Appendix 2). Quantitative, qualitative, mixed-methods studies and systematic reviews were included.

3.2.3 Search Outcome

The initial search elicited 279,907 research studies on social support. A combined search with stillbirth, pregnancy loss, neonatal death, child death and mothers obtained 948 studies. After the title and abstract screening, 499 studies were selected for further evaluation.

Applying limiters (10 years, full text and adults aged 19 to 44 years), 118 studies were selected. Detailed and complete text examination further shortlisted to 40 studies. Following the appraisal, 20 studies were finalised. Total 20 studies were included in the literature review and transferred into a reference management system – Mendeley Desktop.

The initial search elicited 106,625 research studies on self-efficacy. A combined search with stillbirth, pregnancy loss, neonatal death, child death and mothers elicited 59 studies. Title and abstract screening yielded 32 studies. The full-text review further shortlisted 23 studies. After a detailed examination, 15 studies were drawn, and a thorough appraisal yielded seven studies. A total of seven studies were included in the literature review and transferred into Mendeley Desktop.

In relation to resilience, the initial search elicited 234,884 research studies. A combined search with stillbirth, pregnancy loss, neonatal death, child death and mothers elicited 393 studies. The title and abstract screening yielded 66 studies. A total of 25 studies were shortlisted after applying limiters (10 years, full text and adults aged 19 to 44 years). After a thorough appraisal and detailed examination, 14 studies were finalised for review and transferred into Mendeley Desktop.

Tracking references to these research studies and auto alerts from the databases identified three further studies on social support, self-efficacy and resilience for the review. The selected studies were included in the literature review and transferred into Mendeley Desktop.

Finally, twenty studies on social support, seven studies on self-efficacy, fourteen on resilience for the literature review. Additional three recent studies included as these simultaneously examined social support, self-efficacy and resilience. A PRISMA Flow Diagram of the literature search outcome is presented in Appendix 3. Additionally, three studies were handpicked as relevant to the study and are reviewed separately at the end of the chapter.

3.2.3.1 Selected Studies

A database was prepared for Summary of Selected Studies (Appendix 4) to extract underlying propositions, insights, methodology and findings of the selected studies.

3.2.3.2 Overview of the Studies

Studies on Social Support

Social support is researched globally in various disciplines and contexts. Most of the studies on social support were from the USA (n=5), followed by Sweden (n=3) and Finland (n=2). One study each was from Australia, Netherlands, Ireland, UK, Canada, Malaysia and Iran.

Ten studies used qualitative methods, five studies were quantitative, and one study was a mixed-methods study. Most were conducted in the discipline of nursing (n=8), followed by the community or public health (n=4) areas. Two were from psychology and there was one study each from social work, neonatology and epidemiology. One systematic synthesis was included that was published in the discipline of health sciences in Australia.

Most studies used a single data collection. However, three studies used multiple data points to identify changes in levels of social support. Out of the three studies, Lang *et al.* (2004) examined resilience with social support. Tan *et al*. (2012) examined social support from birth to six months post-death. Erlandsson *et al*. (2013) described parents' experiences of support over two years after a stillbirth. Overall, studies had varied times since the loss - the closest time since the loss was 16 weeks (Sutan *et al*., 2010; perinatal death), and the longest time since loss reported was 1970 to 2012 (Gijzen *et al*., 2016; child death). Ten studies examined both parents; however, the mothers' participation was more remarkable than fathers in these studies.

The review identified social support studies across nursing and other disciplines. Considerable variation emerged in how support was described, investigated and applied, and this will be discussed in the sections on review of the empirical literature.

Studies on Self-Efficacy

Self-efficacy studies were from the USA (n=3). Followed by one each from Finland, Turkey, Poland, Spain and the UK. These studies were from different disciplines that include nursing (n=2), Psychology (n=2), Sociology (n=2), fetal medicine (n=1) and allied health (n=1). A quantitative methodology with one-time data collection was used in all studies. Most studies focused on the unidimensional measurement of self-efficacy, along with other variables. Most studies had mothers (n=6) as participants. The shortest time since exposure was reported as six months (Nikcevic *et al*., 1998) and the longest time was reported any time in life (Antonio, 2013). Nikcevic et al. (1998) study was selected due to its relevance to the concept of maternal self-efficacy in the context of pregnancy loss.

Overall, the review identified that self-efficacy was studied among mothers; however, no study is published that directly examined the self-efficacy in the stillbirth context. Considerable variation emerged in how self-efficacy was described, investigated and applied, and this will be discussed in the sections on empirical literature.

Studies on Resilience

Most of the studies emerged from the USA (n=6), while one study each was from Switzerland, Belgium, Turkey, and Australia. One large study conducted by Cacciatore *et*

al. (2014) was conducted in two countries, Canada and the USA. All studies used quantitative methodology except one that used mixed methods (Lee & Rowlands, 2014). Three studies were longitudinal and focused on how resilience levels changed among participants over specified time frames. Most studies were conducted in the field of nursing (n=4) and psychology (n=3), and one each from paediatrics, psychiatry, social work and allied health.

Seven studies included mothers as participants, and four studies included both parents as participants. However, some had higher proportions of mothers than fathers. In relation to duration post the stillbirth, neonatal death or miscarriage, or child death, the shortest time was reported as two months (Lang *et al*., 2004); and the longest time was reported 18 years (Essakow & Miller, 2013).

The concept of resilience was examined across the social and health sciences. The studies from social sciences focused on the resilient responses of mothers, fathers or both parents to a child's disabilities or child death or pregnancy loss or stillbirth, while psychologists focused on the abilities to develop resilience. Associations of resilience were examined with different psychosocial outcomes (depression, anxiety, life satisfaction, general health, physical functioning), various resources (hardiness, hope, social support, coping strategies, spirituality) and personal abilities (sense of coherence, appraisal, crisis evaluation, self-esteem). Considerable variation emerged in how resilience is described, investigated and applied, and this will be discussed in the following sections. Social support was identified as a prominent protective factor in most of the resilience studies. Also, self-efficacy was identified as an important protective factor of resilience.

3.3 Review of Empirical Literature

The empirical literature is discussed under three subsections: studies on social support, studies on maternal self-efficacy and studies on resilience. The main aim was to identify literature on social support, maternal self-efficacy and resilience and to explore how these concepts are examined and explored among mothers.

3.3.1 Studies on Social Support

Social support emerged as a wide-ranging term with varied descriptions such as - perceived and received support, characteristics and networks of support, formal and informal support. Functional descriptions of social support included family functioning, marital support, support from family and friends, and social provisions. Various social support types were found positively related to mothers' psychological and physical health around childbirth. Social support was described as a protective and recovery factor (Greeff & Vansteennwegen,

2011), as a buffer to distress (Harper *et al*., 2016), social provision of support (Roberts & Montgomery, 2016) and as a comforter in grief and bereavement (Aho *et al*., 2012). Social support was identified as one of the essential elements of a coping resource, influencing mental health and enhancing wellbeing (Cacciatore, 2010; Roberts *et al*., 2012) in stillbirth literature. Despite the diverse descriptions, social support generally was recognised as positively beneficial as one of the main determinants of mental health.

With these perspectives, social support studies are discussed. The review begins with how different types of social support and its sources are examined and explored. The review further discusses the need for social support in stillbirth, the effects of social support and its influences on mothers. The review ends with a discussion about the studies on social support and resilience.

3.3.1.1 Sources of Social Support

Studies have been focusing on all or few components of social support, such as social networks, informal and formal sources, and its direct or indirect impact on coping, adjustment and mental health.

In the descriptive study to determine support received by parents (n=72), neonatal death or stillbirth), Gijzen *et al*. (2016) reported that various types of functional social support were provided by formal and informal sources of social support. Emotional support was provided by family, friends, primary care professionals such as a GP, social worker or nurses, and instrumental and informational support was provided by secondary care professionals such as doctors, nurses, health care workers. Support was initiated by professionals and continued by formal and informal sources. Parents suggested the need for ongoing support.

Cacciatore *et al*. (2009) explored mothers who received social support after stillbirth. Conducting a multivariate ordinary least-square regression model, Cacciatore and colleagues identified that mothers who perceived family support in the period after stillbirth experienced notably lower anxiety and depression (r=-0.13, r=-0.21, p<=0.001). Important sources of support after a stillbirth were, nurses (r=-0.08, r=-0.06, p<=0.001), physicians (r=-0.07, r=-0.06, p<=0.001) and support groups (r=-0.01, r=-0.04, p<=0.001). However, these sources had no unique influence but could have had additive effects. Family support was the only form of social support which reported reducing levels of maternal anxiety and depression. Consistent with the relationship between family support and depression, the study reported that single, divorced or widowed women experienced higher levels of depression after a stillbirth. Besides, Cacciatore explained that many women were enrolled while actively searching for support or information about stillbirths on the Internet and maybe experiencing mental health symptoms.

Professional support was considered crucial for obtaining information about stillbirth and guiding mothers to hold and care for the stillborn baby. Rosenbaum *et al*. (2015) reported the effect of viewing neonatal bereavement support DVD on parents (n=39) and found higher grief was associated with lower social support (α=0.91, α=0.93) at three months (n=99) and 12 months (n=82). The study further indicated that many parents (n=18) reported that viewing the DVD helped them to normalize their feelings. Radestad *et al*. (2009) reported mothers who held their stillborn baby perceived professional support more than mothers who did not hold their baby. Further research is needed on if this was associated with the social support perception.

In one study, parents who had experienced the death of a child were provided with ongoing support through a nurse-led telephone programme (Darbyshire *et al*., 2012). A phenomenological approach was used, and interview findings suggest that parents' (n=6) valued ongoing contact with a nurse who 'knew them'. Further, telephone contact supported and reassured parents to create meaning around a deceased child and build a positive bereavement experience. Telephone contact was preferred over visiting a hospital for support.

In a qualitative study in Ireland, Jennings & Nicholl (2014) explored support used by mothers (n=10) following child death. Mothers relied on a combination of self-support, informal support (spouse, partner, family, friends and websites) and formal support (professionals) that helped them to cope. Jennings & Nicholl reported these findings in three themes - keeping the memory of a stillborn baby, seeking help and positive thinking in that mothers used self-support and going through the situation positively. This study's key findings were mothers' ability to obtain support and use their coping strategies, which were referred to as self-support. This could relate to maternal self-efficacy; however, Jennings and Nicholl did not explore this.

Furthermore, in a qualitative study on mothers (n=15) who experienced stillbirth, (Allahdadian *et al*., 2015) described three categories of social support sources - family and friends (spouse, family, friends), the social system (economic, counselling and healthcare support) and peer support (opportunity to share and create meaning) that facilitated mothers' coping and adaptation to stillbirth. Allahadadian further reported that mothers wished to continue to connect with peer mothers who had gone through challenging stages and who had a successful pregnancy after stillbirth.

In a Finnish study, Nikkola *et al*. (2013) examined mothers' (n=86) experiences of the follow-up support they received after child death using a structured questionnaire. The study reported that mothers felt that support helped them to cope with the situation. Among

different sources, the mothers reported receiving emotional support from peer supporters and health professionals. The authors noted that mothers found a support package (informative material) to be useful and affirmative. Collaborative support between health professionals and peer supporters enabled versatile and long-term assistance that helped them cope.

Additionally, in a qualitative study, Aho *et al*. (2012) reported mothers' (n=4) peer support experiences via internet discussion forums after child death. The participant mothers started to engage in an online forum about three months after child death. A total of 631 forum messages were categorised into three social support types in themes – emotional support (sharing oppressive emotions, supporting well-being and display of sympathy), Informational support (sources of information, information sharing) and community support (admitting new member, sharing a story, support discussion). In this study, mothers considered that the Internet discussion forum was a viable alternative to in-person peer support or counselling for emotional, cognitive and community assistance while forming a community bond of sharing.

Highlighting healthcare professionals' role, the review identified their support in various areas, such as guiding parents, mainly mothers, through delivery (stillbirth), creating memories of the baby, providing information, counselling, giving information and helping parents process information about the loss. Helping with decision-making and providing and follow up support was also important. The review identified unique resources such as self-support, peer support, online support and support groups. Peer support is distinct from other forms of social support where the source is a peer, a person who is in a similar situation as the recipient and thus creates a relationship of equality. Overall, studies suggested that mothers used social support from various resources depending on their unique requirements at different stages during and after stillbirth or child death. Studies on the maternal need for social support in stillbirth are discussed next.

3.3.1.2 Maternal Need for Social Support

Maternal needs may vary in stillbirth experience. Both parents share some needs; some are unique to mothers who carry a stillborn baby, go through labour and a deceased baby's delivery. Maternal needs in the literature are - professionals support in handling the situation, counselling, hands-on care of stillborn baby, getting information, helping in decision making and emotional support.

In a qualitative study, Avelin *et al*.(2012) reported that mothers (n=1034) and fathers (n=159) expressed the need to be taken care by health care professionals during stillbirth and feel protected. Avelin reported mothers needed support in three areas of stillbirth. Support in situational insufficiencies such as dealing with labour and delivery, support in the

unknown processes of stillbirth experience (e.g. post-mortem) and support to find suitable strategies to cope with other living children and stillborn baby simultaneously. Another aspect reported was helping mothers balance their personal grief and while ensuring living children's emotional well-being.

In a quantitative study, Radestad *et al*. (2009) reported similar findings. They reported that mothers expressed the need for professional support to guide them through the birth process, meeting the stillborn baby and saying farewell. Mothers reported that health professionals assisted and enhanced their natural attachment to a stillborn baby and facilitated healthy grieving for them. Radestad further indicated that mothers who perceived less social support were less likely to have held their stillborn baby. And mothers who perceived support held and bonded with a stillborn baby.

Studies also reported that the approach used by staff to offer help in seeing and holding the baby had a psychological impact on mothers. Erlandsson *et al*. (2013) found that when mothers (n=840) were presented the baby as a regular part of birth often reported that they felt at ease and comfortable than the mothers who were asked if they wanted to see the stillborn baby (86% vs 76%, p= 0.07). The most common trend was seen as more mothers feeling natural and comfortable when the staff supported mothers by naturally presenting baby (assumptive bonding) without asking the mother to choose. Handing over a baby to the mother to hold after delivery is a basic and otherwise unassumed part of childbirth. However, it becomes sensitive in stillbirth and requires a gentle approach. This study highlighted the need for precision, compassion and the use of an intuitive approach by professionals, especially midwives, while supporting mothers.

Apart from seeing and holding the baby, professional support was expected to assist in creating and sharing memories. In a cross-sectional online survey study, Crawley et al. (2013) examined the effects of creating and sharing memories of stillborn babies among mothers (n=162). Professional support was anticipated and provided for various memory-making activities such as seeing (n= 162, 100%) and holding baby (n= 150, 93%), naming the baby (n= 157, 97%), cleaning and dressing the baby (n= 14, 9%), taking photographs (n= 134, 83%), creating hand and footprints (n= 100, 62%), creating a memory box (n= 145, 90%), arranging and accompanying mothers on a chapel visit (n= 69, 43%), taking the baby home (n= 3, 2%) and helping in funeral arrangements (n= 152, 94%).

In a phenomenological study, Kavanaugh *et al*. (2004) explored parents (n=31) descriptions of the ways family, friends, co-workers and church members supported them after the loss of pregnancy. Functional components of social support were informational support, emotional support, guidance or counselling, financial support, practical support, and

socialising support. Parent's descriptions were categorised using the Vaux framework (1988) of social support – support network, support behaviour and support appraisal. Emotional support was perceived in being physically present, listening, and expressing feelings, encouraging and sympathizing. Kavanagh and colleagues also described parents' perception of unsupportive behaviour as negative emotional support. Further, they noted that not all support is perceived as helpful. Behaviours that were perceived as supportive to one person were not considered supportive to another. This highlighted parents' perception of supportive behaviour and their unique support needs.

In a meta-synthesis of fourteen studies on parents experiences of support and care after stillbirth and neonatal death, Mills *et al*. (2014) reported three support requirements: to deal with the subsistence of emotions, to deal with helpful and unhelpful activities and to pursue self-control. The meta-synthesis highlights the significant impact of previous loss on a subsequent pregnancy, encapsulating the need to continue social support.

Overall, studies have identified mothers voicing contextual needs as active rather than passive care recipients with regard to the need for intense assistance and various functional social support categories. Studies on the effects of having enough or low social support are discussed next.

3.3.1.3 Effects of Social Support

Some studies examined the direct and buffering effect of social support. Harper *et al*. (2016) found that satisfaction with the support had a direct negative effect (r_{anx} = - 0.36, r_{dep}=-0.37, p<0.001) on psychological distress (anxiety and depression) among parents who had a child who has cancer. The size of the parents' social support network was significantly correlated with psychological distress (r_{anx} = - 0.12, r_{dep}=-0.26, p<0.05, p>0.01). Parents with a smaller social support network and higher anxiety and depression levels at baseline had higher psychological distress at both follow-ups. Parents with a larger support network had no such relationships. These findings suggest that the effect of social support varies as per persons' social network sizes. Hence, potentially high-risk parents may need targeted interventions to help them enhance the network of social support.

Some studies identified that low social support might result in intense emotions and maladaptation among bereaved parents. Bennett *et al*. (2008) examined if social support is a predictor of mental health symptoms along with other variables (coping and life events inventory) among mothers (n=91) who experienced a perinatal loss. The perinatal loss was described as fetal demise at 20 weeks or more and neonatal death up to one month. Social support was measured using a Crisis Support Scale (CSS) (Joseph *et al*. 1992) which captures three dimensions - support at the time of loss, current social support and perceived

social support. Social support was a highly significant predictor of mental health symptoms. Perceived social support was found significantly correlated with a lower experience of grief (r = - 0.42, p < 0.001), less stress (r = - 0.30, p < 0.001) and less depression and anxiety (r = - 0.30, p < 0.01). Further, Social support predicted variance in grief (Std. β =0.41, p < .01, R^2 =0 .11), and stress (Std. β =0.38, p < .001, R^2 =0 .09). Social support directly did not add a significant amount of variance to anxiety-depression; however, it had a significant variance in maladaptive coping (Std. β =0.79, p < .001, R^2 =0 .44). Bennett *et al.* (2008) suggested that the severity of distress and impairment in coping can be predicted by maladaptive coping skills and low social support. Bennett *et al.* (2008) further stated that women who perceive an emotionally adequate degree of social support might have to endure fewer grief symptoms. This study proposed that the potential to steer parents towards early intervention requires in-depth clinical analysis in terms of mothers' acute emotional response, coping style, availability, and access to familial and social support resources. They also recommended that assisting to identify support resources can assist women who are not sure where to go for emotional, physical, or logistical help.

Sutan *et al*. (2010), in a mixed-methods study, aimed to assess the psychosocial impact of perinatal loss on mothers (n=62) and its contributing factors. They identified that perceived social support is a significant influencing factor to reduce the negative psychological impact of stillbirth among mothers. Sutan *et al.* described that the majority of mothers reported perceiving informal support from various sources such as - husband 93.5% (n=58) and parents 87.1% (n=54) as well as friends 53.2% (n=33). A total of 83.9% stated they had adequate support (n=52). Furthermore, 67.7% voluntarily requested more support such as encouragement 43.5% (n=27), counselling 40.3% (n=25), sessions to express emotions 35.4% (n=22) and group discussion 30.6% (n=19). The study reported most significant impact of support on maternal depression was by friends (x^2 = 5.422, p = 0.019, p < 0.05). Sutan *et al*. (2010) recommended screening of all mothers is essential to assess the need for support. They also suggested that individuals who have experienced similar loss will be able to provide better community support than those who have not.

Likewise, Tan *et al*. (2012) found parents (n=7) were astounded and touched by the helpfulness, support and concern that came from strangers on internet sites, blogs and memorial events and peer support as that helped them in decision making for the care around child death. Parents reported that these experiences lessened their anguish during the bereavement period and provided strength and comfort. In a qualitative study using interviews (total of 72), Tan and colleagues reported various social support themes: parents having expectations, continuity of care, memory making, a vast network of support and

altruism. Support in making a child's life into future memories was indicated as tangible support.

Lisy *et al*. (2016) synthesised qualitative literature to investigate parents' experiences of support and care received by healthcare professionals during and after stillbirth. Qualitative findings extracted from 20 studies reported the support strategies appreciated and found helpful by parents included warm and sensitive communication style, provision of clear and understandable information, shared decision making, and respect for individual needs and preferences. Parents appreciated guidance from health care professionals about seeing and holding, including being prepared for their baby's possible appearance, information on how to spend time with their baby, collection of memorabilia and confronting living children and society. Moreover, the meta-synthesis also found that the support and care received by parents after stillbirth had a lasting impact on parents.

Many of the studies reviewed earlier demonstrated the impact of social support on coping, reducing distress and lowering grief. However, some studies identified the resilient effects of social support. Studies that identified social support influence on parents' life with resilient transformations are discussed next.

3.3.1.4 Resilient Influences of Social Support

Social support is reported to influence personal growth, sometimes interpreted as post-traumatic growth, appraisal, and mindfulness capability. Cacciatore *et al*. (2013) conducted a study in the United States and Canada and examined support as family functioning in the online survey on traumatic experiences and resiliency among mothers (n=503) who experienced a stillbirth. This was correlated with post-traumatic growth. A total of 54% (n=229) mothers reported their spousal relationship improved after stillbirth. Further, some mothers reported a feeling of a new sense of connection to other living children. Most mothers (53.5%, n=269) attended at least one counselling session with professionals (helpfulness of counselling M = 4.49, Max = 6). Also, some mothers volunteered and engaged in social activities for others in similar situations. The study is discussed in detail under the section on resilience.

The effectiveness of the mindful-based intervention in improving mothers' mental health in India (n=22) who experienced a stillbirth was examined by Roberts *et al*. (2016). To address the lack of formal bereavement support provision in India's Chhattisgarh region, researchers developed and implemented culturally adapted mindfulness interventions. They evaluated its effectiveness using Wagnild & Young's (Year) resilience scale. Social support was measured using Mosley-Williams (2002) Social Provisions Scale capturing mothers perceived social support provision. Mothers' perception of informal, community and self-

support support gradually increased with mindfulness where formal bereavement support was lacking. The mean support increased from pre-test (M=33.65, SD 3.88) to six months follow up test (M=35.07, SD 4.19) and to one year follow up test (M=35.55, SD 3.47). The study focused further on resilience and a mindfulness intervention, and these additional findings are discussed in the resilience section.

Overall, the above studies indicate that social support provides a buffering of stress and can enhance mothers' well-being through positive appraisal, post-traumatic growth and mindfulness. During the past decade, research has focused on the concept of resilience and resilience development processes in diverse contexts. Resilience and social support are closely related to salutogenic concepts (Eriksson *et al.*, 2007), and as has been identified in the previous chapter, social support has had been identified as a defining attribute of resilience.

In other contexts such as child disabilities and adversities, social support was identified as facilitators of mothers' strength and belongingness (Bayat, 2007, n=16), helping in communicating and sharing experiences (Morris, 2008, n=38), fostering and cultivating relationships (Levine, 2009, n=15), mutual encouragement among family members (Ahlert & Greef, 2012, n=54), and as a protective factor (Greeff & Nolting, 2013, n=40; Vermeulen & Greeff, 2015, n=9; Antonio, 2013, n=216). However, no such investigations are seen in the context of stillbirth or fetal death. Overall, studies identified social support as a contributing factor for resilient reintegration among mothers in many ways but did not verify if there is any correlation with other variables.

3.3.2 Summary of Social Support Studies

The review identified that social support is studied by varied disciplines and in multiple contexts related to mothers. The studies reported diverse contextual needs for social support among mothers. Mothers used various types of functional social support from a variety of sources: formal (health professionals, counsellor, social worker), informal (spouse, family, friends, community) and peer support (support group, online forum, support groups) as well as self-support for coping. The direct and buffering effects of social support were identified and applied to evaluate psychosocial impact, emotional responses, mental health symptoms and adaptative mechanisms. Further, social support influences reported as mindfulness, posttraumatic growth and resilience. Mothers who perceived support were thankful and overwhelmed. Perception of support was measured using various social support measures. As previously discussed in Chapter One, most stillbirth literature recognises social support as an essential element and suggests that the bereaved mothers need to be guided to work through their grief and baby loss so that life could be meaningful again. It was also

recognised that midwives at all times have frequent and regular contact and communications with mothers and their families during hospitalisation. Therefore, they have professional skills and competence to assess the need, and also to mobilise and strengthen social support (Leahy-Warren, 2005).

The next section discusses studies on self-efficacy to understand how this maternal inner resource was examined and explored.

3.3.3 Studies on Self-Efficacy

Self-efficacy has been a subject of considerable interest across the disciplines and social sciences. Self-efficacy can be regarded as context-specific and particularly important to exert control over an individual's motivation, behaviour, and social environment. Self-efficacy studies in child death, pregnancy loss and stillbirth contexts are limited. As stated in the selection of studies section earlier, some studies that are published before 2010 are included for the relevance to the concept. However, parenthood self-efficacy is examined in coping with childbirth, child development and child disabilities. Relevant studies are discussed below, starting from self-efficacy in parenthood, self-efficacy in maternal coping, and self-efficacy in pregnancy loss or stillbirth.

3.3.3.1 Self-Efficacy in Parenthood

Parenting self-efficacy (PSE) is often examined to find how parents are coping with the challenging tasks of parenting. The complexity of parenting is acknowledged in childbirth contexts such as child development and child disabilities.

Salonen et al. (2009) examined parenting self-efficacy and its contributing factors in two Finnish hospitals (n=1300). Parenting self-efficacy was measured using a researcher-developed scale. Contributory factors to parenting self-efficacy were parents' perceptions of their infant, family functioning, and health and advice from health care personnel. Mothers scored higher than fathers on parenting self-efficacy, and experiences of childbirth and life change correlated with mothers but not with fathers. The cumulative effect of the significant parent attributes (parity, self-concept, depressive symptoms, state of mind on discharge), infant attributes (perception of the infant) and environmental attributes, family functioning, family health, advice explained 46.3% of the variation in mothers perceived self-efficacy in one hospital and 48.0% of the variation in mothers' satisfaction in other hospital. No correlation was identified between parents' age, education, marital status and parents' self-efficacy.

One of the aims of the Junttila *et al*. (2015) study was to examine co-parental effects and dyadic interdependence of parents psychological wellbeing and their self-efficacy at the

family level. Juntilla and colleagues found the highest negative correlation between perceived self-efficacy and emotional loneliness for both parents (mothers r=-0.268, r=-0.338; fathers r=-0.302, r=-0.403). For mothers, the highest positive correlation was between being with the child (presence) and emotional support (r=0.557). Parenthood self-efficacy was found relatively independent of gender. Signifying self-efficacy of one partner did not predict another parent's self-efficacy but may have influenced each other's self-efficacy. Overall, childbirth and parenthood were seen as difficult challenges.

Some studies examined or explored self-efficacy to identify the internal cognitive and behavioural abilities that might have helped mothers to cope and are discussed next.

3.3.3.2 Maternal Self-efficacy in Coping

The role of self-efficacy as a coping resource and as a predictor of life satisfaction was examined by Salas *et al*. (2017). Self-efficacy was measured using the Godoy *et al*. (2008) Self-Efficacy Scale among parents (n=129) of children with autism. Self-efficacy correlated positively with cognitive restructuring ($R^2 = 0.17$, p=<0.05) and problem solving ($R^2 = 0.26$, p=<0.01) and negatively with self-criticism ($R^2 = -0.11$, p=<0.01), wishful thinking ($R^2 = 0.23$, p=<0.01) and social withdrawal ($R^2 = -0.3$, p=<0.01). The study also reported a significant correlation between life satisfaction and self-efficacy (r=0.56, r=0.42, $p<0.01$). These findings confirm the relationship between self-efficacy, coping strategies and life satisfaction among parents of children with disabilities.

In an Australian study, Sanders & Wooley (2005) examined the relationship between maternal self-efficacy and parenting practices along with child behaviour inventory in the context of child conduct problems. Higher child behaviour problems, more maternal distress and lower self-efficacy were all significantly related to higher levels of dysfunctional parenting practices (over-reactivity r= -0.36, laxness r= -0.25, p<0.001). Self-efficacy was a significant negative predictor of over-reactivity, with 31% in unique variance, and a significant predictor of laxness with 26% variance. In conclusion, Sanders and Wooley suggested that parents seeking assistance for child behaviour problems are likely to have low parenting self-efficacy and need support to improve skills.

3.3.3.3 Maternal Self-Efficacy in Pregnancy Loss and Stillbirth

The self-efficacy in stillbirth becomes more complex than in child developmental stages and child disabilities. Although published earlier but included in the review, Nikcevic et al. (1998) study is relevant to this research. Nikcevic *et al*. (1998) examined self-efficacy and self-esteem among women (n=138) who experienced pregnancy loss. Nikcevic *et al*. (1998) recognized self-esteem (person's feeling of self-worth) and self-efficacy (person's belief in their ability to deal with the challenging environment) as closely related and important

personal resources that regulate a person's emotional response to manage negative life events such as pregnancy loss. Other variables measured were symptoms of depression, anxiety and feelings about pregnancy loss. Self-efficacy was measured using the Schwarzer General Self-Efficacy Scale (Schwarzer and Jerusalem,1995). Multiple regression analyses (order of entering self-efficacy & self-esteem, self-esteem & self-efficacy) yielded significant association with anxiety (β = -0.28, p<0.001) and with depression (β =-0.31, p <0.001). Nikcevic and colleagues did not find a significant difference in experiencing sentiments of personal responsibility to pregnancy loss between women who scored high (n=64) and who scored low (n=74) on self-efficacy scale (two-tailed t=-1.51, df= 115.84, p=0.13). Women with low self-esteem (n=64) had a significantly higher score for feeling of personal responsibility than those (n =74) with high self-esteem (two-tailed t = -4.06, df= 115.18, p <0.001). The findings suggest that the availability of internal personal resources, such as self-efficacy, significantly impacts emotional response to adverse life events. However, self-efficacy and feeling responsible for pregnancy loss appear significantly independent predictor of anxiety and depression when excluded self-esteem. The authors' attributed the reason for some women with low self-efficacy was related to previous obstetric history and lower educational achievements.

In a quantitative study using an online survey, Antonio (2013) examined self-efficacy, as a personal protective factor of resilience, along with various other protective factors (hope, spiritual wellbeing, social support, ability to obtain resources) among women (n=216) who had an elective abortion at any time in their lives. In this study, self-efficacy was measured using the Schwarzer Jerusalem General Self-Efficacy Scale (1995). The study results suggested that resilience was directly and significantly correlated with self-efficacy (r = 0.869, p< 0.0005). Maternal mental health diagnosis (risk factor) was significantly negatively correlated with self-efficacy (r = - 0.190, p=0.006). The key finding was that resilience was a continuous and dynamic process in the presence of self-efficacy (r = 0.836, p<0.005) and various protective factors. Furthermore, the author reported that participants who reported higher satisfaction with life reported higher self-efficacy and could obtain resources better (r=0.668, r=0.642, p<0.01). Social support was considered an important aspect to enhance self-efficacy (r=0.699, p<0.001). The cumulative effect of all protective factors had a stabilising effect on resilience.

Self-efficacy is a coping resource for adverse life events. In stillbirth literature, many tasks are reported as coping activities had been described to facilitate the grieving process while creating a bond with the deceased baby (Koopmans *et al.*, 2013) and are cherished by parents (Gravensteen *et al*., 2013). Memory-making activities (Crawley *et al*., 2013; Donovan *et al*., 2015), the meeting of stillborn baby with the family (Murphy *et al*., 2013), and the naming

of a stillborn baby (Lundqvist., 2002; Erlandsson *et al*., 2011) are considered coping activities with guidance and support by midwives. These activities can relate to self-efficacy with social support in coping with stillbirth. Studies on social support and self-efficacy are discussed next.

3.3.3.4 Social Support and Self-Efficacy

Many studies acknowledged the role of social support in strengthening self-efficacy. In a quantitative study, Jankowska *et al*.(2015) examined self-efficacy, coping, social support and distress among two groups, mothers of children with cerebral palsy (CP) (n=27) , and mothers of typically developed (TD) children (n = 38). There were no significant differences between the two groups of mothers regarding the level of social support they perceived from family and friends (U = 345, z = –0.60, p = .552). Yet, compared to the control group, mothers of children with disabilities had a higher level of distress (U = 179, z = –3.48, p < .001) and reported using effective coping strategies and strong self-efficacy. Mothers' acceptance of a child's disability and the child's capacity to build an internal locus of control are suggested as crucial factors for self-efficacy development. Stronger beliefs about their competencies (self-efficacy) were associated with a lower possibility of using an ineffective coping strategy in mothers of children with CP, but not mothers of children who are TD. The study highlights that distress and self-efficacy can co-exist and locus of control is crucial to deal with that distress.

In a longitudinal study on mothers (n=136) of children with autism, Benson (2016) examined the effects of social network characteristics on maternal cognitions (perceived social support and parenting self-efficacy) and their mental health across three assessments in seven years period. The social network characteristics - social network size, network diversity and network density were identified using a modified version of Antonucci (1986) hierarchical mapping procedure. Perceived social support was measured using Zimet's Social Support scale (1988), and self-efficacy was measured using the parent self-efficacy subscale of the family empowerment scale. Increased child prosocial behaviour predicted an increase in perceived self-efficacy (b = 0.205, p = 0.002) and, with increased problematic child behaviour, maternal self-efficacy declined (b =-0.058, p<.001). Frequency of social support contact (b=0.987, p=0.042), and the proportion of a network providing emotional support (b= 3.007, p=0.031), are the two network factors positively linked to maternal self-efficacy over time.

Benson (2016) identified a significant increase in the number of network members over time who provided emotional support to mothers (b=0.023, p<0.001), but network diversity dropped at a significant rate (b =-0.056, p= 0.081). Over the study period, network size

decreased (*b*=-0.463, *p*=0.004) with mean frequency of contact (*b*=-0.040, *p*=0.008), as well as the proportion of network members providing maternal instrumental support (*b* =-0.018, *p*=0.002) and with generating interpersonal strain (*b* =-0.006, *p*=0.037). Parenting self-efficacy was identified as a significant mediator of the support-depression relationship (point estimate =-0.047, bootstrapped SE=0.017, *p*= 0.006). According to Benson, 48% of the total effect of perceived support on maternal depression was mediated by maternal self-efficacy. Overall, social support and self-efficacy were considered as critical coping resources for positive coping and adaptation.

