

**PRIMARY CARE CONSIDERATIONS OF MISCARRIAGE MANAGEMENT**

By

**Shandalin Marks**

B.S.N., University of the Fraser Valley, 2003

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## **Abstract**

Nearly 1 in 4 women experiencing a miscarriage during their child bearing years. This, coupled with the fact that many health care providers are communicating to these women that this is an insignificant event, has left many women feeling empty and even traumatized. As a result, the research is shows that these women are presenting with clinically high levels of anxiety and depression post miscarriage. Focusing on this, an investigation was undertaken to look at what the existing primary care approaches are to care are for women in their 20s and 30s who are experiencing depression and anxiety after a miscarriage. Using the Cochrane Collaboration method of reviewing, a systematic approach was taken to examine the literature pertaining to the investigation. The search included various provincial, national and international practice guidelines, as well as the electronic databases: Medline, Academic Search Complete, Psych INFO and CINAHL. The results indicated that this group of women have unique needs for support, require early interventions, and need to be screened for anxiety and depression. Recommendations were made to help guide the practice of nurse practitioners founded on Swanson's theoretical framework for caring.

## TABLE OF CONTENTS

Abstract .....	ii
Table of Contents .....	iii
List of Tables .....	v
List of Figures .....	vi
Acknowledgements .....	vii
Dedication .....	viii
Chapter One      Introduction .....	1
Chapter Two      Background and Context .....	9
Chapter Three    Theoretical Framework .....	13
Knowing .....	14
Being With .....	14
Doing For .....	14
Enabling .....	15
Maintaining Belief .....	15
Chapter Four    Methodology .....	17
Integrative Review Process .....	17
Preliminary Search .....	17
Focused Search .....	20
Inclusion criteria .....	21
Exclusion criteria .....	21
Analysis .....	22
Chapter Five    Findings .....	23
Needs for Support Are Unique .....	23
Screening for Depression and Anxiety is Necessary .....	30
Early Interventions Are Desired and Effective .....	35
Chapter Six    Discussion .....	42
Knowing .....	45

	Being With .....	47
	Doing For .....	48
	Enabling .....	49
	Maintaining Belief .....	51
Chapter Seven	Summary and Conclusion .....	53
References .....		57
Appendix A .....		62
Appendix B .....		63

## List of Tables

Table 1	<i>Clinical Practice Guidelines Search .....</i>	19
Table 2	<i>Search Strategy Methodology and Detailed Database Search Results .....</i>	20

## List of Figures

Figure 1	<i>Nursing as Informed Caring for the Well-being of Others</i> .....	16
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### **Dedication**

This project is dedicated entirely to my husband Duncan O'Mahony. Without you, this story of sadness and hope would never have been written. Thank you for helping me to see the beauty that can come from suffering.





## **Chapter One: Introduction**

For most women the experience of pregnancy is profoundly emotional. Pregnancy represents the realization of a dream and a central stage in a woman's life. "In my mind, the essence of a woman is to be a mother. It's part of the aspiration of every woman to reach perfection. It's a kind of inner need, to fulfill yourself." (Gerber-Epstein, Leichtentritt, & Benyamini, 2009, p. 16). Sometimes, however the dream turns into a nightmare when the pregnancy stops progressing, and the life that has been growing in the woman's womb dies.

Murphy and Merrell (2009) describe miscarriage as a global health issue. Approximately 1 in 4 women will have a miscarriage during their lifetime (Adolfsson, 2011). For many women, miscarriage constitutes an often sudden, unexpected physically as well as psychologically traumatic event. It is estimated that 15-25% of all clinically recognized pregnancies end in miscarriage; most of these occur within the first three months (Geller, Psaros, & Kornfield, 2010). Miscarriages are more frequent in older women, but even in those younger than 35 years of age it is estimated that 10-12% will miscarry. Miscarriage is defined as the spontaneous death of a fetus before 20 weeks' gestation (Geller, Psaros, & Kornfield, 2010). This can also be referred to as a fetal demise or spontaneous abortion. Therapeutic abortion is used to describe the surgical or medical termination of pregnancy at any time during gestation by the request of a patient (Gaudet, 2010). Stillbirth is the death of the baby after 20 weeks' gestation. For the woman experiencing the involuntary loss, the term "abortion" can be distressing and using the term "miscarriage" is preferable (Thorstensen, 2000). For the duration of this paper, the term miscarriage will be used to describe the involuntary loss of a pregnancy before 20 weeks.

Many health professionals and the lay community perpetuate the belief that miscarriage is an insignificant event (McCreight, 2008). It is thought that a woman will recover with no lasting psychological effect on herself, her partner, or her family. Pregnancy has different meanings to each woman, much of this meaning is dependent on the woman's circumstance, however for many women pregnancy and subsequent miscarriage is a highly emotional occurrence (Adolfsson, 2011).

As if I'd been naive and everything was going well and everything was fine, and then you lose it, because suddenly bad things are happening, that's what makes it so very traumatic. Tragic . . . It [the miscarriage] changed my understanding, I mean, it brought me down to earth. Suddenly I saw that bad things happen in the world. (Gerber-Epstein, Leichtentritt, & Benyamini, 2009, p. 14).

Women express common emotions and feelings associated with miscarriage that include shame, uncertainty, dread, guilt, emptiness, and lack of control. Many women consider the miscarriage as the loss of a child and for many the experience will be similar to that of losing a close relative (Bardos, Hercz, Friefenthal, Missmer, & Williams, 2015). In addition to physical complications, miscarriage can be an unforeseen emotional devastation for women and their partners. Although some women are relieved after miscarrying, many women find the experience quite traumatic, and this can trigger psychological problems.

The thought of carrying a dead embryo inside me drove me crazy . . . There was a sort of transition, where earlier I said I didn't want them to touch me, then I said, OK, come on, take it out already! I was terribly confused— on the one hand, take it out because it's dead, and on the other: don't touch, it's my child . . . I had very ambivalent feelings, I literally didn't know my left from my right . . . But then I tell you it was a long nightmare, I tell you that time [four days] was an eternity, it simply didn't pass. (Gerber-Epstein, Leichtentritt, & Benyamini, 2009, p. 12)

Research consistently documents clinically high levels of depression, anxiety, guilt and shame among women who have recently miscarried (Bennett, Litz, Maguen, Ehrenreich,

2008; Nikčević & Nicolaides, 2013; Woods-Giscombe, Lobel, Crandell, 2010). More specifically Major Depressive Disorder (MDD), which is a medical illness, can affect how you feel, think and behave causing persistent feelings of sadness and loss of interest in previously enjoyed activities (American Psychiatric Association, 2013). Using DSM-IV criteria, clinicians were advised against diagnosing major depression in individuals within the first two months following the death of a loved one in what has been talked about as bereavement exclusion. In the current 5<sup>th</sup> edition of the DSM, the bereavement exclusion has been removed. This change now helps prevent major depression from being overlooked and facilitates the possibility of appropriate treatment being recommended in a timely manner for the individual.

Like depression, an anxiety disorder affects how we think, feel, and act. It is completely natural to feel nervous or worried at times, as this type of anxiety can be helpful when it motivates us to do something when faced with a threat. An anxiety disorder, however causes unexpected or counterproductive worry and fear that can seriously impact our lives, including how we feel, think, and act. According to the American Psychiatric Association (2013) an anxiety disorder is excessive anxiety and worry that occurs more days than not during a six-month period in which a person finds it difficult to control the worry. As well the anxiety, worry, or associated physical symptoms may cause clinically significant distress or impairment in social, occupational, or other important areas of life.

Without specifying miscarriages, Statistics Canada (2008) reports that fetal loss is one in 1000 pregnancies. Despite the frequency of miscarriage, there remains an invisibility associated with this loss. Public perception is that miscarriage occurs only in 5% of pregnancies when the actual rates can be up to 25% (Bardos, Hercz, Friefenthal, Missmer, &

Williams, 2015). Clearly, many people erroneously believe that miscarriage is a rare complication of pregnancy and as a result this misconception may encourage the alienation that patients feel as they experience a miscarriage. Despite the frequency of miscarriage, it is often shrouded in silence and shame, even within a close social circle of family and friends. Lack of awareness, of miscarriage impact, can leave the woman feeling isolated, alone, and vulnerable to mental illness.

In Canadian culture, women often wait at least 12 weeks before publicly announcing their news of being pregnant. This results in family and friends often being unaware of the pregnancy until they hear of the loss. A consequence of this is that many of those just hearing the news for the first time can have a difficult time in relating to and understanding the impact of the loss on the woman. To compound this unseen grief, is the lack of universal response or formal mourning process that is associated with this loss.

[Friends and family] ignored it; after a week I was supposed to be alright, back to normal, happy and bouncing around and obviously I wasn't, but because it hadn't happened to them it was something to talk about for a couple of days and then after that . . . I don't think people really understand unless they actually go through it themselves, to be honest. (Brady, Brown, Letherby, Bayley, & Wallace, 2008, p. 188).

The woman may be left feeling bereft of any memory or token of the child that she never met. The feelings of guilt and shame compound the isolation of losing the “invisible” or not yet seen child, and may have negative consequences on marital relationships, social relationships, future pregnancies and surviving children (Lamb, 2002). This emotional burden appears to be under appreciated by health care professionals and the general community.

The past few decades have shown an increase in research and discussion about the psychological impact of miscarriage. The psychological morbidity can be quite high for women experiencing miscarriage, yet, unlike stillbirth, a miscarriage is less frequently associated with support services and has not been the object of specific service delivery. Once the miscarriage has begun, the outcome is inevitable and the practitioner has few preventative measures to offer. For many years the health care system viewed these losses as minor physical occurrences not requiring close follow up (Lamb, 2002). Due to the frequency of miscarriage, for a practitioner, this can be viewed as a common clinical problem. The woman and her partner may view the miscarriage very differently from the practitioner, and this loss may be as distressing as that of late miscarriage or a stillbirth (Evans, 2012). In a study by Rowlands and Lee (2010), the majority of women described experiencing poor care from their medical professional particularly due to the lack of information and insensitive comments. “Generally I found the attitude there [GP office] was unsympathetic to what I was going through. I was treated as though I just had a medical condition, rather than any recognition of the loss I had suffered” (Simmons, Singh, Maconochie, Doyle, & Green, 2006, p. 1943). The implications were that health care professionals were failing to meet the needs of women and their families during and after miscarriage.

In contrast, women who receive sensitive aftercare from various disciplines are described as having greater satisfaction after miscarriage and those who receive appropriate and timely follow-up have decreased psychological distress compared to those who do not (Rowlands & Lee, 2010a).

During the whole weekend that I was here at home the obstetrician’s office called and made me feel like I should never hesitate to call, 1:00 o’clock in the morning,

whenever. It didn't matter. When I went back for the check up, he talked for a while to make sure I was doing OK. I never felt like I had just been processed through. (Wojnar, Swanson, & Adolfsson, 2011, p. 548).

Research has identified that there is a desire from women for a formal follow up process that would include providing them with more information and that also addresses the many false assumptions they have surrounding the miscarriage (Nikcevic, Tunkel & Nicolaides, 1998; Rowlands, & Lee, 2010; Swanson, 1999b; Wong, Crawford, Gask, & Grinyer, 2003). Despite this obvious need, there are currently few evidence based practice guidelines that can be utilized by primary care practitioners. As a result of this it would seem that women who miscarry are experiencing higher levels of depression and anxiety than women without a recent reproductive loss (Geller, Psaros, & Kornfield, 2010).

The nurse practitioner, as a primary care provider, is well trained to offer health services throughout the various stages of life span development (College of Registered Nurses of British Columbia, 2011). A major developmental milestone in a women's life is during the prenatal period of pregnancy. The nurse practitioner, in primary care, is well positioned to come face to face with many women in the different stages of prenatal development. Statistics have clearly shown the reality that miscarriages will be part of the pregnancy for some of these women. Due to the specific care needs of this demographic, it would be best practice for the nurse practitioner to create an environment for these women so that they can receive the necessary information, support and intervention to meet their unique needs. In order to meet the individual needs of the woman, the nurse practitioner must gather information from each woman pertaining to what type support is needed or wanted after a miscarriage and then this must be applied to primary care practice.

The most acceptable definition of epidemiology, for the use in this paper, is the study of the distribution and determinants of health related status or events in specified populations

(Morris, 2007). There is a wealth of epidemiological research about women in their childbearing years who have miscarriages and this research speaks to things like incidence rate, distribution and other homogenous factors associated with miscarriage. In contrast to the current epidemiological research, the purpose of this paper will be to review the recent research literature, discuss the delivery of care, and to bring to light the gaps in service in a primary care setting for women in their twenties and thirties who have experienced a miscarriage. This paper will look specifically at anxiety and depression in women who have miscarried during their prime child-bearing years. This comes with the understanding that the experience of miscarriage is not defined by socioeconomic status and is not age dependent. Women in their twenties and thirties, although not completely representative of all childbearing women, do represent a large part of this population.