Findings indicated that network size and networks' instrumental support were positively related to perceived support, while network availability was positively correlated to self-efficacy. Emotional support was correlated with both maternal self-efficacy and perceived social support. Finally, consistent with the support-efficacy model, parenting efficacy partially mediated the effects of perceived support on maternal mental health outcomes. Study

3.3.4 Summary of Self-efficacy Studies

There is a growing body of evidence demonstrating how maternal self-efficacy is enhanced and what are its benefits. Consistent with Bandura's theory of self-efficacy, studies in the review identified that maternal self-efficacy was influenced by difficult and challenging tasks (Gilmore & Cuskelly, 2009) and perceived emotional support (Juntilla *et al*., 2015). Various cognitive aspects, such as psychological wellbeing (Juntilla *et al*., 2015), coping strategies and lowered self-blame (Nikcevic *et al*., 1998), serve to enhance maternal self-efficacy. Maternal self-efficacy was also seen linked with positive attitudes, parenting skills (Diken & Diken, 2008) and mediating resilience (Antonio, 2013). Furthermore, it has often conceptualized self-efficacy as a personal characteristic rather than an influencing factor in parenting and childcare. To some extent, the literature is limited on directly focusing on self-efficacy in stillbirth and pregnancy loss context.

Overall, study findings suggest that self-efficacy in adverse life circumstances is an essential component of effective coping strategies and strengthening the person and person's self. Second, self-efficacy and social support are two independent but positively related variables that help a person in adverse life circumstances. In the previous chapter on theoretical perspectives, social support and self-efficacy are identified as defining resilience attributes. The next section discusses the studies on resilience.

3.3.5 Studies on Resilience

Studies on resilience can be focused on identifying and understanding strengths rather than their impact on vulnerabilities. Many studies show that definitions of resilience are varied and, it appears challenging to create an operational definition of resilience.

3.3.5.1 Parents Resilience

Parental resilience was examined and explored in child disabilities which can be seen as adversity in a parents life. Studies have examined the association of resilience and protective factors and also the presence of protective factors and how this can compensate the impact of risk factors by unique interactions or by buffering stress. Theoretically, most of the protective factors appear to be consistent with the antecedents of resilience. Support was one such essential protective factor and frequently appeared in most resilience studies. Additionally, studies examined and explored other key factors such as hardiness (Lang *et al*., 2004; Greeff & Vansteennwegen, 2011; Ahlert & Greeff, 2012; Greeff & Nolting, 2013), optimism (Morris, 2008; Bayraklı & Kaner , 2012; Cadell *et al*., 2014; Nie *et al*., 2017), spirituality (Antonio, 2013; Bailey *et al*., 2013; Bayat, 2007; Büchi *et al*., 2007; Cadell *et al*., 2014; Essakow & Miller, 2013), hope (Antonio, 2013; Greeff & Vansteennwegen, 2011; Horton & Wallander, 2001; Mednick *et al*., 2007) and self-efficacy (Antonio, 2013) as well as coping skills (Ahlert & Greeff, 2012, Antonio, 2013).

The context of stillbirth is regarded as a sensitive (Warland *et al*., 2018) and ethically complex adversity (Kelley & Trinidad, 2012). Direct investigation of parents' resilience in stillbirth is limited. Research is varied on the subject of typical maternal or paternal response to child death or stillbirth. Stillbirth literature from time to time suggests that informal intervention, such as the opportunity to ventilate feelings and emotions may be therapeutic. However, instead of the normal emotional reaction, such as grieving and distressing is usually considered as a negative psychological response. The literature indicates that formal and informal social support is a valuable coping factor (Cadell *et al*., 2014). It is seen to promote improvement with social competence after stillbirth (Eilertsen *et al*., 2016), generates gratitude and altruism (Buchi *et al*., 2007), builds resilient outcomes such as mindfulness (Roberts *et al*., 2016) and altruism (Cacciatore et al., 2018). However, the relationship between social support and resilience has not been examined.

3.3.5.2 Resilience Outcomes

Quantitative studies have measured resilient outcomes such as satisfaction with life (Antonio, 2013), subjective evaluation of health (Kasprzak *et al*., 2013), posttraumatic growth (Büchi *et al*., 2007, Cacciatore *et al*., 2013, Cacciatore *et al*., 2018), positive adaptation (Greeff & Vansteennwegen, 2011, Nie *et al*., 2017) and positive health

behaviours (Rosenberg *et al*., 2014). The findings concur that resilience is independently associated with psychosocial outcomes. Some of these studies suggested that emotional balance and regulation, improved coping ability, decreased anxiety, depression, and balance restoration, all contributed to improved resilience levels.

In a phenomenological study, Wright (2010) suggested that mothers (n=19) of stillborn babies experience grief and distress over time but eventually work through their grief to transcend and learn to live a changed life with personal growth in the aftermath. Wright determined that the intensity of absence of a baby in the women's lives reduces after a while, but periods of re-grieving surface repeatedly. Women were able to work through the initial pain of the loss and the subsequent waves of grief by the repetitive process of 'pushing on'. Wright explained the core of 'pushing on' through themes on the pathway of pregnancy, losing the baby, bearing the burden, working through pain and transcending suffering. Wright also identified that the changes women experienced were for the most part positive. Wright (2010) reported mothers felt they were more tolerant, compassionate, and appreciative. These are dimensions of growth that have been empirically identified. This personal growth was referred as positive changes that individuals may experience following the struggle during adversity and in a changed life afterwards (Cadell & Marshall, 2007; Büchi *et al*., 2007; Cacciatore *et al*., 2014; Eilertsen *et al*., 2016; Krosch & Shakespeare-finch, 2017).

In the HILDA study (Household Income and Labour Dynamics of Australia Study), Infurna & Luthar (2017) aimed to identify resilience among parents (n=461) following child death. Resilience can vary in diverse adjustment outcomes such as life satisfaction, negative and positive effects, general health and physical functioning. A person can be thriving in one outcome and may need help in others. The proportion of parents showing resilience to child loss differed across outcomes; 44% for life satisfaction, 56% for negative and positive affect, 32% for physical functioning and 21% for general health. Overall, Infurna and Luthar suggested that resilient individuals are balanced, healthy and have a sense of psychological well-being; however, they may have diverse resilience levels in different life outcomes after child loss. Most importantly, resilience in one adjustment domain could co-exist with other adjustment domain deficits (Infurna and Luthar 2017).

3.3.5.3 Resilience in Stillbirth and Pregnancy Loss

Research on the factors that can contribute to positive recovery after stillbirth is limited. A few but significant studies have focused on resilience in stillbirth and pregnancy loss context and its association with different coping factors.

In an online survey, Antonio (2013) examined the relationship between resilience with several protective factors and risk factors among women (n=216) who had an elective abortion. Antonio rationalised measuring multiple variables with resilience for the reason that many positive and negative factors co-exist in real life. Antonio further reported a strong relationship of resilience with hope (r=0.819, p=0.0005), wellbeing (r=0.745, p=0.0005), self-efficacy (r=0.869, p=0.0005), coping strategies (r=0.541, p=0.0005), social support (r=0.719, p=0.0005) and optimism (r=0.778, p=0.0005). Antonio reported that 43% of women reported no mental health symptoms or conditions following an elective abortion; however, 34% experienced depression, 23% reported anxiety, 14% experienced panic attacks, and 11% were diagnosed as bipolar. The women who had higher scores of resilience reported high scores in protective factors (hope, self-efficacy, social support, coping strategies, optimism), spiritual well-being, and effectiveness in obtaining resources. These women also had lower scores on the negative mental health symptoms. The study reported resilience as a continuum and dynamic process with a shared transaction between the individual and individuals' environment and multiple protective factors. Antonio identified and measured resilience as a separate variable along with multiple protective and vulnerable factors and outcomes. This helped identify the compensatory, protective and challenging mechanisms of resilience that help individuals overcome difficulties. This suggests the co-existence of resilience with positive as well as negative factors.

Resilience was determined by examining post-traumatic growth among mothers. Cacciatore *et al*. (2013) examined resilience as an ability to reconstruct life among parents (n=503) of stillbirth and child death in an online survey (TEARS: Traumatic Experiences and Resiliency Study). Resilience was measured using Tedeschi & Calhoun's Posttraumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996) that captures participants' perceptions of ability to reconstruct their lives following a traumatic event. The scale captured post-traumatic growth dimensions as – new possibilities, relating to others, personal strength, spiritual change, and appreciation of life. Cacciatore sample was overwhelmingly female (95%, n=478) of which 42.7% (n=215) experienced a stillbirth. Cacciatore *et al.* (2013) reported a moderate degree of post-traumatic growth with the highest score on the appreciation of life subscale. Mean (SD) scores of all subscales were new possibilities 14.2(SD=5.1), relating to others 22.1 (SD=6.6), personal strength 10.02 (SD=3.4), spiritual change 5.7 (SD=2.6), and appreciation for life (M = 10.0, SD = 3.2). It was suggested that bereavement might create a positive shift in perspective for some mothers. Cacciatore *et al.* (2013) described that many mothers (54.5%, n=229) reported that their relationships improved post-loss and interpreted as stronger, closer, and with a new sense of intimate connection. Cacciatore and colleagues further reported that, despite facing challenges,

evidence of resilience and maternal efforts to engage in positive coping activities was common among mothers in their study.

In the TEARS study, Cacciatore (2013) also found that 63% of mothers (n=316) were aware of support groups, 53.5% (n=269) attended at least one counselling session, 44.7% (n=225) volunteered in providing peer support, public speaking or fundraising activities. However, a substantial number of participants reported being diagnosed with a mental health condition (15.1%, n=76), an increase in drug and alcohol use (25.6%, n=129), a decline in health (33.8%, n=170) and an adverse effect on a spousal relationship (45.5%, n=191). Overall, findings suggest that most families in this study perceived positive family functioning despite a child's death. In contrast, some participants reported having mental health symptoms. Cacciatore suggested that substantial distress may be a normal manifestation for profound traumatic life-altering loss, and beyond that, identifying mental health symptoms and identifying needs for early intervention may become necessary for some mothers.

In an experimental study, Roberts & Montgomery (2016) examined resilience as an outcome of mindfulness-based social support intervention among mothers (n=22) who experienced a stillbirth. After introducing and training in mindfulness, resilience was measured at a one year follow up session using Wagnild and Young's (1993) resilience scale. The mindfulness intervention was provided during weekly home visits by trained nurses for five weeks, and mothers were advised to self-practice subsequently. At the one-year follow-up, 21 of the 22 women (95.45%) reported that they continued practising mindfulness exercises and applying mindfulness skills in their everyday lives. Their frequency of practice sometimes varied daily to weekly, with the majority (72%) reporting practice greater than five days a week. The findings reported that mothers applied mindfulness substantially in their lives, often to almost always. The mean resilience score (M=137.68 SD=13.92) represented above-average resilience, an indication of thriving. Bivariate analysis (two-tailed) of resilience and mindfulness (r=0.79, p=0.001) indicated a significant correlation validating that mindfulness practice has been noted as a means of nurturing resilience.

Lee & Rowlands (2015) reported on an integrated analysis of two quantitative and one qualitative studies using Ungar's (2013) resilience framework to explain the individual, social and cultural context and to illustrate the complex and multidimensional nature of emotional distress and resilience following a miscarriage. In the first quantitative study, the health outcomes of women who had experienced pregnancy loss (n=998) and women who had not (n=8083) been compared. Mental health outcomes were measured using Ware *et al*. (1994) Health-Related Quality of Life SF-36 scale. Women who had miscarriages scored low on mental health outcomes, high on stress and low on social support and life satisfaction.

The multivariate analysis suggested socioeconomic and lifestyle differences justified women' psychological effects. The second quantitative longitudinal study measured mental health using the SF36 subscale on mental health among similar groups of women. Overall, women in both groups trended mental health upward over time, except women who had a miscarriage had a lower starting point. Subsequently, in the third qualitative study, women (n=9) were interviewed to understand their miscarriage experiences. All women described the miscarriage experience as negative, having overwhelming emotions, using terrified, devastating terms. Women also described sympathy and understanding and some bewildered reactions from family, friends and health professionals. Further, mothers reported going through the immense struggle to make sense of loss and move on in life while continuing their grief.

Overall, while there are limited studies that examined resilience in the context of bereavement or loss, the studies discussed above add substantial knowledge about the somewhat invisible concept of resilience in stillbirth and pregnancy loss.

3.3.5.4 Social support, Self-efficacy and Resilience

From the above sections, it is evident that social support, self-efficacy, and resilience promote individual ability to cope with adversity, that adversity can lead to thriving, and can cultivate personal growth (Antonio, 2013; Roberts *et al*., 2016). The influence of social support in bereavement care has gained momentum in stillbirth research. Nevertheless, social support relationships, self-efficacy, and resilience have not been considered for simultaneous examination in stillbirth. However, a few studies examined associations between social support, self-efficacy and resilience in other contexts and populations, college students (Narayanan & Weng-Onn, 2016), children (Yendork & Somhlaba, 2017) and mothers (Weiss *et al*., 2013). All three studies discussed below reported significant associations among social support, self-efficacy and resilience using diverse analytical methods.

Considering starting university as a life transition, Narayanan & Weng-Onn (2016) examined the influence of perceived social support and self-efficacy on resilience among first-year Malaysian college students (n=377 (female=301, male n=76)). Narayanan & Weng-Onn hypothesised that while making the resilient transition, students search for support, usually from friends and peers, then develop the capacity to draw their internal resources such as self-efficacy to deal with new challenges adequately. Social support was measured using Zimet's (1988) Social support Scale (12 items), capturing functional support from family, friends and significant others. Self-efficacy was measured using Schwarzer & Jerusalem's (1995) General Self-efficacy Scale (10 items). Resilience was measured using

Wagnild & Young's (1993) Resilience Scale (14 items). Narayanan and Weng-Onn reported that controlling stress, academic grade, age and gender, a one-point increase in the total perceived social support score had 0.09 points increase in the resilience score. Similarly, a one-point increase in the self-efficacy scale increased the resilience score by 1.16. Support from friends was a slightly better predictor of resilience (β = 0.21, p <0.05) compared to support from family (β = 0.16, p <0.05). The ordered probit analysis indicated that a unit increase in social support score decreased the probability of being in the low resilience category by 0.6%, but it increased the probability of being in the moderate resilience category by 0.5% and being in the high resilience category by 0.09% (y=-0.56, y=0.47, y=0.09; p<0.05). Likewise, a unit increase in the self-efficacy score decreased the probability of being in the low resilience category by 5.7% but increased the probability of being in the moderate category by 4.8% and in the high resilience category by 0.9%. (y=-5.66, y=4.80, y=0.90, p<0.05). Narayanan & Weng-Onn reported that both perceived social support and self-efficacy were significant predictors of resilience. Higher scores on perceived social support and self-efficacy scales predicted higher resilience, reducing the probability of dropping into a low resilience category. Interestingly, the impact of social support and self-efficacy in increasing the probability of being in the moderately resilient category was higher than their impact in increasing the probability of being in the highly resilient category. This suggested that when an individual's resilience is high, beneficial factors like social support or self-efficacy in increasing resilience are constrained.

In another study, the influence of social support, self-efficacy and resilience on stress was examined by Yendork & Somhlaba (2017) among orphaned children (n=100) and non-orphaned children (n=100), all aged 7 to 17 years. The relationships between perceived social support (Zimet *et al*. 1988 Multidimensional Scale of Perceived Social Support), perceived self-efficacy (Schwarzer & Jerusalem 1995 the General Self-efficacy Scale), resilience (Wagnild & Young 2009 Resilience Scale) and stress (Reynolds and Richmond's 1978 Revised Children's Manifest Anxiety Scale, and Kovac's 1992 Children's Depression Inventory) were determined by ANOVA and Pearson Coefficient Correlational analysis. Yendork & Somhlaba (2019) reported significant correlations between self-efficacy and resilience in both groups: orphans (r=0.66, p< 0.001) and non-orphans (r=0.59, p<0.001), thus suggesting that the higher participants' self-efficacy, the higher their resilience levels. For the non-orphaned children, significant negative correlations were reported between anxiety and self-efficacy (r=−0.27, p<0.001), between depression and social support (r=−0.39, p<0.001), between depression and self-efficacy (r =−0.40, p< 0.001) and between depression and resilience (r=−0.39, p<0.001). A significant positive correlation was reported between perceived social support and self-efficacy (r = 0.51, p < 0.001), thus suggesting that

the stronger the non-orphaned children's perceptions of social support, the higher were their self-efficacy levels. Lastly, a significant positive correlation was reported between perceived social support and resilience (r= 0.5, p<0.001), thus suggesting that the stronger the non-orphans' perceptions of social support, the higher were their resilience levels. For orphaned children, regression analysis indicated very low or 1% of the variance in anxiety, $R^2 = 0.01$, $F(3, 87) = 0.30$, p> 0.05, and 4% of the variance in depression, $R^2 = 0.04$, $F(3, 90) = 1.24$, p> 0.05. Overall, participants perceived social support, perceived self-efficacy, and resilience emerged as significant negative predictors of their stress levels. Moreover, perceived social support and perceived self-efficacy were salient and emerged as significant predictors of resilience.

In another study, Weiss *et al*. (2013) examined hardiness (measured using Gardener Family Hardiness Scale, 2008), perceived self-efficacy (measured using a subscale of Family Empowerment Scale, Koren, DeChillo, & Friesen, 1992) and perceived social support (measured using Dunst *et al*. 1984 Family Support Scale) among mothers (n =138) of children with an autism spectrum disorder. Weiss and colleagues hypothesised hardiness as a mediator between stressors and positive outcomes and perceived social support and self-efficacy functioning as mediators between stressors and hardiness relationship. Stressors such as child aggressive behaviour (measured using Rojahn 2012 Behaviour Problem Inventory), negative life events and outcomes such as family distress (measured using Weiss Lunsky 2011 Family Distress Scale) were associated with family distress. Weiss and colleagues reported that hardiness was negatively related to family distress (r=-0.53, p<0.001) and positively related to perceived social support (r=0.37, p< 0.001) and self-efficacy (r=0.43, p< 0.001). The self-efficacy and social support mediation coefficients were both significant (z=-2.28, p= 0.02, 16% of the total effect, and z=-2.17, p=0.03, 22% of the total effect, respectively), indicating that the relationship between the stressors and hardiness was statistically and independently mediated by both the effect of self-efficacy and social support. The relationship between stressors and hardiness remained non-zero (z= -3.09, p= 0.001), indicating mediation effects were partial. Both self-efficacy and social support did not emerge as significant mediators of family distress, indicating that their influence was explained through hardiness. The findings demonstrated a significant link between hardiness and perception of social support and self-efficacy and demonstrated the perception of hardiness was associated with less distress.

3.3.6 Summary of Resilience Studies

The studies in this review indicated that the path to resilience could go through distress, grief and trauma. Resilience has been most frequently defined as a positive adaptation despite

adversity but lacks the comprehensive definition application. Although, the studies in the review, however, indicated that resilience is more than adaptation to adversity.

The previous chapter discussed how resilience research has passed through several stages of identifying protective factors for understanding resilience processes and outcomes. The studies included in this chapter indicated the different approaches to resilience operationalisation and that resilience development could be mediated or promoted by multiple factors (social support, cognitive skills) and may require some strengths (self-efficacy) appropriately stimulated.

Resilience studies enhanced the understanding about how individuals respond to adversity (Lee & Rowlands, 2015), what are the levels of resilience reintegration (Roberts & Montgomery, 2016), the relationship with various protective factors (Antonio, 2013) and its influence on mental health symptoms (Cacciatore *et al*., 2013). The review revealed that despite the distress and grief, social support, self-efficacy and resilience all appear to be important in how mothers experience and cope with adversity. However, the appropriate framework underpinning theory is necessary to demonstrate their relationships.

3.4 Discussion

From this review, it is evident that bereaved mothers work through their grief and move ahead with their lives. Social support appears to be providing this possibility through various structural and functional components. Self-efficacy in adverse life circumstances seems to be an essential component for effective coping strategies that strengthen the person and person's self. It is evident that self-efficacy and social support are two distinct variables that promote resilience development in some individuals. In doing so, some have to struggle, and others may not have to work hard. The factors that affect resilience development can be individual, environmental or social. Overall, the review successfully identified that social support, self-efficacy and resilience, were significantly valued in the context of stillbirth. A few but significant studies examined relationships between social support, self-efficacy and resilience but in different contexts (Narayanan & Weng Onn, 2016; Yendork & Somhlaba, 2017; Weiss *et al*., 2013) than stillbirth and pregnancy loss. The review identified that while many studies intended to seek both parents' responses to adversity, the percentage of mothers' participation was always greater than fathers.

In the International Stillbirth Alliance Conference's collaborative key message, Rice et al. (2019) emphasized the importance of facilitating meaningful engagement between parents of stillborn babies and the public for scientific research and researchers and clinicians.

3.5 Summary

The purpose of this integrative review was to identify and analyse literature related to maternal social support, self-efficacy and resilience. Combined studies on social support, self-efficacy and resilience were limited; therefore, contexts other than stillbirth were included to understand how these concepts were examined and explored among mothers. This chapter explored current literature on social support, self-efficacy, and resilience to identify relevant studies that helped understand the concepts, their existence and relationship among mothers in different contexts of adversities – child disabilities, child death, neonatal death, pregnancy loss and stillbirth.

The subsequent purpose of the literature review was to inform the focus and to develop a conceptual framework for the study. Overall, the review successfully identified a gap in the research and highlighted that social support, self-efficacy and resilience are significant concepts independently researched yet were not examined directly in the context of stillbirth. The review effectively led to the conceptual framework with proposed relationships between concepts. The review suggests that studying the relationships of social support, self-efficacy and resilience with an underpinning theory would be the appropriate and first logical step. The next chapter discusses the research methodology and appropriate approach for the accomplishing purpose of this study.

Chapter 4 Research Methodology

4.1 Introduction

The literature presented in previous chapters concluded that direct research about maternal resilience in the stillbirth context is scarce. The functioning of internal resources is often linked with self-efficacy (Narayanan & Weng Onn, 2016). Maternal self-efficacy and its role in resilience development were acknowledged in pregnancy loss (Nikcevic *et al*., 1998; Antonio, 2013). The importance of maternal self-efficacy and social support has been identified for postpartum mothers (Leahy-Warren *et al*., 2011). The studies that have acknowledged resilience in stillbirth have focused on the intervention (Roberts *et al*., 2016) or on the reconstruction of life (Cacciatore *et al*., 2013) but not on the relationships of social support, self-efficacy and resilience underpinned by theory.

For this study, a quantitative cross-sectional descriptive study was designed to examine the relationship between social support, self-efficacy, and resilience among mothers who experienced stillbirth. In this chapter, the research methodology is presented, describing the purpose of the study, conceptual framework, theoretical and operational definitions. Next, the study's aim, objectives, and hypotheses are outlined, and the research design is presented with details of the ethical approval process. The research population, sample, sample size, sample selection is presented with inclusion and exclusion criteria, followed by the research method. Further, the data collection package is explained outlining the survey questionnaire. The internal and external validity, pilot study and reliability of the study are discussed. The chapter concludes with the data analysis strategy.

4.2 Purpose of the Study

The purpose of this study was to examine social support, self-efficacy and resilience of mothers who experienced stillbirth and the relationships between these variables. A conceptual framework (Figure 1) developed to guide the study will be discussed next.

4.3 Conceptual Framework

This study's conceptual framework is based on Richardson's (2002) resilience theory. This theory postulates that when individuals face adversity or a life-changing situation, resilience is triggered with the help of ecological, spiritual and psychosocial sources. These sources' strengths buffer the negative consequences or effects of adversity and may enable an individual to achieve resilient reintegration. Richardson's (2002) resilience theory provides an outline for considering how protective factors might operate in the context of stillbirth. Protective factors are resources or strengths in the individual and individual's environment

that help to deal more effectively with stressful events, mitigate or buffer the effects of adversity. The conceptual framework is composed of three concepts. The concept of social support represents mothers structural and functional dimensions. The concept of self-efficacy represents mothers' action and coping self-efficacy beliefs. The third concept represents maternal resilience in its dimensions.

Social Support

Social support is represented as the first concept of the study and is an independent variable. The conceptual framework outlines social support as an external protective factor that may influence resilience. Cohen defined social support as an individual's social network's (significant people around the individual) provision of psychological and material resources intended to benefit an individual's capacity to cope with stress (Cohen, 2004, p.676). Inherent in this definition, social support comprises two dimensions: social network (structural dimension of support) and psychological and material resources of support (functional dimension of support).

According to Cohen's (2004) social support theory, if an individual believes that if support persons surround them, the negative appraisals of stressors are less threatening (i.e. a structural component of social support). Cohen proposed that social support exerts influence on health directly and indirectly through cognitive mechanisms (i.e. a functional component of social support). Cohen (2004) postulates that social support provides psychological and material resources to benefit an individual to cope with the stress associated with adversity. In this study, social support is conceptualised as having two interrelated dimensions: structural social support (formal and informal social support sources) and functional social support (informational/emotional support, tangible support, affectionate support, and social interactions). Social support was measured using the Medical Outcome Study Social Support Survey (Sherbourne & Stewart, 1991). The rationale for selecting the MOS SSS (Sherbourne & Stewart, 1991) is described in the research instruments section below.

Self-Efficacy

Self-efficacy is a second concept represented in the conceptual framework and is an independent variable. Bandura (1994) defined perceived self-efficacy as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives (p.71). The key aspects of the definition are peoples' beliefs (intentions) and capabilities (ability to sustain those beliefs). Self-efficacy determines how individuals feel, think, motivate themselves, and behave through four key processes: cognitive, motivational, affective, and selection. Individuals with high self-efficacy can well

assert their specific needs, identify their social networks' strengths and weaknesses, and mobilise their networks when needed.

According to Bandura (1982), individuals with higher self-efficacy may have high confidence in their ability to take the initiative and may also have increased confidence to maintain the desired behaviour to continue their action. However, some individuals can be confident in taking the initiative (high in action self-efficacy) but not so confident in the ability to maintain the efforts (low coping self-efficacy). By contrast, others could have confidence in their ability to recover from adversity (high coping self-efficacy) but little confidence in getting started (low action self-efficacy). Hence, two factors of self-efficacy co-define the totality of the individual's general self-efficacy. The two aspects of self-efficacy are distinct, and therefore in the context of stillbirth, both could hold importance.

In this study, self-efficacy comprises mothers' situational beliefs, persistence in the functioning and subsequently coping behaviours following stillbirth. Self-efficacy was measured using the General Self-Efficacy Scale developed by Schwarzer & Jerusalem (1995) to assess the general sense of perceived self-efficacy to envisage coping after a stressful life event. The scale is described in the research instrument section below. The two factors, action and coping self-efficacy, are presented in the conceptual framework as dimensions of self-efficacy. Benight & Bandura (2004) suggested that coping self-efficacy is the focal mediator of post-traumatic recovery. A self-efficacy belief system is ingrained in social cognitive theory and specifies the modes of influence for building a resilience sense of self-efficacy.

Resilience

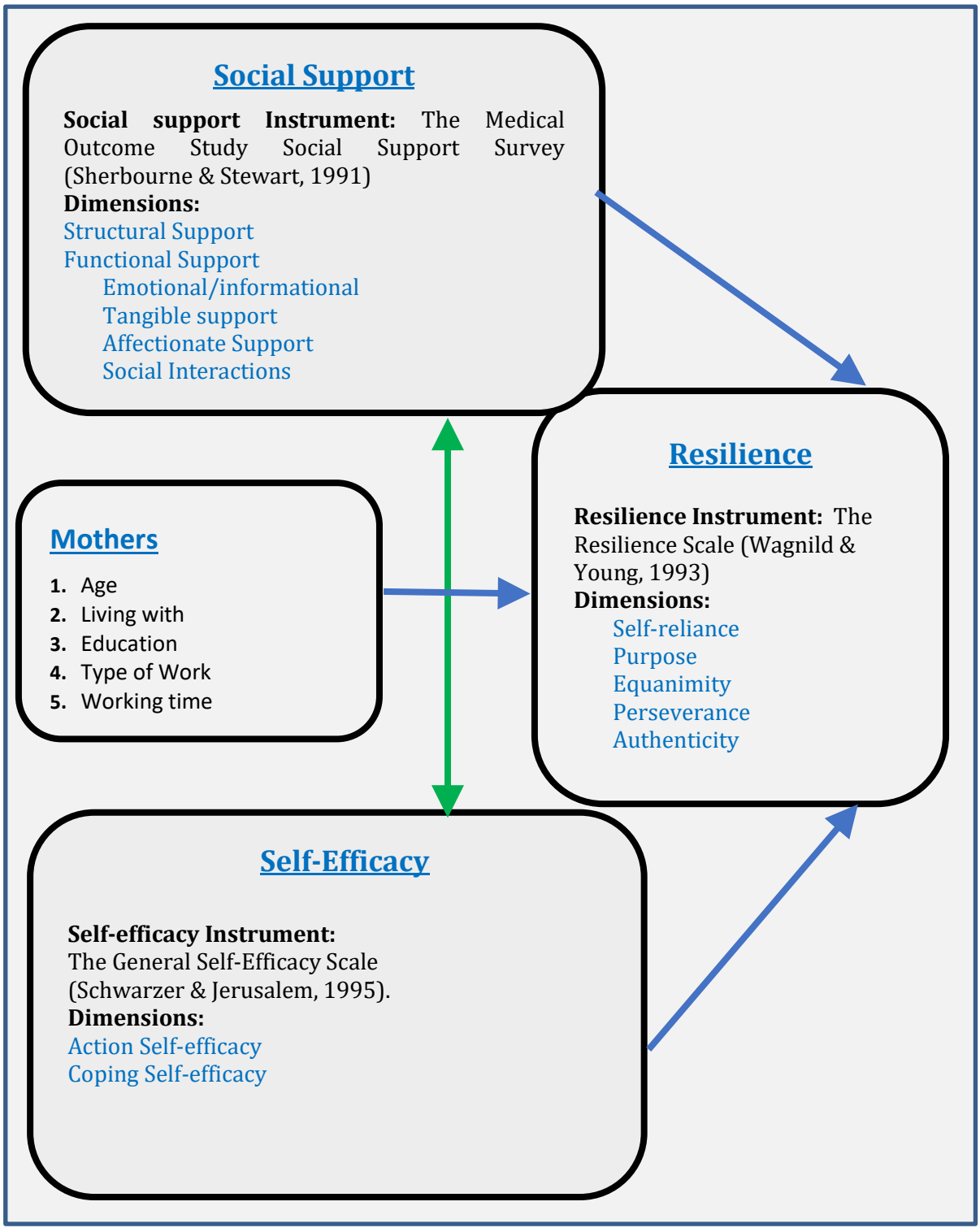
Resilience is a third and central concept of the conceptual framework and the dependent variable. Caldeira and Timmins's definition delineates the conceptual and theoretical understanding and its application in research. Resilience is defined as an ability to recover from the perceived adverse or changing situation through a dynamic process of adaptation, influenced by personal characteristics, family and social resources, that are manifested by positive coping, control and integration (Caldeira & Timmins, 2016, p.197). An integral part of this definition is the individual's ability to recover from perceived adversity. Therefore, resilience is conceptualised as self-reported levels of resilience characteristics of mothers who experienced a stillbirth. Resilience is contemplated as resilience characteristics - purpose (finding a sense of purpose), perseverance (keep going despite difficulties), equanimity (having balance and harmony), self-reliance (learn and adapt) and existential aloneness (accepting what you are). Resilience was measured using the Wagnild and Young

(1993) Resilience Scale. On the scale, five dimensions of resilience are resilience characteristics. The scale is described in the research instrument section below.

Mothers Demographics

The conceptual framework demonstrates mothers who experienced a stillbirth with unique demographic characteristics that include mothers age, living status, education, type of work, working time, gestation at stillbirth and year of stillbirth.

Figure 1: Conceptual Framework



Directional Arrows

In the conceptual framework, directional arrows represent causal influence between variables. A bi-directional arrow between social support and self-efficacy represents the proposed influence of both variables on each other. Two unidirectional arrows represent the influence of social support on resilience and the influence of self-efficacy on resilience. The third unidirectional arrow reflects mothers' characteristics which may influence resilience.

4.4 Operational Definitions

Social Support

Based on Cohen's (2004) definition, social support in this research is defined as the social network's provision of psychological and material resources intended to benefit a mother's capacity to cope with stillbirth.

A fundamental part of this definition is a social network (a structural component of support) and promoting individual capacity (a functional component of support). Structural support includes the mother's existing and new social network – formal and informal sources of social support. The functional component emphasises the support activities related to emotional, informational, tangible, affectionate support, and positive interactions.

In this study, social support among mothers was measured using the Medical Study Outcome Social Support Scale MOS SSS (Shelbourne & Stewart, 1991). the scale is detailed in the research instrument section below.

Self-efficacy

Based on Bandura's (1982) definition, in this study, self-efficacy is defined as mothers' beliefs about their capabilities to cope with stillbirth, its concerning influence over events surrounding stillbirth, and that affected their lives.

The significant aspects of the definition are mothers' beliefs about their capabilities and their ability to sustain those beliefs to produce a performance. As discussed earlier, self-efficacy is conceptualised with its dimensions in the conceptual framework and include action self-efficacy and coping self-efficacy.

In this study, self-efficacy is measured using the General Self-Efficacy Scale GSE (Schwarzer & Jerusalem, 1995). The scale is detailed in the research instrument section below.

Resilience

Based on Caldeira & Timmins (2016), resilience is defined in this study as the ability to recover from perceived adversity or changing situations related to stillbirth through a

dynamic process of adaptation, influenced by personal characteristics, family and social resources, and manifested by reintegration.

An integral part of this definition is the mother's ability to recover from perceived adversity. Therefore, resilience is conceptualised as self-reported levels of resilience characteristics among mothers who experienced stillbirth. Resilience reintegration is perceived in terms of purpose (a belief that there is something for which to live), perseverance (the act of persistence despite adversity or difficulties), equanimity (balanced and harmony in life), self-reliance (belief in themselves, learn and adapt), and existential aloneness or authenticity (the realisation that each person is unique, acceptance of what you are). In the conceptual framework, these characteristics are illustrated as dimensions of resilience.

In this study, resilience is measured using the Resilience Scale RS (Wagnild and Young, 1993); the scale is detailed in the research instrument section below.

The rationale for choosing these three scales is discussed in the section on research instruments below.

4.5 Aim of the study

The aim of the study was to examine the relationship between social support, self-efficacy and resilience among mothers who have experienced stillbirth.

4.6 Objectives of the study

Objectives were developed to achieve the following aim:

1) To identify social support of mothers who have experienced stillbirth

2) To identify self-efficacy of mothers who have experienced stillbirth

3) To identify resilience of mothers who have experienced stillbirth

4) To explore relationships among social support, self-efficacy and resilience of mothers who experienced stillbirth

4.7 Hypotheses

A number of hypotheses for testing were drawn to achieve study objectives, and include,

Hypothesis #1: There is a relationship between social support, self-efficacy and resilience among mothers who experienced stillbirth. And this is broken into three sub hypotheses 1a, 1b, and 1c.

Hypothesis #1a: There is a significant positive relationship between social support and resilience of mothers who experienced stillbirth.

Hypothesis #1b: There is a significant positive relationship between self-efficacy and resilience of mothers who experienced stillbirth.

Hypothesis #1c: There is a significant positive relationship between social support and self-efficacy of mothers who experienced stillbirth.