A potential gap in service with miscarriage management is the grief associated with it. Not only is miscarriage grief often unrecognized and unsupported, but the psychological impact can be underestimated by the health care provider. The nurse practitioner, in primary care, has a unique opportunity to assist the woman in the grieving process. This opportunity will be explored using evidenced-based approaches to care that are guided by Swanson's informed caring framework. Swanson's (1993) five processes of informed caring are as follows: knowing, being with, doing for, enabling, and maintaining hope. According to Swanson, the primary care provider must engage in these processes in order to preserve the dignity of the woman and enhance her well-being. This informed caring framework can be used within many patient transactions, but is particularly well developed to provide care for a woman who has had a miscarriage.



As of now, there is no standard of care for women who are experiencing anxiety and depression after miscarriage. This is due to the limited research that exists for this population of women, however, this paper will draw upon what pre-existing research is available by means of a literature review. Furthermore, this paper will attempt to create practice recommendations based on this literature review. By doing this there is a possibility that the recommendations and lessons learned will provide a basis for improving care and guiding further research that is applied to this unique population.

## Chapter Two: Background and Context

*Do not judge the bereaved mother. She comes in many forms. She is breathing, but she is dying. She may look young, but inside she has become ancient. She smiles, but her heart sobs. She walks, she talks, she cooks, she cleans, she works, she is, but she is not, all at once. She is here, but part of her is elsewhere for eternity.*

-Author unknown

Miscarriage is a profound event that is best understood in the context of the woman's beliefs. How miscarriage is experienced and the meaning attributed to the event will determine how the woman navigates these emotions and moves forward with healing (Gerber-Epstein, Leichtentritt, & Benyamini, 2009; Huffman, Swanson, & Lynn, 2014). The intensity of these emotions varies from woman to woman being influenced by personal circumstances and the reactions of others. This heterogeneous group of women will each live their miscarriage through their own experiential lens, however they will share certain common themes throughout their individual experiences. One study showed that 37% of women felt that they had lost a child, 47% felt guilty, 41% were left feeling that they had done something wrong, 41% felt alone, and 28% felt ashamed (Bardos, Hercz, Friefenthal, Missmer, & Williams, 2015). Swanson (1999b) found that 39% of women grieved for six months or longer after the loss. Elevated levels of anxiety were found in 32% of women 12 weeks after miscarriage (Geller, Psaros, & Kornfield, 2010) and these rates can be as high as 45% of women, persisting for up to a year (Nikcevic & Nicolaides, 2013; Sejourne, Callahan, Chabrol, 2010b). Compared to their male counterparts, women appear quite vulnerable to developing a depressive episode following a stressful life event (Groh & Hoes, 2003) and as many as 15% of women will experience depression for up to a year after a miscarriage (Nikcevic & Nicolaides, 2013).

Psychological issues such as depression and anxiety can be diagnosed and managed by the nurse practitioner in primary care. According to the College of Registered Nurses of British Columbia (2016) *Scope of Practice for Nurse Practitioners*, as primary care providers nurse practitioners have advanced training (e.g. cognitive assessments) in interventions (e.g. cognitive behaviour therapy) necessary to diagnose and manage those who are at risk for depression and anxiety. This combined with the ability of the nurse practitioner to establish strong relationships with patients, equip them to provide holistic care regarding miscarriage management.

Research shows that nurse practitioners provide treatment for women with depression that is consistent with national standards (Groh & Hoes, 2003). Nurse practitioners consistently use a variety of assessment tools including the Beck Depression Inventory, Zung Depression Rating, and the State and Trait Anxiety Inventory (Groh & Hoes, 2003). As the primary care provider for this population, the nurse practitioner can also prescribe anti-depressants, sleep aids, and is able to manage the patient on these medications for as long as necessary. Should the need arise, the nurse practitioner can refer to a psychiatric specialist for further support.

Women often find that their spiritual, maternal, feminine, and sexual personhood is challenged and needs to be re-evaluated after miscarriage (Bennett, Litz, Maguen, & Ehrenreich, 2008). An attempt must be made to update a personal narrative, which now includes the experience of having had a miscarriage. Many women express a desire to have more education and knowledge following a miscarriage (Adolfsson, 2011). A study by Nikcevic (2007) showed that 92% of women felt that they would benefit from a consultation with a psychologist to discuss aspects of their miscarriage. Studies using medical counselling

(Nikcevic, Kuczmierczyk, & Nicolaides, 2007), early single session cognitive behavioral therapy (Nakano, Akech, Furukawa, & Sugiura-Ogasawara, 2013) and a brief, miscarriage specific therapeutic approach (Swanson, 1999a) showed short and long term benefits to women. These interventions showed the necessary care and understanding that women require and influenced their long term well-being (Sejourne, Callahan, & Chabrol, 2010a).

The nurse practitioner has a commitment to the patient to facilitate a personal connection and this commitment relays an acknowledgement to the woman that she is worthwhile, deserving of respect, attention, commitment, and care (Dunphy, Porter, Winlan-Brown, & Thomas, 2015). Utilizing the nurse-patient relationship and the nurse practitioner's intimate knowledge of a patient's response patterns can help the nurse practitioner to make sound clinical judgments about patient care (Blair & Jansen, 2015). Understanding the meaning of this loss, acknowledging questions asked, and giving anticipatory guidance would be congruent with a high level of patient care within the context of miscarriage management. Providing follow-up, education, and reassurance can positively impact the perception of the experienced loss and overall psychological well-being of both the woman and her partner. More specifically, the nurse practitioner can provide medical counselling, and psychological interventions like Cognitive Behavioural Therapy (CBT) early on following the loss and continue to provide interventions for as long as they are needed to help stabilize the patient.

Given the dearth of evidence, current research has been scrutinized in the writing of this paper to better understand the experiences of women who have miscarried and what these women need from their health care providers. In the literature review, similar themes surfaced and after reading numerous peer-reviewed journal articles, it became evident that

early follow-up care is desirable, women who have miscarried have unique needs, and screening for depression and anxiety after miscarriage should be a standard of care.

However, despite the research supporting a change in practice, less than optimal care is often given (Geller, Psaros, & Kornfield, 2010; Lok & Neugebauer, 2007; Rowlands, & Lee, 2010). This is likely due to the lack of practice guidelines addressing the holistic supports needed during and after miscarriage. Given the profound impact of a miscarriage on a woman, this author was motivated to research and bring about for discussion, what the best practice recommendations for care are, based on the available evidence.

By providing a critical review of the literature, including relevant guidelines and policy it is the intended purpose of this author to bring forward practice recommendations for primary care providers caring for women who have had a miscarriage. By doing this, a practical clinical application to meeting the psychosocial needs of women who have experienced miscarriage within a primary care context will be initiated. The organization of this project will be directed by the research question: What are the Primary Care considerations for women in their twenties or thirties who are experiencing depression and anxiety after a miscarriage?

### Chapter Three: Theoretical Framework

*If you have built castles in the air, your work need not be lost: that is where they should be. Now put foundations under them.*

Henry David Thoreau, *Walden*

Dr. Kristen Swanson (1991) developed a middle-range theory of caring which she validated through phenomenological investigations of women's and caregivers' experiences in the perinatal period including women's experiences of miscarriage. A major feature of phenomenological research is the recognition that an individual's experience provides the essential meaning of knowledge (Harvey, Moyle, & Creedy, 2001). With this in mind the woman who has miscarried has a wealth of important knowledge and insights to contribute. Swanson contextualized the five caring processes through a number of different interpretive, descriptive, and experimental research studies (Swanson, 1999a; Swanson, 1999b ; Swanson, Chen, Graham, Wojnar, & Petras, 2009). This theory is applicable to a wide range of practice settings, utilizes a psychosocial approach, and is appropriate to use with women of various ages. Therefore, Kristen Swanson's middle-range theory of caring will form the theoretical framework of this paper.

Nursing practice is to care for the patient experiencing actual or potential health deviations until such time as the client is independently able to care for herself (Swanson, 1991). Swanson also defines caring as a "nurturing way of relating to a valued other as toward whom one feels a personal sense of commitment and responsibility" (p. 62). The five caring processes of knowing, being with, doing for, enabling, and maintaining belief were developed by Kristen Swanson to reflect the nursing profession. With this being said it is the intended purpose of this paper to propose that these processes can be used as therapeutic interventions in the primary care setting by the nurse practitioner in the context of care for

the woman who has miscarried. The model harmonizes well with the health management and holistic care that nurse practitioners provide. Kristen Swanson's framework for caring will now be discussed in the context of the nurse practitioner as the primary care provider for the woman who has had a miscarriage.

### **Knowing**

The first concept of this theory is knowing (Swanson, 1991), this is what allows the nurse practitioner to know the woman's reality during her miscarriage. In knowing, the nurse practitioner strives to understand the event as it has meaning in the life of the woman. It causes the nurse practitioner to avoid assumptions, instead focusing on the woman and thorough assessment of the woman's experience. This knowing sets the stage for the therapeutic interventions of being with, doing for, and enabling to be perceived as relevant to the woman. As stated previously, women who experience miscarriage are a heterogeneous group and to each, the experience has a different meaning and impact.

### **Being With**

Being with conveys to the woman that their experiences matter, it is the availability of the nurse practitioner and willingness to give their time, authentic presence, and attentive listening (Swanson, 1991). This willingness to endure with the woman and witness her experience is the responsibility of the nurse practitioner as a primary care provider. Swanson (1993) describes practical application of being with as ensuring the woman has access to supports including sharing clinic phone numbers, giving email contacts, and allowing the woman to feel that it is safe to contact the nurse practitioner if she so wishes.

### **Doing For**

Doing for is the care of the woman to do for them what they would do for themselves if they could (Swanson, 1991). This speaks more to the actions of the nurse practitioner, but can also include therapeutic communication skills. This includes referrals, the setting up of opportunities, and programs or systems that provide safe arenas, within which the woman can bring about her own healing. The doing for also includes comforting, performing skills competently, protecting the woman from harm, and preserving her dignity. The ability of the nurse practitioner to provide cognitive behavioral therapy would be an aspect of doing for.

### **Enabling**

The penultimate process to this theoretical framework is enabling. Which is defined by Swanson as the validation and supportive guidance of the woman's passage through life transitions and unfamiliar events (Swanson, 1991). This is the coaching, informing, and explaining component of care. The nurse practitioner allows the woman to have this experience, while helping her to maintain a focus on important issues, generating alternatives, and guiding her to think through the issues at hand. This is done with the goal of ensuring the woman's long-term well-being.

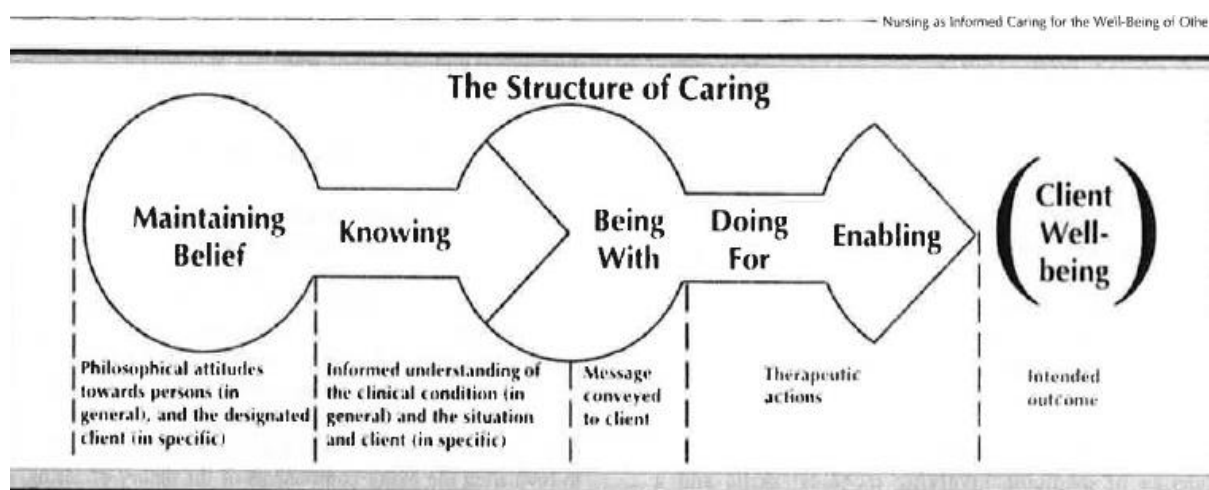
### **Maintaining Belief**

The final process in this model of caring is maintaining belief, and this has been described as "sustaining faith in the other's capacity to get through an event or transition and face a future with meaning" (Swanson, 1991, p. 165). It also means believing in others and holding them in high esteem, all the while maintaining a hope-filled attitude, and standing by them no matter how the situation may unfold. The concept of maintaining belief is foundational and underpins this entire model of caring.



The five components of this theoretical orientation are overlapping, they are not mutually exclusive, and the central theme throughout is caring. Caring is anchored by knowing, conveyed through being with and enacted through doing for and enabling (Swanson, 1993). The theoretical underpinning of this paper is that only in the context of caring can the treatment be established (Watson, 1988). This is the belief that there is personal meaning to be found in the challenge of miscarriage. It is the sustaining faith of the nurse practitioner in the woman to get through this event and face the future with meaning. The nurse practitioner who embraces this perspective will bring a commitment to the physical and emotional health of the women in the present moment, while looking to ensure her long term wellbeing.

Figure 1: *Nursing as Informed Caring for the Well-being of Others* (Swanson, 1993, pg. 355).



Swanson's structure of caring will help guide my discussion of the forthcoming literature review. This framework is not bound by a linear approach to clinical practice, rather, a fluid and dynamic one will emerge. Through this process a focus on the woman's well-being is always maintained.

## Chapter Four: Methodology

*For where thou art, there is the world itself, And where thou art not, desolation.*

*-William Shakespeare, King Henry VI, Part 2*

A literature review was completed in order to answer the research question: What are the primary care approaches to women in their 20s and 30s who are experiencing depression and anxiety after a miscarriage? Using the Cochrane Collaboration method of reviewing, a systematic approach was taken to examine the literature pertaining to the research question (Aveyard, 2010). Integrative reviews assimilate results of research studies by comparing and contrasting them in order to describe the state of knowledge, and incorporate both quantitative and qualitative research studies (Davis & Logan, 2008). By examining the current evidence, recommendations for practice, research, and education will be made. The following section will provide an overview of the literature selection and review process.

### Integrative Review Process

The review was undertaken through a series of stages, including the development of a research question, a preliminary search of the literature, a focused search through the use of specific inclusion and exclusion criteria, and finally through analysis and reporting.

**Preliminary search.** A preliminary search of the literature was undertaken in order to ensure a robust search strategy and to assess the landscape of the current evidence.

Starting broadly, a search was conducted for clinical guidelines and protocols in BC, Canada

and in North America. Next, was a search for evidenced-based guidelines, clinical practice guidelines and/or protocols for practice. These documents are referred to as ‘preprocessed’, that is, someone has reviewed the literature and has chosen only the methodologically best studies for inclusion in document development (DiCenso, Guyatt, & Ciliska, 2005). Such guidelines and protocols are updated regularly and are made available through the different websites that act as portals to online databases. The justification for this sampling approach is that evidence-based clinical guidelines are the cornerstone of nursing practice and when these are not available, other preprocessed sources must be explored (DiCenso, Guyatt, & Ciliska, 2005).

The BCguidelines.ca website was searched using the keyword ‘miscarriage’ and returned no results. The Canadian Nurses Association (CNA) best practice site was also explored, but also returned no results regarding miscarriages. The College of Registered Nurses of British Columbia (CRNBC) website also was searched and returned one result which was not deemed appropriate for this review. The Canadian Medical Association Clinical Practice Guidelines (CMACPG) were searched using the keyword ‘miscarriage’ and returned two results, which appeared to be the same article, based on the year and authors, with one in French and the other in English. The articles discussed indicators for various diagnostic imaging studies in relation to obstetrics and gynecological patients which was not useful for this project.

The National Guidelines Clearinghouse (NGC) was searched using only ‘miscarriage’ and 35 results were found, upon cursory inspection, none were relevant to this review. The articles were directed towards women experiencing recurrent miscarriages, ectopic pregnancy, and the medical components of miscarriage management. A high

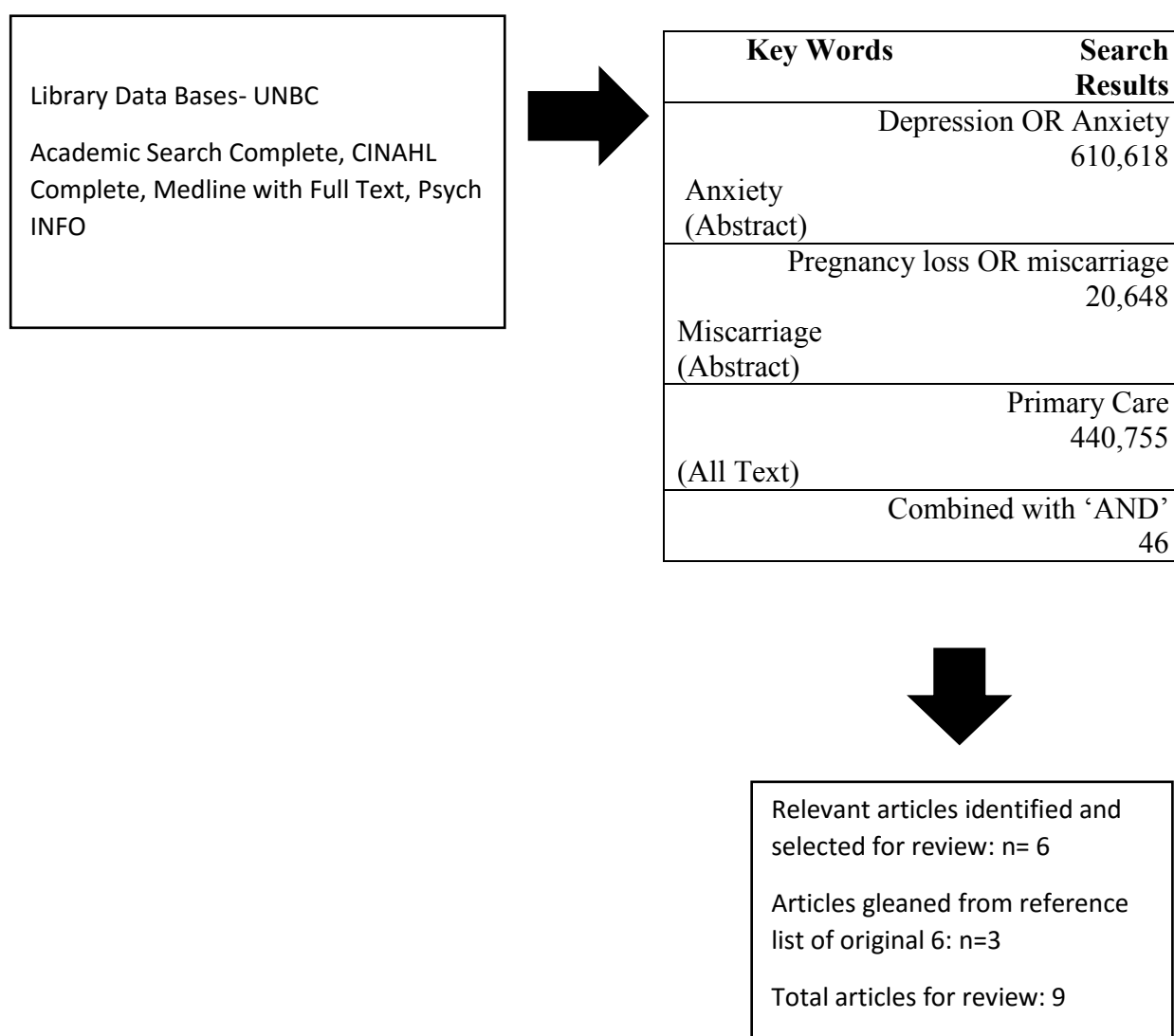
percentage of the articles did not pertain to miscarriage. The Society of Obstetricians and Gynecologists of Canada (SOGC) guidelines were searched using the word ‘miscarriage’. One result was found and it pertained to the medical cause of miscarriage. The American Congress of Obstetricians and Gynecologists Guidelines (ACOG) were searched, also using the word ‘miscarriage’ and 22 results were found. Only one of the articles specifically addressed management of early pregnancy loss and this was with a surgical, medical, or an expectant management focus. The World Health Organization (WHO) guidelines were also searched, specifically under the heading ‘Maternal, reproductive and women’s health’. None of the guidelines found were pertaining to miscarriage care but were more about women and children’s physical health during and after pregnancy. The National Institute for Health and Care Excellence (NICE) guidelines were searched using ‘miscarriage’ and one result was found which pertained to the diagnosis and initial management of miscarriage; however, the psychosocial implications of miscarriage were not addressed. These searches are summarized in Table 1 below.

Table 1: *Clinical Practice Guidelines Search*

<b>Institute’s Guidelines</b>	<b>Initial Results</b>	<b>Relevant Guidelines</b>
<b>NGS</b>	35	0
<b>SOGC</b>	1	0
<b>ACOG</b>	22	0
<b>WHO</b>	10	0
<b>NICE</b>	1	0
<b>BC Guidelines</b>	0	0
<b>CAN</b>	0	0
<b>CRNBC</b>	0	0
<b>CMA</b>	2	0

An electronic search of Medline with Full Text, Academic Search Complete, Psych INFO and CINAHL Complete databases was conducted in February 2016, using the key words “miscarriage (abstract),” OR pregnancy loss (abstract)” AND “anxiety (abstract)” OR “depression (abstract)” AND “primary care (all text)”. Figure 1 is a schematic of the search strategy and also indicates the number of articles per search term. Search terms were used separately or in combination using AND/OR in Boolean search mode.

Table 2. *Search Strategy Methodology and Detailed Database Search Results*



**Focused search.** The initial search led to the necessity of a more focused search with inclusion and exclusion criteria to narrow the scope. To achieve this, specific inclusion and exclusion criteria were developed. Stage two of the search strategy involved the use of Mendeley Desktop (reference manager software) as a citation manager for collecting the articles.

**Inclusion criteria.** Titles and abstracts that were relevant to the topic of miscarriage and the principles of primary care were analyzed. In order to examine the most current information and research, only full text articles that were peer-reviewed containing original research, written in English and published between the dates of 2005 and 2016 were included. The dates were selected as they enabled the most recent and relevant literature to be identified. Hand searches of relevant articles that met inclusion criteria from each of the sources' reference lists were also included to ensure that the search was comprehensive and no important additional sources were overlooked.

**Exclusion criteria.** Articles that were not accessible through the University of Northern British Columbia library database were excluded, as were articles that were not in English. Articles related to in-vitro fertilization, recurrent miscarriages, still births, and therapeutic abortions were excluded.

When deciding to include annotations of reviews or systematic reviews, strengths and limitations of these analyses had to be considered. Although there may be many strengths, like the pooling of quantitative data, and large sample sizes, it was determined that the limitations outweighed the strengths in this situation. One critique, albeit an anecdotal one, is that a systematic review is an exercise in mega-silliness, and inappropriately mixing apples

and oranges (Biondi-Zoccai, Lotrionte, Landone, & Modena, 2011). Another is that considering the research question proposed by this author it was only possible to retrieve a few studies which focused on the given primary care question. A few annotations of reviews and one systematic review were found, but these were of low quality and were not contributory to the research question. As a result of this, it seemed unhelpful to include articles of low quality in the analysis. In doing so, the intended audience could be misled. With so many inconsistencies to consider the decision to not include annotations of reviews, and systematic reviews was made. With regards to 'grey literature' which includes opinion pieces, theses, and internal institutional reports a decision was made to exclude them. These works would not be considered as 'best evidence' when addressing my research question. Although grey literature sources often provide a more complete presentation of data than is possible in peer-reviewed commercial publications, they fall outside the bibliographic control mechanisms of commercial publishing (i.e., database indexing). This makes them very difficult to 'discover', if you are not already aware of their existence (Mahood, Van Erd, & Irvin, 2014). Newspaper articles and women's magazine articles related to depression and anxiety after miscarriage had come to my attention through social networks but were anecdotal pieces of literature and so not part of my final literature review. If including literature from various forms of media, it would be quite difficult to duplicate this search.

**Analysis.** Following the search, a final cohort of 9 articles was selected for inclusion. Each article was reviewed in detail according to the research extraction guide outlined in DiCenso, Guyatt and Ciliska (2005). The articles were appraised according to their methodological rigor, the strength of the evidence, and relevance for intervention with a woman experiencing anxiety or depression after a miscarriage in the context of primary care.

## **Chapter Five: Findings**

*No one ever told me that grief felt so like fear.*

C.S. Lewis, *A Grief Observed*

The overarching goal of the literature analysis was to explore an approach to primary care for a women experiencing anxiety or depression after a miscarriage. An integrative literature review was undertaken and 9 articles were selected and analyzed. The following section will provide a critical analysis of the research findings, organized by the key themes. The themes identified include: the need for support after miscarriage are unique; there is a need to screen for depression and anxiety after miscarriage; and early interventions are most desirable and most effective in alleviating anxiety and depression after miscarriage.