4.8 Research Design

It is accepted that quantitative research gathers empirical evidence by the systematic and objective methodology (Polit & Beck, 2012), where the data is produced using measurement instruments and analysed objectively with descriptive and inferential statistical methods. The qualitative method uses a fundamentally unique paradigm to underpin the research where interpretation is developed from the observed patterns appreciating individuality and analysing from their perceptions (Suter, 2014). A quantitative design was selected on the basis that social support, self-efficacy and resilience are key concepts in the stillbirth context and that these concepts may have a relationship that can be discovered with the appropriate examination. Many studies reviewed had used a quantitative approach to operationalise social support (Cacciatore *et al*., 2013; Antonio, 2013, Roberts *et al*., 2016), self-efficacy (Bayrakli & Kaner, 2012; Antonio, 2013) and resilience (Buchi *et al*., 2007; Greeff *et al*., 2011; Bayrakli & Kaner, 2012; Cacciatore *et al*., 2013; Antonio, 2013; Roberts *et al*., 2016), in the context of adverse life events.

Social support, self-efficacy and resilience were three important concepts drawn from the stillbirth literature. It was also established that these three concepts were examined or explored individually but not collectively at the same time in the stillbirth context. The study task, therefore, was to determine if there is any relationship between these concepts in the context of stillbirth. The correlational technique of the quantitative research approach was considered suitable to examine the relationship between social support, self-efficacy and resilience by measuring without manipulating.

The online survey using the internet for data collection has become widespread in research in recent years. According to the CenterWatch survey (2018), 87% of the public reported a willingness to participate in online research if the topic made sense to them, and 59% wished to be contacted by email for research. In the last decade, there are multiple online options to seek support ranging from private to public - chat groups, message boards, blogs, and numerous types of social media that enable virtual and face to face interactive communication. In 2013, adults use of online peer support was estimated at approximately 2.7 to 3.3 million annually in mental health information or seeking support (De Andrea & Anthony, 2013). It can be seen that internet surveys and electronic data collection allow easier and faster data collection, reaching more diverse samples, with low cost and analysed

quicker than when using paper-based questionnaires (Benfield & Szlemko, 2006). Therefore, the online survey method was considered apt for a broader sample involving more geographic areas for objective and faster examination.

4.9 Ethical Consideration

4.9.1 Study Approval

The ethical approval and study insurance was sought from the Cork Research Ethical Committee and University College Cork. Permission of the Local Information Governance Group of Cork University Maternity Hospital (Cork, Ireland) that is affiliated to University College Cork was also obtained (Appendix 5: CREC Approval; Appendix 6: Study Insurance). After obtaining ethical approval, a pilot study was conducted (details below). The main study questionnaire was disseminated as an online survey weblink to international participants via social media.

4.9.2 Ethical Principles

The primary ethical principles applied to the questionnaire were beneficence, respect for human dignity, confidentiality and justice (Burns & Grove, 2005). These are discussed by aligning with the context of the study. According to Burns & Grove (2005), the principle of beneficence requires the researcher not to harm participants and that participation is potentially beneficial for participants. The questionnaire statements were non-intrusive and short statements to reduce participants burden and increase response. The questionnaire required participant mothers to choose the correct option according to them as a response to survey items. Besides, the study did not disturb their care or access to health care services. No immediate benefits to the participants were anticipated. Evolving an understanding of these concepts will help midwives and clinicians appreciate the importance of social support, self-efficacy, and resilience when supporting mothers who experience stillbirth.

It was not anticipated that this questionnaire would cause harm to participants, however, as stillbirth is a distressing subject, and a bereavement support midwife in Cork was available to provide support and counselling (Appendix 10: Counselling Support) to women in Ireland if required. No cost was be incurred for this service. As this survey reached an international audience, a wide range of support organisations internationally were listed at the end of the survey, most of whom have an online presence. The researcher's email address was provided so that any participant would be able to contact someone for additional information about the study or to obtain support. None of the participants requested to avail the counselling support during the study period.

Respect for the human right for dignity was assured to mothers through their voluntary participation and acknowledging their individuality in stillbirth experience (Appendix 5: Data Collection Package Page 2 Ethical Consent) and providing them with an opt-out option at any point of time by clicking 'exit' button on any page of the survey. The participants were informed about the topic of the survey, the voluntary nature of participation and the manner in which data was collected. Also was informed that anonymity and confidentiality were maintained. As this was an online survey, a consent paragraph was included after the introduction page inviting the participant to click yes or no. Further, all data were anonymous, and no identifying details were obtained.

The right to confidentiality was respected by not asking for any identifiable information of mothers in the survey. The retrieved data was maintained on a password-protected personal computer and was not shared. Further, study findings were presented, ensuring that individual participants could not be identified. The process of anonymity was observed using the coding system for collected data. Similar data coding was observed for confidentiality in the analysis of data, presentation of findings and interpretation. Also, it was emphasised that the anonymity of mothers and their identity would be upheld in any future presentations and publications emanating from the study to assure their right to privacy.

Further, the length of the questionnaire in the data collection package was reasonable. The literature review undertaken observed a maximum number of items were 316 (Antonio, 2013). The literature review conducted has also found that the highest time to complete data collection was reported as one and half hours by Antonio (2013). It was further found that one of the reasons for missing responses was a lengthy questionnaire.

The questionnaires in the Data Collection Package have a total of 62 items, so it was anticipated that potential participants would likely complete the survey in a reasonable time. The pilot study undertaken showed the average time taken for completing the survey for one participant was 15 minutes. The main study showed the average time to complete the survey by each participant was 14 minutes.

Therefore, the study successfully adhered to the ethical principles - beneficence, respect for human dignity, confidentiality, and justice.

4.10 Research Population, Sample and Sample selection

This section presents a description of the study population, sample, sample size and sample selection.

4.10.1 Population

The population for this study is mothers who experienced stillbirth. According to the National Perinatal Mortality Report (O'Farrell *et al*., 2017; Manning *et al*., 2018; O'Farrell *et al*., 2019), 294 (4.5/1000 live births, in 2015), 250 (3.9/1000 live births, in 2016) and 235 (3.8/1000, in 2017) mothers experienced a stillbirth in Ireland. According to the European Perinatal Health Report (Euro Peri Stat, 2013), stillbirth per 1000 live births ranged from 1.5 (Czech Republic) to 4.3 (France) in Europe. In 2015 there were 2.6 million stillbirths globally (WHO), having 18.4 stillbirths per 1000 total births (Wojcieszek, 2016).

4.10.2 Sample, Sample Size and Sampling

The study sample was mothers who experienced stillbirth between 2015 to 2019. A power analysis was undertaken to determine the required sample size to meet each of the study objectives. Effect size, in this case, is denoted as r and represents the strength of the relationship. The r effect sizes for the bivariate correlation and the Pearson correlation were considered as 0.10 for a small effect size, 0.30 for a medium effect size, and 0.50 for a large effect size (Cohen, 1988). A significant Pearson product-moment correlation at a 0.05 level of significance, a power of 0.80, and medium effect size (r=0.3) needed sample size 84 and considering 50% response rate of 168 respondents to be approached. Hence, the appropriate sample of mothers n=117 experienced stillbirth who completed the online questionnaire for the study.

Non-probability sampling was used to recruit mothers who met the inclusion criteria. Irish Stillbirth Support Organisation: Feileacain, American Stillbirth support group Star Legacy and Scotland Stillbirth Support agreed to upload a web link on the stillbirth mothers group page. (Appendix 7: Recruitment Emails). Also, social media, such as Twitter and Facebook, was used to recruit potential participants. More details are given below in the data collection procedure section.

4.10.3 Inclusion and Exclusion Criteria

The inclusion criteria were mothers who experienced a stillbirth from 2015 to 2019, who can read English and are at least 18 years of age. Ethical approval was granted to invite mothers who had a stillbirth in the last five years (2015 to 2019) to participate in the study. After the pilot study and critical discussion, it was decided to ask mothers who had a stillbirth within the last two years (2018 to 2019) to participate in the study. At the time, the rationale for two years was that, over a longer time, mothers might be affected by other adversities that could potentially affect the resilience measurement.

Therefore, the invitation to participate in the study requested mothers who had experienced a stillbirth in the last two years to complete the questionnaire. Despite this, several mothers who had a stillbirth from 2015 to 2017 also participated in the study. Thus, for analysis, the two years' timeframe was disregarded, and if mothers have completed the questionnaire and had a stillbirth in the last five years (2015 to 2019), their data was included.

4.11 Data Collection Package

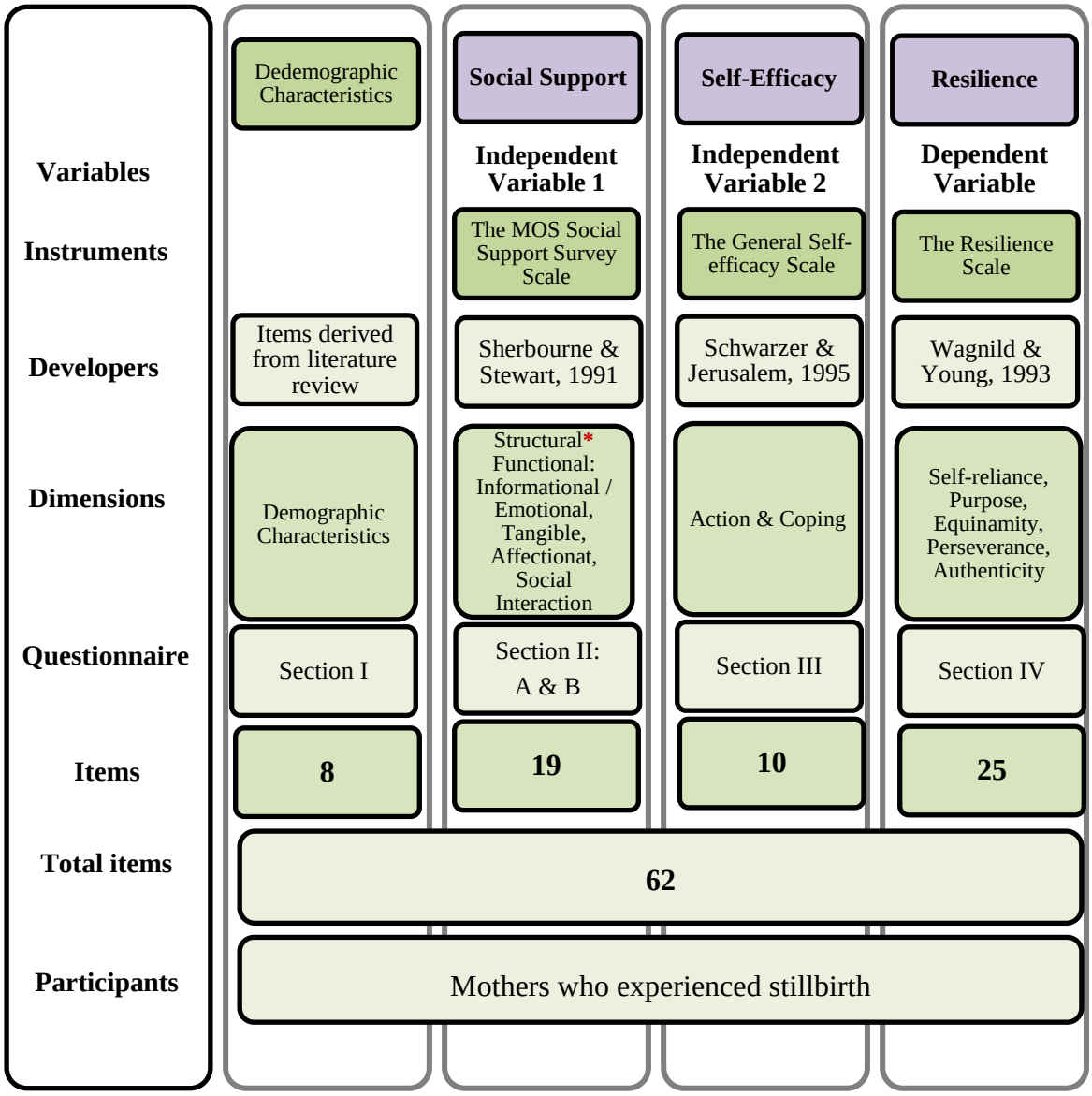
Data Collection package (Appendix 8: Data Collection Package) comprised of - study introduction, questionnaire information, consent for participation, demographic characteristics and research instruments measuring social support, self-efficacy and resilience, thank you note, support organisations weblink and an open-ended question at the end for participants to add comments. Refer to figure 2 (Figure2: Variable and Measurements) below, which illustrates the type of variables and instruments measuring variables in the Data Collection Package.

The study opens the first page of the data collection package that presents the study introduction, criteria to participate, time taken to complete the survey and confidentiality measures. At the end of the first page participant is asked to click yes or no to the question – if you have read the information, meet the criteria and are willing to participate in the study, please indicate your consent by responding below. The second page gives information on survey sections and instructions on answering the questions.

Third page onwards, surveys questions are on mothers' characteristics, their social support, self-efficacy and resilience in four sections. Section I of the Data Collection Package relates to the demographic information of mothers. Total eight items of this section include age, living arrangements, education, type of work, working time, year of stillbirth, gestational age and country of residence.

Section II of the Data Collection Package relates to the social support of mothers. Subsection A is about structural social support that includes sources and categories of social support. The participants were expected to tick as many responses as they apply to those who provided different types of social support. The sub section B is about functional social support and is measured using the Social Support Scale MOS SSS (Sherbourne & Stewart, 1991), include 19 items, each of which rated on a 5-point Likert scale (1 – none of the time to 5 – all of the time). MOS SSS used continuous format for all 19 items, and that subscales are not demarcated separately in the questionnaire.

Figure 2: Variables and Instruments



*****_Question on Structural Social Support included as Section II-A – Sources: Spouse / Husband / Partner / Significant other, Family members & Relatives, Friends, Co-workers, Midwife, Specialist Midwife, Health Care Assistant, Obstetrician, General Practitioner, Social worker, Support group, Neighbours, On-line support, Social Media._

Section III is about the mother's self-efficacy and was measured using the General Self-Efficacy Scale GSE (Schwarzer & Jerusalem, 1995). The ten items self-report scale was rated on a 4-point Likert scale (1 – Not at all true to 4 – Exactly true). GSE used a continuous format for all ten items, and that subscales are not outlined separately. Section IV of the Data Collection Package relates to the resilience of mothers who experienced stillbirth. Resilience is measured using The Resilience Scale RS (Wagnild and Young, 1993). The RS is comprised of 25 items with the responses sought on the 7-point Likert scale (1 – Strongly disagree to 7 – Strongly agree). The RS used continuous format for all 25 items, and that subscales are not delineated separately for data collection. All items are self-reporting statements, and participants were required to choose one option. All instruments are discussed in detail in the following paragraphs.

4.11.1 Demographic Variables

Question 1 to 8 relates to background information about mothers who experienced stillbirth. These questions offered fixed alternative responses that were corresponding to the literature on resilience and stillbirth. Question 1 relates to the age of mothers. Mothers of relatively younger age were reported as having high resilience (Nie *et al*., 2017). Question 2 refers to relationship status. As stillbirth is a sensitive pregnancy outcome, the category of living arrangement in the relationship can have its impact on coping. Secure relationship status was identified as a positive factor for resilience (Lang *et al*., 2004; Essakow & Miller, 2013; Cacciatore *et al*., 2014; Rosenberg *et al*., 2014). However, Levine (2009) reported that the presence of resilience among single mothers who did not have a spousal relationship was a result of their efforts in obtaining alternative support from other family members or from the outside community. Question 3 relates to education level, and Question 4 relates to employment or type of work; additionally, Question 5 sought working time – full time or part-time work. Question 6 relates to the year of stillbirth; Question 7 relates to gestation at stillbirth. Question 8 obtained information on the country of residence.

4.11.2 Research Instruments

This section discusses instruments included in Section II (Social support - the Medical Outcome Study Social Support Scale MOS SSS (Sherbourne & Stewart, 1991), in section III (Self-efficacy – the General Self-Efficacy Scale GSE (Schwarzer & Jerusalem, 1995) and in section IV (Resilience – the Resilience Scale RS (Wagnild & Young, 1993), of the data collection package.

4.11.2.1 Social Support Scale

It was found in the review that various social support instruments have been used to measure maternal social support: Chinese Social Support Rating Scale SSRS (Nie *et al*., 2017), McCubbin Social Support Inventory SSI (Greeff & Vansteennwegen, 2011; Greeff & Nolting, 2013), Brown Support Behaviours Inventory (Lang *et al*., 2004), Vaux Social Support Behaviours (Antonio, 2013). After reviewing the literature on social support measures, items on the Medical Outcome Study Social Support Scale MOS SSS (Sherbourne & Stewart, 1991) were considered appropriate to obtain information on mothers' functional social support.

In Data Collection Package Section II on social support was divided into two sub-sections. The first subsection asked about sources of social support the mother had, who provided a different type of functional support. The second subsection asked mothers perceptions about social support using the Medical Outcome Study Social Support Scale MOS SSS

(Sherbourne & Stewart, 1991). The Social Support Survey (MOS SSS) instrument was developed by Sherbourne & Stewart (1991). It is a 19 items self-report questionnaire, each of which is rated on 5- point Likert scale (1 – none of the time to 5 – all of the time) to identify the degree of functional support and is considered robust (Lopez & Cooper, 2011). Total functional support score was the sum of the score attributed to all items in a range of a minimum score of 19 to a maximum score of 95. The Medical Outcomes Study Social Support Scale MOS SSS (Sherbourne & Stewart, 1991) assesses dimensions perceived the availability of functional support – emotional & informational support (8 items), tangible support (4 items), positive social interactions (4 items) and affectionate support (3 items). A simple summation of scores corresponds to the level of support in each subscale. Adding scores obtained in all subscales corresponds to a total score of social support on the MOS SSS.

The scale is reported to have a selection of items was guided by a strong *a priori* conceptual framework of social support (Sherbourne & Stewart, 1991). Sherbourne & Stewart (1991), developers of the scale, explained that the multi-trait correlation matrix indicated that informational and emotional social support items were overlapping and, therefore, combined them in the scale under subscale informational and emotional social support. The scale was used to measure support and found robust in determining social support levels among mothers and pregnant women. It was previously used among mothers whose children were under treatment for behavioural and developmental problems (Gjesfjeld *et al*., 2008; α = 0.94), pregnant women (Campos *et al*., 2008; α = 0.83 to 0.94) and adults receiving health treatment (Sherbourne & Stewart, 1991; α = 0.91 to 0.97). Developers also reported overall strong reliability of the MOS SSS (α = 0.93) (Sherbourne & Stewart, 1991).

However, the MOS SSS (Sherbourne & Stewart, 1991) was not used in the context of stillbirth. Although, the literature review identified various support instruments used in the context of stillbirth or pregnancy loss focusing on the specific type of social support, such as family functioning FAD (Cacciatore *et al*., 2013; Nie *et al*., 2017), marital support (Nie *et al*., 2017), social provision scale (Roberts *et al*., 2016)). However, this study required to capture all functional dimensions underpinning theoretical aspects of social support. After reviewing all social support instruments and based on the literature on social support measures, the MOS SSS (Sherbourne & Stewart, 1991) was found suitable for the study. The scale is cost-free, accessible from the website and required no explicit permission for its use.

4.11.2.2 Self-Efficacy Scale

Maternal self-efficacy has been measured with Schwarzer & Jerusalem General Self-Efficacy Scale (GSE), and this has been used to measure self-efficacy among mothers who experienced pregnancy loss (Nikcevic *et al*., 1998; Antonio, 2013) and among mothers of children disabilities (Weiss *et al*., 2013; Jankowska *et al*., 2015). Various other self-efficacy scales have been used to measure maternal self-efficacy, such as the Leonard Maternal Self-Efficacy Scale (mothers of children with Congenital Diabetes Mellites) (Noser *et al*., 2017), a subscale of Parenting Self-Efficacy (mothers of children with intellectual disabilities) (Bayrakli & Kaner, 2011) and Barnes & Adamson-Macedo Perceived Self-Efficacy Scale (mothers in the postnatal period) (Leahy-Warren *et al*., 2012).

In this study, self-efficacy of mothers was measured with the General Self-Efficacy Scale developed by Schwarzer & Jerusalem (1995) to assess the general sense of perceived self-efficacy to predict coping after a stressful life event. The General Self-Efficacy Scale (GSE) is a self-reporting scale that comprises 10 items on the four-point Likert scale (1- Not at all true to 4 – Exactly true). The final score is obtained by adding item responses ranged from 10 to 40. The non-intrusive phrasing of short length sentences with Likert rating responses can justify the use of scale among mothers experiencing stillbirth. The scale measures both dimensions of self-efficacy: action self-efficacy (items 1, 6, 7, 8, 9) and coping self-efficacy (items 2, 3, 4, 5, 10). Criterion-related validity is documented in numerous correlation studies where positive coefficients were found with emotions and optimism. Negative coefficients were identified with depression, anxiety, stress and health complaints. The scale developers reported reliability as 0.76 to 0.90 (Schwarzer and Jerusalem, 1995) and recommended that the scale is suitable for a broad range of contexts and the adult population. The scale has open access.

4.11.2.3 Resilience Scale

The literature review identified that numerous instruments had been used to measure resilience as follows: the Connor and Davidson Resilience Scale (Rosenberg *et al*., 2014; Nie *et al*., 2017), Turkish Resilience Scale (Bayrakli & Kaner, 2012), Fribourg Resilience Scale for Adults (Eilersten *et al*., 2016) and Wagnild & Young Resilience Scale (Antonio, 2013; Roberts *et al*., 2016).

The Resilience Scale RS was developed by Wagnild and Young (1993) to identify the degree of individual resilience; it is a 25-item self-report questionnaire, each of which is rated on a 7-point Likert scale (1 – Strongly disagree to 7 - strongly agree). According to developers of the scale (Wagnild & Young, 1993), the items of the RS were drawn from interviews with persons who characterised the generally accepted definitions of resilience. Thus, Wagnild &

Young (1993) claims the RS has priori validity and is specifically linked with resilience definitions. Items of the Resilience Scale were derived from a 1987 qualitative study on women who experienced recent loss (death, health or employment) and had successfully coped with the loss. The five characteristics or dimensions that describe resilience and serve as the conceptual foundation. Wagnild & Young described five characteristics as resilience core and propose that a strong resilience core enables a person to bounce back, learn and grow from life's difficulties exhibiting a healthy resilience response.

The five characteristics of resilience, which serve as the conceptual foundation for the Resilience Scale, and include self-reliance (items 2, 9, 13, 18, 23), purpose (items 4, 6, 11, 15, 21), equanimity (items 7, 12, 16, 19, 22), perseverance (items 1, 10, 14, 20, 25) and existential aloneness or authenticity (items 3, 5, 8, 17, 25). Resilience can be considered as enhancing self-reliance with perseverance and a new purpose in life after adversity with equanimity accepting existential aloneness in doing so.

According to developers, self-reliance is the ability to depend on oneself and to recognize personal strengths and limitations. The purpose is the realisation that life has a purpose, self-contribution and meaningfulness, suggesting life has the sense of having something to live for. Equanimity is described as the ability to consider a balanced perspective of one's life and experiences; and take what comes in life, thus moderating extreme responses to adversity. Perseverance is described as the act of perseverance despite adversity and willingness to continue to struggle to reconstruct one's life. Existential aloneness or authenticity is described as the person's realisation that each person's life path is unique, while some experiences are shared, but some must be faced alone. The levels of resilience were ranged on total scores of the resilience scale and included high (146 to 175), moderate (116 to 145) and low (25 to 115) (Wagnild, 2009). A higher score on resilience signifies that one has found equilibrium after the adversity and continues to move forward. The moderate score suggests that one has ups and downs after adversity; good things in life are recognised but tend to dwell on things that are not well.

Low resilience suggests that one feels dissatisfied in general, feel isolated and overwhelmed and maybe felt a little out of control. According to Wagnild & Young (1993), low resilience does not mean zero resilience or no resilience, suggesting that everyone is resilient to some degree. Therefore, the scale's lowest score of 25 might denote the low resilience where a person may have a problem in finding the stillbirth experience meaning and lacking energy.

Referring to measuring resilience, authors reported reliability as 0.90 to 0.95 in diverse contexts and samples (Wagnild and Young, 2016). Resilience measured by the RS has a

positive correlation with self-efficacy (Sagone & De Caroli, 2013), mindfulness (Roberts *et al*., 2016) and a negative correlation with stress (Smith *et al*., 2008). However, the use of RS in stillbirth or other adverse pregnancy loss outcomes is limited: stillbirth (Roberts *et al*., 2016, Cronbach's alpha = 0.86) and pregnancy loss (Antonio, 2013, Cronbach's alpha = 0.98).

The rationale for selecting the RS is - the scale comprises a reasonable number of items with short nonintrusive sentences (Wagnild & Young, 1993). The benefits of using RS are reported as – easy to use, quick to complete (approximately 5 to 7 minutes), easy to score (no reverse scoring), applicable to the adult population and tested among women, valid and reliable (Wagnild, 2009) and has been used in mothers with stillbirth (Roberts *et al*., 2016). Furthermore, RS is focused on strengths and positive psychological qualities rather than deficits, suggesting possible intervening avenues exist to help facing adversities. The RS scale is considered a robust resilience measuring instrument (Fletcher & Sarkar, 2013) with good psychometric properties (Ahern *et al*., 2009; Wagnild, 2009).

Permission to use a scale was sought directly from developers Wagnild and Young. The letter of permission to use the scale is in the appendix (Appendix 9: Permission for the Resilience Scale). All the above concepts and their measurements guided by dimensions are presented in Figure 2: Variables and Measurements.

4.12 Validity

Validity refers to the degree to which a study can measure what it is supposed to measure (Schmidt & Brown, 2012). The literature review assisted in the development of the conceptual framework for the study and to identify potential instruments.

In this study, the questionnaire's face validity was determined by experts in midwifery and obstetrics who approved the questionnaire as a valid test of measurement. The sample and sample size were determined by conducting power analysis. The study successfully examined the relationships among social support, self-efficacy and resilience among mothers who experienced stillbirth using theoretically underpinned quantitative research method.

Reliability and pilot study are discussed next.

4.13 Reliability

Reliability refers to whether a question gets the same answer by using an instrument to measure something more than once (Burn & Gove, 2017). In simple terms, research reliability is the degree to which research method produces stable and consistent results.

Internal consistency of the MOS SSS (Sherbourne & Stewart, 1991) was reported having Cronbach's alpha ranged between 0.91 and 0.97. In this study, Cronbach's alpha was 0.96. Internal consistency for GSE (Schwarzer & Jerusalem, 1995) was reported having Cronbach's alpha between 0.76 and 0.90, and in this study, Cronbach's alpha was 0.92. Internal consistency of the RS ($\alpha = 0.91$; Wagnild & Young, 1993; and $\alpha = 0.93$; Wagnild, 2010) has been reported to be stable and outstanding in the adult population. In this study, Cronbach's alpha was 0.94.

4.14 Pilot Study

Polit & Beck (2008) advise that a pilot study should be conducted with the aim to test the feasibility of inclusion and exclusion criteria, recruitment and pertinence of the research method. A pilot study was conducted with participant mothers who fulfilled the inclusion criteria with help from the coordinator of the Feileacain stillbirth support group. An individual email with a survey link was sent to 24 participants; 21 participants completed questionnaires. Participant mothers' opinions were sought by asking questions to establish if they understand survey items and experienced any difficulty in answering them to determine face validity. The average length of time taken to complete the questionnaire by a participant was 15 minutes. Participants responses to the question 'did you had any difficulty in understanding and answering any question in the survey' were negative. The analysis of the data from the pilot study informed the feasibility of recruiting mothers who experienced stillbirth and data collection questionnaire.

4.15 Data Collection Procedure

4.15.1 Recruitment

There are no specific criteria outlined for approaching participants who experienced bereavement. However, the common view is that participation in research may be harmful to bereaved people. Hynson and colleagues (2006) outlined the key qualities of a researcher to secure the engagement of bereaved participants - an ability to show understanding without claiming to have any insight into participants' experiences, a capacity to cope with powerful expressions of emotion, and an ability to pace the data collection.

Studies showed that despite being emotionally difficult, parents' overall experiences of research involvement were positive. According to Beck & Konnert (2007), ethical issues in the study of bereavement should be based on bereaved adults' opinions. They found that 98.1% of bereaved participants reported research aim worthwhile, 99.4% felt that it does not constitute harassment, and 84.4% thought they could benefit from participating in bereavement research. In the stillbirth context, Cronin et al. (2020) identified recruitment

barriers and participants feedback and found that direct and indirect reduction by participants was from health providers as recruitment barriers; nevertheless, participants feedback should be recognised as the single mean to provide information on recruitment. Most participation happened for finding answers and adding to their meaning of stillbirth.

4.15.2 Data Collection

Data collection was done using the online Survey Monkey application. The complete data collection package (Appendix 5: Data Collection Package) was built on the SurveyMonkey® application. A secure password-protected account was created with access limited to the researcher alone. A survey weblink was published on a social media page that was formed for this study. The study sought responses through an online survey. As this is a difficult population to reach, all types of potential recruitment approaches and opportunities were used to access mothers. The study did not use the hospital database to contact mothers. The rationale was to maintain the survey link as directly as possible and maintain mother's privacy as an integral part.

Feileacain, Star Legacy and SIMBA[1] support groups agreed to help approach women via their social media pages. The emails from the organisations are attached (Appendix 9: Recruitment emails). The Stillbirth and Neonatal Death Association of Ireland (Féileacáin, https://www.feileacain.ie/) agreed to share a web link on their social media pages. Feileacain communicated with their members having a separate media page with women who had a stillbirth. Simba (https://www.simbacharity.org.uk) and Star Legacy support groups (https://starlegacyfoundation.org/support-groups/) also shared a weblink on their social media page. Additionally, the weblink was shared by colleagues and friends on their social media pages, mainly on their Facebook and Twitter pages.

Inclusion criteria determined that participating women at least 18 years of age can communicate in English and have experienced a stillbirth. The letter of acknowledgement was sought from the Local Hospital Research Committee, Clinical Director of Cork University Maternity Hospital. The formal requisition has been made and accepted by the bereavement midwife (Appendix 10: Counselling Support Letter) to support mothers if psychological distress arises by participating in the study or caused by any item of the questionnaire.

The Survey weblink led participants to the SurveyMonkey Application's 'Resilience of mothers who experienced stillbirth' Survey page. The first screen-page of the online survey

[1] Feileacain is the non-profit stillbirth support group in the Republic of Ireland. Star Legacy is the non-profit stillbirth support group in the USA.SIMBA is the non-profit stillbirth support group in the Scotland, UK.

introduced participants to the study title, method of data collection, and the researcher's commitment to observing ethics and respect as well as provision of bereavement support if the need arises. Mothers who decided to participate clicked the 'yes' button at the end of the first screen page and progressed to the second page.

Due to online data collection, consent was embedded in the survey. The second screen page formally sought informative consent to participate in the survey study. After reading the consent information, participants were requested to click 'yes' if willing to participate in the survey at the end of the second screen page. Consent is the process whereby participants are provided with information about a research study and agree to participate based on mutually acceptable terms. It is not possible to obtain face to face consent for the online survey. McGowen *et al.* (2018) conducted a 'consent survey' among adults (n=111) and found 78% (completely) and 22% (mostly) thought that online consent might be an acceptable modality for online survey studies.

Third page onwards, the survey obtained information that comprised of sections on demographics information, social support, self-efficacy, and resilience instruments. If the participant wished to leave the survey, each screen page had an exit button. Participant's progress was shown in the progress-band at the bottom of each screen page. The care was taken to ensure that participants would click the minimum possible buttons to proceed to the next screen page by accommodating all survey sections on one scrolling screen page. On completion of the survey, voluntary support groups details were listed. On the final screen page, participants were thanked, and with one last click of 'yes', the data returned to SurveyMonkey. All responses were collected on SurveyMonkey, which had no personal information or contact email details. Participants completed the questionnaires in Data Collection Package at their preferred places, and answers were returned to SurveyMonkey instantly. The survey was open from 30th March 2019 and closed on 30th November 2019.

In this study, twenty-three mothers were not included in the analysis as they experienced stillbirth more than five years ago. This shows that stillbirth is very much part of women's lives. The open section for additional comments indicated that mothers, regardless of the length of time following their stillbirth, connect themselves with stillbirth experience and a stillborn baby. A participant mother commented that asking women about their stillbirth experience within the last two years is restrictive. Further added that experience and interactions during experience remain fresh in mothers' minds forever. This suggests that the length of time may not change the experience. However, an individual mother's comments cannot be generalised.

4.16 Data Compilation and Analysis Strategy

Responses to SurveyMonkey were transferred to the SPSS data management system. The data management, including storage, analysis and presentation, was done using the statistical package for social sciences – SPSS (IBM SPSS Statistics, ® Version 25, 2017). A database of collected information was be prepared with definitions and labelling of each variable with a code, assigning a numeric value to each item in the questionnaire and scoring instructions into SPSS interpretable format.

The compiled data is stored in compliance with University College Cork's Health Research Regulations, including storing electronic data. Collected data were transferred to SPSS for analysis and was saved on a secure password-protected personal computer. All study documentation, including data about completed questionnaires, will be electronically retained for at least seven years after completion of the study and will be available for inspection by authorised representatives of the Department of Health and University College as required. The electronic data are password protected.

The descriptive analysis includes categories of demographic characteristics. Inferential statistics were computed to assess the relationships between social support, self-efficacy and resilience, as well as selected demographic characteristics. Regression analyses were carried out to explore whether perceived social support and self-efficacy (independent variables) would emerge as significant predictors of resilience in the participants. Data is presented in Chapter 5: on the Findings of the study, using tables and graphs as relevant.

4.17 Summary

This study investigated the relationship between social support, self-efficacy and resilience among mothers who experienced a stillbirth. In this chapter, the research methodology of a cross-sectional descriptive approach with a survey method was presented. The population, sample, sample selection methods are described. The Data Collection Package and the research instruments used to measure social support, self-efficacy and resilience were described. The chapter also discussed approvals and permissions sought, which are presented as appendices. The details of the data collection procedure were presented. The survey used the online data collection method as this was considered the most suitable for its convenience, time-saving and wider reach. The online survey sought responses from mothers who experienced a stillbirth in the last five years (2015-2019). The chapter further presented how data were managed, handled and analysed. This study's findings are presented in the next chapter (Chapter 5: Findings of the Study).

Chapter 5 Findings of The Study

5.1 Introduction

The findings of the study are presented in this chapter. The study aimed to examine social support, self-efficacy and resilience of mothers who experienced a stillbirth and explore the relationships between these variables. The study used an online survey method to collect responses. This method was considered appropriate for the stillbirth context to respect mothers' privacy. However, the limitation was that only mothers who can access the social media page and the weblink from the stillbirth support group were likely to be informed about the study and could participate in this study.

The study objectives outlined in the previous chapter were examined using the online survey approach. IBM SPSS Statistics ® Version 25 (2017) was used for descriptive and inferential statistical analysis of 117 completed responses. The quantitative data with inferential and descriptive analyses are presented using tables and figures as appropriate. The study participants are described first, and subsequently, the findings are presented in sections addressing the study objectives.

5.2 Study Participants

Mothers who experienced stillbirth were approached using all potential data collection techniques. The study used a survey weblink that reached national and international participants via social media (Twitter, Facebook), emails, verbal communication and also via selected support websites. After the initial surge, the response was slow and steady. The Weblink was open from 30th March 2019 and closed on 30th November 2019. The survey extended to the USA, UK, Australia, Canada, Finland, Spain and Ireland (Table 1: Mothers' Country of Residence).

Table 1: Mothers Country of Residence, n=117

Country	n	%
Ireland	63	62.7
USA	30	20.3
UK	15	10.5
Australia	5	3.9
Canada	2	1.3
Finland	1	0.7
Spain	1	0.7

Inclusion criteria to invite mothers who had a stillbirth in the past five years was requested and granted in ethical approval. However, following the pilot study and critical discussion with supervisors, mothers who had a stillbirth in the last two years were included in the invitation to participate in the study. The rationale for two years was that mothers might get

affected by other adversities or life situations that might impact on the results. However, mothers who had a stillbirth more than the two previous years completed the survey. Aligned with ethical approval, twenty-three were excluded as the stillbirth year surpassed five years. It was easy to filter data by restricting the year of stillbirth to two years. Looking at completed responses, two years' time frame was disregarded only if the participant responded to all questions in the survey and had experienced a stillbirth in the last five years.

A study weblink was clicked by 263 participants. n=91 did not proceed after the first page and did not attempt any questions in the survey. Out of 172, n=32 progressed after the first page of the survey but were excluded for omitting one or more scales and n=23 excluded for time since stillbirth exceeded five years. Mothers n=117 who completed all questions in the survey were included in the analysis. Out of 117, most were from Ireland (n=63, 62.7%) followed by the USA (n=30, 20.3%) and UK (n=15, 10.5%). A small number of participants were from Australia (n=5), Canada (n=2) and Finland & Spain (n=1).

5.2.1 Demographic Characteristics

This section presents mothers' data about their demographics such as age, who they are living with, their education, occupation, working time, the gestation at stillbirth and stillbirth year (Table: 2: Mothers Demographics). These demographics were categorised into groups and presented in terms of frequency and percentage.

Age:

Participant's age was categorised between less than 20 to 40 years and above. Most mothers were between 30 and 39 years. Only three participants reported age as under 20 years of age.

Mothers Living Arrangements:

Participant mothers reported living with their husband (n=80, 68.4%) and partner (n=31, 26.5%). In the category, 'Other' mothers reported living alone and living with other children. These categories were added to the table independently. Five participants also reported living unaccompanied (n=5, 4.3%) and living with children (n=1).

Education:

Education categories with smaller frequencies were regrouped for analysis. Primary/secondary and masters/PhD were combined. In this study, most mothers reported having a third-level education with a degree (n=48, 41%). A substantial number of mothers reported having a diploma or certificate (n=26, 22.2%) and a masters or PhD (n=26, 22.2%). Some mothers reported having completed primary or secondary school (n=16, 13.7%). One participant ticked option 'other' but did not specify their education level.

Occupation:

Occupation categories self-employee and employer were combined owing to smaller frequencies. Most mothers reported being employed in paid work (n=86, 73.5%). Other participants reported looking after a home and family (n=13, 11.1%), self-employed or employer (n=14, 12%). A few mothers reported illness & disability (n=2). One mother described looking for employment, and one mother clicked the option other but did not specify the type of work.

Table 2: Mothers Demographics, n=117

Demographics	Groups	n	%
Age	Less than 20 years	3	2.6
	20 to 29 years	19	16.2
	30 to 39 years	86	73.5
	40 years and above	9	7.7
Living with	Husband	80	68.4
	Partner	31	26.5
	Unaccompanied	5	4.3
	Children	1	-
Education	Primary/Secondary	16	13.7
	Cert/Diploma	26	22.2
	Degree	48	41
	Masters/PhD	26	22.2
	Not Specified	1	
Occupation	Employee	86	73.5
	Self-Employee/Employer	14	12.0
	Looking after family and Home	13	11.1
	Illness/Disability	2	-
	Looking for employment	1	-
	Not Specified	1	-
Work Time	Looking After Home and Family	13	11.1
	Full Time	82	70.1
	Part Time	20	17.9
	Illness/Disability	2	-
Gestation at Stillbirth	Less than 24 weeks	3	2.6
	24 to 29+6 weeks	37	31.6
	30 to 36+6 weeks	38	32.5
	37 to 40 weeks	30	25.6
	Above 40 weeks	9	7.7

Working Time:

Most mothers reported working full time (n=82, 70.1%), followed by part-time (n=21, 17.9%). Mothers who reported ‘other’ specified that they were looking after a home and family (n=11, 9.4%), looking for employment (n=1), illness & disability (n=2).

Gestation at stillbirth:

In this study, 32.5% (n=38) mothers reported gestational age at stillbirth as 30 to 36+6 weeks. Further 31.6% (n=37) at 24 to 29+6 weeks, 25.6% (n=30) at 37 to 40 weeks. A small number reported stillbirth above 40 (n=9, 7.7%) and less than 24 weeks (n=3, 2.6%).

Year of Stillbirth:

Total of n=117 mothers who completed all questions in the survey were included in analysis. Most mothers reported year of stillbirth in 2018 (n=45, 38.5%), followed by 2017 (n=31, 26.5%), 2019 (n=28, 23.9%), 2016 (n=8, 6.8%) and 2015 (n=5, 4.3%).

5.3 Social support for mothers

The study's first objective is related to social support – there is social support perceived by mothers. The finding on mothers' social support is presented in two divisions - social support structure or resources and functional social support. The structural components of the mothers' social support were the social network or the persons who provided informational, instrumental, emotional and appraisal social support. Table 3 presents mothers social support structure or persons who provided the different types of social support.

The functional elements of social support were measured using the Medical Outcome Study Social Support Survey MOS SSS (Sherbourne & Stewart, 1991) that captured informational, emotional, tangible, affectionate and social interactions. Mothers functional social support scores are presented in Figure 2: Mothers Functional Social Support.

5.3.1 Structural Social Support

This section reports findings on structural social support. The social support structure was examined by requesting mothers to report the formal and informal sources who provided them with functional support. The structural support is illustrated in Table 3: Structural Social Support n=117. The social support resources were identified from the stillbirth studies and include husband or spouse or partner, family or relatives, friends, co-workers, midwife, specialist midwife, healthcare assistant, obstetrician, general practitioner, social worker, support group, neighbours, online support and social media. The persons who provided social support are presented in rows and divided into informal and formal support groups. Functional components that were provided by mothers' social support resources are presented in the column. Mothers ticked the boxes if they perceived the type of support (columns) from induvial resources (rows). The following paragraphs present findings of functional support provided by various social resources and perceived by mothers.

Most mothers reported that informational support was provided by their obstetrician (n=85, 72.6%), midwife (n=67, 57.3%), general practitioner (n=61, 52.1%) and specialist midwife (n=59, 50.4%). Informational support was also provided online (n=81, 69.2%), by social media (n=70, 59.8%) and support groups (n=57, 48.7%). This suggests that mothers received information from formal, informal and community resources to deal with stillbirth.

Further, most mothers reported that affectionate support was received predominantly from their spouse or partner or husband (n=105, 89.7%), their family members or relatives (n=100, 85.5%) and their friends (n=101, 86.3%). A significant number of participant mothers reported affectionate support from informal sources that include co-workers (n=58, 49.6%). Support group (n=69, 59%), online support (n=71, 60.7%) and social media (n=54, 46.2%) A significant number of mothers reported affectionate support from formal resources such as midwife (n=56, 47.9%), specialist midwife (n=49, 41.9%), health care assistant (n=29, 24.8%), obstetrician (n=43, 36.8%), general practitioner (n=35, 29.9%) and social worker (n=23, 19.7%). This suggests perception of affectionate support from various formal and informal resources.

Table 3: Structural Social Support n=117

Persons who provided support	Informational Support	Emotional Support	Help with baby care	Counselling	Financial Support
	n (%)	n (%)	n (%)	n (%)	n (%)
Informal Support					
Spouse/Partner/ Husband	22 (18.8)	105 (89.7)	48 (41.0)	23 (19.7)	68 (58.1)
Family member/ Relatives	19 (16.2)	100 (85.5)	16 (13.7)	19 (16.2)	42 (35.9)
Friends	18 (15.4)	101 (86.3)	5 (4.3)	18 (15.4)	5 (4.3)
Co-workers	13 (11.1)	58 (49.6)	1 (0.9)	3 (2.7)	4 (3.4)
Neighbours	3 (2.7)	42 (35.9)	2 (1.7)	1 (0.9)	0
Support Group	57 (48.7)	69 (59.0)	4 (3.4)	42 (35.9)	0
On-line support	81 (69.2)	71 (60.7)	1 (0.9)	17 (14.5)	1 (0.9)
Social media	70 (59.8)	54 (46.2)	1 (0.9)	10 (8.5)	0
Formal Support					
Midwife	67(57.3)	56 (47.9)	50 (42.7)	22 (18.8)	0
Specialist Midwife	59 (50.4)	49 (41.9)	34 (29.1)	28 (23.9)	0
Health Care Assistant	38 (32.5)	29 (24.8)	20 (17.1)	6 (5.2)	0
Obstetrician	85 (72.6)	43 (36.8)	22 (18.8)	16 (13.7)	0
General Practitioner	61 (52.1)	35 (29.9)	5 (4.3)	17 (14.5)	3 (2.6)
Social Worker	36 (30.8)	23 (19.7)	4 (3.4)	23 (19.7)	1 (0.9)

As illustrated in Table 3, formal support for helping with a stillborn baby was received from midwife (n=50, 42.7%), specialist midwife (n=34, 29.1%), obstetrician (n=22, 18.8%) and health care assistant (n=20, 17.1%). In addition, informal support for helping with the stillborn baby was from their spouse or partner or husband (n=48, 41%) and family members

(n=16, 13.7%). This indicates mothers received both formal and informal support for helping with a task related to a stillborn baby.

Over one-third of mothers reported that they received counselling from a support group (n=42, 35.9%) as well as by specialist midwife (n=28, 23.9%), social worker (n=23, 19.7%) and midwife (n=22, 18.8%). Most mothers reported financial support from their spouse, partner or husband (n=68, 58.1%) and family members or relatives (n=42, 35.9%).

Overall, the study findings show that a significant number of sources provided various types of functional support. Results indicated that mothers experiencing stillbirth received support from their formal and informal social networks in numerous functional categories.

5.3.2 Functional Social Support

This section reports findings on functional social support. Functional social support was measured using the Medical Outcome Study Social Support Survey Scale MOS SSS (Sherbourne & Stewart, 1991) having 19 items 5 points Likert scale that sought mothers (n=117) social support received during or after stillbirth (1 none of the time, 2 a little of the time, 3 some of the time, 4 most of the time and 5 all of the time). The possible range of scores on the scale is 19 to 95, with a higher score indicating higher perceived social support.

Figure 2: Social Support Scores (Histogram)

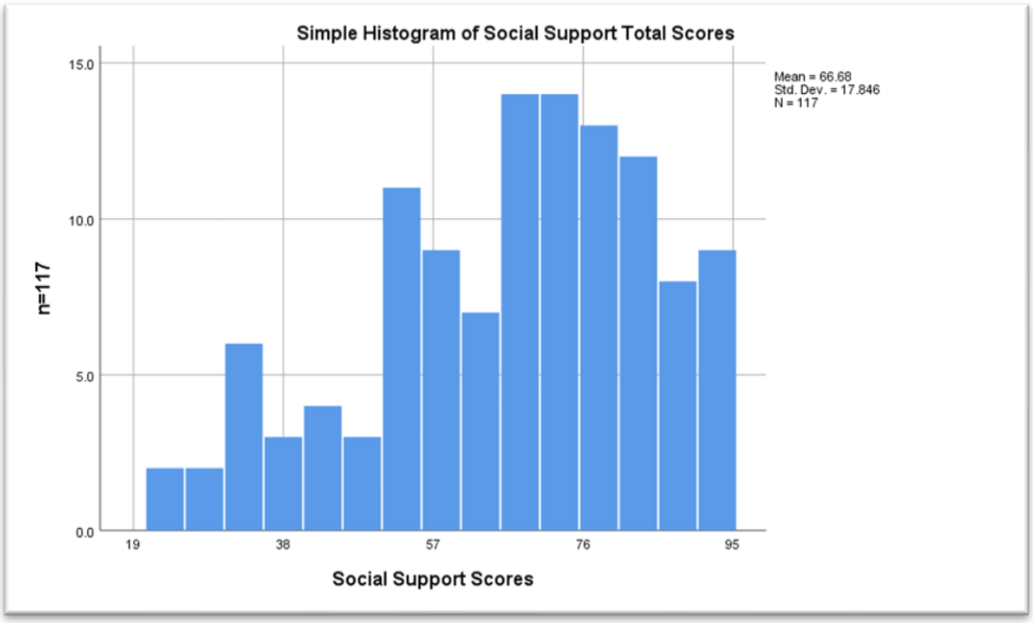


Figure 2: Social Support Scores presents a histogram with an x-axis representing sample social support total scores and the y-axis representing frequency. The histogram provides information concerning the distribution of scores on the social support scale and reveals slight left skewness.

Table 4 below illustrated possible and observed ranges of total functional social support scores, its mean and standard deviation. In this study, the mean social support score for 117 mothers was 66.7 with a standard deviation of 17.8 with an observed range from the lowest 23 to the highest 95. This implies perceived functional social support with the mean social support being the higher end of moderate social support.

Table 4: Descriptive Statistics of Social Support Scores, n=117

Social Support		
Possible Range	**Observed Range**	**Mean (SD)**
19-95	23-95	66.7 (17.8)

5.3.3 Social Support Levels

Table 5 represents categories of social support scores in high, moderate and low levels. Social support scores were categorised as high with scores range from 61 to 95, moderate with scores range from 45 to 60 and low levels of scores with the range from 19 to 44. Most mothers reported high (n=56, 47.9%) and moderate social support (n=45, 38.5%). 13.7% of mothers (n=16) reported low social support.

Table 5: Social Support Levels

Social Support Levels		
Levels	**Range**	**n%**
High	61 to 95	56 (47.9)
Moderate	45 to 70	45(38.5)
Low	19 to 44	16(13.7)

A simple bar graph was used to illustrate the levels of total functional social support scores.

Figure 3: Social Support Levels

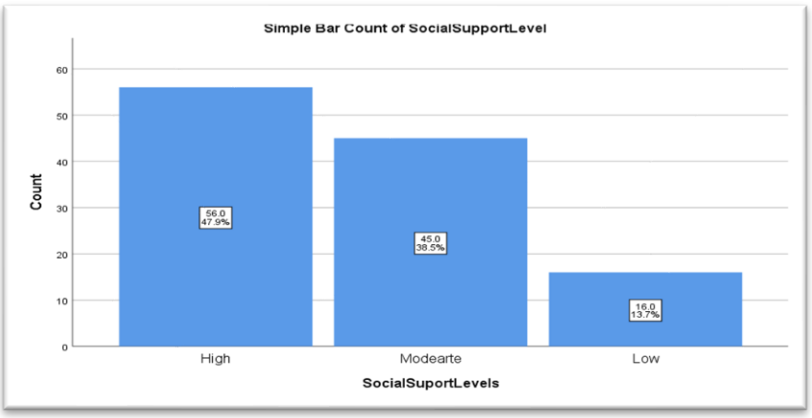


Figure 3, titled Social Support Levels, illustrates the categorisation of social support scores of mothers who experienced stillbirth. The frequency (high n=56 and moderate n=45) of mothers who scored high and moderate is more than the frequency of mothers who scored

low. Overall, findings indicated that mothers who experienced stillbirth reported that they received a high or moderate level of functional social support (Table 5 and Figure 3).

5.3.4 Social Support Subscales

Functional support subscales scores revealed differences in levels of support received. Informational emotional support scores levels were determined with the score ranges 30 to 40 as high, 19 to 29 as moderate and low 8 to 18. Tangible and social interaction support levels were determined high with 16 to 20 scores, moderate with 10 to 15 scores and low with 4 to 9 scores. Affectionate support scores levels were considered high with 12 to 15 scores, moderate with 7 to 11 scores, and low with 3 to 6 scores.

Table 6 presents mean (SD), observed range and overall level of social support in the subscales. The mean (SD) for the informational/emotional social support subscale was 25.8 (8.2), for tangible social support was 13.4 (5.0), for affectionate support was 12.8 (3.1), and for social interaction 14.8 (4.5). The mean of social support subscales indicates moderate support in informational, emotional, social interactions and tangible categories and higher support in the affectionate category. The observed range of social support was equivalent to the possible range of social support subscales.

Table 6: Descriptive Statistics of Social Support Subscales Scores, n=117

Social Support	Possible Range	Observed Range	Mean (SD)	Level of support
Informational Emotional Support	8-40	8-40	25.8 (8.2)	Moderate
Tangible Support	4-20	4-20	13.4 (5.0)	Moderate
Affectionate Support	3-15	3-15	12.8 (3.1)	High
Social Interaction	4-20	4-20	14.8 (4.5)	Moderate

In further analysis, relationships between social support subscales scores and total social support scores were determined by Pearson product-moment correlation coefficient.

There was a statistically significant correlation between all subscales (Table 7). The findings suggested that the increase in any functional type of support positively correlated with other types of functional support. Therefore, findings indicated that the increase in any subscale scores was positively correlated with increases in other subscales.

Table 7: Correlations: Social Support Total and Subscale Score, n=117

	Informational / Emotional	Tangible	Affectionate	Social Interactions
Informational / Emotional	1	0.595**	0.545**	0.675**
Tangible		1	0.596**	0.681**
Affectionate Support			1	0.715**
Social Interactions				1

** p <0.001 (2 tailed)

Table 8 presents the frequency of scores in subscales on social support dimensions – informational/emotional support, tangible support, affectionate support and social interaction. In examining the frequency of social support in these subscales, more than 80% of participants reported they received higher affectionate social support (n=94). More than half of the respondents gave the highest score of 15 for this scale (n=62, 53.0%). Further, 57.3% (n=67) reported a high level of social interaction support. 42.7% (n=50) reported high tangible support and 38.5% (n=45) reported high informational and emotional support.

Highest frequency in moderate support was for informational and emotional support (n=54, 46.2%), followed by tangible support (n=44, 37.6%) and social interactions (n=37, 31.6%). Moderate affectionate support was reported by 17.1% (n=20) participants mothers. A substantial number of mothers reported low support in social interactions (n=13, 11.1%), tangible support (n=23, 19.7%) and informational emotional support (n=18, 15.4%). A few mothers reported low affectionate support (n=3, 2.6%).

Table 8: Social Support Subscales Levels: Frequency & Percentage

	Informational Emotional Support n(%)	Tangible Support n(%)	Affectionate Support n(%)	Social Interaction n(%)	Social Support Total score n(%)
High	45 (38.5)	50 (42.7)	94 (80.3)	67 (57.3)	56 (47.9)
Moderate	54 (46.2)	44 (37.6)	20 (17.1)	37 (31.6)	45 (38.5)
Low	18 (15.4)	23 (19.7)	3 (2.6)	13 (11.1)	16 (13.7)

Overall, findings suggest that that the mothers could perceive each functional aspect of social support from various formal and informal resources. Apart from financial support, participant mothers reported various resources (spouse/partner, family members/relatives, friends, co-workers, midwife, specialist midwife, health care assistant, obstetrician, GP, social worker, support group, neighbours, on-line support, social media) providing different categories (informational, emotional, affectionate, tangible, social interactional) of social support. The findings suggest that the participant mothers experienced high functional social support following a stillbirth.

5.4 Self-Efficacy of Mothers

This section presents the findings related to the second objective. Figure 4 illustrates the distribution of self-efficacy scores.

Figure 4: Self-efficacy Scores (Histogram)

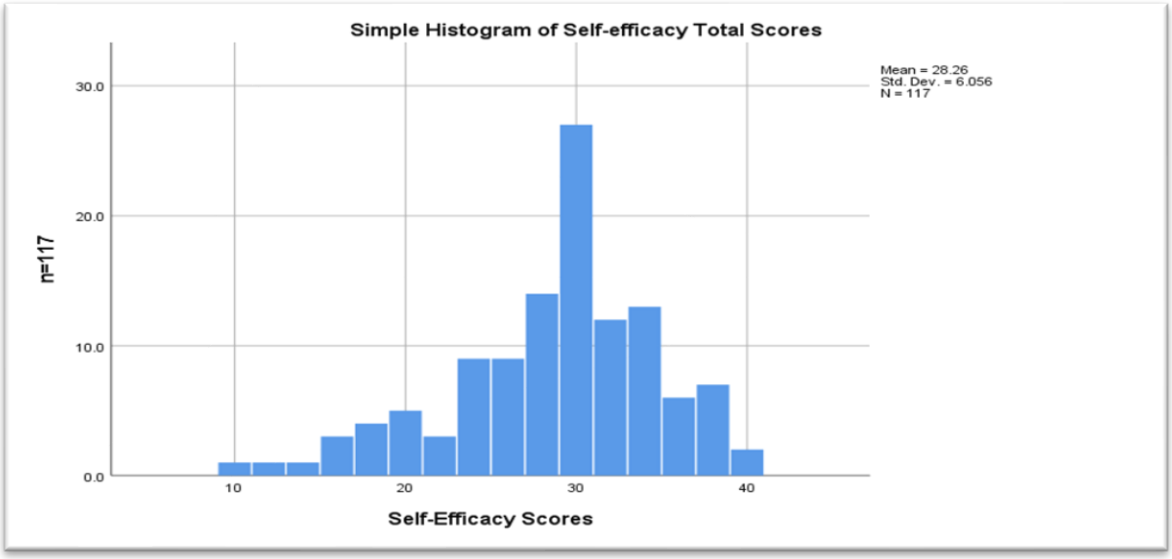


Table 9 presents the mean 28.3 with SD 6.1 for n=117 mothers with the observed range between 10 to 40. This suggests moderate self-efficacy.

Table 9: Descriptive Statistics of Self-efficacy Scores, n=117

Self-Efficacy		
Possible Range	**Observed Range**	**Mean (SD)**
10-40	10-40	28.3(6.1)

5.4.1 Self-efficacy Levels

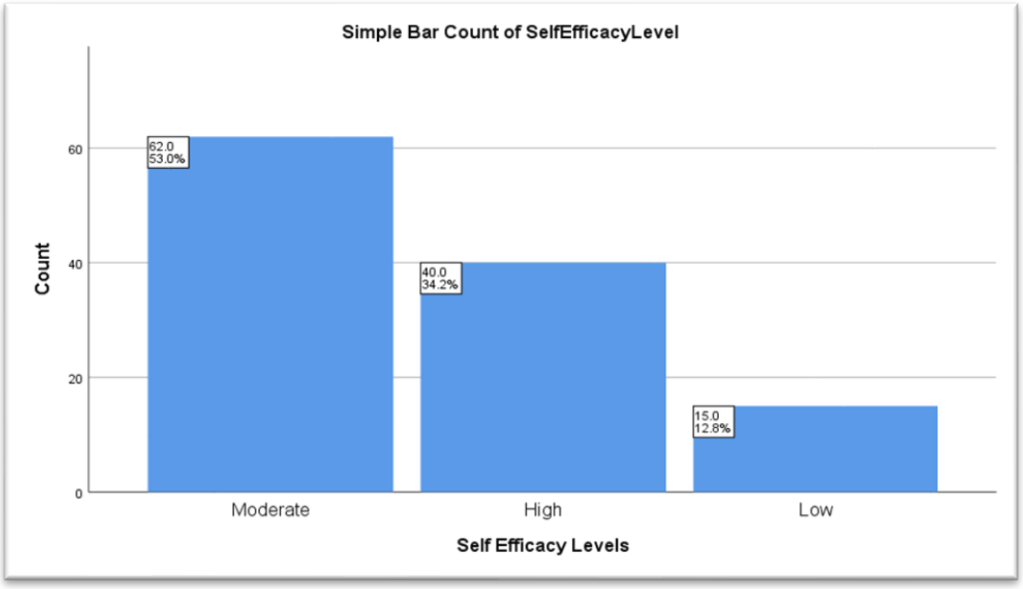
Table 10 presents the self-efficacy levels. Self-efficacy levels were determined on the total scores of the General Self-Efficacy Scale GSE as low 10 to 20, moderate 21 to 30 and high 31 to 40. The study respondent's self-efficacy was high for 34.2% (n=40), moderate for 53.0% (n=62) and low for 15% (n=15).

Table 10: Self-Efficacy Levels

Self-efficacy		
Levels	**Scores**	**n(%)**
High	31 to 40	40(34.2)
Moderate	21 to 30	62(53.0)
Low	10 to 20	15(12.8)

Self-Efficacy Levels are illustrated in Figure 5.

Figure 5: Self-Efficacy Levels



5.4.2 Self-efficacy Subscales

Self-efficacy can be phase-specific: action self-efficacy and coping self-efficacy. The action self-efficacy operates in a pre-intentional phase and takes place before a task or action occurs. The coping self-efficacy operates in the second or post intentional phase. Action and coping self-efficacy work in tandem. In this study, action and coping self-efficacy subscales had five items each and having a possible score range between 5 to 20. The scores of action and coping self-efficacy levels are presented in Table 11.

Table 11: Action and Coping Self-efficacy Levels

Self-efficacy	Range	Action Self-efficacy		Coping Self-efficacy		Total Self-efficacy	
		n	%	n	%	n	%
High	16-20	72	61.5	61	52.1	40	34.2
Moderate	10-15	40	34.2	47	40.2	62	53
Low	5-9	5	4.3	9	7.7	15	12.8

In this study, mothers' action and coping self-efficacy levels were analysed by summing up the self-efficacy subscale item scores. The sample mean (SD) of action self-efficacy is 14.5(3.1) and of coping self-efficacy is 13.9 (3.3). Majority of mothers reported high self-efficacy in both subscales action self-efficacy (n=72, 61.5%) and coping self-efficacy (n=61, 52.1%). Further, significant number of mothers reported moderate self-efficacy in both action (n=40, 34.2%) and coping (n=47, 40.2%). A few mothers reported low action (n=5, 4.3) and low coping (n=9, 7.7%) self-efficacy.

Table 12 presents action and coping self-efficacy crosstabulation. A total of 46.2% (n=54) mothers reported high levels, and 23.9% (n=28) mothers had moderate levels on both action and coping self-efficacy subscales. A small percentage (n=4) of participants had low self-

efficacy levels on both action and coping self-efficacy. Further, n=7 mothers had moderate action but high coping self-efficacy, and n=18 mothers had high action self-efficacy but moderate self-efficacy.

Table 12: Action and Coping Self-efficacy Crosstabulation, n=117

		Coping Self-efficacy						
		High		Moderate		Low		Total
		n	**%**	**n**	**%**	**n**	**%**	**n**
Action Self-efficacy	High	**54**	46.2	18	15.4	0	0	72
	Moderate	7	6.0	**28**	23.9	5	4.3	40
	Low	0	0	1	0.9	**4**	3.4	5
Total n=		61		47		9		117

Overall, crosstabulation determined underlying intersections of action and coping dimensions of self-efficacy. The participants reported moderate self-efficacy.

5.5 Resilience of Mothers

This section reports findings on the third objective - to identify the resilience of mothers who have experienced stillbirth. The Wagnild and Young Resilience Scale (Wagnild and Young, 1993) measured resilience with the total possible maximum score of 175 and a minimum score of 25. Figure 6 illustrates the distribution of scores on the resilience scale.

Figure 6: Resilience Scores (Histogram)

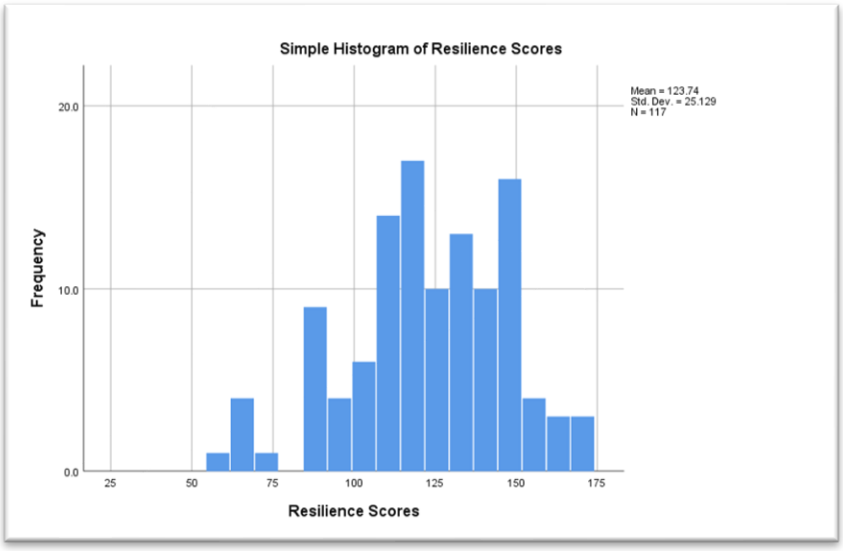


Table 13 presents the observed range of resilience that suggests the lowest resilience score is higher than the possible range.

Table 13: Resilience Mean and SD, n=117

Resilience		
Possible Range	**Observed Range**	**Mean (SD)**
25-175	58-175	123.7 (25.1)

5.5.1 Resilience Levels

Frequency of resilience scores are presented in Table 14. 22.2% (n=26) reported high resilience, 38.5% (n=45) reported low resilience and 39.3% (n=46) reported moderate resilience. Overall, the majority of participants reported moderate or high resilience.

Table 14: Resilience Levels, n=117

Resilience	Range	n	%
High	146 - 175	26	22.2
Moderate	116 - 145	46	39.3
Low	25 – 115	45	38.5

5.5.2 Resilience Subscales

The resilience scale is subdivided into 5 subscales comprising self-reliance, perseverance, purpose, equanimity and authenticity, having 5 items each scored on a 1-5 Likert scale and were rescaled to 1-7 for final analysis as per the instrument's user manual. Mean (SD) of resilience on subscales is illustrated in table 15 and indicate that resilience means across subscales are relatively similar. The mean scores on the resilience subscales are as follows: self-reliance 26.1(5.8), authenticity 25.9 (5.6), purpose 24.2(6.1), perseverance 23.9(5.6) and equanimity 23.4(5.8). The lowest mean score is on equanimity and the highest score is on self-reliance.

Table 15: Descriptive Statistics of Resilience Subscale Scores, n=117

Resilience Subscales	Mean	SD
Self-reliance	26.1	5.8
Purpose	24.4	6.1
Equanimity	23.4	5.8
Perseverance	23.9	5.6
Authenticity	25.9	5.6

Table 16 presents resilience frequency and percentage in five subscales (table 16). The order of frequency for high resilience in subscales is self-reliance (n=33, 28.2%) and authenticity (n=33, 28.2%) followed by purpose (n=20, 17.1%) equanimity (n=16, 13.7%), perseverance (n=17, 14.5%). The order of frequency for moderate resilience is purpose (n=53, 45.3%), perseverance (n=45, 38.5%), self-reliance (n=44, 37.6%), authenticity (n=44, 37.6%) and equanimity (n=41, 35.0%). This suggests that mothers who had high scores were self-reliant, uniqueness of life experiences (authenticity) and may be working towards life's purpose and trying to balance the life and perseverance.

Table 16: Resilience Subscale Levels, n=117

Resilience Subscales	High		Moderate		Low	
	n	%	n	%	n	%
Self-Reliance	**33**	28.2	44	37.6	40	34.2
Purpose	20	17.1	**53**	45.3	44	37.6
Equanimity	16	13.7	41	35.0	**60**	51.3
Perseverance	17	14.5	45	38.5	55	47.0
Authenticity	33	28.2	44	37.6	40	34.2

The order of frequency for low resilience is equanimity (n=60, 51.3%), perseverance (n=55, 47.0%), purpose (n=44, 37.6%), self-reliance (n=40, 34.2%) and authenticity (n=40, 34.2%). Mothers with a low level of resilience in two or more subscales were categorised as low in overall resilience scores levels, even when they were high or moderate in one of the resilience characteristics. This suggests the difference in achieving resilience in different dimensions. Overall, findings indicated that mothers were working towards finding resilience.

Table 17 presents the relational analysis conducted with a Pearson product-moment correlation coefficient that was computed to assess the relationship between resilience subscales. There was a statistically significant correlation between all subscales - self-reliance (r=0.888, p<0.001), purpose (r=0.873, p<0.001), equanimity (r=0.872, p<0.001), perseverance (r=0.882, p<0.001) and authenticity (r=0.841, p<0.001) (Table 17). The findings suggest that the increase in one subscale of resilience was positively correlated with an increase in other resilience subscales. All resilience subscales are positively correlated.

Table 17: Relationships between Resilience Subscales, n=117

	Self-Reliance	Purpose	Equanimity	Perseverance	Authenticity	Total Resilience
Self-reliance	1	0.663**	0.710**	0.811**	0.687**	0.888**
Purpose		1	0.709**	0.747**	0.663**	0.873**
Equanimity			1	0.669**	0.708**	0.872**
Perseverance				1	0.614**	0.882**
Authenticity					1	0.841**

**. p<0.01 level (2-tailed).

5.6 Relationships Between Social Support, Self-efficacy and Resilience

The fourth objective of the study was to examine the relationship between self-efficacy, social support and resilience. This section reports on the findings of the objective tested with three sub hypotheses on relationships between social support, self-efficacy and resilience and are presented in Table 18.

Hypothesis # 1a

There is a significant positive relationship between social support and resilience of mothers who experienced stillbirth.

Hypothesis #1b

There is a significant positive relationship between self-efficacy and resilience of mothers who experienced stillbirth.

Hypothesis #1c

There is a significant positive relationship between social support and self-efficacy of mothers who experienced stillbirth.

5.6.1 Relationship between Social Support and Resilience

Hypothesis #1a on relationships between social support and resilience was tested with a Pearson correlation coefficient. Pearson's correlation coefficient was used to measure the degree of the linear association between two study variables. The analysis provided the direction of the relationship (positive) and the magnitude of the relationships between variables (Table 18).

There was a statistically significant positive relationship between social support and resilience ($r=0.481$, $p<0.001$). Using Cohen's (1988) guidelines for interpreting the magnitude of correlation coefficients, this would be considered a medium strength relationship. The coefficient of determination was 23.1%, indicating that 23.1% of the variation in resilience scores could be explained by variation in functional social support. Hence suggesting a moderate relationship exists between social support and resilience.