### **Needs for Support Are Unique**

Following a comprehensive review of the research literature, women's needs for support as unique after miscarriage emerged as a key theme. As a result, individualized assessment for and management of all women after miscarriage is imperative. Four of the nine articles used in this review addressed needs of the woman who had miscarried as being unique. Cumming et al. (2007) stated that health care providers need to be able to assess women after miscarriage using a brief but valid and reliable method to identify those most at risk for psychological morbidity, namely depression and anxiety. Cumming et al. (2007) used a semi-structured interview and standardised self-report questionnaire to screen women. Rowlands and Lee (2010a) used the 5-item Mental Health subscale (MHI-5) of the Australian standard version Short Form Health Survey (SF-36). This 5-item mental health



subscale was used to conceptualise mental health and responses that scored higher were indicative of better mental health and conversely, those with lower scores had more mental health concerns. Rowlands and Lee (2010a) expounded that women with a greater number of life events, in addition to miscarriage, had lower mental health scores than others. Examples of such life events were hospitalisation for a major illness, break-up with a partner and serious financial difficulty. Women's long term adjustment was affected by a prior diagnosis of anxiety or depression; in contrast, women with higher education and higher satisfaction with their primary care practitioners had higher mental health scores (Rowlands & Lee, 2010b). In the study done by Sejourne, Callahan, and Chabrol (2010b) it was identified that not all women needed psychological help but there was a need to identify women who are at higher risk for psychological distress or who have specific and unique circumstances predisposing them to greater difficulties in facing the miscarriage.

Two of these four articles were chosen for detailed examination as they discussed miscarriage management within the context of depression and anxiety. The first of these articles was a study by Adolfsson, Bertero, and Larsson (2006). This study captured the uniqueness of the women who had miscarried using the Perinatal Grief Scale Swedish short version to measure whether follow-up was helpful to reduce grief (Adolfsson, Bertero, & Larsson, 2006).

Adolfsson, Bertero, and Larsson (2006) sought to identify women's need of a follow-up visit to the midwife after miscarriage and, in such cases, what the focus of the visit should include. The open randomized study took place in Sweden in a medium-sized town at a gynecologic clinic. In order to be included in the study, the women had to be over 18 years old, Swedish speaking, and have had a miscarriage before 13 weeks' gestation. Eighty-eight

women made up the sample population. Both the control and intervention groups were seen 21-28 days after their miscarriage. The control group had their medical concerns addressed but there was no discussion about the woman's feelings or emotions regarding the miscarriage. If the woman took initiative to ask further questions then additional time would be allotted to the visit, otherwise the appointment lasted only 30 minutes. With the intervention group, Swanson's Framework for Caring informed the midwife's attitude by allowing her to be emotionally present and an hour was given for the appointment. The woman would be treated as influenced by Swanson's theory of caring which allowed the midwife to be emotionally invested in the woman, to treat the woman with dignity, and be competent in skillfully meeting the woman's needs. During the visit, the midwife aided the woman in understanding her experience by giving clear information which helped facilitate the grieving process. The midwife also helped with the woman's self-esteem, and encouraged her to retain hope, and be optimistic, as well as giving her the needed space to mourn what had been lost.

The women in both groups responded to the perinatal grief scale Swedish short version at the first follow-up visit to a midwife and at a subsequent follow-up visit four months after the miscarriage. The Perinatal Grief Scale has three subscales each of which measures various aspects of one's reaction to a loss. The subscales include active grief, difficulty in coping, and despair, which had a longer lasting effect on loss. The perinatal grief scale includes guilt and anxiety and has been validated in depression and marital relationships. The authors chose the Perinatal Grief Scale because it measures depression and normal grief rather than just depression (Adolfsson, Bertero, & Larsson, 2006).

The results of this research emphasized that women who experience a miscarriage are not a homogenous group. Coping after a miscarriage is largely influenced by a number of variables including whether they have had a complete miscarriage, incomplete miscarriage with heavy hemorrhage, incomplete miscarriage with little hemorrhage, or a missed miscarriage. The measures using the Perinatal Grief Scale at four months' post miscarriage showed that women with missed miscarriages had significantly higher perinatal grief scores for active grief and more difficulty in coping than the women with other diagnoses. The reason for this was postulated by the authors as follows: when these women suspected something was wrong with their pregnancy, they were told by their health care providers that changes during pregnancy were normal, and to not worry. The resulting invalidating environment created a credibility gap between the patient and their caregivers. The clinicians involved with this research later changed their practice to allow for earlier appointments for those women who suspected that something is amiss with their pregnancies (Adolfsson, Bertero, & Larsson, 2006).

Not surprisingly, this study showed that women with no other children had significantly higher perinatal grief scores regardless of whether they were in the control or intervention group. They had more active grief four months after their miscarriages and these women expressed their grief in unique ways. Interestingly, this study revealed that the effect of the structured follow-up visits for the intervention group did not show a statistically significant difference from the intervention group. Having said this, there was a 30% reduction in the grief of the intervention group from the first follow-up to the 4-month follow-up but this could not be deemed statistically significant as there were not enough participants to demonstrate this.

The limitation of this study was the small sample size. Although the study started out with 146 participants, only 88 women remained in the study after the inclusion criteria were applied. Although the control and intervention groups were well matched, the authors stated that they could not demonstrate statistical significance in the reduction of perinatal grief scores as the sample size was too small to demonstrate statistical significance and in order to do so, the study would need 169 women in each group (Adolfsson, Bertero, & Larsson, 2006).

Adolfsson, Bertero, and Larsson (2006) demonstrated that a woman's physical, emotional and psychological needs after miscarriage vary greatly, but those with a missed abortion and no other living children may need increased follow-up care. Evidence from this research is insufficient to demonstrate the need for a psychological intervention as a first line of treatment versus medical care in the management of a woman post-miscarriage. Having said this, given the evidence this research provides, a woman's preference for treatment and follow up should play the greatest role in the decision-making around psychological care of a woman after miscarriage.

The second article to be examined in detail was an Australian study undertaken by Rowlands and Lee (2010b). The aim of this research was to identify the characteristics of women who coped well, or poorly, after a miscarriage in order to help guide interventions to assist women dealing with this significant event. The authors here administered and statistically analyzed a government funded survey about women's health to a total of 40,000 randomly selected female Australian citizens and permanent residents at three different times, 1996, 2000, and 2003. Nine hundred and ninety-eight women aged 18-23 who reported a miscarriage were identified from the sample.

Adjustment after miscarriage was measured using the 5-item mental health subscale of the Australian standard version of the SF-36. The SF-36 is reliable and valid for use with adults throughout their lifespan. The internal consistency of the scales has shown a Cronbach's alpha of 0.8 or higher. Rowlands and Lee (2010b) stated that higher scores indicate an overall better mental health functioning and include domains of functioning like vitality, amount of bodily pain, and an understanding of one's physical, emotional, and social roles. Predictors of lower mental health scores included multiple miscarriages, being unmarried, and/or separated, and divorced or widowed. Women with a greater number of life events and higher stress levels had lower mental health scores. Long term adjustment to miscarriage was related to a diagnosis of anxiety or depression prior to the miscarriage. Higher mental health scores were shown within populations that had greater satisfaction with their primary care provider and patients who have higher levels of education. Overall, this research supports recognition of a number of variables associated with adjustment after a miscarriage. These variables include education level, satisfaction with primary care provider, other life stressors, prior diagnosis of depression or anxiety, internal and external coping resources, marital status, other living children, and number of previous miscarriages (Rowlands & Lee, 2010a).

Rowlands and Lee (2010b) suggested that women who are pregnant would benefit from cognitive-behavioural therapy if they were identified as having high levels of stress. They also recommended screening for high levels of stress and provision of information on stress management as a routine aspect of antenatal healthcare visits with the primary care (Rowlands & Lee, 2010a). Poor communication by health care professions along with inadequate emotional care and inadequate information about miscarriage are identified as

commonly missed aspects of care. The authors asserted that adequate care after miscarriage should include acknowledgement of the loss and provision of reliable resources. Some women may also benefit from discussion about their overall well-being including the impact of miscarriage on self-esteem and how to cope with inappropriate guilt and anxiety. Primary care providers should be aware of those women who have had a history of mental health problems and/or high levels of stress in order to more closely follow them in the primary care setting (Rowlands & Lee, 2010a).

The strength of this study is that the researchers used a measure of general mental health rather than specifically focusing on presence or absence of clinical levels of depression and anxiety. The research used a target population of 40,000 potential participants selected randomly and the database was for all Australian citizens and residents regardless of age or income. The data used for this study came from a younger cohort, ages 18-23 years, which was thought to be broadly representative of the Australian population of women in this age group. There were 7790 women from the younger cohort who responded to all three surveys [1996, 2000, 2003], which is a large sample population from which conclusions can be drawn for future research and current practice. A limitation may be that the younger cohort may be slightly over representative of those women with more education and who are non-smokers (Rowlands & Lee, 2010b). This may limit the applicability of results to those women with less education and with life style choices different from the study population.

### **Screening for Depression and Anxiety is Necessary**

The need for early identification of women who are at risk and/or suffering from anxiety and depression is a key theme that has emerged from this review of the literature. There are certain populations identified as being at higher risk and these are discussed in

detail within the research. Six of the nine articles discuss the need for health care providers to detect those at risk for psychopathology, specifically anxiety and depression.

Mann, McKeown, Bacon, Vesselinov, and Bush (2008) suggested that clinicians be alert to the signs of depression, particularly in younger women, which are defined as less than 28.9 years and women with a prior history of mental illness. Rowlands and Lee (2010b) suggested that a routine aspect of antenatal health care visits could be screening for high stress levels. Kong, Lok, Lam, Yip, and Chung (2010) found that the majority of health care providers believed that routine psychological support should be provided after a miscarriage and only a small percentage of these health care providers felt that the existing health care structure was adequate.

In a study by Lok, Yip, Lee, Sahota, and Chung (2010), women who exhibited signs of depression and anxiety immediately after miscarriage, with time, had their symptoms typically diminish. In this research, inclusion of non-pregnant women unexposed to recent miscarriage or pregnancy was used as the comparison group. This helped to demonstrate that the psychological morbidity experienced by women who had miscarried was a specific consequence strongly related to miscarriage. Also identified by this research was the need for a brief yet reliable screening tool as many clinicians are not familiar with comprehensive psychiatric assessments. Lok et al. (2010) suggested using the General Health Questionnaire (GHQ-12) or Beck Depression Inventory (BDI) for screening. Similarly, Cumming et al. (2007) suggested that clinicians use a brief but reliable method of identifying those at risk.

The following is a detailed discussion of two of the articles that addressed the need for screening as evidenced by the research. The first of these articles was a study carried out by Cumming et al. (2007) in which the findings of anxiety and depression in women and in

men 13 months after miscarriage were presented. As well, this research discussed the clinical implication of early identification and management. The second study to be discussed is by Lok et al. (2010) in which a one-year longitudinal study was done to measure the psychological outcome after miscarriage. The practice recommendations of this study are particularly useful and will be discussed in detail.

The study done by Cumming et al. (2007) sought to identify the trajectories of anxiety and depression in women and their partners over 13 months after miscarriage. The setting for this study was three early pregnancy assessment units in Scotland. The assessments occurred at 1, 6, and 13 months after miscarriage. Both qualitative and quantitative data were gathered in order to identify predictive factors for depression and anxiety associated with variations in the methods of measurements. The researchers used semi-structured interviews to gain qualitative data, and the Hospital Anxiety Depression scale (HADS) as a screening tool to measure self-reported general psychopathology.

The selection criteria for the sample population included women and their partners over the age of 16 years, who were able to give written consent, had experienced a miscarriage before 24 weeks' gestation, and had completed the medical management portion of the miscarriage. Excluded were those women who had management involving the use of invasive diagnostic procedures, women presenting with threatened abortion, those presenting with more than one fetus on scan with subsequent demise of at least one fetus and the continuation of at least another fetus. Final exclusion criteria included those with cognitive impairment. The final sample population included 275 women and 135 men for a total of 410 participants.



Findings of the Cumming et al. (2007) study give an overview of the emotional burden of miscarriage on both men and women. Although this research is focussed on women, the significance of acknowledging the partners within the miscarriage context is of utmost importance. This particular study revealed that miscarriage represents an emotional burden, particularly for women, up to 13 months after the loss. This emotional burden, although demonstrated by the data, may in fact be greater than the data revealed as the individuals who did not complete the subsequent assessments had higher scores for depression and anxiety at the initial assessment than those participants who completed all three assessments (Cumming, et al., 2007). Anxiety symptoms or more specifically those diagnostic norms that meet the DSM5 criteria for General Anxiety Disorder (GAD), were found to be a greater clinical burden than a Major Depressive Disorder (MDD) diagnosis, and were more likely to be experienced after miscarriage by both men and women. The effects of miscarriage can be long lasting, even beyond 13 months and are often complex in resolution. This research showed that women's anxiety remained elevated during all three assessments, but that there was a gradual decrease in symptoms over time (Cumming, et al., 2007).