5.6.2 Relationship between Self-efficacy and Resilience

Hypothesis #1b on relationships between self-efficacy and resilience was tested with a Pearson correlation coefficient. There was a statistically positive significant relationship between total self-efficacy and resilience ($r=0.755$, $p<0.01$). For interpreting the magnitude of correlation coefficients, this would be considered a strong relationship. The coefficient of determination was 57.0%, indicating that 57.0% of the variation in resilience scores could be explained by variation in self-efficacy, hence suggesting a strong relationship between self-efficacy and resilience.

5.6.3 Relationship between Social Support and Self-efficacy

Hypothesis #1c on relationships between social support and self-efficacy was tested with a Pearson correlation coefficient. There was a statistically positive significant relationship between total social support and self-efficacy (r=0.391, $p<0.01$).

Table 18: Pearson Correlation (r) and Magnitude of Correlation Coefficient (r^2), n=117

		Social Support	Self-Efficacy	Resilience
Social Support	Pearson Correlation r	1	0.391***	0.481***
r^2	Magnitude of Correlation r^2		15.4	23.1
Self-Efficacy	Pearson Correlation r		1	0.755***
r^2	Magnitude of Correlation r^2			57.0
Resilience	Pearson Correlation r			1
***$p<0.001$				

For interpreting the magnitude of correlation coefficients, this would be considered a medium strength relationship. The coefficient of determination was 0.391, indicating that 15.4% of the variation in self-efficacy scores could be explained by variation in functional social support, hence suggesting a moderate relationship between social support and resilience.

5.6.4 Multiple Linear Regression analysis

Multiple linear regression was run to investigate the relationship between two independent variables (social support and self-efficacy) and a dependent variable (resilience). The regression model was statistically significant ($p<0.001$) and accounted for 61.1% of the variation in resilience. Total self-efficacy was significantly associated with resilience (regression coefficient (95% CI): 2.78 (2.26 – 3.30), $p<0.001$) and uniquely explained 38% of the variance in resilience. Resilience increased by 2.78 points, on average for each one-unit increase in total self-efficacy score, indicating that high scores on the self-efficacy scale were associated with high scores on the resilience scale. Total social support was also significantly associated with resilience (regression coefficient (95% CI): 0.31(0.13 – 0.49), $p<0.001$) and uniquely explained 4% of the variance in resilience. Resilience increases by 0.31 points, on average, for each one-unit increase in total social support score, indicating that high scores on the social support scale were associated with high scores on the resilience scale.

5.6.5 Relationships of Demographic and Study Variables

This section reports on the findings on the relationships between mother's demographic characteristics (age, education, occupation, gestation, stillbirth year) with social support, self-efficacy and resilience. A one-way ANOVA was computed to determine if social

support, self-efficacy and resilience depended on mothers' age, their education, occupation, gestation and stillbirth year. The findings are presented in Table 19: Relationships between Demographics and Study Variables. Uneven and small frequency data were regrouped. Age was regrouped as below 30 years. Education categories primary/secondary, masters/PhD and cert /diploma were combined. Similarly, Occupation categories self-employed/employer were combined. Gestation less than 30 weeks and years 2015 and 2016 were combined. Categorisation of demographics with the frequency and mean (SD) of social support, self-efficacy and resilience are illustrated along with *p*-value in columns.

Table 19: Relations between Demographics and Study Variables

		Social Support		Self-Efficacy		Resilience	
	n	Mean(SD)	*p*-value	Mean(SD)	*p*-value	Mean(SD)	*p*-value
Age			0.162		0.399		0.491
<30years	22	60.3(20.1)		26.7(7.7)		118.2(32.0)	
30 to 39 years	86	67.9(17.4)		28.6(5.8)		124.7(24.1)	
Above 40 years	9	70.4(14.3)		28.8(3.0)		127.8(4.3)	
Education[1]			0.498		0.314		0.749
Degree	48	68.8(17.6)		29.0(5.1)		125.8(20.5)	
Masters/PhD	26	61.6(19.2)		29.3(6)		123.4(28.7)	
Cert/Diploma	26	68.7(18.6)		27.1(7.4)		121.7(26.0)	
Primary/Secondary	16	63.8(15.6)		26.4(6.2)		119.9(29.6)	
Occupation[2]			0.131		0.059		0.086
Employee	86	69.0(16.2)		29.1(4.9)		127.2(21.5)	
Self-Employee/Employer	14	61.2(21.2)		27.6(2.0)		123.4(36.7	
Looking After Family	13	59.5(18.5)		25.2(8.3)		113.0(25.4)	
Gestation			0.199		**0.025**		0.155
Less than 30 weeks	40	64.9(15.5)		27.3(5.6)		123.5(23.5)	
30 to 36+6 weeks	38	71.7(16.5)		30.7(5.3)		130.4(25.1)	
37 to 40 weeks	30	64.3(20.9)		26.7(6.9)		118.4(27.2)	
Above 40 weeks	9	61.4(20.2		27.3(5.8)		114.5(21.1)	
Stillbirth Year			**0.014**		0.645		**0.048**
2015 to 2016	13	53.9(16.7)		28.6(4.9)		123.2(17.3)	
2016	8	53.4(19.5)		28.1(6.0)		120.1(19.6)	
2017	31	67.9(17.8)		29.1(4.9)		133.1(24.2)	
2018	45	65.7(16.1)		27.4(6.7)		116.8(25.1)	
2019	28	72.9(18.7)		28.6(6.6)		124.7(25.1)	

[1]did not specified n=1 omitted, [2]Illness/Disability n=2, looking for employment n=1, did not specify n=1 omitted

Although interested in reporting the relationship between mothers' living arrangements and their social support, self-efficacy, and resilience, the tests were not done as the sample was homogeneous. No statistically significant relationship was found between mother's age, education, and occupation with social support, self-efficacy and resilience.

The *p*-value (*p*=0.025) is less than the cut off value of 0.05 for gestation with self-efficacy but not with resilience and social support. Total self-efficacy score highest mean (30.68) was more than the lowest total self-efficacy score means for the gestation less than 37 to 40 weeks (26.7). This indicated that there was a relationship or association between self-efficacy and gestation but not that one explained the other.

The *p*-value (*p*=0.048) is less than the cut off value of 0.05 for the stillbirth year with resilience, and the *p*-value (*p*=0.014) is less than the cut off value of 0.05 for the stillbirth year with social support, but not with self-efficacy. Total resilience scores highest mean (133.2) was more for the stillbirth year 2017 than total resilience score lowest mean for the stillbirth year 2018 (116.8). Total social support score highest mean (72.9) for the stillbirth year 2019 was more than total social support score lowest mean (53.9) for the stillbirth year 2015 to 2016. This indicated that there was a relationship or association between resilience and social support with stillbirth year but not that one explained the other.

5.7 Mothers' Comments in Open Ended Question

This survey aimed to examine the relationship between social support, self-efficacy and resilience among mothers who experienced stillbirth. The open-ended question was included at the end of the survey 'if you wish, you can add comments or share information about any aspects of your care or experience'. The aim was to allow mothers to comment if they wish. The contents were not thematically analysed. However, some comments are presented below. Mothers' comments are summarised below.

Total of 19 mothers provided comments, which were listed alphabetically (A – S). Most were short but others were long. Out of 19 comments, 10 remarked on the support they received, two reported about the alteration in their personality and attitude. One remarked about the cut off gestation at stillbirth in the questionnaire, another remarked about the restriction of participation imposed for the stillbirth year in this survey. Mother B commented on the restrictiveness about limiting stillbirth years and stating that experiences and interactions with people remain fresh in your head forever. She further specified that retrospectively analysing support and relationships is clearer and more accurate as the years pass. A few mothers ended with comments such as the best luck and kind regards. Mother M wrote about her experience of intranatal death, shared vivid details of events that unfolded at the birth of a baby and afterwards. Two mothers provided their emails and offered to support other women in a similar situation. One mother commented that it became clearer after a while that the survey was about her, as she thought before it was about stillbirth. Mother H reported sadness that people do not congratulate on the birth of the beautiful baby

because it is stillborn. Some hospital staff did but not family. She further commented that it is still important to have a gesture such as bringing a pink or blue balloon even in stillbirth.

Mothers' comments related to support were varied and are presented below. Mother M commented that it is a lonely experience even if you have all the support in the world. She offered her contact details that she is happy to listen and provide support if any mother wants to share her story. Mothers C and L reported they did not receive the social support that they felt they should have had after stillbirth, and Mother L herself contacted a support group via email. Mother D remarked that she gave a high score on Social Support because her husband was so helpful. Mother E commented on the support received from partner, families and friends, but she thought that sometimes they do not understand, so it's very hard to lean on them for support. She was waiting to speak with a formal support person and that she is a believer in hope. Mother G said she was confused about the social support question but commented that she had good support. Mother I commented that her Support Group was a superb and wonderful organisation. Mother J praised hospital staff for good care and support and remarked that nothing was ever too much. Mother H commented that she felt that once you leave the hospital, it felt like there was no real follow up.

A total of 19 mothers was coded from A to S (Appendix 11: Mothers Comments to Open Ended Question) and discussed below.

Overall, mothers' comments were varied but were broadly about the stillbirth experience and their life after stillbirth.

5.8 Summary

This chapter presented the study's findings and analysis of the data that include demographic characteristics of mothers and scores of social support, self-efficacy and resilience and their relationships. Demographic data of participant mothers indicated that the majority of mothers of age 30 to 39 years, living with their spouse/husband, employed and working full time. Approximately one-third of mothers reported having an educational degree. Mothers reported gestational age was varied from less than 24 to more than 40 weeks.

For the structural social support, mothers reported having diverse informal and formal support resources provided informational, emotional, affectionate, financial support and helping with a stillborn baby. Mothers reported high functional social support, moderate self-efficacy and moderate resilience. However, a substantial 38.5% of mothers (n=45) reported low resilience suggesting mothers still working towards finding resilience

The correlational analysis indicated a statistically significant moderate relationship between social support and resilience (r=0.481, p<0.01) as well as a statistically significant strong

relationship between self-efficacy and resilience (α=0.755, p<0.01). The study further revealed a statistically significant moderate relationship exists between social support and self-efficacy (α=0.391, p=0.01).

Multiple linear regression model was statically significant and accounted for 61.1% of the variation in resilience. Total self-efficacy was significantly associated with resilience (regression coefficient (95% CI): 2.78(2.26 – 3.30), p<0.001) and uniquely explained 38% of the variance in resilience. Total social support was also significantly associated with resilience (regression coefficient (95% CI): 0.31(0.13 – 0.49), p<0.001) and uniquely explained 4% of the variance in resilience.

Data from open-ended comments from 19 mothers revealed every mother's stillbirth experience is unique. Mothers' comments were varied but broadly suggesting varied perceptions of the support and how they build their life after stillbirth. It also suggests that mothers can share their experiences when they are willing to do so.

The next chapter is the discussion.

Chapter 6 Discussion

6.1 Introduction

This chapter starts with the discussion of the results and compares the findings with previous studies followed by the limitations of the study. The chapter concludes with suggestions for further research and recommendations for practice, research and education.

The motivation of this study stemmed from my experience of working with mothers who experienced stillbirth. Sharing the journey with mothers in their labour, delivery, and during their hospital stay provided me with insight and understanding of each stillbirth experience's uniqueness. My insight was driven by mothers' emotions, their struggle, and their emergence as a parent of a stillborn baby.

Previous studies on stillbirth identified the psychological impact on mothers that ranged from negative symptoms, mental health and impact on their quality of life and subsequent pregnancies. The integrative literature review undertaken identified some positive aspects that co-existed among mothers. A few significant studies indicated that there is no remedy to take away sadness, hurt and helplessness, but with social support and self-directed efforts, the mother can develop resilience (Roberts *et al*., 2016; Antonio 2013) following stillbirth or pregnancy loss.

Recognising maternal efforts and providing adequate support is always helpful (Antonio, 2013) and may reduce the psychological cost of stillbirth (Burden *et al*., 2016). Incorporating key components of supportive care into practice is valued by parents - providing a sensitive and respectful approach, offering guidance on creating memories, and arranging follow-up care in a quiet and private environment (Bond *et al*., 2018) and is currently recommended by healthcare professionals and services in Ireland (Health Services Executive, 2016). As a midwife working closely with mother's coping with stillbirth, I considered that it was imperative to identify and examine maternal perceptions of support, self-efficacy beliefs, and resilience.

The aim of the study was to examine the relationship between social support, self-efficacy and resilience among mothers who have experienced stillbirth. Objectives were developed that would identify social support, self-efficacy and resilience of mothers who have experienced stillbirth and also to examine the relationships among social support, self-efficacy and resilience of those mothers who have experienced stillbirth. Hypotheses were formed and tested to propose relationships between study variables. Study design and study participants are discussed next.

6.2 Study participants

A quantitative design with an online survey method was used to elicit the responses from participant mothers about their social support, self-efficacy and resilience in the stillbirth context. The online survey method was considered apt for a broader sample involving more geographic areas for objective and faster examination (Benfield & Szlemko, 2006). For this study, the online survey was designed as per the Dillman et al. (2014) guidelines of web surveys. Two fundamental principles determined the layout of the survey, first, the focus of the study was carefully defined, and second, the sensitivity of the context is persistently maintained. The sensitivity of the context was determined by the 'easy to read and response' design of the survey. In that, the survey web link was shortened for dissemination. Due to online data collection, consent was embedded in the survey. The survey layout was tested on different devices such as mobile, tablets, laptops and desktops. The study information, consent and the questions were addressed directly to mothers, appropriately focusing on the stillbirth context. In that simple, short length, non-intrusive, non-probing statements with consistent order of questions on the social support, self-efficacy and resilience dimensions were considered appropriate. The options of responses were specified after each question, and the option 'other' was included if mothers require to add anything supplementary than pre-determined responses. The sections of the survey questionnaire were accommodated on one scroll page to avoid the weariness of too many clicks for turning online pages and swiftly navigating through the questionnaire. Respondents were allowed to 'back' or 'exit' at any stage in the survey. One question and its respective options on one screen page were presented to focus on a single question and its response at a time. Additionally, the visual presentation of the survey was intended to appeal to respondent's focus using subtle colours, clear font style and size.

Thorough power analysis and data management were endeavoured to minimize the survey errors. All possible approaches were used to recruit this hard-to-reach population of mothers. The study used SurveyMonkey weblink to reach national and international participants via social media, emails, verbal communication, and selected stillbirth support websites. After the initial surge, the response was slow but was steady. The weblink was closed on 30th November 2019 after eight months with n=263 hits. Out of 263 hits, n=91 exited the survey on page one and did not progress to the survey after clicking the web link. The online survey did not identify the reason for exiting the survey. Out of 172 who participated in the survey, n=32 participants were excluded as they skipped one or more scales of the three scales and n=23 participants were excluded as the stillbirth had occurred over five years previously. Total n=117 participants completed all questions and scales in the survey and therefore were included in the analysis. Most participants were from Ireland (n=63, 62.7%) followed by the

USA (n=30, 20.3%) and UK (n=15, 10.5%). A small number of participants were from Australia (n=5), Canada (n=2) and Finland & Spain (n=1). The mothers of this study made a significant contribution by reporting their perception of social support, self-efficacy and resilience.

Demographic data indicated that the majority of mothers of age 30 to 39 years (n=86, 73.5%), living with their husband/spouse/partner (n=80, 68.4%), employed (n=86, 73.5%) and working full time (70.1%, n=82). Approximately one-third of mothers reported having an educational degree (41.0%, n=48). Mothers reported the gestational age of their stillborn baby was 30 to 36+6 weeks (32.5%, n=38), followed by 24 to 29+6 weeks (31.6%, n=37) and 37 to 40 weeks (25.6%, n=30). A few mothers reported gestation less than 24 weeks (n=3) and above 40 weeks (n=9). Regarding their demographics profile, in comparing the mothers in this study with the population of mothers who had a stillbirth in Ireland (NPEC, 2017), no significant differences were found in their age, living status and occupation. Similar data is not available for international comparison.

However, with regards to education, the literature reported different findings. Kasprzak *et al*. (2013) reported that higher education was related to higher resilience, while Antonio (2013) reported, however, that higher education was related to lower levels of resilience. Similarly, some studies reported that secure employment positively influenced the mother's resilience (Antonio, 2013; Vermeulen & Greeff, 2015); however, the impact of resilience on financial support perspective in adversity was not as much investigated in the studies. The socio-economic impact was inversely associated with the stillbirth risk (Zeitlin *et al*., 2016). In this study, there was no association between mothers' education and occupation with social support, self-efficacy, and resilience.

These findings indicate that there is a relationship between gestation and self-efficacy as well as stillbirth year and resilience and social support but not that one explains the other. For gestation with self-efficacy, the *p*-value (p=0.025) is less than the cut off value of p=0.05 for gestation with self-efficacy, but this was not found with resilience and social support. For stillbirth year with resilience, the *p*-value (p=0.048) is less than the cut off value of p=0.05 and for stillbirth year with social support, the p-value (p=0.014) is less than the cut off value of p=0.05 but not with self-efficacy. The findings on social support are discussed next.

6.3 Social Support

Social support was conceptualised as a multidimensional concept that includes structural and functional components.

6.3.1 Structural Social Support

The social support structure was examined by requesting mothers to report the structural sources (formal and informal support) who provided different categories of social support (informational, emotional, affectionate, tangible and social interaction). The social support resources were identified from the stillbirth studies and include husband or spouse or partner, family or relatives, friends, co-workers, midwife, specialist midwife, healthcare assistant, obstetrician, general practitioner, social worker, support group, neighbours, online support and social media.

Findings of this study revealed that the highest percentage of mothers received support from their husband/ spouse/partner. This is comparable with previous research by Allahdadian *et al*. (2015), who identified that the woman's husband/ spouse/partner was the closest support person to mothers. Similarly, Kavanaugh *et al*. (2004) found that husband/ spouse/partner support was valued as physically being present in the hospital and being there in the community and accepting them and their feelings in the stillbirth experience. Therefore, predictably the husband/spouse/partner and equivalent closest support person can be the highest preferable social support resource for mothers.

The mothers reported receiving affectionate, emotional support from all formal, informal and community support sources listed, suggesting mothers' need for affectionate support following stillbirth. In the stillbirth context, Allahdadian *et al*. (2015) reported that mothers needed spousal support for emotional strength and sympathising, as did Lang *et al*. (2001) and Cacciatore *et al*. (2009). Mothers who perceived spousal or family support in the period after stillbirth had notably fewer mental health symptoms. No studies examined the array of support resources that provided affectionate support. In this study, mothers reported the highest affectionate support from husband/spouse/partner, but also family members or relatives and friends.

The mothers reported receiving the highest informational support from formal resources, and this included the obstetrician, followed by a midwife, general practitioner, and specialist midwives. Mothers also reported informational support from a support group. Compared with previous research, Gijzen *et al*. (2016) reported that information from health care professionals as well as peer parents was the top priority for participants. Similarly, mothers reported that healthcare professional's guidance was necessary and appreciated for enhancing their unique parenthood in stillbirth (Aveline, 2012).

Regarding helping with a stillborn baby, the woman's husband/spouse/partner and midwife were reported as being the mothers' greatest sources of support, followed by the specialist midwife and family members. Similarly, Erlandsson *et al*. (2011) identified the importance

of midwives and healthcare professionals in guiding mothers through labour and delivery in stillbirth, and later with seeing, holding the baby. Studies also reported the collaborative efforts of family and health care professionals in memory-making (Downe *et al*., 2013; Jennings & Nicholl, 2014). The findings of the study are consistent in this aspect of supportive care.

According to National Bereavement Standards (Health Services Executive, 2016), counselling in stillbirth includes listening, affirming and clarifying information about stillbirth to increase mothers coping capacity. Regarding counselling, in this study, mothers reported obtaining formal support from midwives, additionally from a social worker. This is consistent with previous research findings. Informally mothers identified that a support group or their husband/spouse/partner and family provided some counselling. Previous studies identified the importance of support groups in the provision of peer support as well as a strong sense of community support (Aho *et al*., 2012) and in that helping mothers to find ways to reconcile and relate to life (Côté-arsenault & Freije, 2004). The role of a specialist midwife also is acknowledged by Jennings and Nicholls (2014).

With regard to financial support, mothers reported their husband/spouse/partner and family as the main source of financial assistance. A limited number of mothers reported that their co-workers and friends also lent them financial support. Previous studies identified financial aid mostly lending money or gifts, flowers and books (Kavanaugh *et al*., 2004).

The role of bereavement specialist midwife is well documented for helping parents in decision making, handing baby and aftercare (Jennings & Nicholl, 2014). In a phenomenological study, Hilfner (2020) identified resiliency and personal growth in couples lived experiences of miscarriage and that the descriptions of spousal support overwhelmingly demonstrated resilience. Describing closeness and strength in couples' relationship, couples felt stillbirth or pregnancy loss brought them closer and nurtured deeper connection. Overall, Hilfners' (2020) findings suggested close and nurturing contacts provide support and can nurture resilient coping. Thus, it can be suggested that qualitative exploration of mothers' resilience will complement this study.

An important finding regarding structural support is that mothers reported receiving all aspects of support from nearly all resources listed, except financial support were provided by family and friends. The results regarding structural social support suggested that mothers who experienced stillbirth need diverse resources to provide all the various aspects of social support. The sources were - informal (spouse/husband/partner, family members, relatives, friends, co-workers, neighbours, online media, social media and support group) and formal (midwife, specialist midwife, obstetrician, general practitioner, social worker, healthcare

assistant). There could be more support resources than listed in the study questionnaire. Healthcare professionals, especially midwives, with their knowledge, skills and opportunity, play a crucial role and can assess mothers' structural support network and emphasise the importance of timely mobilisation of appropriate sources during and after stillbirth.

Another notable finding was that online forums and social media were reported as providing substantial emotional, informational, and counselling resources. A support group is a valuable community resource after formal support provided by the healthcare system declines. Social media is increasingly becoming a support source for different causes. Previous studies reported support groups as the most common source of support along with health professionals (Cacciatore *et al*., 2009) and so did mothers who referred to peer support as important for receiving and sharing information about stillbirth (Aho *et al*. 2012).

The above findings support the underlying social support theory of stress-buffering. The stress-buffering model of Cohen & Wills (1985) postulates that evidence for a buffering can be found when the social support measure assesses the perceived availability of interpersonal resources and the support responsive to the needs triggered by stressful events.

The findings highlight that all four types of functional categories of social support are provided by a variety of sources. In most cases, social support sources appeared not directly associated with each other, for example, health professionals and support groups providing informational, emotional and tangible support separately. Further, one type of formal or informal resource can provide multiple types of functional categories of support. Additionally, mothers may look for one type of support from a specific person and one category of support from various sources. For example, various aspects of information about stillbirth can likely be imparted by those knowledgeable about stillbirth, such as an obstetrician, midwife, specialist midwife, GP, and support groups etc.

Nevertheless, a particular type of support may be more beneficial from specific sources than from others. In Ireland, specialist midwives' role in bereavement care is a resource for imparting different levels of care and support to mothers and their families in accordance with their requirements (Health Services Executive, 2016). The scope of this study was not to explore the role and influence of specific social support. Support groups, social media and online forums appeared to act as social exchange than passive interchange. Hence the findings uphold the social exchange theory (Homan, 1958) that envisions any social interaction process.

6.3.2 Functional Social Support

In this study, the functional dimensions (informational & emotional, tangible, affectionate and social interactions) of social support were measured using Sherbourne & Stewart's MOS Social Support Survey (1991) on 5- point Likert scale and referred to the amount of functional social support that mother perceived in stressful situations following stillbirth. The summation of item scores determined the total functional social support scores. The categories of total functional social support scores were determined as low, moderate and high social support. The mean (SD) of functional social support indicated that mothers had moderate levels of social support that is closer to the higher end of a moderate social support range. Most mothers functional social support scores were categorised as high social support. Additionally, a substantial number of mothers were in the moderate social support category. These findings indicate that most mothers perceived high or moderate levels of all four functional dimensions.

However, a few mothers reported low social support, which can be indicative of two factors. The first factor is that we can assess mothers' perceived availability or non-availability of functional support. The second factor is that if asked, mothers can identify the levels of social support. These findings also suggest that women may need additional support in various functional categories. However, this need cannot be determined merely from the scores of measurement scales and may need further assessment.

This suggests that the Medical Outcomes Studies Social Support Scale (Sherbourne and Stewart, 1991) was successful in identifying the perceived levels of functional social support among mothers who experienced stillbirth. This study was unable to identify the reasons why some mothers ranked lower support in some dimensions. Harper *et al.* (2016) identified that satisfaction with support and size of support networks have distinct pathways of influence. Parents directly benefit from having support with which they are satisfied. The size of support network often moderate long term psychological distress. Targeted support interventions can be effective to enhance satisfaction with support and reduce psychological distress. The findings on measuring social support in the stillbirth context indicated the importance and need to identify both dimensions of social support.

Another key finding was that most mothers reported receiving affectionate support, including expressions of love and warmth, which is beneficial in stressful situations. Mothers' reported perception of functional social support may vary with the availability at the time of stillbirth. Love and affection are essential to endure the distress in stillbirth, which is congruent with previous studies (Cacciatore et al., 2013; Wright, 2010). However, the

perception of support is subjective, and it may sometimes need time to retrospect and appreciate.

Above findings on social support suggest that support exchanges in mothers occurred within the context of social embeddedness. Mothers who received support from formal healthcare professionals continued to seek and receive support informally by joining support groups and social media, providing a continuity of support. These findings endorse the theory of social exchange, in conjunction with stress-buffering and coping theory that underpinned this study.

6.4 Self-efficacy

Bandura's (1982) definition of self-efficacy is referred to mothers' beliefs about their capabilities to cope with stillbirth and this is pertaining to influence over events surrounding stillbirth and that affected their lives. As discussed earlier, self-efficacy is conceptualised as an internal resilience factor with its dimensions in the conceptual framework; action self-efficacy and coping self-efficacy. Self-efficacy was measured using 10 items the General Self-Efficacy Scale GSE (Schwarzer & Jerusalem, 1995). In this study, self-efficacy was regarded as context-specific and particularly essential in order to exert control over mothers' motivation, behaviour, and social environment. In the previous studies on pregnancy loss, self-efficacy was considered a personal coping resource (Nikcevic *et al*., 1998) and as a protective factor mediating resilience (Antonio, 2013). Wonch-Hill *et al*. (2017) reported that maternal confidence might depend on self-efficacy in managing distress in the inadvertent outcome of stillbirth.

Mothers who experienced stillbirth reported their self-efficacy scores on a Likert scale from 1=not at all true to 4 =exactly true. Self-efficacy scores were categorised into low, moderate and high levels. Most mothers reported moderate and high self-efficacy. A few mothers reported low self-efficacy. In previous research in child death and pregnancy loss, mothers' self-support mechanisms appeared to be connected to the self-efficacy activation, which helped diminish feelings of guilt and helped developing positive thinking (Jennings & Nicholl, 2014). Self-efficacy as a personal protective factor also predicted resilience (Antonio, 2013). In this study, the presence of moderate self-efficacy scores suggests that most mothers are actively coping and developing control over the adversity event. The study could also suggest that mothers developed or enhanced their self-efficacy beliefs after stillbirth. More research may need to identify maternal self-efficacy following stillbirth.

6.4.1 Action and Coping Self-efficacy

Self-efficacy had been often studied to understand parents or mothers' beliefs and capacities in the parenthood of live childbirth. Despite grief and distress, mothers are required to undertake some parenting tasks in the stillbirth experience. For example, some studies identified difficulties for parents in seeing and holding the deceased baby (Crawley *et al*., 2013; Nuzum *et al*., 2018). However, there is little knowledge about how mothers carry out parenting tasks in stillbirth. This study examined action and coping self-efficacy of mothers, and that to a certain extent could explain mothers' inner strength in initiating and sustaining self-beliefs in a variety of stillbirth activities. In addition, it identified important aspects of mothers' self-efficacy concerning action and coping dimensions. More than one-third of mothers reported high action, as well as coping self-efficacy, which indicates that they had the courage to start activities and also the personal control to sustain coping after that. These findings are distinguished and were never reported before this study.

Theoretically, individuals who suffer trauma or adversity need a different set of self-efficacy beliefs. Benight & Bandura (2004) suggested that coping self-efficacy is the focal mediator of posttraumatic recovery. This belief system is ingrained in social cognitive theory and specifies the modes of influence for building a resilient sense of self-efficacy. Therefore, understanding action and coping self-efficacy beliefs may help to reconstruct subsequent coping abilities while facing adversity. Previous studies on stress and coping have also recognized that self-efficacy is an important personal coping resource that determines one's emotional response to negative life events. This is the first study that examined self-efficacy among mothers with action and coping dimensions in stillbirth context.

In stillbirth, understanding high, moderate or low levels of self-efficacy can determine how much and how little help mothers may need during and following stillbirth. Previous stillbirth studies suggested parents were involved in activities such as memory-making activities (Randall, 2010; Crawley *et al*., 2013; Donovan *et al*., 2015) introducing the stillborn baby to the family (Murphy *et al*., 2013), naming their stillborn baby (Lundqvist., 2002; Erlandsson *et al*., 2011). Action and coping self-efficacy are needed in such activities. For example, even though memory-making is considered helpful, it cannot be imposed and needs to be initiated when mothers are ready for it and have the strength to sustain it.

Higher self-efficacy reflects a person's ability to cope with adversity effectively. This study is the first study that has embarked to quantitatively acknowledge mothers' self-efficacy and efforts to cope with stillbirth. Generalisability of this study's findings are difficult not only due to the sensitivity of the stillbirth context but also a demographically wide but comparatively small sample size. However, the importance of examining and identifying

self-efficacy among mothers following stillbirth itself is an important finding. This study complements previous studies on self-efficacy and forms the foundation for self-efficacy studies in the stillbirth context.

6.5 Resilience

For this study based on Caldeira & Timmins (2016), resilience is defined as the ability to recover from perceived adversity or changing situations related to stillbirth through a dynamic process of adaptation, influenced by personal characteristics, family and social resources, and manifested by reintegration. Resilience was measured using the 25-item Resilience Scale (Wagnild and Young, 1993) on a 5-point Likert scale which referred to the five dimensions of resilience – self-reliance, purpose, equanimity, perseverance and authenticity. Total resilience mean score (SD) was suggesting moderate resilience for this study participants. Most study participants scored moderate and high on the resilience scale. A substantial number of mothers scored low in resilience. While a person may have resilience, there may be a possibility that some may perceive reduced resilience, or some may reduce their resilience following stillbirth. A previous study examined mothers' resilience after mindfulness interventions and found that it helped mothers to reach thriving resilience levels (Robert and Montgomery, 2016). Further examination could identify how higher resilience was achieved and why lower resilience was perceived.

6.5.1 Resilience Characteristics

Further analysis was done to identify the score in resilience subscales. The frequency of resilience measurement in five dimensions was varied. No single dimension was exclusively higher than the other. In subscale analysis, the frequency for high resilience in the self-reliance dimension suggests belief in oneself, and one's capacities and high resilience in authenticity dimension suggest a realisation that everyone's life path is unique. But this was comparatively higher than the dimensions - purpose (a sense of purpose to live), equanimity (ability to balance oneself in life,) and perseverance (an act of persistence despite adversity). The frequency for moderate resilience was substantial in all five subscales and with the order of frequency - purpose, perseverance, self-reliance, authenticity and equanimity. According to Wagnild and Young (1993), higher resilience means a person is balanced in life, regained equilibrium and weathered the storm. Moderate resilience means a person has resilience characteristics and may be in the process of resilience building. It also suggests that a person can build higher resilience with some changes or may need some help to do so. Distinctive scores in the resilience dimensions suggest mothers may need help to strengthen their resilience. Resilience scores also suggest that stillbirth is a unique experience for each mother, and they may cope differently with the stillbirth situation.

The low scores in all five resilience subscales were equanimity, perseverance, purpose, self-reliance and authenticity. According to Wagnild and Young (1993), everyone is resilient to some degree. Low resilience could be due to less capacity to make meaning, lack of energy, self-doubt, or difficulty keeping going alone. But Wagnild and Young further suggested that there is a potential to strengthen the resilience where it is lacking.

The examination of resilience in this study has proved that resilience can be categorised into five distinct dimensions, each suggesting distinct resilient characteristics. The highest mean score is on self-reliance, implying that mothers can recognize their strengths and limitations and depend on themselves. The lowest mean score was on equanimity and suggests that some mothers still did not find the balance in their life after stillbirth. Some may even be in the adaptation process and may need more time or help to do so.

Analysing further, mothers who were in the low level of resilience in two or more subscales were categorised as low in overall resilience scores levels. Consequently, some mothers who scored moderately in other scales were classified as having low resilience due to two subscales having low scores.

However, Lee & Rowlands (2015) found that resilience scores were low among mothers, yet, qualitatively, mothers reported higher resilience. This finding suggests the significance of understanding resilience dimensions and their impact on total resilience scores. In the previous study, Roberts & Montgomery (2016) identified mothers who experienced stillbirth scored higher and were in a thriving category in one only post-test after mindfulness intervention to strengthen their resilience. This also indicates the limitations of examining resilience and categorising scores in low, moderate or high.

This study was the first study to identify resilience among mothers who experienced stillbirth, and the above findings indicate mothers having different levels of resilience. Substantial women reported low resilience levels. It should be considered that stillbirth is a very traumatic event for parents; however, women seek medical guidance regarding optimal time for a subsequent pregnancy following a stillbirth (Mills *et al*., 2014; Saflund *et al.*, 2002). Studies have shown that in the days following a stillbirth, parents begin to consider the possibility to become pregnant again (Meaney *et al.*, 2016). Though resilience is moderate or low, many women have a subsequent pregnancy in a short time frame (Murphy *et al*., 2020; Wojcieszek *et al*., 2018). This could not be countenanced if they were not resilient. There is a need to examine and explore resilience more in stillbirth.

6.6 Relationships between Variables

The aim of the study was to assess the relationship of resilience, self-efficacy and social support among mothers who experienced stillbirth. Pearson Correlational Coefficient was done to measure linear correlation and to determine the nature of the relationship between the variables. Multiple regression was done to investigate the relationship between variables. One-way ANOVA was conducted to determine if resilience, self-efficacy and social support depended on mothers' demographic characteristics.

6.6.1 Social support and Resilience

Consistent with the prediction of resilience theory, results of this study revealed that social support is positively related to resilience and is consistent with research in other contexts (Weiss *et al*., 2013; Narayanan & Weng Onn, 2016; Yendork & Somhlaba, 2017). This finding indicates the vital importance of all four functional dimensions of social support for resilience development in stillbirth. Previous stillbirth research frequently operationalised social support as stress-reducing (Cacciatore *et al*., 2009), or grief reducing (Roberts *et al*., 2012) or lowering mental health symptoms (Surkan *et al*., 2009), while a small but significant number of studies documented its impact on resilience (Cacciatore *et al*., 2013; Antonio, 2013) or maintaining positive health (Allahdadian *et al*., 2015). This study adds to the knowledge about social support and resilience in the stillbirth context. The most important finding of this study is that social support is seen as positively associated with resilience and suggest a moderate relationship.