Cumming et al. (2007) discussed clinical implications of this research highlighting that the increase in GAD symptoms after miscarriage provides an opportunity for health care providers to detect psychological morbidity and treat it accordingly. The authors suggest that the health care provider should understand that these symptoms can be long lasting, even beyond 13 months and significant. If left untreated, there is an increased risk that psychosocial functioning may be impaired and other psychological issues may develop. One such possibility is the diagnosis of posttraumatic stress disorder. In a study by Hamama,

Rauch, Sperlich, Defever, and Seng (2010) the authors found a prevalence of prenatal PTSD after complications in a prior pregnancy of between 8.9 and 12.5%, suggesting that miscarriage may be an important risk factor for PTSD. A limitation to this study is that “the investigators did not control for the effect of other lifetime trauma exposures in estimating risk for PTSD in the subsequent pregnancy” (p.700, 2010). Screening should be done using a brief but reliable method in order to accurately identify those at risk. Consideration should also be given for the woman who goes on to become pregnant again as there is a possibility that a miscarriage could affect the woman’s emotional well-being during subsequent pregnancies. Cumming et al. (2006) brought forward the claim from previous research showing that an increase in stress [anxiety] during the first trimester of pregnancy can lead to an increased risk of miscarriage. Cumming et al. (2006) did not bring forward the idea that this anxiety and depression could lead to post-traumatic stress disorder. However, this idea does emerge from the research by Sejourne, Callahan, and Chabrol (2010a). Post-traumatic stress disorder was not a theme found consistently throughout the literature, rather aspects of this disorder such as anxiety and depression emerged.

One of the strengths of the research by Cumming et al. (2006) was the large sample population as well as the longitudinal research period of 13 months as compared to many other studies that are less than six months. The weakness of the research is that no comparison group was used. Without the comparison group it is difficult to say with absolute certainty that the increased anxiety found in men and women is solely related to the miscarriage and not to other factors that are common to couples in their reproductive years.

The second article for this section to be discussed in detail is by Lok et al. (2010). As mentioned above, this longitudinal observational study examined the course of psychological

outcomes for a year after miscarriage. The setting was a university affiliated teaching hospital in Hong Kong. The sample included a case group of 190 women who had miscarried and a control group of 150 non-pregnant women who were seeking contraception advice. Exclusion criteria were unwillingness to participate, problematic study observation due to immigration regulation or other factors, or history of a psychiatric illness. The 190 women comprising the cases completed the psychometric scales at four time points after miscarriage, as did the control group. The time points were immediately, 3, 6, and 12 months after miscarriage. Most of these women had miscarried in the first trimester.

Results of the analysis showed a statistically significant reduction in the GHQ-12 scores, particularly in the first three months. More than half of the women scored high on the GHQ-12 immediately after miscarriage, this was reduced to 25.1% at three months and 17.9% remained distressed 1-year post miscarriage. Beck Depression Inventory scores across time also showed a statistically significant change from immediately after the miscarriage to three months after; 26.8 % of women scored high on the Beck depression inventory immediately after miscarriage and this decreased significantly at three months (18.9%) and a year later (9.3%). Both the GHQ-12 and the BDI scores were statistically significantly higher in the miscarriage group immediately and three months after miscarriage in comparison to the control group.

Strengths of this research were in the 12-month longitudinal time span as well as in the use of a control group. This enabled a more accurate picture of the effect of time on psychological morbidity. The research used a large sample, which supported the statistical significance. This along with the use of universally recognized tools lends itself to solid conclusions and practice implications. The limitations of this research were that the

measurements used were not necessarily able to diagnose depression and anxiety. The psychological outcomes assessed by this study were purely the result of psychometric testing and not equivalent to a diagnosis by a qualified diagnostician. Another limitation was that the psychometric testing itself could have had an unintended therapeutic effect on the participants. Finally, this study was done in Hong Kong with a different a sample population whose culture and ethnicity is different than Canada. The study results and implications may not be completely transferable to Canadian culture and health care. This was not mentioned by the authors as a limitation.

The practice implications of this particular research suggest that women that are more distressed immediately after miscarriage continue to be at higher risk for psychological morbidity for the following year. However, this does not exclude women who are initially less distressed from developing psychological morbidity. Screening and care for these women is necessary and prudent.

### **Early Interventions Are Desired and Effective**

Sejourne et al. (2010a) found that 86% of women felt that the medical appointment they had after their miscarriage was insufficient for dealing with the issues surrounding the miscarriage and that these women indicated that they would appreciate continuing psychological, social, and emotional support after their miscarriage. The women felt that they were not given sufficient information concerning the causes of miscarriage, the process of miscarriage, what was to be expected after a miscarriage, future pregnancies, and the psychological experience of miscarriage (Sejourne et al., 2010a). Cumming et al. (2007) suggest that lack of routine follow-up may increase anxiety in women who have miscarried, while Rowlands and Lee (2010a) posit that such women will benefit from follow-up care.

Neugebauer et al. (2007) found that there was a marked decrease in depressive symptoms among women, who received telephone-administered interpersonal counselling, which was a scaled down version of psychotherapy administered by an interpersonal psychotherapist (IPT) or registered clinical psychologist. The counselling sessions were scheduled within 14 days of initial contact and then weekly for 6 weeks. The length of each session was not stated.

Rowlands and Lee (2010a) found that important aspects of early interventions include provision of information and acknowledgement of loss. Information in the form of patient education may require specific training in order to achieve a constant level of adequate support (Rowlands & Lee, 2010a). Rowlands and Lee (2010a) also identified that poor communication between women who are miscarrying and their health care providers had a negative impact on women's lived experience of miscarriage. Women repeatedly expressed a desire for more information about the many aspects of miscarriage. They also expressed a desire to have resources from which they could receive emotional support (Rowlands & Lee 2010a; Sejourne et al. 2010a).

Acknowledgement of the loss was found to be an important aspect in post-miscarriage support (Adolfsson, Bertero, and Larsson, 2006; Rowlands & Lee, 2010b). Women need to have their feelings of loss and emptiness acknowledged. When the loss is ignored or passed over to discuss medical concerns, the woman may feel that her loss is inconsequential to others.

The articles chosen for detailed examination reflect the larger body of literature indicating that interventions early after a miscarriage are most desired by women and appear to be most effective in light of long term well-being. The first article to be discussed in

detail is written by Neugebauer et al. (2007). This study evaluated the potential of telephone administered counselling for women after miscarriage. The second article to be examined in detail describes a study by Sejourne, Callahan, and Chabrol (2010b) that examined the effectiveness of psychological support interventions, psychoeducation, and cognitive-behavioural therapy.

The research by Neugebauer et al. (2007) took place in two New York City Medical centers in low-income neighborhoods with women who were seeking medical care for miscarriage. Inclusion criteria for the project were that the woman was over 17 years of age, spoke English or Spanish, could be reached via telephone, had a medically documented miscarriage within 18 weeks of the first interview, and reported at least mildly elevated symptoms. This was quantified by having a score greater than 13 on the Centre for Epidemiologic Studies-Depression (CES-D) scale, evaluated by a trained rater. Excluded were women who had life-threatening physical illness, mental retardation, suicidal ideation, a current major mood disorder, current depressive symptoms that started prior to the miscarriage, a substance use disorder, a history of psychotic illness, or refused to have the sessions audiotaped. The final sample included nine women as many of the originally selected women were lost to follow-up for a number of reasons.

Participants were given an initial counselling session within 14 days of the first telephone interview and then weekly thereafter for a total of six sessions. Sessions were done using interpersonal counselling, which is a modification of interpersonal psychotherapy and works from the premise that life events, such as loss and bereavement influence mood. A counselling script was designed by the researchers and administered one-on-one by a psychotherapist. Results of the study show that participants experienced significant

improvement of depressive symptoms that decreased by 52% using the CES-D scale (Neugebauer, et al., 2007). This study suggests that telephone administered mental health care would be a feasible option for this patient population.

Limitations of this research are that the article describing the study was not clearly written or easy to understand. Also, in order to make a generalization about this intervention a randomized controlled trial would be needed. In addition, the sample size was quite small and so statistical significance was impossible to determine. In conclusion, this research shows limited but promising results using data from previous studies to develop a brief telephone supportive intervention.

The second article to be thoroughly examined is by Sejourne, Callahan, and Chabrol (2010b) who hypothesized that a single-session intervention based on cognitive behavioral therapy techniques including psychoeducation and empathetic emotional support and cognitive reframing would be beneficial for women dealing with miscarriage. Empathetic emotional support was defined by the researchers as an empathetic listening approach that was used in order to encourage therapeutic alliance and emotional expression. Cognitive behavioural therapy including cognitive reframing was used to help women deal with feelings of guilt or responsibility. The researchers used a quasi-experimental approach and the study was conducted in two semi-private clinics in Toulouse, France. The sample population was comprised of 134 adult women who spoke French and who had undergone dilation and curettage or vacuum aspiration for the uncomplicated and unanticipated loss of a pregnancy. The sample was divided into an immediate intervention group and a deferred intervention group. The measurement tools used were the Hospital Anxiety Depression Scale and the Impact of Events Scale Revised, which provided a measurement of post-traumatic

stress disorder (PTSD) symptoms. At the time of the study DSM-IV diagnostic criteria of PTSD was used and therefore the IES-R only had three subscales: intrusion, avoidance, and hypervigilance to measure PTSD. Today the DSM-5 has outlined four distinct diagnostic symptom clusters instead of three, with the new symptom being negative cognition and mood. What has remained constant between the two versions is that the duration of disturbances is more than one month. The measurements were taken at three and 10 weeks and then again at six months' post-miscarriage. The women in the deferred intervention group were provide with an opportunity for support intervention at three months after miscarriage. The women in the immediate intervention group received a single psychological session on the day of their surgical intervention, this session lasted an average of 37 minutes. Two weeks after this session they received a telephone follow-up.

The results of this study showed that women in the deferred intervention group had higher depression scores than the immediate intervention group at 10 weeks post miscarriage. There were significant predictive factors for anxiety found in the deferred intervention group and in those with previous depression despite having intervention or being part of the deferred intervention group.

This study showed that at three weeks' post-miscarriage, women benefitted from having an interview and telephone follow-up. This was demonstrated by less intense symptoms of anxiety and depression in those with immediate follow-up when compared with those who were offered deferred follow-up (Sejourne, Callahan, & Chabrol, 2010b). Those in the deferred intervention group showed clinically significant depressive symptoms 10 weeks after the miscarriage. Many of the participants in the immediate intervention group found that the interventions were useful and 20% expressed a desire for even more support,



although the researchers did not clarify the type of support, it can be surmised that it would be in the way of further therapy sessions. The researchers suggest that intervention by way of systematic counselling such as cognitive behavioural therapy should be provided to women immediately following a miscarriage (Sejourne, Callahan, & Chabrol, 2010b).

A weakness in this study was that there was no allowance for a global evolution of symptoms over time. Therefore, the study did not measure potential intervention efficacy starting at the initial period after miscarriage. Also to be considered is the unintended therapeutic effect that the questionnaires and measures may have had on the deferred intervention group.

## **Summary**

This literature review brought forward nine research articles that were analyzed in order to identify themes that would inform an approach to primary care delivery for a woman experiencing anxiety and depression after a miscarriage. The key themes derived from the literature include; women's needs for support after a miscarriage are unique; there is a need for primary care providers to screen for depression and anxiety; and early interventions are most effective when managing anxiety and depression after miscarriage. These findings will be used in a discussion that will encompass Swanson's Framework and provide implications for clinical practice.

Limitations of this review of the literature include the lack of research about the primary care needs of women in their 20s and 30s who have experienced a miscarriage. There was a limited amount of studies from which to draw conclusions and many of the studies included small samples sizes which reduced the generalizability of their conclusions.

All research studies reviewed were conducted outside of Canada. Conclusions from these studies may differ according to varying cultural values and perspectives within Canada. This study may not be applicable to populations such as teen mothers, women in their 40's, those receiving fertility treatments, and other sub-groups. Another limitation of these studies, when comparing, is that the instrumentation used to measure depression and anxiety after miscarriage was not standardized. Each of the studies that address depression and anxiety after miscarriage used a variety of different instruments. This makes comparison of studies that are addressing similar issues challenging.

## Chapter Six: Discussion

*There's nothing more calming in difficult moments than knowing there's someone fighting with you.*

-Mother Teresa

Miscarriage occurs frequently and is thought to be as high as 25% of all pregnancies. Unfortunately, amongst health care providers, a tone is being set that communicates to these women that their experience of having a miscarriage is viewed as being an insignificant event. This oversight is leaving many women feeling unsupported and even traumatized. Research has shown that, as a result of these experiences, there are clinically high levels of depression and anxiety among women who have recently miscarried. The literature clearly states that psychological care after miscarriage is not a standardized service across primary care settings (Geller, Psaros, & Kornfield, 2010; Maker & Ogden, 2003; Kong, Lok, Lam, Yip, & Chung, 2010) and the women who are accessing these services express that they are not given sufficient information or support from their providers (Sejourne, Callahan, and Chabrol, 2010a).

Nurse practitioners, upon licensure, have the knowledge, skills, and abilities that are essential to independent clinical practice. The MScN-FNP degree is built upon a sound undergraduate degree where theoretical concepts are taught, and clinical experience is gained with extensive hours in clinical practice. This foundation is then applied to the Master's degree by building upon these core concepts while incorporating advanced knowledge and skills acquired by clinical and classroom learning which adds a greater depth and breadth of knowledge. Nurse practitioner competencies have an emphasis on independent, inter-disciplinary practice, that use analytical skills for evaluation as well as providing evidence-

based, patient centered approaches across a multitude of settings while maintaining advanced knowledge of the health care delivery system (The National Organization of Nurse Practitioner Faculties, 2011). The role of the family nurse practitioner is one that is grounded in a holistic and collaborative approach to patient care (Canadian Nurses Association, 2009; CRNBC, 2011). Along with these attributes is the fact that the family nurse practitioner functions as a primary care provider, patient educator, and patient advocate (Canadian Nurses Association, 2009). As nurse practitioners gain more of a role in primary care, there is no doubt, that the topic of miscarriage will be a pervasive part of their scope of practice.

Within the culture of nursing, loss is not viewed as a failure but as an opportunity to respond to the complex and varied needs of the patient, in this case the woman. For women that have experienced a miscarriage, the family nurse practitioner is in a privileged position to come alongside them, and help shape the miscarriage experience. Nurse practitioners have demonstrated that they are effective, safe practitioners who positively influence patient outcomes (Donald, et al., 2010). Nurse practitioners, who have established a meaningful relationship with a patient who has miscarried, should not be focused on “curing” the woman, but rather on introducing the process of healing through caring. This direct focus of caring that is foundational to nursing will also incorporate medical knowledge (Dunphy, Porter, Winlan-Brown, & Thomas, 2015). Caring is central to nursing, and although the concept of caring is not unique to nursing knowledge or practice, Swanson (1991) reminds us that caring is “a nurturing way of relating to a valued other toward whom one feels a personal sense of commitment and responsibility” (p 165). As nurse practitioners incorporate more medical knowledge into their practice, it is imperative to not forget to draw upon the foundational core concept of caring that guides their practice.

Fortunately, the nurse practitioner, as a primary care provider, has acquired the necessary training combined with clinical experience to be a proficient provider of care for these women that is both timely and meets women's physical and psychological needs. The nurse practitioner can achieve this level of care for the woman who has miscarried by drawing on the five principles of Swanson's framework for caring. This holistic model can help guide the nurse practitioner's choice of therapeutic intervention so that it meets the unique needs of the woman who has miscarried. This proposed model of care not only attends to the woman in the present moment, but also looks to ensure her long term well being.

The evidence presented in this paper supports the position that there is a gap in the delivery of miscarriage care, for those woman who present as having unique needs for support, the need to be screened for anxiety and depression, and require early interventions. The biopsychosocial responses to pregnancy after miscarriage appear to be consistent among women in their 20s and 30s, and as a result the emergent themes from the literature review can help shape and guide future nurse practitioner practice. The literature review revealed that both anxiety and depression are common responses that are consistently found. The nurse practitioner needs to identify the women that are at risk and can do this by providing ongoing assessments and early interventions. Fortunately, Swanson (1991) has provided a theoretical framework for caring that can inform nurse practitioner practice for the care of these women. The following discussion will provide a critical analysis of the research findings organized within Swanson's framework. "In the theory's most recent form, caring consists of five categories or processes. They are knowing, being with, doing for, enabling,

maintaining belief” (Swanson, 1991, p.161). These five processes provide the structure for the following discussion.

### **Knowing**

The literature review identified that women who miscarry present with unique needs. Striving to understand the event as it has meaning to the woman is a crucial first step that should be done as part of the assessment of the woman. Recognizing the woman as a significant being and striving to understand her experience while creating a climate for establishing a commitment to healing and avoiding assumptions is what Swanson (1991), describes as knowing. This knowing portrays the centering on the one cared for by assessing thoroughly and identifying the woman’s desire to be understood for her experience. By asking the woman questions about her miscarriage we can avoid assumptions and move toward fully understanding the event. Exploring the meaning of the loss with the woman will allow the practitioner to gain insight into what the loss means to that woman. As the literature so clearly portrays, the woman’s needs for support are unique, and these needs must be identified by the nurse practitioner. The knowing will allow the nurse practitioner to address the needs of the women, then choose the appropriate intervention, whether it might be for education, reassurance, medical management, or counselling.

Rowlands and Lee (2010b) found that women with more education, higher satisfaction with their primary care provider, and having other living children seem to manage better in the long term. The higher the level of education a woman has obtained, the more able a woman seems to be to draw upon more options and resources to help deal with the loss and move forward with the grieving process. Having a better understanding that they are not responsible for the miscarriage could also be attributed to such women, however

intellectual knowing does not necessarily mitigate guilt and self-blame. In contrast, women who had been hospitalized for a major illness, had a break-up with their partner, had serious financial difficulty, or lack of perceived support had more difficulty managing life after a miscarriage (Rowlands & Lee, 2010b). Further identifiers of women who could be at risk discussed in the literature include being younger than 28 years, having a history of mental health problems and having higher stress levels (Mann et al., 2008; Rowlands and Lee, 2010b). When the nurse practitioner operates from a basis of knowing in the context of individualized care after a miscarriage, this results in both the woman and the care provider being engaged with one another and this then brings about the appropriate course of support (Swanson, 1991). Since nurse practitioners are typically employed as salaried practitioners, time constraints, which often exist with fee-for-service providers, and can result in a barrier to patient care, are not as prevalent with nurse practitioners. As a result, nurse practitioners are free to spend a full 15-20 minutes and in some cases even longer with a patient in order to allow the psychological aspects of care to be incorporated.

The second theme that emerged from the literature is that women who have miscarried need to be screened for depression and anxiety. Sejourne, Callahan and Chabrol (2010b) identified that women who are at higher risk for psychological distress need to be identified early in the miscarriage process. The nurse practitioner can use a brief but reliable screening tool to identify these women. The screening for those at risk builds upon the concept of understanding the unique needs of this patient population. Women need to be screened for early identification and management, but not all women will need treatment. In knowing, the nurse practitioner assesses thoroughly, remains curious, and seeks clues from the woman's verbal communications and non-verbal presentation in order to identify those

who might be at risk. By remaining curious about the woman who has miscarried the nurse practitioner will be attuned to her current presentation and should be able to recognize a depressed mood or general state of anxiety. Both of these diagnoses consist of overlapping symptoms with things like a lack of interest in daily activities or irritability, fatigue, appetite and sleeping fluctuations, as well as concentration problems.

Five of the nine articles examined underline the need for the health care provider to know their patient in order to understand her needs. Cumming et al. (2007) suggest using a brief but reliable screening tool to assess those at risk for psychological morbidity, although no specific tool was recommended. Rowlands and Lee (2010b) utilized the 5-item Mental Health subscale of the Australian standard version Short Form Health survey to screen. Adolfsson (2006) utilized the Perinatal Grief Scale. Sejourne et al. (2010b) utilized the Hospital Anxiety and Depression Scale and the Impact of Events Scale. Lok et al. (2010) suggested using the General Health Questionnaire (GHQ-12) or Beck Depression Inventory (BDI) for screening. Regardless of which screening tool is utilized, the nurse practitioner will need to assess her patient in order to truly know her.

### **Being With**

The concept of being with is described by Swanson (1991) as one step beyond knowing; it is conveying ability, being emotionally present even in physical absence. It is where the nurse practitioner provides comfort measures and preserves personhood in the face of pain and extreme breakdown. The woman is far more likely to respond positively when approached by a nurse practitioner who is emotionally available. The screening tools discussed previously can have some therapeutic benefits and the woman will often feel heard through their use, which results in having her grief validated. Being with also allows the



woman's preference for follow up and treatment to drive decision making around care.

Adolfsson et al. (2006) reiterated the varied physical, emotional, and psychological needs of a woman after a miscarriage. Knowing and being with will allow the nurse practitioner to make appropriate decisions in partnership with the woman.

### **Doing For**

The third sub-dimension of Swanson's (1991) theory of caring, doing for, can take place only after a thorough screening process for depression and anxiety has been completed. This builds on the concept of women who have miscarried and have unique needs. As with most mental illnesses, depression and anxiety rob the individual of the ability to function in many domains of their daily life. As a result of this the nurse practitioner takes on the role of doing for others as they would have done for themselves if they were capable. If a mental illness occurs for the woman who has miscarried, then an intervention is needed to help her regain dignity and control in her life. The nurse practitioner can facilitate treatment through CBT, brief psychotherapy, or by using a referral process to a mental health practitioner. Prescriptions of anti-depressants or anti-anxiety drugs may also be needed. Although this paper does not address pharmacological treatment for this population, it may be an option for some patients depending on their needs.

The earlier a therapeutic intervention is initiated by the nurse practitioner, the better the outcome can be for the woman. Neugebauer et al. (2007) found that a telephone administered counselling session with women within several days of entering into the study was effective to reduce depressive symptoms. Although the nurse practitioner may not be doing counselling per se, the patient could be brought into the office within a week after the miscarriage for an assessment and a decision about an early intervention could be made. The

intervention itself could actually be the appointment, thereby creating the space the woman needs to discuss the meaning of the loss for her. The nurse practitioner could provide other forms of counselling and if needed, medication therapy.

### **Enabling**

Enabling depicts the need to have the woman's grieving facilitated. The nurse practitioner enables the woman by validating and giving supportive guidance that helps the woman find ways to care for herself and seek support from others. It is a form of empowerment. Assessing the women's current support systems and coping strategies will allow the primary care provider to use a strength based approaches in care. Questions such as, "when you have gone through difficulties before, who did you talk to?" or "what strategies have helped you deal with hardships in the past?" Helping the woman to identify and use her strengths will enable her to move forward through the grief.

Through the process of enabling, the nurse practitioner can be the person that will help the grieving mother through her difficult life transition. This can be done by acting as the person who can validate the woman's experience in that moment, provides both medical and psychosocial supports, as well as addressing other needs of care. The woman may require support by the provision of information about what is to be expected physically. If she is being managed medically as an outpatient, she will need to anticipate what the physical nature of the miscarriage will be like and how to prepare for this.

The nurse practitioner may need to prescribe or recommend medications such as anti-depressants, pain medications, or sleep aids that would be beneficial in the woman's care. As the woman is physically experiencing the miscarriage, the nurse practitioner can provide

education about anticipated blood loss, infection, how to manage the products of conception, and when to seek emergency care. The nurse practitioner can also ensure that the woman has adequate follow up in the clinic or via telephone and a further physical assessment could be completed at that time. There are community resources that women could be referred to if their own psychosocial support network is not adequate enough to meet their needs. The nurse practitioner, in collaboration with the woman, can determine what further supports or additional care is required. The nurse practitioner, although the primary care provider, does not necessarily need to be the one to provide ongoing support, but can ensure that the ongoing support is provided. By taking on this important role, the nurse practitioner frees up much needed emotional energy for the woman who miscarried to focus on her immediate concerns and physical needs. As the grieving process continues, the woman equipped with the necessary support and information can move through the process of generating alternative explanations about her miscarriage experience. Finding the meaning in her loss will allow the woman who miscarried the opportunity to grow and hopefully, to self-actualize (Swanson, 1991).

The necessity for early intervention is the third theme that emerged from the literature review. Many women identified that their follow-up medical appointment was insufficient to deal with the issues (Sejourne, N., Callahan, S., & Chabrol, H., 2010a) and concerns (Cumming, et al., 2007) that they had following a miscarriage. Enabling, would allow the nurse practitioner to help navigate the woman's passage through this often difficult life transition and the complexities that come with this journey (Swanson, 1991). Enabling can facilitate the woman's capacity to grow, heal, and practice self-care. By offering alternatives to and reframing their current situation, the nurse practitioner can meet the biopsychosocial

needs of the woman who has miscarried and help change the course of treatment. In the context of primary care for women experiencing anxiety and depression after miscarriage, the nurse practitioner can provide a safe and nurturing space. This creates the openness to talk, make referrals for more in-depth counselling, recommend self-help books, allows the woman, perhaps for the first time, to articulate the meaning of her loss, and use psychological interventions like cognitive behavioural therapy and motivational interviewing techniques to help move the woman in the direction of healing.

Nodding (1984) describes when the primary care provider sees the other's reality as a possibility for himself or herself, it triggers a response within the care provider to try and eliminate the other's intolerable suffering. When we act to eliminate the intolerable, reduce the pain, and fill the need to actualize another's dream, we are truly embodying what it means to practice both knowing and enabling. This process in action will allow the nurse practitioner to come beside the woman in order to meet her unique needs and assist the woman to work through her pain and move towards healing.

### **Maintaining Belief**

Swanson's fifth and final sub dimension, maintaining belief, is the culmination of striving to know, being with, doing for, and enabling the other. No matter how unique the needs of a woman who miscarries are, what the results of screening for anxiety or depression tell us, or even the stage at which an intervention takes place, the nurse practitioner must be at least one person in the woman's life who can maintain belief about their situation, and reinforce to the woman that she has the capacity within her to get through this experience. "In nursing, maintaining belief is a pervasive part of our profession; nurses approach human responses as meaningful aspects of their clients' realities." (Swanson, 1991, p.165). In doing

this the nurse practitioner is going the distance for their patient while being sensitive to her unique needs.