It appears that mothers manage to obtain all the functional types of support from various formal and informal sources. Consistent with a previous study by Allahdadian *et al*. (2015), this study identified that the husband/spouse/partner was considered a most proximal and constant source of support. Mothers need someone who is close to them to provide all functional types of social support and be present in their suffering.

The importance of quality and quantity of social support have been identified. Bayrakli and Kaner (2012) reported that perceived quality and quantity of social support influenced their problem-focused coping strategies in a positive way and varied aspects of coping, provides resistance to stress, helps to endure and leads to adaptive coping. Tan et al. (2012) noted the importance of social support to cope and draw strength from formal and informal contacts. Tan *et al*. (2012) also reported that social media as an invaluable source of affirmation and comfort in stillbirth. This study reiterates the previous findings that social support is an important resource for coping for the mother experiencing stillbirth and furthermore suggests that social support helps develop resilience. The study also confirmed that social support relates to resilience and self-efficacy and validates its role in buffering stress.

6.6.2 Self-efficacy and Resilience

The study confirms findings from previous studies that report a significant association exists between self-efficacy and resilience. This also validates the theory of resilience, hypothesising that individuals adjust and develop resilience by drawing upon internal resources such as self-efficacy. This is a new and important finding in the context of stillbirth. Previous research focused on mothers' vulnerability and identified post-traumatic growth (Cacciatore *et al*., 2013) and resilience (Roberts and Montgomery, 2016). But this study may argue that the path to post-traumatic growth and resilience can be determined through self-efficacy. In previous studies, Nikcevic et al. (1998) reported that mother's responses to pregnancy loss were highly dependent on their appraisal of self-esteem and self-efficacy. Hence, this study demonstrates that resilience can be explained by self-efficacy.

Researchers have reported that cognitive approaches help parents cope with emotions, develop problem-focused coping strategies and asserting needs. Further, self-efficacy can help to identify the strengths and weaknesses of support network resources and how to mobilise support (Weiss et al., 2013). Findings of this study identified that maternal self-efficacy is strongly associated with resilience, suggesting that self-efficacy is a strong predictor of resilience. This indicated the relationship of maternal self-efficacy with resilience, more specifically, that the mother emerges from the stillbirth situation with self-belief and the capacity to start to cope actively. The findings regarding action and coping self-efficacy are new and are therefore a significant addition to the knowledge from previous studies.

This study validates the self-efficacy theory postulated by Bandura (1977) that any emotional incidence can influence a person's internal resources to create and strengthen the response and develop outcome expectations. Response expectations are meanings of what you believe you can do and how you act. Bandura (1997) noted that individuals with high self-efficacy tended to have faith in their strength and capabilities when faced with adversity.

6.6.3 Social support and Self -efficacy

Previous research on mothers in the context of parenting endorsed the positive correlation of social support and self-efficacy (Weiss *et al*., 2013; Salonen *et al*., 2009; Leahy-Warren & McCarthy, 2011). With regards to the loss of a pregnancy, only one study identified a positive correlation between social support and maternal self-efficacy in elective pregnancy loss (Antonio, 2013). Consistent with previous research, findings from this study showed a moderate correlation between self-efficacy and social support, which indicates that social support and self-efficacy are positive protective factors for coping in stillbirth.

In some previous studies, social support and self-efficacy were identified as protective factors mediating resilience (Antonio, 2013) and hardiness (Weiss *et al*., 2013), as well as reduce distress reduction and lowering the effect of risk factors. This study expands previous research in that social support and self-efficacy both explained resilience in the stillbirth context. Further, though one does not explain the other, both self-efficacy and social support were moderately associated. It is noteworthy that self-efficacy and social support were emphasized as attributes in the concept analysis of resilience and that both were never previously examined together in the stillbirth context.

6.7 Mothers Comments

This survey was aimed to examine the relationship between social support, self-efficacy and resilience among mothers who experienced stillbirth. Since conducting a quantitative examination of social support, self-efficacy and resilience using measurement scales in the context of stillbirth may not include everything about the concepts from mothers' perspectives, an open-ended question was included at the end of the survey for any additional information participants wished to add. This was also considered as an opportunity for mothers to comment on the survey itself.

Mothers' comments suggest that every stillbirth is different, and women feel differently in their stillbirth experience and afterwards. Overall, mothers' comments were varied but broadly suggesting that mothers can be assertive and articulate their perceptions of support and how they build their self-efficacy and life after stillbirth. It was also observed that mothers' experiences vary as their perceptions vary. Therefore, it can be suggested that examining mothers' perceptions on social support, self-efficacy and resilience can provide significant understanding about individual adjustments in the stillbirth context.

Stillbirth studies need to be relentless to know more about mothers and what they think about their support structure during and after stillbirth, how they build their self-efficacy and develop resilience.

6.8 Discussion

The study's results upheld the study hypotheses of the significant relationship between social support, self-efficacy, and resilience, which has not been reported in the literature. Overall, the study's findings support the conceptual framework originated from the literature along with underpinning theory that guided to examine social support, self-efficacy and resilience and their relationships for mothers who had stillbirth using a quantitative method.

The study findings demonstrate the significance of social support following stillbirth. Having both structural and functional dimensions in the conceptualisation of social support

added clarity to its application in the context of stillbirth. Consequently, findings also established social support as a multidimensional concept. Consistent with Cohen & Wills (1985) theory, the buffering model was evident when the social support measure assessed the perceived availability of interpersonal resources responsive to the needs elicited by a stillbirth.

Further, the importance of self-efficacy among mothers in the stillbirth context was identified with its two phase-specific beliefs - action and coping self-efficacy. Consistent with Bandura's theory, this study's outcomes suggest that appraisal of the stillbirth occurs with mothers following stillbirth and leads to a resilient sense of self-efficacy.

The study findings demonstrated that resilience is an individual capacity and dynamic outcome that is built upon internal and external resources and may vary due to personal attributes. Consistent with Richardson's resilience theory, the study's outcomes suggested that mothers achieve various levels of resilient reintegration after stillbirth. The conceptualisation of resilience with its dimensions of self-reliance, purpose, equanimity, perseverance and authenticity provided the knowledge about its presence in the stillbirth context. The process may continue and may need coherent examination and exploration.

The study further acknowledged that variability might exist regarding individual mothers' strength of social network relationships, their self-efficacy beliefs and the development of resilience. The study also identified that social support and self-efficacy both could predict resilience.

New insights in relation to the experience of stillbirth from mothers' perspectives are demonstrated through this study. Practice related recommendations will build knowledge and skills capacity in this area for those who support mothers during stillbirth. Currently, no other published study simultaneously examined three concepts together among mothers in the stillbirth context. This study provides a new focus for future research. This is an important step toward targeted interventions to strengthen mothers in situational crisis after stillbirth. Future research is needed to examine coping processes intensely and assess how resilience can change through interventions targeting social support and self-efficacy.

6.9 Summary

This study examined the relationship between social support, self-efficacy and resilience among mothers in the context of stillbirth. Chapter One presented the background of the stillbirth context and introduction of this study. The impetus for the study was described, followed by a discussion on pregnancy and pregnancy loss, explaining how pregnancy unfolds for the mother, the meaning of fetal viability, various stillbirth descriptions and

terminology, prevalence, and maternity bereavement care. The relevant stillbirth literature was discussed to understand what was being investigated and led to identifying concepts for the study. Taking pride as a bereaved mother and negotiating social support could correspond to self-efficacy. Taking something positive from the stillbirth experience can relate to resilience. Similarly, perceiving social support and helping others in a similar situation and finding positive in loss proposes the presence of resilience. It was also recognized that the investigation of resilience does not involve a denial of the unpleasant emotions associated with death. Resilience helps to acknowledge paths leading to light at the end of the tunnel (Almedom, 2005).

The next chapter, Chapter Two, described theoretical perspectives of social support, self-efficacy and resilience in the face of trauma or adversity. Explaining Cohen and Wills' stress-buffering theory (1985), how the effect of social support perception shields the effects of adversity and promotes coping during various stages of a stressful event was discussed. For this study, social support was conceptualised as an interpersonal process that includes social embeddedness, social networks (formal and informal resources) and functional activities (informational, emotional, affectionate, tangible and social interactions). Cohen's definition is comprehensive and could fit in the stress-buffering model of social support and determine its impact on the mothers in the stillbirth context. Based on Cohen's (2004) definition, social support in the study is referred to the social network's provision of psychological and material resources intended to benefit an individual's ability to cope with stress.

Self-efficacy was conceptualised as an internal attribute that develops a person's self-beliefs. It is considered an essential attribute of resilience (Dyer & McGuiness 1996; Gillespie *et al*., 2007; Earvolino-Ramirez 2007; Windle 2011; Simmons *et al*., 2013; Garcia-Dia *et al*., 2013; Eells 2015). Based on Bandura's (1994) definition, self-efficacy is referred to a person's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives.

Resilience involves three connected components: adversity, outcome after facing adversity and factors facilitated coping with adversity. It is overbearing to focus on all three factors in resilience examination. Resilience was conceptualised as a consequence of social support and self-efficacy underpinned by Richardson's (2002) theory, a resilient reintegration after stillbirth. Resilient reintegration includes self-reliance, purpose, equanimity, perseverance and existentiality to put life's perspective back on a path. Theoretical findings indicated that perceived social support and high self-efficacy could facilitate resilience in the face of

adversity and that a resilient person has their own strengths and ability (e.g. self-efficacy) to use available and acquired resources effectively (e.g. social support).

Subsequently, the conceptual framework was developed to postulate the relationships between social support, self-efficacy and resilience. The conceptual framework provided an overview of existing literature on social support, self-efficacy, and resilience and facilitated development of the study's research methodology.

Chapter Three discussed the empirical literature review on social support, self-efficacy and resilience, and revealed that a resilient person has personal strengths and the capacity (e.g. self-efficacy) to use available and extended resources (e.g. social support) effectively. It also identified that no previous study until now has examined all three concepts, social support, self-efficacy and resilience, in the context of stillbirth. Social support studies reported diverse contextual needs in stillbirth, including the direct and buffering effects of social support. Mothers who perceived support were thankful and overwhelmed. Social support influences were reported as mindfulness, posttraumatic growth and resilience. Social support was identified as an important aspect of bereavement care after stillbirth; however, no study examined structural and functional social support with self-efficacy and resilience in the stillbirth context.

The literature review further identified a body of evidence on how maternal self-efficacy is enhanced in an adverse or challenging situation and its benefits in maintaining psychological wellbeing (Juntilla *et al*., 2015), reducing self-blame and coping (Nikcevic *et al*., 1998). Consistent with Bandura's theory of self-efficacy, maternal self-efficacy was influenced by difficulty in parenthood tasks (Gilmore & Cuskelly, 2009) and with the perception of emotional support (Juntilla *et al*., 2015).

The literature on stress and coping recognized that self-efficacy is an important personal coping resource that determines one's emotional response to adverse life events. No studies investigated self-efficacy in stillbirth and pregnancy loss contexts. Moreover, it has often conceptualized self-efficacy as a personal characteristic rather than an influencing factor and an essential component of effective coping strategies for challenging tasks.

Self-efficacy and social support are two independent but positively related variables that help a person in adverse life circumstances. This corresponds with the theoretical perspectives discussed in Chapter Two that social support and self-efficacy are defining attributes of resilience.

Chapter Three further presented research on resilience and indicated that the path to resilience could go through distress, grief, and trauma in adversity. Resilience has been most frequently defined as positive adaptation despite adversity but lacks a comprehensive

definition. More than that, it was seen that resilience varies among individuals and could be reliant on vital components (social support, cognitive skills) and may require some strengths (self-efficacy) that need appropriately awakened at the time of need. The review revealed that, despite being distressed and grieved, the concepts of social support, self-efficacy and resilience appear to be crucial in how mothers experience and cope with adversity. Furthermore, it is not enough to identify them exclusively, but it is essential to demonstrate their relationships underpinning theory in the context of stillbirth.

Based on the literature reviewed, this study's conceptual framework was developed to identify social support, self-efficacy and resilience in mothers following stillbirth and examine their relationships. The conceptual framework was constructed using psychosocial and stress-buffering perspectives of Cohen's social support theory (Cohen, 1985), social cognitive perspectives of Bandura's self-efficacy theory (Bandura, 1977) and reintegration perspectives of resilience theory (Richardson, 2002). The conceptual framework guided the research methodology.

Chapter Four described the research methodology applied to the study. The quantitative correlational retrospective design was used to examine social support, self-efficacy and resilience among mothers who experienced stillbirth. Details of survey design, recruitment and data collection using previously validated instruments were used to measure perceived availability of social support, maternal self-efficacy and resilience along with demographic and obstetric characteristics of mothers.

The survey reached internationally to the USA, the UK, Australia, Ireland, Spain, Finland, Canada. The study findings aligning with research objectives and hypotheses are presented in Chapter Five. The findings indicate the possibility of a relationship of gestation with self-efficacy, stillbirth year with resilience and social support but not that one explains the other.

For structural social support, the findings indicated mothers perceived functional social support from a diverse formal and informal support network. The functional social support, there was a statistically significant positive correlation between all subscales. Suggesting the scale was reliable to measure functional social support among mothers in the stillbirth context.

Further, the self-efficacy evaluation reported moderate self-efficacy. Crosstabulation of subscales reported high scores on both action and coping self-efficacy. Four mothers reported low self-efficacy in both subscales. The remaining participants reported a combination of high, moderate or low self-efficacy in both subscales. Action and coping self-efficacy were never studied among mothers before, and this study provides a foundation for further examination of these self-efficacy dimensions.

Regarding the mother's resilience, participant mothers reported moderate and high resilience. However, a substantial number of mothers reported low resilience. The resilience scale is subdivided into five subscales self-reliance, perseverance, purpose, equanimity and authenticity. Mothers who were in the low level of resilience in two or more subscales were categorised as low in overall resilience scores. This suggests that some mothers who scored moderately in three subscales were categorised as having low resilience. All resilience subscales are positively correlated. Resilience findings in previous studies were similar (Antonio, 2013) in pregnancy loss. However, in the stillbirth context, Roberts and Montgomery (2016) found mothers in a thriving range after mindfulness intervention. This study adds to previous research as resilience was measured with two of its attributes, social support and self-efficacy, with underpinning theory.

The hypotheses that social support and self-efficacy were significantly related were upheld as the correlational analysis indicated a statistically significant moderate relationship between social support and resilience (r=0.481, p<0.01) as well as a statistically significant strong relationship between self-efficacy and resilience (r=0.755, p<0.01). The study further revealed a statistically significant moderate relationship between social support and self-efficacy (r=0.391, p=0.01). The new finding in the stillbirth context found that self-efficacy is a strong predictor of resilience, but one does not explain the other.

Multiple linear regression was run to investigate the relationship between social support, self-efficacy and resilience. The regression model was statically significant and accounted for 61.1% of the variation in resilience. Total self-efficacy was significantly associated with resilience (regression coefficient (95% CI): 2.78(2.26 – 3.30), p<0.001) and uniquely explained 38% of the variance in resilience. Total social support was also significantly associated with resilience (regression coefficient (95% CI): 0.31(0.13 – 0.49), p<0.001) and uniquely explained 4% of the variance in resilience.

These study findings clearly demonstrate the significance of social support in stillbirth and that it can predict resilience. The conceptualisation with structural and functional dimensions of social support adds clarity to the concept and establishes it as a multidimensional concept and related to resilience in the stillbirth context. The findings also demonstrated that self-efficacy is significant in stillbirth and can predict resilience. The conceptualisation with action and coping self-efficacy dimensions adds clarity to the concept and establishes it as a multidimensional concept and related to resilience. The significant positive relationship between social support, self-efficacy and resilience revealed that one unit increase in both social support, moderately (0.402, P=0.001) and self-efficacy, strongly (0.756, p=0.001) increases the 40% and 75% probability of resilience. This suggests the importance of self-

efficacy and social support in developing resilience following stillbirth. The study endorsed previous literature findings on three concepts that can be upheld in the stillbirth context.

Chapter Six presents a discussion of the study findings followed by the conclusion of the study, its limitations and recommendations that are drawn from the study findings. The study's results upheld the study hypotheses of the significant relationship between social support, self-efficacy, and resilience, which has not been reported in the literature until now.

6.10 Limitations

Limitations of the study are associated with the research technique, sampling technique, self-reporting bias and categorisation of scores. The main limitations of the research technique were the research design, sampling and instruments. Lee & Rowlands (2015) indicated that a contextual model of resilience is able to provide a possible framework for understanding both - quantitative and qualitative results in stillbirth research. No study directly examined resilience in stillbirth before this study. This survey adds to the knowledge that existed before this study. However, qualitative and mixed methods investigation would enhance the in-depth understanding. This study used a convenience sampling method to recruit a sensitive and hard to reach population and to complete the study within the course period.

Undertaking an online survey was beneficial as it could reach women from many areas rather than just one maternity hospital. This was also a limitation as only women who can access the internet, stillbirth support websites, and social media sites were likely to be informed about the study. As a result, mothers who had access to weblink and intended to share their experiences of social support, self-efficacy and resilience might have responded. This provided a more global review with women from the USA, UK, Australia, Canada, Finland, Spain and Ireland choosing to respond.

This study used scales validated in contexts other than a stillbirth. The study substantially adds to the knowledge by measuring social support, self-efficacy and resilience in the stillbirth context and returned strong Cronbach's alpha for the scales used. No scales specifically developed, however, to measure social support, self-efficacy and resilience in stillbirth context.

Further, the response to the questionnaire was self-reported, and the researcher had no control over the survey completion. Therefore, the response rate was 57.8% based on the number of participants who opened the survey link and continued to answer the questionnaire. The response may have varied if the questionnaire was disseminated in a face-to-face encounter. However, the online survey approach to data collection achieved

anonymity, respecting participants privacy to a broader population, and the extent of its reach was increased.

Categorising levels of social support, self-efficacy and resilience may not be precise as the concepts are dynamic and mothers needs for social support may change as life goes on. Further, this study clarifies that categorising was not done to classify or to grade the mothers based on their levels of total social support, self-efficacy and resilience scores. The researcher believed that the classification of scores as high, moderate and low levels might not justify scores close to the upper or lower limits of the category. Yet, categorisation was done to demonstrate the degree of perception in social support, self-efficacy and resilience in stillbirth. Moreover, to demonstrate that such categorisation may be helpful for clinical evaluation and interventions for such adjacent to threshold samples.

6.11 Recommendations

This study is the first study to examine the relationship between social support, self-efficacy and resilience among mothers who experienced stillbirth. The sample size (n=117) does not represent all bereaved parents in all stillbirth situations in different countries. The study has perhaps browsed the surface of various possibilities of social support, self-efficacy and resilience associated with mothers in the stillbirth context.

Notwithstanding the above limitations, this study reached an important landmark in stillbirth research, as evidenced by the discussion presented in this chapter. Therefore, the researcher is now confident to present the following recommendations for nursing and midwifery professional clinical practice, research and education.

Practice

In relation to the healthcare professional practice, it is recommended:

- The findings identified the importance of social support for women with stillbirth and the relationship with their self-efficacy and resilience. Each woman's needs will differ depending on their social networks, access to formal support, support needs, requirements and availability. It is recommended that the assessment and provision of social support are recognised as a core competency for maternity care.
- All types of support need to be acknowledged, including functional types of social support. Multidisciplinary healthcare professionals need to become involved in the supportive care of mothers and their families. This will require agreement on a multidisciplinary approach to stillbirth care.
- The findings of self-efficacy are distinguished and never reported before this study. Self-efficacy needs to be acknowledged with its dimensions action and coping self-efficacy - the

courage to start difficult activities along with personal control and to sustain coping after that. Therefore, it is recommended that the assessment of self-efficacy and provision of support in the development of phase-specific self-efficacy is to be recognised as a part of maternity care in stillbirth. This will require the policy agreement on the knowledge, skill and competencies required for maternity care staff.

- In this study, the self-efficacy dimensions were measured for the first time. It is incumbent recommendations for future studies to assess self-efficacy dimensions further and examine the factorial variance and relationship between the two dimensions of General Self Efficacy (GSE) in stillbirth context.

Education

In relation to education, it is recommended that:

- The study recognised the importance of the healthcare professional's role in stillbirth care. It is indicated that stillbirth and pregnancy loss is a significant component of maternity care. Educational programs for nurses, midwives and healthcare professionals should incorporate separate stillbirth and pregnancy loss modules that can be facilitated by multidisciplinary professionals who are involved in supportive care in the hospital and community.
- Structured in-service study days that aim to impart evidence-based knowledge, skills and practices associated with stillbirth care should be provided for healthcare professionals to facilitate them to provide meaningful care to mothers and their families.

Research

- Many gaps in our knowledge around resilience in stillbirth were identified in this study, and therefore informs the direction for further research. Therefore, in-depth examination and exploration of social support, self-efficacy and resilience using various research methods and targeting broader populations is recommended.
- This study showed that a significant relationship exists between social support, self-efficacy and resilience in the stillbirth context. Various methodological investigations can be done to robustly capture the impact of stillbirth on social support resources and its functional components, maternal self-efficacy and resilience dimensions.

6.12 What I Gained from This Study

I started my doctorate to investigate resilient motherhood, although I am not studying positive motherhood to explain the reduction in grief and distress of stillbirth. Because many mothers shortly plan to become mothers after a stillbirth with the capacity to deal with grief and lead a life as normal as possible with the legacy of a stillborn baby. Hence the focus was, what helps them to do so? So I applied a new framework; instead of proposing resilience

influences reduction in grief and distress, I suggested that social support and self-efficacy help develop resilience mutually and individually. No one ever used this approach in the stillbirth context before, so I had to adapt the research question – what is the relationship between social support, self-efficacy and resilience? To answer that question, I had to find out the correlation between social support, self-efficacy and resilience, as the relationships between positive factors were never attempted before in stillbirth. Some may not think this examination is impressive because we already know social support, self-efficacy and resilience are related, so what? What's new in that? But research does not have to be inventive and complex. Sometimes most common phenomenon also needs theoretical inspection and objectivity to prove its existence and significance. Therefore, this study was the most sensitive method to understand what helped mothers than assessing their grief scores with resilience.

The study used a quantitative design with online survey method to focus on three concepts that emerged as the fundamental tenets of mothers coping with stillbirth. I was insistent on not measuring grief or stress along with the resilience levels. I consider that resilience does not decrease any of the psychosocial indicators such as grief or distress but develops the capacity to handle them and nurtures persons' strength and determination. Resilience helps an individual to emerge as a person with a new perspective. Social support and self-efficacy play a key part in facilitating the development of strength, enabling control over the situation and thriving with a new perspective. Women who are struggling to cope may have less social support or low self-efficacy, therefore, low resilience. Similarly, women with moderate social support and self-efficacy may delay their coping longer than women who may have substantial social support resources. Therefore, the purpose was to determine resilience development in stillbirth rather than comprehend how it impacts negative emotions and distress.

The knowledge about various dimensions of the concepts, such as structural support, functional support, action and coping self-efficacy beliefs, self-reliance, purpose, equanimity, perseverance and authenticity, have enabled me to understand coping prospects. The knowledge about underpinned theories of social support, self-efficacy and resilience exemplified the coping process in adversity. Social support, its value and rewards, functional dimensions support, and proximity of resources with stress-buffering impact illustrated the coping that involves self-efficacy and resilience, which will help me navigate through pregnancy loss workflows of midwifery. Now I know what I can do if any dimension of social support, self-efficacy and resilience lack some strength. Now I know what I need to do when mothers show signs of low or high action and coping self-efficacy. Now I know the glimpses of mothers' resilience development. This will encourage me to be with the mother

as an active coping partner and can gently guide her through a difficult stillbirth journey by encouraging and sometimes assisting to sustain. The research gave me strength and enhanced my capacity to go through stillbirth experiences with mothers by respecting their ability, beliefs and personal controls. Maybe I was asking similar questions before undertaking this study but now I understand the theoretical perspectives of each of these concepts.

This study unravelled the impression that inquiring about stillbirth may harm women. The reality is that mothers may wish to share their stillbirth stories and their beautiful babies born sleeping with not only peer parents but with those who would like to listen with compassion and recognize them as mothers. This study added to my knowledge, practice and perspectives as a midwife who worked closely with mothers during their loss of pregnancy and stillbirth, as well as meeting them at various pregnancy loss remembrance events. This study has helped me identify the key strengths mothers may describe during the care; that can enrich clinical documentation that currently is electronic. I can share this knowledge by supporting my obstetric and midwifery colleagues in my current role as a maternal and newborn system administrator and as a member of the national maternity workstream.

Considering the unique relationship between midwives and mothers who experience stillbirth, this study complemented the previous knowledge. It was recognized through the journey of this research that mothers, whose values are respected and well supported in strengthening self-efficacy and building resilience during this vulnerable time, can feel more empowered as life goes on. These empowered mothers may become crusaders of altruism and peer supporters in the stillbirth context. The study, therefore, acknowledges mothers' resilience with their self-efficacy and perception of social support in the stillbirth context.

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Appendices

Appendix 1: PEO Framework (Boudin *et al.*, 2010)

PEO
PEO 1a: Social Support **PEO 1b: Self-efficacy** **PEO 1c: Resilience** **P: Population; E: Exposure; C: Control (not applicable); O: Outcome**

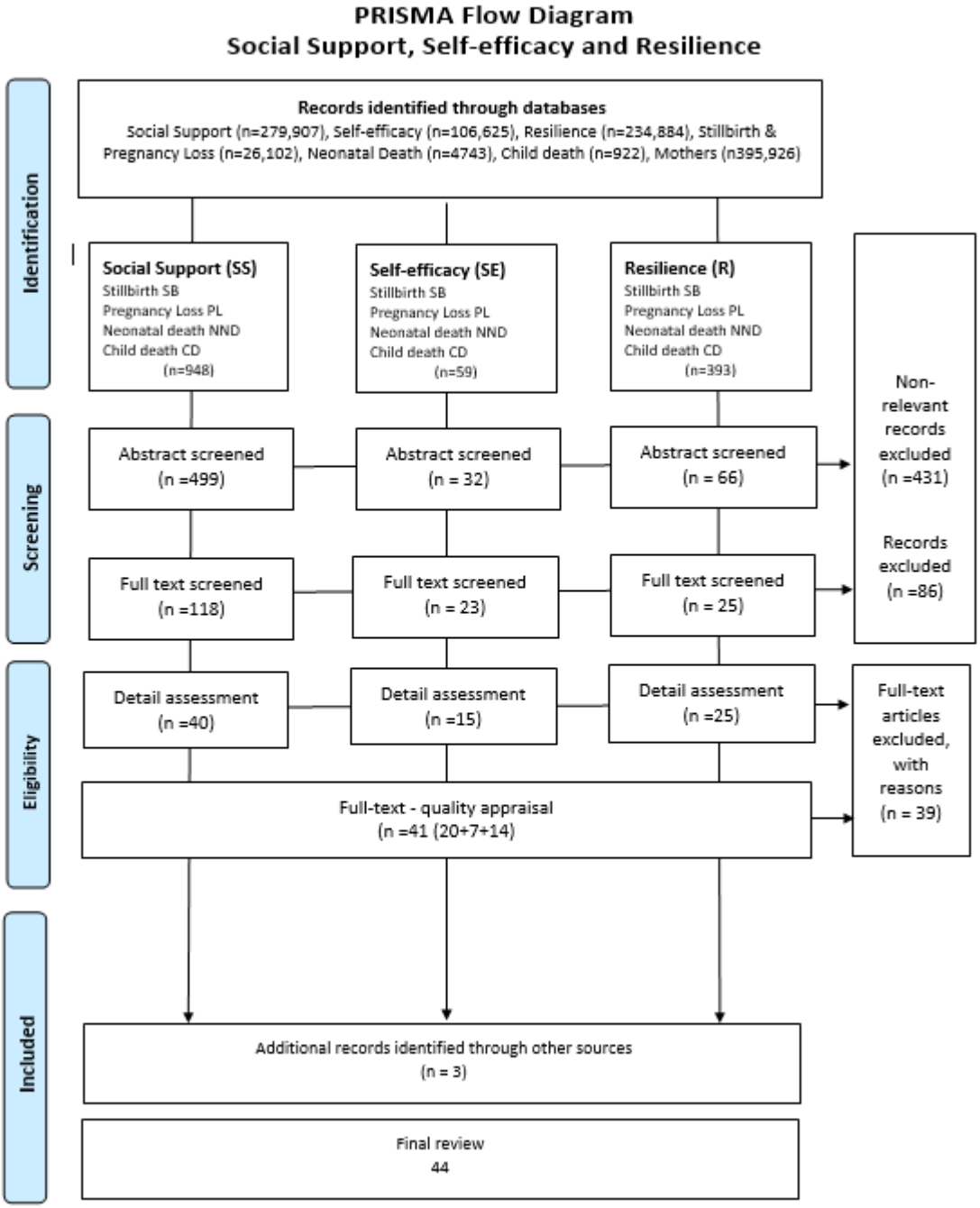
PEO 1a	PEO 1b	PEO 1c
Aim: To identify the literature on social support.	Aim: To identify the literature on self-efficacy.	Aim: To identify the literature on resilience.
P: Mothers E: Following stillbirth /pregnancy loss/child death O: Social Support	P: Mothers E: Following stillbirth /pregnancy loss/child death O: Self-Efficacy	P: Mothers E: Following stillbirth /pregnancy loss/child death O: Resilience

Appendix 2: Search Terms and Selection Criteria

Key Concepts	Search Terms
Social Support	"social support" OR "support social" OR "support network" OR "support networks" OR "social network" OR support OR supports OR support* OR "support system" OR "support systems" OR "psychological support" OR "psychological supports"
Self-Efficacy	"self-efficacy" OR self-efficacy OR 'self-efficacy' OR 'efficacy self' OR self-belief OR "self-belief" OR 'belief self' OR 'self-belief' OR 'personal agency' OR 'personal resources' OR 'inner resources'
Resilience	"Psychological resilience" OR "resilience psychological" OR "resilience" OR *resilien** OR hardiness OR "bouncing back" OR "post-traumatic growth"
Mothers	Mothers OR Parents OR Parent OR parent
Context	Stillbirth OR "perinatal death" OR "perinatal loss" OR "fetal death" OR "Fetal demise" OR "pregnancy loss" OR "loss of pregnancy" "neonatal death" OR "neonatal demise" OR "infant death" OR "newborn death" "child death" OR "death of child"
Databases **Limiters**	CINHHL, PsychINFO, PsychArticles, SOCIndex Published Date:2010 – 2020, Full Text, English, Human

Selection Criteria:	
Criteria	**Published Studies**
Inclusion	Studies: Qualitative, Quantitative, Mixed Method Studies, Reviews, Meta-analysis, Meta-synthesis; Studies on stillbirth, Pregnancy loss, Neonatal death, Adversities related to children; Relevance to the context and study
Exclusion	Articles, Non-research publications, Pharmacological trials, Studies on non-human, Genetic studies, Investigations of stillbirth and Pregnancy loss Samples: Nurses, Midwives, Doctors, Children, Elderly

Appendix 3: PRISMA Flow Diagram



Appendix 4: Summary of Selected Studies

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Aho *et al*., 2012 Finland, Nursing, Child Death	Qualitative, 631 Online messages, Content Analysis Mothers n=4, 3 months		To describe mothers' experiences of peer support via an Internet discussion group for mothers who have a child died	1)Internet discussion forum was a viable alternative to peer support (emotional, cognitive, community) after the death of a child. 2)A strong sense of commonality and lasting friendships was formed between the bereaved mothers who had similar experiences.3)Shared child death memories, emotions, feelings coping, spousal differences, professional help and one's story. 4)Mothers who perceived their health status to be very good received the most social support from health professionals
Allahdadian *et al*., 2015 Iran, Nursing, Stillbirth	Qualitative, Interviews, Content Analysis Mothers n=15		To explore social support that helped mothers in adaptation after the experience of stillbirth.	1)Mothers reported two support systems - support from spouse, family and friends and support from social systems (peer, counselling, social workers, healthcare professionals. 2)Spouse, family and friends support sympathizing, in performing everyday activities and to escape loneliness. 3)Peer group to exchange experiences and from trauma counselling centres to meet their needs. 4)Husband closest person - present through experience, accept and understand them, continue to express love, accompany them in counselling, help to return to life.
Avelin *et al*., 2012 Sweden, Nursing, Stillbirth	Qualitative, Group discussion, Content Analysis Mothers Fathers n=27, 1994 to 2009		To describe parenthood and the needs of siblings after stillbirth from the parents' perspective.	1)when have other living children, parenthood in stillbirth is balancing between grief and everyday life. 2)Parent's perspective of support categories - support in an acute situation, sharing experience within the family, adjusting to situations after stillbirth. 3)The study reported parents need guidance from healthcare professionals on how to present stillborn to siblings.
Bennett *et al*., 2008 USA, Psychology & Psychiatry, Perinatal Loss	Mixed, Survey, Phone interview, Descriptive, Correlational, multiple regression, Mothers Qnt n=91, Qul n=55, 5 years	Crisis Social Support Scale measuring availability and perception of support	To correlate the mental health impact of perinatal loss with emotional response, social support, coping	1)Social support emerged as a highly significant predictor of mental outcomes. 2)mothers who perceive an emotionally adequate degree of support from their family, friends, and co-workers experience fewer or less enduring mental health symptoms. 3)Most mothers satisfied with health professionals support in hospital including contacting and holding their baby, 4)Lower social support associated with higher mental symptoms
Cacciatore *et al*., 2009 USA, Social Work, Stillbirth	Quantitative, Descriptive, Ordinary Least Squares Regression, Mothers n=769, 18 months	*Binary: Perceived support or great support=1, Perceived no support=0*	To examine whether levels of maternal anxiety and depression are lower amongst mothers who received social support	Social support identified from each of four unique sources: (i) doctor support during stillbirth, (ii) nurse support during stillbirth, (iii) family support in the period after stillbirth, and (iv) support group participation during the period after stillbirth. 1)Mothers of stillborn babies who perceived family support in the period after stillbirth experienced levels of anxiety and depression that were notably lower than those of their counterparts.2)Nurses, physicians and support groups were important sources of support after a stillbirth; 3)However, these sources of support alone were not statistically significant in reducing anxiety and depression in grieving mothers.

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Cacciatore 2010 USA, Social Work, Stillbirth	Qualitative, Interviews, Descriptive, Thematic Analysis, Mothers n=47, 1 to 29 years		To understand mothers experience of stillbirth affects her perpetual experience include social support, loss, rituals and emotions.	1)Respondents openly discussed their feelings of disenfranchisement and social isolation. Some expressed concern regarding the ethic of compassionate care provided to them during their child's death and others praised caring professionals. 2)Social support the most important factor in helping to deal with the baby's death. 3)Enhanced understanding of stillbirth and psychosocial support helped mothers to cope with long term effects of this loss.
Darbyshire *et al*., 2012 Australia, Nursing, NND	Qualitative, Interviews Interpretive phenomenology and thematic analysis Mothers Fathers n=6 from death to 13 months		To discover bereaved parents' perspectives and experiences of a nurse-led, ward-based, telephone support programme in a children's oncology unit.	Parents found the programme supportive, especially valuing ongoing contact with a nurse who 'knew them'. Telephone contact was preferred to be visiting the hospital, which brought back painful memories. Calls were important elements in helping parents create meaning and memory around their deceased child. Regular telephone contact over an agreed period from a familiar member of the child's treating team can create a more positive and supportive bereavement experience for parents in the year following their child's death.
Erlandsson *et al*., 2013 Sweden, Nursing, Stillbirth	Quantitative, Questionnaire Descriptive, Mann- Whitney U Test (Rank and Sum Test), Mothers Fathers n=55 3 months(33+22), 1yr (30+18) and 2 years (25+15).	A researcher developed SS questionnaire	To describe parents' experiences of support over a 2-year period after a stillbirth	1)Most parents felt that staff treated the baby well and that they received enough psychosocial support from health professionals. 2)Most parents felt the couple supported each other during and after stillbirth. 3)Support comprised of immediate support by health professionals and long-term support by family and friends. 4)New child, previous living children, work and support groups helped parents managed stillbirth and feel more control their life. 5)Sources of support: Spouse, family and friends (Emotional), physicians (informational), chaplain (front line support). 6)Parents felt as time-lapsed they realize the value of their support and how to be supportive.

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Gjjzen *et al*., 2016 Netherlands, Public Health, Child Death	Quantitative, Online discussion and Semi-structured questionnaire Mothers Fathers n=64 1970 to 2012	No specific social support measurement scale	To determine what support parents in the Netherlands, received after the death of their child and whether the type of care they receive meets their needs.	1)Structural support sources were categorised as primary care providers: general practitioner, social worker, home care nurse, and secondary care providers: paediatrician, gynaecologist, other medical specialists, nurse, A& E personnel, as well as other: media, photographer ad people not specified by parents. 2)the study reported emotional support (97% of parents) was provided by primary care professionals. 3)Instrumental (80% of parents) and informational (60% of parents) support reported being received was mainly provided by secondary care professionals. 4)emotional, instrumental and informational support was also reported received by others. 5)Several recommendations per type of support reported by parents in this study suggest parents' ability in identifying their support needs. 6)The study reported parents support was initiated by professionals and that parents appreciated follow up contacts in which parents were asked what kind of support they would like to receive. 7)The study also reported parents' perspectives on lack of support in that more than half of the parents reported a lack of emotional support, particularly from family members, insufficient informational support from secondary care professionals and shortcomings in the instrumental and informational support of other, non-professionals sources.
Harper *et al*., 2016 USA, Epidemiology, Paediatric Cancer	Quantitative, Questionnaire, 3 data points: 1)Treatment phase, 2)First follow up @3 months, 3)Second follow up @9 months Parents n=102 Children post-treatment 3 to 12 years.	The Brief Measure of Social Support	To examine the direct and buffering effects of social support on longer-term psychological distress among parents coping with paediatric cancer.	1)Social support measured in two aspects of direct effects - satisfaction with support and size of a social support network. 2)Satisfaction with support and size of support network differently influence distress. 3)The direct relationship between satisfaction of support and distress significant at all data points suggesting all parents perceived benefits of support. 4)Size of the support network was directly unrelated to psychological distress. 4)However, the size of the support network had buffering effects in that more anxious and or depressed parents with larger support network experienced substantially less distress.

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Jennings & Nicholl, 2014 Ireland, Nursing, Child Death	Qualitative, Unstructured interviews Content Analysis Mothers n=10 5 years post-loss		To explore mothers' experiences of bereavement support in Ireland following the death of their child from a life-limiting condition.	1)Mothers used a variety of support sources in a combination. 2)Informal sources included partners, family, friends, the internet 3)Formal sources included healthcare professionals, counsellors, bereavement support organisations. 4)In addition to depending on others to provide support, the mothers described their ability to self-support. 5)Informal, formal and self-support mechanisms were closely related and sometimes overlapped. 6)three themes of support identified in the study: keeping the memory of a deceased baby, seeking help and positive thinking. 7)Seeking help was from informal sources (partner, family, friends, websites, online chat forums) and formal sources (healthcare professionals, individual counselling) and peer support voluntary organisations. 7)Seeking help and self-support diminished guilt feelings and helped them to start self-care and positive thinking. 8)Positive thinking was reported in that some mothers could see positive aspects of the child's life and illness through their sadness. 8)The study showed that positive thinking and grief could co-exist.
Kavanaugh *et al*., 2004 USA, Nursing, Perinatal Loss	Qualitative, Interviews Vaux theory underpinning Parents n=31		To examine parents' descriptions of the ways family and friends supported them after they had experienced a perinatal loss.	1) not all support received by the parents from friends and family is always perceived as helpful. In fact, behaviours that are sometimes perceived as supportive to one person are not always supportive to another 2)mothers were more likely than fathersto need to have their loss validated and to want to have someone to talk to about their experience. 3) Parents mentioned the importance of being physically present most often. 4)For comfort & encouragement 5) peer support advice, guidance 6) limited financial assistance 6) being around people - feel being supported
Leahy-Warren *et al*., 2011 Ireland, Nursing, First Time Mothers	Quantitative, Questionnaire Social exchange theory (Homans 1961, Blau 1964) and Bandura's theory of self-efficacy (Bandura 1997). Mothers n=447 6 weeks postnatal	The researcher developed SS instrument	To examine the relationships between social support, maternal parental self-efficacy and postnatal depression in first-time mothers at 6 weeks post-delivery.	1)Husbands/partners and maternal mothers were identified most frequently as having given social support 2)The formal social network, i.e. professionals, public health nurses were reported to have given informational support (77%) and appraisal support (51%). 3)Informational support given by midwives during hospital stay was reported as 52%. Appraisal support by midwives was reported as 26% and both supports related to confidence in infant care practices. 77% reported informational support from maternal mothers. 4)The same quantity of 77%, public health nurses (formal) and mothers (informal) were primary sources of informational support. 5)The correlation between appraisal support and confidence in infant care practices was stronger ($r = 0.40$, $p<0.01$) than that between appraisal support and coping with childcare ($r = 0.27$, $p< 0.0001$).

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Lisy *et al*., 2016 Australia, Health Sciences, Stillbirth	Systematic Review, 20 Qualitative studies 30 findings in 4 categories -		Qualitative synthesis to investigate parents' experiences of care received during and after stillbirth	1)Sensitive and supportive care at the time of diagnosis, provision of understandable information, Allow time and space, continuity of care thereafter 2) sensitivity in induction and birth, the importance of preparation, clear explanation, information, preference, suitable privacy, collaborative care 3)immediately postnatal - help in decision making, support needs, prepare to meet stillborn, seeing & holding baby, memory making, respect choices, acknowledge the experience of losing baby, giving helpful info about hospital systems 4) post-birth &onwards - information, preferences, protocols, maternal needs, follow up
Nikkola *et al*., 2013 Finland, Nursing & Health Sciences, Child Death	Quantitative, Structured Questionnaire Descriptive, Mann-Whitney U Test (dichotomous), Kruskal-Wallis test (categorical), Kolmogorov–Smirnov test (to assess distribution) Mothers n=86 6 months post-loss, All Finnish hospitals	Social support scale developed for the study. 20 items on affect, affirmation and aid	To describe the mother's experience of the support they received in a bereavement follow-up intervention after the death of a child.	1)three support components: a support package, peer supporters' contact with mothers and health professionals' contact with mothers. 2)50% felt the health professionals respected and valued them before and after child death. 49% felt they received information for making decisions. 44% felt health professionals gave them enough time. 3)27% felt did not share memories of the child with them at all. 15% felt they did not receive guidance from the staff. 29% felt they did not receive any help from health professionals in filling forms. 4)50% reported they discussed child death with peers and 45% felt received encouragement. 35% did not perceive peer guidance and 67% felt did not receive any help. 5)The most important support person after leaving the hospital was the hospital chaplain (20%), followed by the public health nurse (19%) and the nurse/primary nurse (14%). 6)The mothers reported that a social worker (1%) and a genetics doctor (1%) provided the least amount of support. 7)Mothers reported to have received support, affect (affectionate) the most, affirmation (encouragement) a moderate amount and a little aid (instrumental) both from health care professionals and peer supporters after leaving the hospital. 8)Mothers perceived more affect from a peer than professionals.
Rosenbaum *et al*., 2015 USA, Neonatology, NND	Quantitative Questionnaire Telephonic interview, Descriptive, Chi-Sq & Pearson Correlation, ANOVA, Intention-to-treat (change in grief) Mothers Fathers Exp n=39 (Support DVD) Control n=34 (Stand support) Interviews - 3 months post NND visit in NICU	The Social Provision Scale 24items (Cutrona & Russell, 1987)	The effect of a neonatal-bereavement-support DVD (support intervention) on parental grief after their baby's death in a Neonatal Intensive Care Unit compared with standard bereavement care (controls).	*Three groups include: **Intervention group** a)support-DVD watcher (n=18), b)support-DVD non-watchers (n=21) c)**Control group**: standard bereavement support (n=34). 1)Neonatal bereavement support DVD viewers reported higher grief at 3-month interviews compared with DVD nonviewers and controls. Further showed a steeper decline in grief than other two groups 2)Parents who completed only 3 months interview reported lower levels of social support (M(SD)=98.0(13.9). 3)Higher grief at 3 months was negatively correlated with social support and spiritual-religious beliefs. 4)In the intention-to-treat analysis, grief changed significantly by time ($p<.001$), but neither the standard support group ($p=0.34$) nor the Intervention-Time interaction ($p=0.35$) was significant. 5)There were no significant differences among the 3 groups in severity of depressive symptoms and grief at 12 months.

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Sutan *et al.*, 2010 Malaysia, Community Health, Perinatal Loss	Retrospective Cross-sectional Interviews - questions on perceived support, EPDS Descriptive analysis Mothers n=62 I6 weeks to 12 months post-loss,		To examine the psychosocial impact and support among mothers with perinatal loss and its contributing factors.	1)Psychosocial impact was explored by asking parents to describe their feelings and experience of perinatal loss. 2)Support was explored by asking questions on perceived social support. 3)57% reported received support from their parents, 50% reported receiving support from friends and siblings. 4)most of the mothers reported having enough support furthermore, 50% requested additional help in the mode of encouragement, counselling and sessions. 5)Mothers expressed feeling sad and depressed and worried, however, still had the desire to carry another pregnancy. 6)Mothers who received support from friends were less stressed. There was a significant relationship between psychosocial impact after perinatal loss and support from friends (X^2=5.422, p=0.019, $p<0.05$).
Tan *et al*., 2012 USA, Nursing, Child Death	longitudinal, Qualitative, Descriptive 72 narrative Interviews Digitally recorded, transcribed and reviewed, Content Analysis Mothers Fathers n=7		To prospectively describe their bereavement experience of parents whose infants die in acute care settings with a complex chronic condition.	1)Themes on support - Having Expectations (in decision making, speaking with peer parents, information), Continuity of Care (lack of continuity), Memory Making (remembrance, memorabilia), Wide Network of Support (social support from strangers, formal support), and Altruism (sense of meaningful purpose, satisfaction, helping others in a similar situation, sharing personal items). 2)Parents developed expectations of their Childs illness trajectory from discussion with care providers and peer parents. 3)Authors reported that parents described the importance of continuity of care, their need for support and expertise of the caregiver who knew their child. 4)The study reported the importance of prospective tangible evidence of child life to be integrated as future memories. 5)The study reported that parents not only drew strength from close family, friends, and caregivers, but found support in social media such as online support groups, websites, and personal blogs. 6)Further reported that though strangers and peer supporters may not help to deal with medical questions pertaining to illness and cause of death, they were invaluable sources of presence, affirmation, and support for grieving parents. 7)The study also reported parents shared their story online and shared their Childs belongings provided comfort to them.
Antonio 2013 USA, Nursing, Pregnancy Loss	Quantitative Descriptive Correlational Online Survey, Correlational, Regression Women n=216 Any time in life	Resilience Scale (Wagnild & Young, 1993), General Self-efficacy scale (1997), Social Support Behaviour (1987)	To determine the relationship between resilience, protective factors, risk factors and outcomes among women who had an abortion.	1)Study on resilience, social support & self-efficacy in the context of elective miscarriage. 2)Resilience protective factors: Hope, Coping, Self-efficacy, Social Support, spiritual wellbeing as well as the effectiveness of obtaining resources. 3)Resilience significant strong direct correlation with self-efficacy (r=0.869, p<0.0005), social support (0.719, p<0.005) and other protective factors (hope (r=0.819), coping (r=0541), spiritual wellbeing (r=0.745, p<0.01) 4)Resilience was a predictor of depression & anxiety (t142)=-2.97, p<0.0005, 95%CI). 5)Positive outcome (satisfaction with life and wellbeing) positively correlated and negative outcome (depression & anxiety) was negatively correlated with resilience.

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Bayrakli & Kaner 2012 Turkey, Hearing Impairment Education, Child Disabilities	Quantitative Mothers Exp n=257, Control n=234	Resilience RS(researcher-developed), Parental Social support, Coping style	To investigate social support, coping strategies and resilience of mothers of children with intellectual disabilities and normally developed children	1)The quantity of social support had a positive effect on problem-focused coping strategies (β=0.32, t=3.64; p<0.05; β=0.32, t=3.64; p<0.05) and resilience (β=0.26, t=4.07,; p<0.05; β=0.19, t=2.52; p<0.005). 2)perceived quantity (size of the network), and quality (satisfaction from the social support) of social support influence the resilience.
Buchi *et al*., 2007 Switzerland, Psychiatry, NND	Quantitative, Questionnaire Face to face interviews, Mothers Fathers n=54 2 to 6 years after NND	PTGI German version, 21 items, 0-2 Likert scale, 0to42 range	To assess adaptation (post-traumatic growth) in parents 2–6 years after the death of a premature baby (24–26 weeks' gestation)	1)PTG dimensions: relating to others, new possibilities, personal st spiritual change, appreciation of life. 2)mean (SD) of PTG 22.7(7.5), observed range 9to41. 3)Mothers with higher grief scores had increased PTG (p =0.372, p<0.01), and who placed their deceased baby closer on PRISM plot had higher grief scores (p = - 0.621, p<0.001) and increased PTG (p = -0.357, p<0.001). Mothers PTG Total was independent of depression and anxiety (3)Death of infant triggers not only a painful long-term process of mourning but also of individual personal growth. Adaptation processes after the death differ depending on gender, with mothers experiencing more intense grief but also more growth than fathers.
Cacciatore *et al*., 2013 USA, Social Work, Stillbirth	Quantitative, Cross-sectional online Survey, Response rate 51.75% Mothers n=503 Mean time since loss 4.31 years	PTGI (Tedeschi & Calhoun, 1996), 21 items, 0-6 Likert scale, 0to126 range	To examine health/mental health status, family functioning, and resiliency among a sample of bereaved parents	1)PTG Subscales: Relating to others, new possibilities, personal strength, spiritual change, appreciation of life 2)The mean scores on the PTGI subscales are as follows: relating to others (M=22.06, SD = 6.6); new possibilities (M = 14.22, SD = 5.07); personal strength (M= 10.02, SD = 3.36); spiritual change (M= 5.74, SD = 2.64); and appreciation for life (M = 10.0, SD = 3.16). These scores suggest that, overall, respondents experienced positive changes after loss to a moderate degree. The highest mean score was on the appreciation of life subscale, suggesting that bereavement can bring about a positive shift in perspective for some. 3)54.5% reported their spousal relationship improved post-loss. 45.5% reported a negative effect on the spousal relationship. 4)Marital support: In first form support was seen as improved bonding between parents, communicating effectively and valuing each other. Social support: parents were seen seeking help from resources that were identified by them like a grief support group.5)A new sense of connection with other children and improved family bonding. 6)A minority of participants self-reported that their health had declined since the loss of their child (33.8%, n = 170), while most reported either level or improved health (60.0%, n = 302). 7)Authors reported the significant and frequently enduring negative impact of losing a child. What is striking is that this has occurred to this sample in the context of having access to resources that are ideally of help. however, the authors suggested that critical thinking regarding diagnosing mental health disorder as distress can be a common expression of a profoundly traumatic loss.

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Cacciatore *et al*., 2018 USA, Social Work, Stillbirth	Mixed, Cross-sectional, Online survey, Interview Descriptive, thematic analysis Parents n=191 Mothers 94.2% n=179, Fathers 5.8% n=12, subsample of previous study Not reported in this publication	PTGI (Tedeschi & Calhoun, 1996), 21 items, 0-6 Likert scale, 0to126 range	To assess self-reported growth factors with the Posttraumatic Growth Inventory (PTGI) scale and narrative reports describing the importance of volunteering after the baby's death.	1)Authors explored parents volunteering after stillbirth and PTG. 2)PTG scores showed a significant difference between means of all parents who volunteered after the death of their baby (m65.5) and who did not (m=59.7). 3)PTG and volunteering relationship did not show directionality in the study. 4)The study reported that volunteering fostered meaning construction and positively related to PTG. 5)Volunteering was categorised into two - i)other oriented volunteering - a)reciprocal giving b)rectify dearth c)ingroup empathy and ii)self-oriented volunteering - a)overt benefit seeking b)self-schemas & coping c)continuing bonds. 6)Authors appeared to be suggesting that the role of prosocial behaviour, self-identity and altruism in the aftermath of stillbirth can be viewed and discussed as an uninterrupted transition.
Essakow 2013 USA, Psychology, Child Death	Qualitative, Interviews Phenomenology, Thematic analysis Mothers Fathers n=8 8 to 18 years post child death		To understand individual parents' lived experiences of relationship resiliency in the child death experience.	1)All reported need for support, comfort and spousal connection. 2)study reported that it seemed as though the more securely attached the couples appeared to one another, the more they described their relationship as helping to reduce and contain the overwhelming feelings related to traumatic grief. 3)The essence of relationship resilience was the bereaved parent perceives marital relationship as: (a) safe, secure, and protected; (b) mutually understanding; and (c) able to reintegrate and reorganize in the relationship. 4)The ability to reintegrate and reorganize their relationships based on perceived need to move forward with their lives.
Greeff & Vansteenwegen 2011 Belgium, Psychology, Child Death	Quantitative Cross-sectional Correlational Home visit, Questionnaire Mothers Fathers n=89 3 to 6 years	McCubbin Social Support Index, 1996; McCubbin Relatives & Friend Support Index, 1996, McCubbin Family Hardiness Index, 1996	To identify resilience qualities associated with family adaptation after the death of a child.	1)Regarding family hardiness as a resilience quality, the study reported that viewing crisis as a challenge was strongest, followed by a commitment to the family and feel control over life events. 2)72% of the participants indicated a commitment to the family as an important recovery factor, and 10% indicated the importance of fostering hope and a positive attitude. Hence, suggested that internal strength and interdependence contributed to adaptation. 3)redefining crisis situation can be viewed as meaning construction. 4)The study identified internal and external factors that helped in adaptation in that hardiness as resilience quality, family togetherness as family support and social support were seen as contributing factors.

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Infurna & Luthar 2017 USA, Psychology, Child Death	Quantitative Retrospective Longitudinal 10 years study, Growth mixture modelling, three classes (resilient, Moderate recovery, chronic low) Mothers Fathers n=461 Data collected from national HILDA project, 5 years before and 5 years after child death	Extracted from HILDA: Life satisfaction General health Physical functioning Vulnerability and protective factors	To examine resilience as a multidimensional construct across outcomes among parents who had experienced child death.	1)Study author Luthar is known for her research on resilience in child development. This study is done on parents who experienced child death. 2)three classes model used for resilience and outcome - a)resilient - higher outcome, moderate drop & recovery, chronic low. 3)Few parents (5%) manifested resilience in all 5 outcomes. 4)The proportion of parents manifesting were 44%, 56%, 21%, 32%, and 16% for life satisfaction, negative affect, positive affect, general health, and physical functioning, respectively. 5)28% did not show a resilient trajectory across all outcomes. 6)Social connectedness, anticipating comfort when distressed, and everyday role functioning were the strongest predictors of resilient adaptation. 7)Findings underscore that resilience is not a unidimensional construct, therefore cannot be implied across all life outcome for all individuals.
Lee & Rowlands 2015 Australia, Psychology, Stillbirth	Mixed methods 1) Quantitative Pregnancy loss n=998 & who had not n=8083 2) Qualitative n=9 Integrative analysis Mothers Quan Exp 998 Control 8083, Qual n=9 Pregnancy loss any time in life		To discuss the integrated analysis of quantitative and qualitative studies using resilience framework who experienced pregnancy loss.	**Quantitative:** 1)These findings suggested that the observation of lower mental health amongst women who had experienced a miscarriage may result not from the pregnancy loss itself, but from the fact that certain groups of women were likely both to have poor mental health and to loss. 2)Women who had pregnancy loss showed a gradual increase and had a lower starting point for mental health than women who did not had. **Qualitative:** 3) Women who had pregnancy loss experience deep emotional struggles and went through the difficult process of coming to terms with their loss. 4)Women struggle with difficult emotions and search for meaning can be viewed as pathways to resilience rather than no psychological distress. **Integration of findings:**5)A conception of mental health as an ability to cope constructively with negative events and one's own emotional reactions to negative events. 6)The study reported that women sought support by connecting with peer and negotiating with family, health care professionals; that helped them to cope effectively and move on with their lives.
Roberts & Montgomery, 2016 USA, Nursing, Stillbirth	Quantitative, Interventional Pre & Post-test, Descriptive, Correlation, Linear modelling Mothers n=22 Not reported in this publication	Resilience Scale Wagnild & Young RS14, 1993, Social Provision Scale Cutrona & Russell, 1987	To measure resilience post mindfulness intervention among mothers who experienced stillbirth	1)The study measured resilience to explore the effectiveness of mindfulness-based intervention @6months & 12 months. 2)The mindfulness-based intervention included breathing techniques and stress reduction techniques that were taught in 5 weeks by trained nurses in group sessions. 3)The findings reported that mothers applied mindfulness substantially in their lives often to almost always and the mean resilience score (M=137.68, SD=13.92) represented an above-average resilience for adults, an indication of thriving. 4)Bivariate analysis (two-tailed) of resilience and mindfulness (r=0.79, p=0.001) indicated significantly and strong correlation validating that mindfulness practice has been noted as a means of cultivating resilience. 5)The study reported mindfulness intervention could be noted as means of cultivating resilience.

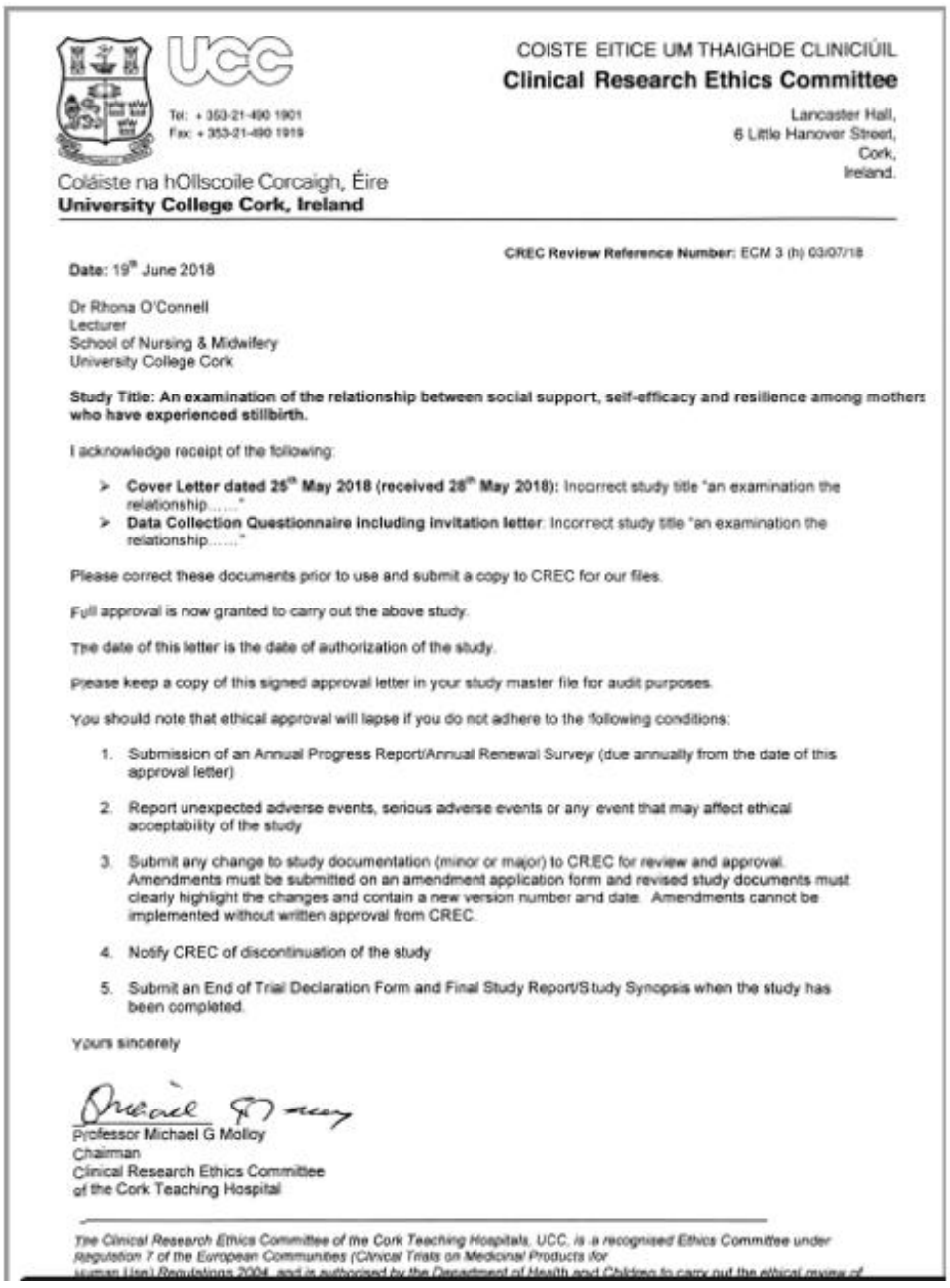
Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Rosenberg *et al*., 2014 USA, Paediatrics, Cancer	Quantitative, Survey Descriptive, Regression Mothers n=96	CD-RISC, MOS SSS, FACE II	To evaluate the relationships between parent-reported resilience resources and psychosocial outcomes such as psychological distress, social function, health-behaviours, and communication with the medical team among parents who experienced a neonatal death.	1)The study hypothesised that parents with lower resources could report poor outcomes. 2)Compared to population norms, enrolled parents had lower resilience resources, higher psychological distress, and more commonly reported binge drinking. 3)Conversely, they reported higher social support and family adaptability ($p<0.001$–0.006). 4)Lower resilience resources were associated with higher distress, lower social support, and lower family function ($p<0.001$–0.007). 5)Parents with "low resilience resources" reported less ability to express their hopes and worries with health care professionals (OR 3.08, 95% CI 1.12, 8.49; and OR 4.00, 95% CI 1.43, 11.18, respectively).
Diken 2008 Turkey, Child Disabilities	Quantitative Mothers n=19	Turkish version of the self-efficacy scale, Guimond *et al*., 2005	To explore mother's self-efficacy beliefs and their interactional behaviours with their children having a language delay.	1)The study explored maternal self-efficacy in child disability context in order to show self-efficacy as the most fundamental factor in mother's behaviours. 2)The study reported that mother's self-efficacy and their interactive behaviours were important dynamics in parenting child with disabilities. 3)The study reported that mothers reported significantly high levels of sense of self-efficacy in that mothers successfully dealt with the difficulties they met regarding the characteristics of their children. 4)The study reported that mothers were efficacious in parenting and seeking as well as utilizing support for their children.
Gilmore & Cuskelly, 2009 USA, Psychology, Child disabilities	Quantitative Descriptive, Stepwise regression Mothers n=162	Parenting sense of competence measuring self-efficacy, Gibaud-Wallston & Wandersman, 1978; PTG, Tedeschi & Calhoun, 1996	What is the aim of this study?	1)The study examined self-efficacy and posttraumatic growth. 2)The current study hypothesizes that maternal variables will be positively related to parenting self-efficacy and that parenting self- efficacy will explain a significant portion of the variance in maternal Posttraumatic growth. 3)The study reported that there was a positive relationship between maternal self-efficacy and posttraumatic growth ($r=0.203$, $p<0.021$). 4)The predictive strength of posttraumatic growth was determined by stepwise regression PTG predicted statistically significant ($F(2, 107) = 4.538$, $p=0.013$) and accounted for approximately 8% of the variance ($R^2=0.78$, adjusted $R^2=0.061$). 5).
Jankowska *et al*., 2015 Poland, Psychology, Child disabilities	Quantitative, Descriptive, Mothers Exp n=27, Control n=28	GSE, Schwarzer & Jerusalem, 1995	To examine the relationship between parenting attitudes and self-efficacy, personality traits, coping, stress in parents of children with cerebral palsy.	1)Hypothesizing development children with cerebral palsy depends on the parental care in that relationship between mother's self-efficacy, social support, coping may predict parenting attitudes. 2)the study results indicated that mothers of children with cerebral palsy were overprotective and demanding, however were more acceptance 3)Mothers with CP did not differ from mothers in the control group in terms of social support, self-efficacy and coping strategies. 4)However, mothers with CP used effective coping, perceived social support and remained self-efficacy high.

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Leahy-Warren *et al*., 2009 Ireland, Nursing, First Time Mothers	Quantitative, Descriptive Correlation Mothers n=410	Barnes *et al* Self-efficacy scale, 2007; researcher-developed SS scale	To examine the relationships between social support, maternal parental self-efficacy and postnatal depression in first-time mothers at 6 weeks post-delivery.	1)Maternal parental self-efficacy, the mean score on the PMP S-E tool (Barnes & Adamson-Macedo 2007) was 65.9 (SD 8.2) (range 32–80) and indicating a high level of maternal parental self-efficacy for respondents. 2)Study reported significant relationship between maternal parental self-efficacy & postnatal depression (x^2 =18.26, df=2, p<0.001). 3) The study reported a significant correlation between informal structural support and maternal parental self-efficacy at 6 weeks post-delivery (r=0,21, p<0.001).
Nikcevic *et al*., 1998 UK, Fetal medicine, mothers	Quantitative Mothers n=138 Mean time since loss 163 days = 5.8 months	GSE, Schwarzer & Jerusalem, 1995	To assess the relationship between personal coping resources (self-esteem, self-efficacy) and anxiety and depression on mothers after pregnancy loss.	1)Significant intercorrelations between self-efficacy and self-esteem (r=0.56), feelings of responsibility for pregnancy loss (r=-0.26), anxiety (r=-0.34) and depression (r=-0.38) all at p<0.01 two-tailed. 2)The study reported that the response of a woman to pregnancy loss is highly dependent upon her general appraisals of her self-esteem and self-efficacy. Women with high self-regard are less likely to be adversely affected by adversity.
Salomonsson *et al*., 2013 Sweden, Psychology, Childbirth	Quantitative Descriptive, Mann-Whitney Mothers n=1000	Childbirth self-efficacy, Lowe, 2000	To investigate the relationship between self-efficacy, i.e. outcome expectancy and efficacy expectancy, and fear of childbirth.	1)FOC correlated significantly and negatively with both outcome expectancy (r=-0.191, p<0.01) and efficacy expectancy (r=0.417, p<0.001). 2)Although in the logistic regression, outcome expectancy was not the main factor that explained fear. 3)This finding suggested mothers efficacy believes play an important role in maternal concentration and confidence.
Salonen *et al*., 2009 Finland, Nursing, Childbirth	Quantitative Mothers n=525	PSE Parenting Self-efficacy, Salonen, 2008	To investigate the parent, infant and environmental correlates of mothers' and fathers' perceptions of their PSE.	1)On average, mothers' and fathers' PSE scores were high. In one hospital, mothers' mean score for PSE was 5.0(SD 0.6, range 3.0–6.0) and for fathers 4.7(SD 0.6, range 2.1–6.0). 2)Mothers' mean scores for cognitive skills related to PSE were 5.1(SD 0.6), affective skills 4.6(0.8) and behavioural skills 5.2 (0.6). 3)In the second hospital, mothers were 4.9(SD 0.6, range 1.8–6.0) and fathers 4.6(SD 0.6, range 2.3–6.0). 4)Mothers' mean score for cognitive skills related to PSE was 5.0(SD 0.6), affective skills 4.6(0.8) and behavioural skills 5.1(0.6). 5)parents' age, education and marital status did not correlate closely with mothers' or fathers' PSE.
Shwartz *et al*., 2015 Australia, Nursing, Childbirth	Quantitative Mothers n=1410	Childbirth self-efficacy, Lowe, 2000	To identify socio-demographic, obstetric or psychological variables associated with women's childbirth self-efficacy, and potentially highlight areas to improve women's childbirth experiences.	1)outcome expectancy means among multipara women (M(SD)=113.1) were similar than nulliparous women (M(SD)=113.6). 2)Self-efficacy means among multipara (M(SD)=106.9) were higher than nulliparous women (M(SD)=98.8). 3)No relationship for age, education, or of having a history of miscarriage against the subscales of outcome expectancy or self-efficacy for women.

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Wonch-Hill, 2017 USA, Sociology, Stillbirth, Pregnancy Loss, Child Death	Quantitative Questionnaire Mothers n=3847	Self-Esteem	To assess whether (Stillbirth, Pregnancy Loss, child death) type of pregnancy loss has a differential impact on maternal self- esteem	Stillbirth and child death, but not miscarriage, negatively impacted self-esteem. For those who experienced a loss, the impact on self-esteem was moderated by maternal identity. Women who experienced a stillbirth were the only group who had significantly lower self-esteem after controlling for background characteristics and maternal identity variables.
Wright, 2010 USA, Nursing, Stillbirth	Grounded theory Interviews Mothers n=19	NA	To discover a substantive theory of maternal perinatal bereavement	maternal perinatal bereavement follows a 5-stage pattern that involves experiencing the pregnancy, losing the baby, bearing the burden, working through the pain, and transcending the suffering. Each of these stages involves several subprocesses that were derived from the data. The core category, which explains most of the action in theory, was named —pushing on‖ and describes how the women managed to move beyond the overwhelming pain of the loss and eventually experience transcendence.
Narayanan & Weng-Onn, 2016 Malaysia, Psychology, University Students	Quantitative Questionnaire Students n=377	RS (Wagnild &Young), MSPSS (Zimet), GSA (Schwarzer & Jerusalem	To determine whether perceived social support and self-efficacy were significant predictors of resilience among students when the effects of other variables such as stress, age, gender, and cumulative grade point average (CGPA) were controlled for.	Multiple regression was used to analyse the data. The results indicated that both perceived social support and self-efficacy were significant predictors of resilience as higher scores on perceived social support and on self- efficacy scales predicted higher resilience. The interaction effect between these variables was also positive and significant. Further analysis using ordered probit model revealed that when a student scored higher on levels of perceived social support as well as on self-efficacy, it lowered the probability of the student being in the low resilience category and increased the probability of being in the moderately resilient and highly resilient categories. The interaction effect remained significant across all categories of resilience.