At the core of using a therapeutic intervention, when using Swanson's theoretical framework, is maintaining belief. This is the nurse practitioner sustaining a hope-filled attitude while offering realistic optimism, and supporting the woman in her search to find meaning. Nurse practitioners can communicate their belief in the woman's capacity to heal and face the future with hope. This can help the woman to decide whether, when, and how to move on and to deal with her next pregnancy. By instilling this belief early on in the miscarriage process, the woman can be supported into maintaining a sense of hope about her situation.

## **Chapter 7 Summary and Conclusion**

*“All the art of living lies in a fine mingling of letting go and holding on.”*

-Havelock Ellis

The focus of this paper was limited to women in their 20s and 30s who have experienced a miscarriage. Even though this age group makes up the majority of childbearing women, the lessons learned here should not be generalized to all childbearing woman. The emergent theme that these women are a heterogeneous group is only further complicated when teens and woman over 40 are included. Building on this is the fact that there was such a limited number of studies to draw from with regards to this age group, most of which had small samples sizes, therefore one can only assume there might be an overrepresentation of woman with negative experiences post miscarriage who participated in these studies.

### **Recommendations for Nurse Practitioner Practice**

Once a miscarriage has been identified, the woman should be brought in for an office visit to discuss management. If possible, having a support person being present would be of great benefit as the woman may not hear all of the advice and education due to the distress she may be experiencing. Typically, the woman is offered surgical, medical, or expectant management. Risks and benefits of all options should be discussed and weighed out with the woman. Teaching and education can be provided to the woman regarding what to expect physically with a miscarriage including pain management. Emotional support and reassurance along with education around the causes of miscarriage would be ideal. Nurse practitioners should advise the woman to come back to the office in 1-2 weeks for a follow-up. At that time, screening for depression and anxiety can be initiated using a brief but reliable screening tool in order to better identify women at risk for a psychiatric illness. Such

tools discussed earlier that can be used are the Beck Depression Inventory, Perinatal Grief Scale, or the Hospital Anxiety and Depression Scale. For those women who are identified as high risk for anxiety and depression, referral to community programs and supports should be offered. Psychoeducation around what anxiety and depression look and feel like should be conducted by the nurse practitioner. CBT can be offered by the nurse practitioner if qualified, otherwise, a referral to a registered counselling clinic or private practice practitioner should be recommended. To help bridge the time to therapy, a discussion about the use of psychotropic medications like antidepressants and sleep aids can be offered.

Nurse practitioners may want to include screening for increased stress levels as part of routine antenatal health visits. This would allow the practitioner to have a sense of the woman's pre-existing stressors and supports by establishing a baseline. The Perceived Stress Scale (PSS) is one such quick and easy screening tool to administer and score. This would alert the practitioner to the need for supports and early intervention should a miscarriage occur.

### **Nurse Practitioner Education**

Nurse practitioner programs would benefit by providing their students with supplemental education and training to include not only the statistics around miscarriage, but the psychosocial impacts that a miscarriage can have on a woman, her partner, and her other children if any. Standard nurse practitioner training and education does not prepare emerging graduates to be proficient or even fully aware about the management of this all too frequent event. An anecdotal case in point was, when a midwife who was conducting a lecture about pregnancy was asked about the management of miscarriages, she answered by saying how they are very routine, and just another part of pregnancy. She went on to say that they are

insignificant for the woman miscarrying and life goes on (Karen Gerlach, personal communication, January 14, 2016). If this is the perceived level of attention to care by a specialist, then how can future nurse practitioners avoid negative outcomes with such a small amount of attention being given to this matter?

### **Areas for Further Research**

It would be strongly recommended that those individuals choosing to do further investigations within this area of primary care focus on topics such as, minority groups who have experienced miscarriage, and ways in which culture affects women's handling of a miscarriage. Unfortunately, none of the studies used in this paper drew upon a Canadian sample population, therefore it would be interesting to find out if the findings reported here are consistent within the multicultural context that is the Canadian healthcare system. With the prevalence of mental health concerns in society today, and with the increasing destigmatizing of mental health, future research considerations could include the development of a valid, reliable, brief screening tool developed to isolate the symptoms associated with miscarriage. Building on this scale, primary care practitioners would be better able to identify women at risk for anxiety and depression after miscarriage. A number of different tools were used in the research, but there is not one specific tool that emerged as ideal for this group of women. Developing such a scale could ensure that women who miscarry are receiving the best possible care available to them early enough. Although not talked about in any great depth in this paper future research regarding pharmacological management of miscarriages would also be an area of future investigation. A possible question to be asked would be if the pharmacological management of a miscarriage with antidepressants and anti-



anxiety medications is just as effective as psychotherapy by itself or is a combination of the two more effective?

## **Conclusion**

Nurse practitioners, as primary health care professionals, have advanced nursing practice competencies that enable them to provide health care services from a holistic perspective for their patients. As a family nurse practitioner, events that make up the life span will be a significant part of what is dealt with in practice. Not to be underestimated in these life events is the psychological morbidity and emotional impact that the various diseases, illnesses, and life events have on a patient. The nurse practitioner's role now not only includes counselling families on miscarriage, but also extends to educating medical and nursing staff on the emotional impact. Nurse practitioners must take on the challenge to care holistically for women, and to recognize that the loss of any pregnancy is a significant life crisis and can have far-reaching implications for the woman. In the past 20 years significant strides have been made in recognizing these increased psychological needs. All health care providers, not just nurse practitioners, must continue this pursuit, because they are the ones in a position to take on this task by positively affecting the experience of the woman who has miscarried.

## References

- Adolfsson, A. (2011). Meta-analysis to obtain a scale of psychological reaction after perinatal loss: Focus on miscarriage. *Psychology Research and Behavior Management*, 4, 29-39.
- Adolfsson, A., & Larsson, P. (2006). Translation of the short version of the perinatal grief scale into Swedish. *Scandinavian Journal of Caring Sciences*, 20(3), 269-273.
- Adolfsson, A., Bertero, C., & Larsson, P. (2006). Effect of a structured follow-up visit to a midwife on women with early miscarriage: A randomized study. *Acta Obstetrica et gynecologica Scandinavica*, 330-335.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Arlington : American Psychiatric Publishing.
- Aveyard, H. (2010). *Doing a literature review in health and social care: A practical guide*. Berkshire: Open University Press.
- Bardos, J., Hercz, D., Friefenthal, J., Missmer, S., & Williams, Z. (2015). A national survey on public perceptions of miscarriage. *Obstetrics and Gynecology*, 125(6), 1313-1320.
- Bennett, S., Litz, B., Maguen, S., & Ehrenreich, J. (2008). An exploratory study of the psychological impact and clinical care of perinatal loss. *Journal of Loss and Trauma*, 13(6), 485-510.
- Biondi-Zoccai, G., Lotrionte, M., Landone, G., & Modena, M. (2011). The rough guide to systematic reviews and meta-analyses. *HSR Proceedings in Intensive Care and Cardiovascular Anesthesia*, 3(3), 161-173.
- Blair, K., & Jansen, M. (2015). *Advanced Practice Nursing: Core concepts for professional role development*. New York: Springer Publishing Company.
- Brady, G., Brown, G., Letherby, G., Bayley, J., & Wallace, L. (2008). Young women's experience of termination and miscarriage: A qualitative study. *Human Fertility*, 11(3), 186-190.
- Canadian Nurses Association. (2009). Position statement: The nurse practitioner. *Canadian Nurses Association*. Retrieved from [https://cna-aiic.ca/~media/cna/page-content/pdf-fr/ps\\_nurse\\_practitioner\\_e.pdf?la=en](https://cna-aiic.ca/~media/cna/page-content/pdf-fr/ps_nurse_practitioner_e.pdf?la=en)
- College of Registered Nurses of British Columbia. (2011). *Applying the Competencies Required for Nurse Practitioners in British Columbia*. Vancouver: CRNBC.
- College of Registered Nurses of British Columbia. (2016). *Scope of Practice For Nurse Practitioners: Standards, Limits and Conditions*. Vancouver: CRNBC.
- Cumming, G., Klein, S., Bolsoe, D., Lee, A., Alexander, D., Maclean, M., & Jurgens, J. (2007). The emotional burden of miscarriage for women and their partners: Trajectories of anxiety and depression over 13 months. *BJOG An International*

- Journal of Obstetrics and Gynaecology*, 1138-1145. doi:10.1111/j.147-0528.2007.01452.x
- Davis, B., & Logan, J. (2008). *Reading research: A user-friendly guide for nurses and other health professionals*. Toronto: Elsevier Canada.
- DiCenso, A., Guyatt, G., & Ciliska, D. (2005). *Evidence-Based Nursing: A Guide to Clinical Practice*. St. Louis, MO: Elsevier Mosby.
- Donald, F., Martin-Misener, R., Bryant-Lukosius, D., Kilpatrick, K., Kaasalainen, S., Carter, N., . . . DiCenso, A. (2010). The primary healthcare nurse practitioner role in Canada. *Advanced Practice Nursing*, 88-113.
- Dunphy, L., Porter, O., Winlan-Brown, J., & Thomas, D. (2015). *Primary Care: The art and science of advanced practice nursing*. Philadelphia: F.A Davis Company.
- Evans, R. (2012). Emotional care for women who experience miscarriage. *Nursing Standard*, 26(42), 35-41.
- Gaudet, C. (2010). Pregnancy after perinatal loss: Association of grief, anxiety and attachment. *Journal of Reproductive and Infant Psychology*, 28(3), 240-251.
- Geller, P., Psaros, C., & Kornfield, S. (2010). Satisfaction with pregnancy loss aftercare: are women getting what they want? *Archives of Womens Mental Health*, 13(2), 111-124.
- Gerber-Epstein, P., Leichtentritt, D., & Benyamini, Y. (2009). The experience of miscarriage in first pregnancy: The women's voices. *Death Studies*, 33, 1-29.
- Groh, C., & Hoes, M. (2003). Practice methods among Nurse Practitioners treating depressed women. *Journal of the American Academy of Nurse Practitioners*, 15(3), 130-136.
- Hamama, L., Rauch, S., Sperlich, M., & Seng, J. (2010). Previous experience of spontaneous or elective abortion and risk for posttraumatic stress and depression during subsequent pregnancy. *Depression and Anxiety*, 8, 699-707.
- Harvey, J., Moyle, W., & Creedy, D. (2001). Women's experience of early miscarriage: a phenomenological study. *Australian Journal of Advanced Nursing*, 19(1), 9-16.
- Huffman, C., Swanson, K., & Lynn, M. (2014). Measuring the Meaning of Miscarriage: Revision of the Impact of Miscarriage Scale. *Journal of Nursing Measurement*, 22(1), 29-45.
- Kong, G., Lok, I., Lam, P., Yip, A., & Chung, T. (2010). Conflicting perceptions between health care professionals and patients on the psychological morbidity following miscarriage. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 50, 562-567.
- Lamb, E. (2002). The impact of previous perinatal loss on subsequent pregnancy and parenting. *The Journal of Perinatal Education*, 11(2), 33-40.

- Lok, I., & Neugebauer, R. (2007). Psychological morbidity following miscarriage. *Best Practice & Research Clinical Obstetrics and Gynaecology*, 21(2), 229-247.
- Maconochie, N., Doyle, P., Prior, S., & Simmons, R. (2007). Risk factors for first trimester miscarriage-results from a UK-population-based case-control study. *British Journal of Gynecology*, 170-186.
- Mahood, Q., Van Erd, D., & Irvin, E. (2014). Searching for grey literature for systematic reviews: Challenges and benefits. *Research Synthesis Methods*, 5(3), 221-234.
- Mann, J., Mckeown, R., Bacon, J., Vesselinov, R., & Bush, F. (2008). Predicting depressive symptoms and grief after pregnancy loss. *Journal of Psychosomatic Obstetrics & Gynecology*, 29(4), 274-279.
- McCreight, B. (2008). Perinatal Loss: A qualitative study in Northern Ireland. *Omega*, 57(1), 1-19.
- Morris, J. (2007). Uses of epidemiology. *International Journal of Epidemiology*, 36(6), 1165-1172.
- Murphy, F., & Merrell, J. (2009). Negotiating the transition: caring for women through the experience of early miscarriage. *Journal of Clinical Nursing*, 18(11), 1583-91.
- Nakano, Y., Akech, T., Furukawa, T., & Sugiura-Ogasawara, M. (2013). Cognitive behavior therapy for psychological distress in patients with recurrent miscarriage. *Psychology Research and Behavior Management*, 6, 37-43.
- Neugebauer, R., Kline, J., Bleiberg, K., Baxi, L., Markowitz, J., Rosing, M., . . . Keith, J. (2007). Preliminary open trial of interpersonal counseling for subsyndromal depression following miscarriage. *Depression and Anxiety*, 219-222.
- Nikcevic, A., & Nicolaides, K. (2013). Search for meaning, finding meaning and adjustment in women following miscarriage: A longitudinal study. *Psychology and Health*(1), 50-63.
- Nikcevic, A., Kuczmierczyk, A., & Nicolaides, K. (2007). The influence of medical and psychological interventions on women's distress after miscarriage. *Journal of Psychosomatic Research*, 63(3), 283-290.
- Nikcevic, A., Tunkel, S., & Nicolaides, K. (1998). Psychological outcomes following missed abortions and provision of follow-up care. *Ultrasound In Obstetrics & Gynecology: The Official Journal Of The International Society Of Ultrasound In Obstetrics And Gynecology*, 11(2), 123-128.
- Noddings, N. (1984). *Caring: A Feminine Approach to ethics and moral education*. Berkeley: University of California Press.