Authors & Year, Country, Discipline, Context	Method/ Design/Analysis, Sample / Sample Size, Period After Loss	Instruments	Study Purpose	Findings
Weiss *et al*., 2013 Canada, Psychology, Child Disabilities	Quantitative Questionnaire Mothers n=138	Hardiness (Gardner *et al*), Self=efficacy (Koren *et al*), Social support (Dunst *et al*)	To examine how stressors are related to hardiness, by examining its relationship with perceived social support and self-efficacy in mothers of individuals with Autism Spectrum Disorders. This is a very important question because without understanding what contributes to family hardiness, we cannot help increasing resilience to the chronic stressors that parents of people with ASD experience	Family hardiness was negatively related to family distress, and positively related to perceived social support and self-efficacy. both self-efficacy and social support remained independent significant mediators of the stressor and family hardiness relationship ($z = -2.05$, $p = .04$; $z = -1.96$, $p = .05$, respectively), accounting for 22.7% and 16.7% of the stressors' effects on hardiness. We exploredhardiness in two ways. First, we found that it was a significant mediator of the relationship between the build-up of stressors (the experience of negative life events and aggressive child behaviour) and family distress. Second, we found that informal social support and perceived self-efficacy were significant mediators explaining the path from the build-up of stressors to hardiness. Past research has linked these three variables (self-efficacy, social support and hardiness) to parental adjustment. This study goes beyond a discussion of associations and offers some theoretical explanations for linking chronic stressors to family distress, by showing that self-efficacy and social support can explain changes in hardiness, which in turn can explain caregiver's perception of family distress. These findings support process models of family coping, which propose that stressors can have destabilizing influences on parents' internal and external resources, which can then lead to variations in the meaning applied to the situation and ultimately to experiences of distress (McCubbin & Patterson, 1983; Patterson, 1988).
Yendork & Somhlaba, 2017 Ghana	Quantitative Questionnaire Children n=200 NA	RS (Wagnild &Young), MSPSS (Zimet), GSA (Schwarzer & Jerusalem	Explores the influence of perceived social support, self-efficacy and resilience on the stress experience (as measured by the symptoms of depression and anxiety) of 200 children (orphaned and non-orphaned) in Accra, Ghana.	Regression analyses also revealed that self-efficacy emerged as a significant positive predictor of resilience for the orphaned children, whereas self-efficacy and perceived social support emerged as significant positive predictors of resilience for the non-orphans. Implications of other findings are discussed. Significant positive correlations were also found between self-efficacy and resilience in both groups: orphans ($r = 0.66$, $p < 0.001$) and non-orphans ($r = 0.59$, $p < 0.001$), thus suggesting that the higher participants' self- efficacy, the higher their own level of resilience. 3)significant positive correlation was found between perceived social support and self- efficacy ($r = 0.51$, $p < 0.001$), 4)34 orphans (34%) and 42 non-orphans (42%) scored in the low range, 40 orphans (40%) and 39 non-orphans (39%) were moderately resilient, and 26 orphans (26%) and 19 non-orphans (19%) were highly resilient. In all, 66 orphans (66%) and 58 non-orphans (58%) were moderate to highly resilient

Appendix 5: CREC Approval



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Fax: + 353-21-490 1919

Coláiste na hOllscoile Corcaigh, Éire
University College Cork, Ireland

COISTE EITICE UM THAIGHDE CLINICIÚIL
Clinical Research Ethics Committee

Lancaster Hall,
6 Little Hanover Street,
Cork,
Ireland.

CREC Review Reference Number: ECM 3 (h) 03/07/18

Date: 19th June 2018

Dr Rhona O'Connell
Lecturer
School of Nursing & Midwifery
University College Cork

Study Title: An examination of the relationship between social support, self-efficacy and resilience among mothers who have experienced stillbirth.

I acknowledge receipt of the following:

- **Cover Letter dated 25th May 2018 (received 28th May 2018):** Incorrect study title "an examination the relationship……"
- **Data Collection Questionnaire including invitation letter**: Incorrect study title "an examination the relationship……"

Please correct these documents prior to use and submit a copy to CREC for our files.

Full approval is now granted to carry out the above study.

The date of this letter is the date of authorization of the study.

Please keep a copy of this signed approval letter in your study master file for audit purposes.

You should note that ethical approval will lapse if you do not adhere to the following conditions:

1. Submission of an Annual Progress Report/Annual Renewal Survey (due annually from the date of this approval letter)
2. Report unexpected adverse events, serious adverse events or any event that may affect ethical acceptability of the study
3. Submit any change to study documentation (minor or major) to CREC for review and approval. Amendments must be submitted on an amendment application form and revised study documents must clearly highlight the changes and contain a new version number and date. Amendments cannot be implemented without written approval from CREC.
4. Notify CREC of discontinuation of the study
5. Submit an End of Trial Declaration Form and Final Study Report/Study Synopsis when the study has been completed.

Yours sincerely

Professor Michael G Molloy
Chairman
Clinical Research Ethics Committee
of the Cork Teaching Hospital

The Clinical Research Ethics Committee of the Cork Teaching Hospitals, UCC, is a recognised Ethics Committee under Regulation 7 of the European Communities (Clinical Trials on Medicinal Products for Human Use) Regulations 2004, and is authorised by the Department of Health and Children to carry out the ethical review of

Appendix 6: Study Insurance

From: **Dowling, Maurice** <maurice.dowling@ucc.ie>
Date: Mon, Apr 9, 2018 at 7:36 AM
Subject: RE: The Study Insurance
To: Nilima Pandit <nilima.pandit@gmail.com>, "O'Driscoll, Kathryn" <kathryn.odriscoll@ucc.ie>
Cc: "Costelloe, Marie" <m.costelloe@ucc.ie>

Thank you, Nilma.

Kathryn/Marie,

This is an observational study UCC category 4A(i).

Kind regards,

Muiris.

Dr. Muiris Dowling MCN 012445

Clinical Research Reporting Officer

Office of the Vice President for Research and Innovation

Floor 4

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University College Cork

Tel. 021 4901902

Mob. 087 6245669

Appendix 7: Recruitment Letters

From: **Feileacain Teoranta** <feileacainwcbs@gmail.com>
Date: Fri, Dec 1, 2017 at 11:22 AM
Subject: Recruitment of Mothers for Research Study
To: nilima.pandit@gmail.com

Dear Nilima,

Thank you for getting in touch with us. Feileacain is veryhappy to facilitate the recruitment of participants for your study.

Will you clarify the definitiion you are using for stillbirth? Is it the Irish measurement or a measurement used abroad (for instance Sweden). Also are you including early neo-natal death at all in your study? And finally - are you restricting your study to mothers in Ireland?

Thanks Nilima and every good wish for the future study.

Kindest Regards,

Mairie Cregan,
Chairperson,
Feileacain

From: shauna@starlegacyfoundation.org
Date: 27 May 2019 at 17:04:25 IST
To: Nilima Pandit <nilima.pandit@gmail.com>
Cc: Shauna <shauna@starlegacyfoundation.org>
Subject: RE: Research Study

You are welcome. I have asked our communications team to begin including your information in our newsletters, social media, etc. Please just let us know when you stop enrollment so we can also pull the information.

We will be anxious to hear the results of your study at some point! Perhaps you might consider presenting them at the next Stillbirth Summit in June of 2021?

Best wishes and thank you for all that you do on behalf of moms and their babies and especially those who must suffer these terrible tragedies.

Warmest regards,

Shauna Libsack, Operations Director
Star Legacy Foundation
7820 Terrey Pine Court, #80
Eden Prairie, MN 55347
shauna@starlegacyfoundation.org
O: 952-715-7731

Appendix 8: Data Collection Package



An examination of the relationship between social support, self-efficacy and resilience among mothers who have experienced stillbirth

To Mothers who have experienced stillbirth

If you have experienced a stillbirth in the last two years and are over 18 years, I would be very grateful if you could complete this online questionnaire.

I am Nilima Pandit, a midwife and a doctoral student at the School of Nursing and Midwifery, University College Cork in the Republic of Ireland. I am undertaking a study on mother's social support, self-efficacy and resilience following the birth of their stillborn baby.

A stillbirth is a life-changing event. Every woman is different, and their experiences of stillbirth will differ. Previous research has focused on the causes of stillbirth, medical investigations and also, very importantly, on women and their partners' experiences of stillbirth and the care and support families require.

This study is different, the purpose of this questionnaire is to explore woman's belief about their ability to manage the experience of stillbirth (self-efficacy), their perception of social support (social support) and their strength and ability to bounce back (resilience) that help them to deal with stillbirth.

I hope that you received good care when you gave birth to your stillborn baby. As you will see, my study is not about the birth of your stillborn baby or about the experience of the care you may have received. If you wish to add any comment or share any information, there is space at the end of this questionnaire.

The study questionnaire will take approximately 20 minutes to complete. Your participation in the survey is voluntary. Selecting 'yes' on the information page and completion of the survey will indicate that you have consented to participate in this study. I have taken care of your privacy, and the questionnaire does not require you to provide any personal information. Also, your responses cannot be linked to you in any

way.

I do not expect that completing the questionnaire will cause you any distress. However, there is support available to you if required. If you are living in Ireland, I can put you in contact with a midwife who has expertise in supporting women through the experience of pregnancy loss. If you are completing this survey from a country other than Ireland, a list of support organisations is added at the end.

There are no direct benefits for you by completing the questionnaire, but I hope the results from this study will help midwives and doctors get a better understanding of the relationship between social support, self-efficacy and resilience in women, which will assist them in providing care to families who experience stillbirth.

If you wish to know more about the survey, please contact Nilima Pandit by email 111110872@umail.ucc.ie

* **If you have read the information, meet the criteria and are willing to participate in the study, please indicate your consent by responding below.**

- YES
- NO

This survey has 4 sections with questions on: -

1) General information:
This section has the questions about yourself and when you had stillborn baby.

2) Social support:
There are two sections about social support, the first section is about sources and categories of support and the other section is about social support your received.

3) Self-efficacy:
This section is about your belief in your ability to deal with challenging times.

4) Resilience
This section is about your ability to bounce back during difficult times.

- All questions are in one sentence.
- Please, indicate your response by clicking the most suitable choice next to each question.
- The progress bar will show your current progress of the survey.
- Please click 'next' button to proceed to next page.

Thank you



An examination of the relationship between social support, self-efficacy and resilience among mothers who have experienced stillbirth

SECTION ONE General Information:

This section has questions about your general information and when you had stillborn baby.

* What is your age?

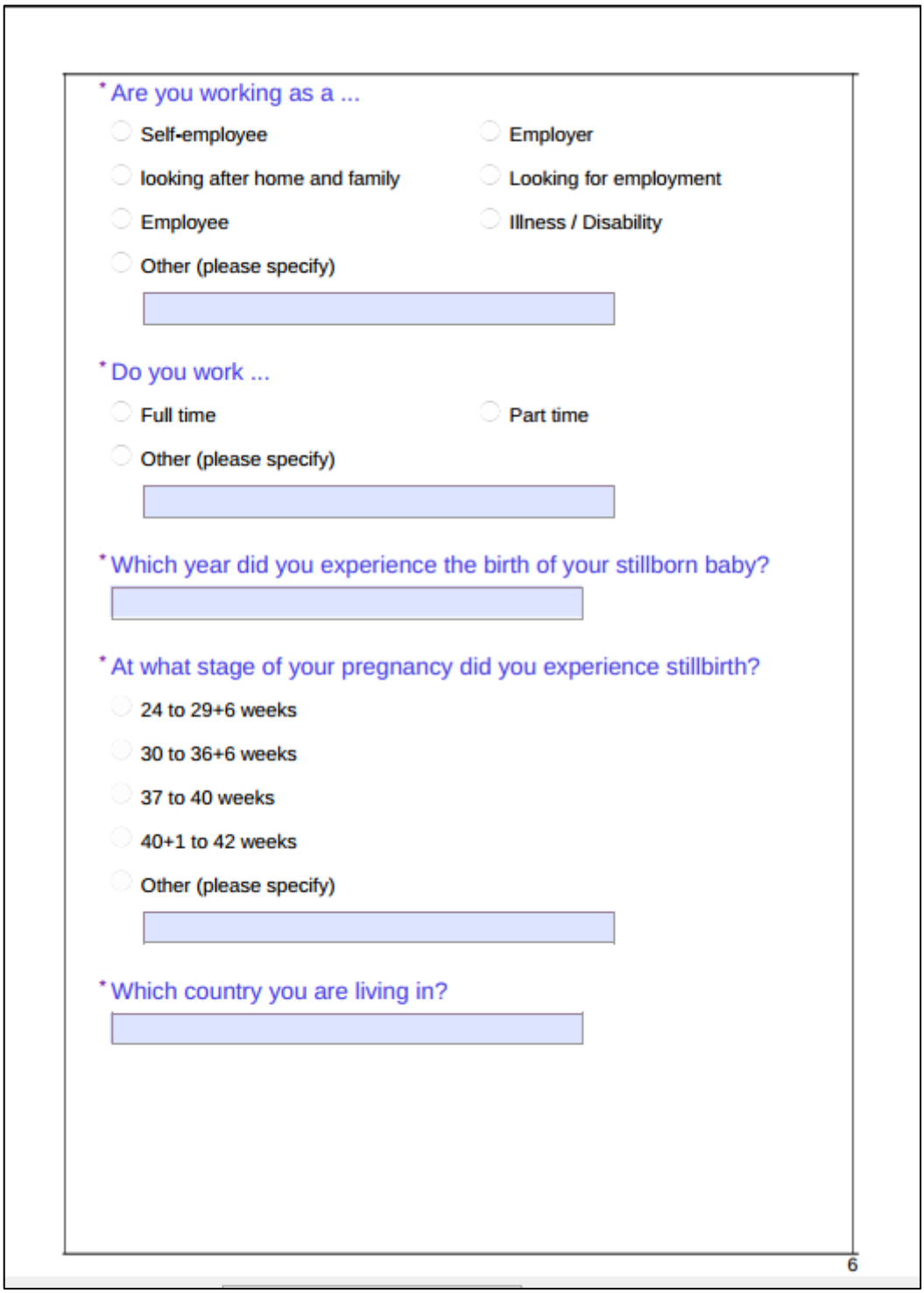
- <20 years
- 20 to 29 years
- 30 to 39 years
- 40 years and above

* Are you living with ...

- Husband
- Parents
- Partner
- Alone
- Other (please specify)

* What is the highest level of education that you have completed?

- Primary
- Degree
- Secondary
- Masters
- Certificate / Diploma
- PhD.
- Other (please specify)



* Are you working as a ...

- Self-employee
- Employer
- looking after home and family
- Looking for employment
- Employee
- Illness / Disability
- Other (please specify)

* Do you work ...

- Full time
- Part time
- Other (please specify)

* Which year did you experience the birth of your stillborn baby?

* At what stage of your pregnancy did you experience stillbirth?

- 24 to 29+6 weeks
- 30 to 36+6 weeks
- 37 to 40 weeks
- 40+1 to 42 weeks
- Other (please specify)

* Which country you are living in?

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SECTION TWO - Social Support

There are two sub-sections to this, the first section is about sources and categories of support and the second section is about social support your received

A: Social support can come from a variety of sources and can be of different categories. Tick as many sources as it apply to you who provided different categories of support. Additionally, you can add comments at the end of the section.

	Providing information	Emotional Support	Helping with Care of Baby	Counselling	Financial Support
Spouse / Partner / Husband	☐	☐	☐	☐	☐
Family member / Relatives	☐	☐	☐	☐	☐
Friends	☐	☐	☐	☐	☐
Co-workers	☐	☐	☐	☐	☐
Midwife	☐	☐	☐	☐	☐
Specialist Midwife	☐	☐	☐	☐	☐
Health Care Assistant	☐	☐	☐	☐	☐
Obstetrician	☐	☐	☐	☐	☐
GP	☐	☐	☐	☐	☐
Social Worker	☐	☐	☐	☐	☐
Support Group	☐	☐	☐	☐	☐
Neighbours	☐	☐	☐	☐	☐
On-line support	☐	☐	☐	☐	☐
Social media	☐	☐	☐	☐	☐

Comments



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SECTION TWO - Social Support... continues

B: This section is about social support you received during and after stillbirth.

* **Did you meet .....**

	1 = None of the time	2 = A little of the time	3 = Some of the time	4 = Most of time	5 = All of the time
1) Someone you can count on to listen to you when you need to talk	○	○	○	○	○
2) Someone to give you information to help you understand a situation	○	○	○	○	○
3) Someone to give you good advice about a crisis	○	○	○	○	○
4) Someone to confide in or talk to about yourself or your problems	○	○	○	○	○

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	1 = None of the time	2 = A little of the time	3 = Some of the time	4 = Most of time	5 = All of the time
5) Someone whose advise you really want	○	○	○	○	○
6) Someone to share your most private worries and fears with	○	○	○	○	○
7) Someone to turn to for suggestions about how to deal with a personal problem	○	○	○	○	○
8) Someone who understands your problems	○	○	○	○	○
9) Someone to help you when you are confined to bed	○	○	○	○	○
10) Someone to take you to the doctor if you needed it	○	○	○	○	○
11) Someone to prepare your meals if you are unable to do it yourself	○	○	○	○	○

	1 = None of the time	2 = A little of the time	3 = Some of the time	4 = Most of time	5 = All of the time
12) Someone to help you with your daily chores if you were sick					
13) Someone who shows you love and affection					
14) Someone to love and make you feel wanted					
15) Someone who hugs you					
16) Someone to have a good time with					
17) Someone to get together with for relaxation					
18) Someone to do something enjoyable with					
19) Someone to do things with to help you get your mind off things					



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SECTION THREE Self-Efficacy

This section asks about your belief in your ability to deal with challenging times.

* **How true would you rate the following statements?**

	1 = Not at all true	2 = Hardly true	3 = Moderately true	4 = Exactly true
1) I can always manage to solve difficult problems if I try hard enough	○	○	○	○
2) If someone opposes me, I can find the means and ways to get what I want	○	○	○	○
3) It is easy for me to stick to my aims and accomplish my goals	○	○	○	○
4) I am confident that I could deal efficiently with unexpected events.	○	○	○	○

	1 = Not at all true	2 = Hardly true	3 = Moderately true	4 = Exactly true
5) Thanks to my resourcefulness, I know how to handle this unforeseen situations	○	○	○	○
6) I can solve most problems if I invest the necessary effort	○	○	○	○
7) I can remain calm when facing difficulties because I can rely on my coping abilities	○	○	○	○
8) When I am confronted with a problem, I can usually find several solutions	○	○	○	○
9) If I am in trouble, I can usually think of a solution	○	○	○	○
10) I can usually handle whatever comes my way	○	○	○	○



An examination of the relationship between social support, self-efficacy and resilience among mothers who have experienced stillbirth

SECTION FOUR Resilience

This section asks about your ability to bounce back or is also referred to as your resilience during difficult times.

*** How would you agree or disagree with following statements?**

	0 =Strongly Disagree	1 = Disagree	2 = Sometimes Agree	3 = Often Agree	4 = Strongly Agree
1) When I make plans, I follow through with them.	○	○	○	○	○
2) I usually manage one way or another.	○	○	○	○	○
3) I am able to depend on myself more than anyone else.	○	○	○	○	○
4) Keeping interested in things is important to me.	○	○	○	○	○
5) I can be on my own if I have to.	○	○	○	○	○

	0 =Strongly Disagree	1 = Disagree	2 = Sometimes Agree	3 = Often Agree	4 = Strongly Agree
6) I feel proud that I have accomplished things in life.	○	○	○	○	○
7) I usually take things in stride.	○	○	○	○	○
8) I am friends with myself.	○	○	○	○	○
9) I feel that I can handle many things at a time.	○	○	○	○	○
10) I am determined.	○	○	○	○	○
11) I seldom wonder what the point of it all is.	○	○	○	○	○
12) I take things one day at a time.	○	○	○	○	○
13) I can get through difficult times because I've experienced difficulty before.	○	○	○	○	○
14) I have self-discipline.	○	○	○	○	○
15) I keep interested in things.	○	○	○	○	○

	0 =Strongly Disagree	1 = Disagree	2 = Sometimes Agree	3 = Often Agree	4 = Strongly Agree
16) I can usually find something to laugh about.					
17) My belief in myself gets me through hard times.					
18) In an emergency, I'm someone people can generally rely on.					
19) I can usually look at a situation in a number of ways.					
20) Sometimes I make myself do things whether I want to or not.					
21) My life has meaning.					
22) I do not dwell on things that I can't do anything about.					
23) When I'm in a difficult situation, I can usually find my way out of it.					

	0 =Strongly Disagree	1 = Disagree	2 = Sometimes Agree	3 = Often Agree	4 = Strongly Agree
24) I have enough energy to do what I have to do.					
25) It's okay if there are people who don't like me.					



An examination of the relationship between social support, self-efficacy and resilience among mothers who have experienced stillbirth

Thank you

I sincerely thank you for taking part in this study. Once the study is complete I plan on publishing my results so that they will be available to midwives and others who support women who experience the birth of a stillborn baby.

Please contact Nilima Pandit if you have any queries related to the study by email 111110872@umail.ucc.ie. If you are in Ireland and if you wish to speak with the bereavement support specialist midwife, please contact me via email to arrange it.

Support Organisation details - If required

Listing of these organisations does not mean endorsement.

Ireland

http://www.feileacain.ie

http://babylossawareness.ie/index.html

http://www.anamcara.ie/

http://www.nurturecharity.org/get-info/pregnancy-loss/stillbirth/

http://www.aimsireland.ie

http://alittlelifetime.ie/

http://stillaware.org/stillbirth-support/

UK

http://www.uk-sands.org/

http://www.westlondonsands.org.uk/

http://www.sogoandrunfree.com/

https://www.tommys.org

USA

http://www.marchofdimes.com/

Australia

http://www.sands.org.au/

Spain

http://www.umamanita.es/

If you wish you can add comments or share information about any aspects of your care or experience.

Appendix 9: Permission to use Resilience Scales

INTELLECTUAL PROPERTY LICENSE AGREEMENT
Students & Residents of Developing Countries

This Intellectual Property License Agreement ("Agreement") is made and effective this 28 August 2017 ("Effective Date") by and between The Resilience Center, PLLP ("Licensor") and Nilima Pandit ("Licensee").

Licensor has developed and licenses to users its Intellectual Property, marketed under the names "the Resilience Scale," "RS", "14-item Resilience Scale" and "RS14," and (the "Intellectual Property").

Licensee desires to use the Intellectual Property.

NOW, THEREFORE, in consideration of the mutual promises set forth herein, Licensor and Licensee agree as follows:

1. License.
   Licensor hereby grants to Licensee a 1-year, non-exclusive, limited license to use the Intellectual Property as set forth in this Agreement.
2. Restrictions.
   Licensee shall not modify, license or sublicense the Intellectual Property, or transfer or convey the Intellectual Property or any right in the Intellectual Property to anyone else without the prior written consent of Licensor. Licensee may make sufficient copies of the Intellectual Property and the related Scoring Sheets to measure the individual resilience of up to 300 subjects, for non-commercial purposes only.
3. Fee.
   In consideration for the grant of the license and the use of the Intellectual Property, subject to the Restrictions above, Licensee agrees to pay Licensor the sum of US$75.
4. Term.
   This license is valid for twelve months, starting at midnight on the Effective Date.
5. Termination.
   This license will terminate at midnight on the date twelve months after the Effective Date.
6. Warranty of Title.
   Licensor hereby represents and warrants to Licensee that Licensor is the owner of the Intellectual Property or otherwise has the right to grant to Licensee the rights set forth in this Agreement. In the event any breach or threatened breach of the foregoing representation and warranty, Licensee's sole remedy shall be to require Licensor to do one of the following: i) procure, at Licensor's expense, the right to use the Intellectual Property, ii) replace the Intellectual Property or any part thereof that is in breach and replace it with Intellectual Property of comparable functionality that does not cause any breach, or iii) refund to Licensee the full amount of the license fee upon the return of the Intellectual Property and all copies thereof to Licensor.
7. Warranty of Functionality.
   Licensor provides to Licensee the Intellectual Property "as is" with no direct or implied warranty.
8. Payment.
   Any payment shall be made in full prior to shipment. Any other amount owed by Licensee to Licensor pursuant to this Agreement shall be paid within thirty (30) days following invoice from Licensor. In the event any overdue amount owed by Licensee is not paid following ten (10) days written notice from Licensor, then in addition to any other amount due, Licensor may impose and Licensee shall pay a late payment charge at the rate of one percent (1%) per month on any overdue amount.
9. Taxes.
   In addition to all other amounts due hereunder, Licensee shall also pay to Licensor, or reimburse Licensor as appropriate, all amounts due for tax on the Intellectual Property that are measured directly by payments made by Licensee to Licensor. In no event shall Licensee be obligated to pay any tax paid on the income of Licensor or paid for Licensor's privilege of doing business.
10. Warranty Disclaimer.
    LICENSOR'S WARRANTIES SET FORTH IN THIS AGREEMENT ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

11. Limitation of Liability.
    Licensor shall not be responsible for, and shall not pay, any amount of incidental, consequential or other indirect damages, whether based on lost revenue or otherwise, regardless of whether Licensor was advised of the possibility of such losses in advance. In no event shall Licensor's liability hereunder exceed the amount of license fees paid by Licensee, regardless of whether Licensee's claim is based on contract, tort, strict liability, product liability, or otherwise.
12. Support.
    Licensor agrees to provide limited, e-mail-only support for issues and questions raised by the Licensee that are not answered in the current version of the *Resilience Scale User's Guide*, available on www.resiliencescale.com, limited to the Term of this Agreement. Licensor will determine which issues and questions are or are not answered in the current *User's Guide*.
13. Notice.
    Any notice required by this Agreement or given in connection with it, shall be in writing and shall be given to the appropriate party by personal delivery or by certified mail, postage prepaid, or recognized overnight delivery services.
    If to Licensor:
    The Resilience Center
    PO Box 313
    Worden, MT 59088-0313
    If to Licensee:
    Name: Nilima Pandit
    5 Dunmore The Headlands
    Sarsfield Road, Wilton
    Cork 00
    Ireland
14. Governing Law.
    This Agreement shall be construed and enforced in accordance with the laws of the United States and the state of Montana. Licensee expressly consents to the exclusive forum, jurisdiction, and venue of the Courts of the State of Montana and the United States District Court for the District of Montana in any and all actions, disputes, or controversies relating to this Agreement.
15. No Assignment.
    Neither this Agreement nor any interest in this Agreement may be assigned by Licensee without the prior express written approval of Licensor.
16. Final Agreement.
    This Agreement terminates and supersedes all prior understandings or agreements on the subject matter hereof. This Agreement may be modified only by a further writing that is duly executed by both Parties.
17. Severability.
    If any term of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, then this Agreement, including all of the remaining terms, will remain in full force and effect as if such invalid or unenforceable term had never been included.
18. Headings.
    Headings used in this Agreement are provided for convenience only and shall not be used to construe meaning or intent.

IN WITNESS WHEREOF, the Parties hereto have duly caused this Agreement to be executed in its name on its behalf, all as of the day and year first above written.

Licensee	The Resilience Center
Signature:	
Printed Name: Nilima Pandit	Gail M. Wagnild, PhD
Title: Student	Owner and CEO
Date: 28 August 2017	28 August 2017

Appendix 10: Counselling Support Letter

From: "Orla O'Connell [Bereavement and Loss Midwife, CUMH]" <Orla.OConnell@hse.ie>
Date: 13 November 2017 at 18:02:05 GMT
To: 'Nilima Pandit' <nilima.pandit@gmail.com>
Subject: RE: Counselling support to participant mothers if required

Dear Nilima,

I am happy to offer my support with your interesting study.

I am available for counselling and or bereavement support if required by your study participants.

They may have unresolved grief or unanswered questions from the time of their stillbirth and I will be glad to engage with them to address these issues.

Please advise me if I can help to support you in any other way.

Kind regards

Orla O'Connell
Clinical Midwife Specialist in Bereavement and Loss
CUMH

Appendix 11: Mothers Comments in Open Ended Question

Code	Comments
A	This survey was very confusing, and I was not entirely sure what it was asking most of the time…needs to be worded better.
B	Hey, Nilima, just one point - while I understand you ask for people who have experienced a stillbirth in the last 2 years as it is current and fresh in people's minds, I feel this completely restrictive. I can assure you that your experiences and interactions with your partner, friends, colleagues and hospital staff remain fresh in your head forever. I lost my baby at 38 weeks and I still living in that moment for 2 years after the loss. Often when you look back in retrospect your analysis of support and relationships is clearer and more accurate. That's just my obs. My email address is katie.hotmail.com. If you ever need any questions or surveys done. I attended the CUMH. Best of luck with your research. Kind regards, [redacted]
C	Thank you. I lost my first son Parker 8 months ago at 40 weeks. There is a lot that needs to be done to support women after this happens. I'm from Australia and there isn't much at all. Not even from the midwives.
D	The part where I ticked mostly 4 to 5 with support was only due to the fact my husband was so helpful
E	I have now experienced three losses. The only support I have is from my partner, families and friends but sometimes they don't understand my situation so it's very hard to lean on them for support. I had counselling with my first loss and after that I wasn't given anymore, I am now on the waiting list and has been for the last 2 months to speak to someone. Most of the time I feel alone because I haven't met anyone in my situation, and I can't see a way out and have a believer in hope.
F	I'm not as confident as I was since before my child died, I don't laugh so much as before, and I worry a lot more. My answers to the last part of the survey would have been very different a few years ago.
G	I hope I answered the first page correctly - I got a bit confused! I had a very supportive team looking after my daughter and me - but as time went on, other people forgot about her. That's hard. J C
H	I find it very sad that ppl don't congratulate you on the birth of your beautiful baby. Some staff did but not family. I understand it's awkward for them as a baby has passed but I think it's so important that ppl still bring pink or blue balloons. More awareness is needed I suppose. The taboo of stillbirth is a little less I feel but unless they walk in your shoes, they will never understand but we'll carry on regardless!!:) Best of luck with survey xx
I	The support I got from SIMBA was superb. Wonderful organisation.
J	Last year Galway University hospital was great. I lost my baby because I was in a van accident. I still can't register my baby till at least Nov19…I was 29wks and 1 day. Staff in Galway were amazing. Nothing was ever so much. The nurse [redacted] was just so nice to us.
K	After care in hospital was great but once you leave the hospital, it felt like there was no real follow up, I didn't have a 6-week check-up even though I delivered my baby. My doctor once lost my baby charged me for every appointment afterwards. Just thought it was a very cruel way of viewing my aftercare just because I didn't have my baby it didn't mean I didn't require aftercare. Think this is an area that could be reviewed.
L	I didn't receive the care I should have. I did compile an email to [redacted] (Lifeline)

Code	Comments
M	I had a midwife, and a doula began my labour at home, with a planned homebirth. We live 5 minutes from the hospital, so I felt confident if anything went wrong, we could handle it. We didn't imagine that his heart would just stop. I was 9cm dilated and one minute his heartbeat was loud and strong and then next it was gone. My midwife presented my case to other midwives and one of them suggested it could have been an occult cord prolapse, but we'll never know. The doctor who performed my e-section was the same doctor who confirmed my pregnancy. I asked her how much time I had to get to the hospital – could she have saved him if I was in the hospital instead of at home? She said yes, they probably would have caught it. And then she walked away. I lost it. Then they had two male doctors come in to talk about going on Zoloft right away and I was like, what the ####, my dead son is still in this room next to me why are these two men here talking to me about what I'm going to feel like as I move forward without my son? I have a large family and a number of women shared their stillbirth and miscarriage stories, but I couldn't give a #### about what they said because they all had children. I joined support groups, but I couldn't take the idea of calling them angel babies or trusting in God to have my back. What sort of God would do this to me take my son at the very last second? I have been trying for two years to get pregnant after the loss with no luck. I'm so worried that Bernard was a fluke, that I am never meant to have a child. I listened to a woman talks about how her 18-year-old son was killed by a drunk driver, and how she would do anything to have him back, and that her surviving children have lost their parents because the loss of a child is so massive that obviously the parents will never be the same. But all I could think was, at least you got 18 years. You know what it is like to hold him after birth, hearing him scream, possibly breastfeeding him. You know what his eyes look like. You have pictures and memories and proof that he was alive. I would give my own life to know that my son could have at least 18 years. The idea of support after a stillbirth is somewhat comical at times, because what kind of progress can ever be made until other humans truly understand that this is the single greatest loss a woman can endure? That we would give anything and sacrifice anyone else to have our children safe and sound? It's a lonely world to live in, even if you have all the support in the world from friends and family, and even if you have access to healthcare (here in the US, that's not even guaranteed and I had to have a lengthy battle with my health insurance to get Bernard off of my plan – they kept calling me to remind me to get him his vaccines and check-ups and it was like I was right back to the day of July 29, 2017). I wish you luck in your work and I'm grateful that you are out there doing this. If you ever needed to follow up or if there is a woman you know who needs to speak to someone with a similar story, my email is [redacted].com in solidarity.
N	Perhaps find a way to separate your usual personality from the experience of Stillbirth. For example, I would normally never dwell on a situation that I can't change but that completely went out the window when my baby died.
O	Stillbirth is a life changing event. We're all very different people with very different experiences and from different social classes and backgrounds- we draw on the resources we have from our upbringing and our approach to life- stillbirth does not discriminate between social classes and one person who may seem less educated or from a more disadvantaged area may have resilience in spades whereas another may be the highest educated and functioning human being on the planet only to crumble. That's what I've learned in speaking with other mothers- we have a common bond, and it's called heartache. How we deal with it and what experience we've been through can be quite different. Suicide, depression and day to day upset are all things a person in our situation will face at some point- be it a fellow mother feeling these things or ourselves. I guess I'm not sure what you need to tap into for your PhD but from my point of view I think it's really important for people studying it to understand that it's like earth shattering seismic event that re-defines everything in terms of how you deal with the world and pulls on every resource you have in your being- for your questions therefore I would focus on the before and after maybe to get your clear picture- i.e. before the stillbirth are the same people you would have relied on the ones your turned to after it? The answers may be surprising in terms of who was there and who wasn't. Sorry for big, long contribution here- I guess some of us have a lot to say!! Best of luck
P	I find it frustrating that I am not really considered as having a "stillbirth". My son is classified as a late miscarriage and as a result there is no record of him ever having been born, which is so unfair.
Q	It became clearer as I went on - I thought it would be about stillbirth

Code	Comments
R	I think one of the first sections is basically asking what type of people I would be drawn to/ have relied upon but I think it would be better to set it out between whether your family members were there/ whether the friends you had were there for you/ whether you availed of counselling/ supports etc... it just might give you a clearer picture for what you're trying to achieve maybe... but you know that better than I- it's just in taking the survey I didn't find that particularly clear
S	Nothing at all thank you

Personal identification shielded [redacted]