- Rowlands, I., & Lee, C. (2010a). 'The silence was deafening': social and health service support after miscarriage. *Journal of Reproductive and Infant Psychology*, 28(3), 274-286.
- Rowlands, I., & Lee, C. (2010b). Adjustment after miscarriage: Predicting positive mental health trajectories among young Australian women. *Psychology, Health & Medicine*, 34-49.
- Sejourne, N., Callahan, S., & Chabrol, H. (2010a). Support following miscarriage: what women want. *Journal of Reproductive and Infant Psychology*, 28(4), 403-411.
- Sejourne, N., Callahan, S., & Chabrol, H. (2010b). The utility of a psychological intervention for coping with spontaneous abortion. *Journal of Reproductive and Infant Psychology*, 28(3), 287-296.
- Simmons, R., Singh, G., Maconochie, N., Doyle, P., & Green, J. (2006). Experience of miscarriage in the UK: Qualitative findings from the National Women's Health Study. *Social Science and Medicine*, 63, 1934-1946.
- Statistics Canada. (2008, October 20). *Pregnancy Outcomes 2005*. Government of Canada. Ottawa: Industry Canada. Retrieved from Pregnancy outcomes by age group (fetal loss): <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/hlth65c-eng.htm>
- Swanson, K. (1991). Empirical development of a middle range theory of caring. *Nursing Research*, 161-166.
- Swanson, K. (1993). Nursing as informed caring for the well-being of others. *IMAGE: Journal of Nursing Scholarship*, 25(4), 352-357.
- Swanson, K. (1999a). Effects of caring, measurement, and time on miscarriage impact and women's well-being. *Nursing Research*, 31(4), 339-346.
- Swanson, K. (1999b). Research-based practice with women have had miscarriages. *Journal of Nursing Scholarship*, 31(4), 339-346.
- Swanson, K., Chen, T., Graham, J., Wojnar, D., & Petras, A. (2009). Resolution of depression and grief during the first year after miscarriage: A randomized controlled clinical trial of couples-focused interventions. *Journal of Women's Health*, 18(8), 1245-1259.
- The National Organization of Nurse Practitioner Faculties. (2011). *Nurse Practitioner Core Competencies*. Retrieved from <http://c.ymcdn.com/sites/www.nonpf.org/resource/resmgr/imported/IntegratedNPCoreCompsFINALApril2011.pdf>
- Thorstensen, K. (2000). Midwifery management of first trimester bleeding and early pregnancy loss. *Journal of Midwifery and Women's Health*, 45(6), 481-497.

- Watson, M. (1988). New dimension of human caring theory. *Nursing Science Quarterly*, 1(4), 175-181.
- Wojnar, D., Swanson, K., & Adolfsson, A. (2011). Confronting the inevitable: A conceptual model of miscarriage for use in clinical practice and research. *Death Studies*, 35, 536-558.
- Wong, M., Crawford, T., Gask, L., & Grinyer, A. (2003). A qualitative investigation into women's experiences after a miscarriage: implications for the primary healthcare team. *The British Journal Of General Practice: The Journal Of The Royal College Of General Practitioners*, 53(494), 697-702.
- Woods-Giscombe, C., Lobel, M., & Crandell, J. (2010). The impact of miscarriage and parity on patterns of maternal distress in pregnancy. *Res Nurs Health*, 33(4), 316-328.

Source	Purpose/ Research Question Posed	Setting & Method used	Characteristics of Sample	Results	Relevance to Practice
Adolfsson, Bertero, & Larsson, 2006	To measure whether a structured follow-up visit to a midwife at 21-28 days after early miscarriage could reduce the women's grief.	A gynecologic clinic in medium-sized town in the southwest of Sweden Swanson's framework for caring was used in the first group, control group had medical concerns addressed but no discussion about women's feelings.	88 women who had a miscarriage before 13 weeks of gestation, over 18 years of age and Swedish speaking.	Women who experience miscarriage are not a homogenous group. Women with missed abortion and who did not have other children had higher PGS scores at both visits Structured follow-up visits did not imply any significant reduction in grief as measured using the PGS scale.	Structured follow-up visits are not imperative for all women with early miscarriage. Women with suspicion of missed abortion receive an early appointment to attend a clinic and should be given information regarding early miscarriage. Knowledge of women's needs after miscarriage is important in order to help facilitate the grieving process and prevent complicated grief. The whole chain of health care needs to relay the same information
(Cumming, et al., 2007)	To present the findings of anxiety and depression in women and in men of 13 months after miscarriage and to discuss the clinical implications of early identification and management.	Setting: Three Early Pregnancy Assessment Units in Scotland. Assessments occurred at 1, 6 and 13 months after miscarriage. Methods: Semi-structured interviews Used HADS as standardize self-report measure of psychopathology.	Women 273 Men 133 Above 16 years Able to give written consent Miscarriage occurred prior to 24 weeks Completed management of index miscarriage	Anxiety was a greater clinical burden than depression Pregnancy loss represents a significant emotional burden for women, to a lesser extent for men for at least 13 months after loss. The effects of miscarriage can last a long time and are complex in resolution. Anxiety rather than depression was more likely to be experienced after miscarriage by men and women.	There are high levels of anxiety following miscarriage. The increase in anxiety in men and women may represent a lost opportunity for HCP to detect psychological morbidity after miscarriage and treat accordingly. HCP need training to detect those at risk for psychopathology. Need a brief but valid and reliable method of identifying those at risk.

Kong, Lok, Lam, Yip, & Chung, 2010	To assess HCPs and patient's attitudes towards the psychological impact of miscarriage	Setting: Antenatal clinic at a hospital in Hong Kong Method: Prospective, cross-sectional survey. Postal and face-to-face interview	1269 HCP: Family physicians 41.5%, obstetricians 9.3%, other specialists 49.1% and midwives 0.1%. 1209 pregnant women and 310 of their spouses. 42.8% had other children, 23.8 had a previous miscarriage.	There is less appreciation of psychological morbidity after miscarriage compared with that of postnatal depression among both health care professionals and patients. 10% of HCPs were not aware of possible psychological morbidity after miscarriage.	There may be a lack of continuity of care as most of the health care professionals look after a woman during miscarriage, but not many after discharge. Primary care providers share the responsibility of managing psychological aspects of miscarriage; it is important that a good referral system from a primary care provider to specialists are available if needed. Patients should be aware that such care is available.
Lok, Yip, Tak-Sing, Sahota, & Chung, 2010	To examine the 1-year longitudinal course of psychological outcomes after miscarriage.	Setting: University affiliated teaching hospital in Hong Kong Method: Longitudinal observational study using GHQ-12 and BDI scales	Study cohort: 190 miscarriage women Control group: 150 non-pregnant women seeking contraception advice.	Although psychometric scores reduced over time, the levels of psychological distress and depressive symptoms were statistically higher than those of the control. A statistically significant proportion of patients reported psychological morbidity shortly after miscarriage.	Targeting interventions aimed at alleviating psychological distress after miscarriage. There is a need to assess the psychological symptoms of women who have miscarried and counseling services are necessary. The psychological care of women who have miscarried cannot entirely focus on those who are initially more distressed.
(Mann, McKeown, Bacon, Vesselinov, & Bush, 2008	To identify antenatal predictors of depressive symptoms and grief following pregnancy loss.	Setting: 3 obstetrics practices 1 in Mississippi and 2 in South Carolina. Method: Prospective cohort study using religiosity	374 adult women enrolled during prenatal care	Age and religious attendance at least a few times a month were significantly inversely associated with grief scores.	Clinicians should be alert to signs of depression following miscarriage in younger women and in women with a history of mental illness during or before pregnancy. In religious activities provides a venue for interpersonal support and encouragement.



		measure: daily spiritual experiences and frequency of participation in organized religious activities.			
(Neugebauer, et al., 2007)	To evaluate the potential utility of telephone-administered interpersonal counseling for women after miscarriage.	Setting: Two New York City medical centers in low-income neighborhoods Method: Open pilot trial using telephone-administered interpersonal counseling	9 women Mean age: 32.5 years Hispanic: 35.3 Black: 5.9 Non-Hispanic white: 47.1 High school educated: 88.2 Married 53% Other children: 64.7%	Participants experienced substantial symptomatic improvement. Mean decline in completer sample from 23.6 at baseline to 11.2 post intervention probably reflects clinically significant improvement. Need a RCT to prove.	Preliminary evidence for the feasibility and acceptability of telephone-administered mental health care for this patient population.
(Rowlands & Lee, 2010)	Whether trajectories of Mental Health among women with a history of miscarriage differ according to the demographic factors, internal and external coping resources, and other measures of psychological health and well-being. The broader aim is to identify characteristics of women who cope well, or badly, after a miscarriage to	The Australian Longitudinal Study on Women's Health using a government funded survey of all Australian citizens and permanent residents randomly elects 40,000 participants Method: The 5-item Mental Health subscale of the Australian	998 women aged 18-23 years old who had a miscarriage	Significant main effects were found for satisfaction with PCP and for education, both when higher, were each associated with higher Mental Health Scores. Women with greater number of life events and higher stress had lower Mental health than others. Adjustment in the long term was also affected by prior diagnosis of anxiety or depression. Shows that there are a number of variables associated with adjustment	Women who are pregnant or planning pregnancy, and experiencing high levels of stress, may benefit from cognitive behavioural stress management interventions which could potentially be incorporated into antenatal classes. Routine screening for high levels of stress could be a routine aspect of antenatal healthcare visits. Greater provision of information on managing stress, through PCPs and other community resources, may also be beneficial. Adequate support after

	inform interventions to assist women dealing with this significant event.	standard version of the sF-36 was used to assess the women's adjustment after miscarriage.		after miscarriage.	miscarriage generally should include acknowledgment of the loss, providing or directing women to reliable sources of information about miscarriage and to resources for emotional support. Some women may also benefit from discussions about general well-being including the impact on self-esteem and how to cope with inappropriate guilt and anxiety. PCPs offer targeted support to miscarrying women who have a history of mental health problems or high levels of life stress, to ensure their well-being in the months after loss and in subsequent pregnancies.
(Sejourne, Callahan, & Chabrol, 2010b)	It was hypothesised that a single-session intervention based on CBT techniques including psychoeducation along with empathetic emotional support would be beneficial for women dealing with miscarriage. This study seeks to develop and evaluate a CBT-based intervention for women dealing with	Setting: Maternity service of two semi-private clinics in Toulouse, France Method: All participants completed the Hospital Anxiety and Depression Scale and Impact of Events Scale at 3 and 10 weeks and then again at 6 months.	134 women French-speaking All had undergone dilation and curettage or vacuum aspiration for the uncomplicated and unanticipated loss of a pregnancy.	At 3 weeks post-miscarriage, a comparison of the scores between the two groups shows that women who had an interview and follow-up showed lower scores and less intense symptoms of anxiety, depression and PTSD than those who were offered deferred follow-up. No significant differences seen at either 10 weeks or 6 months' post-miscarriage. Significantly more women in the deferred intervention group	Not all women need psychological help it seems useful and important to provide an early psychological intervention in order to help women deal with miscarriage. Need to identify women who are at higher risk for psychological distress or have specific and unique circumstances predisposing them to greater difficulties in facing miscarriage.

	miscarriage.			showed clinically significant depressive symptoms 10 weeks after the intervention. Early intervention was appreciated by women participating.	
(Sejourne, N., Callahan, S., & Chabrol, H., 2010a)	Ask women about their desire for support following miscarriage and specifically about aspects of content, type and timing of support.	Setting: Internet site housing research study questionnaires for a period of 5 weeks. Message was sent to several French-language forums dealing with maternity of medical issues Method: An experimenter-designed questionnaire was presented to internet forums dealing with miscarriage or gynecological medical information.	350 Francophone women participants ages 18-43. Majority lived in France from all regions of the country with exception of the Limousine and Corsica regions. Remaining sample were from Belgium and other foreign countries. Half the sample had no other children. Most of the women had experienced a single miscarriage in the past 2 months. The majority had not received any medical treatment for their miscarriage. 48% had natural evacuation and 45% having undergone either vacuum aspiration or D&C. Half the women had been hospitalized.	Most women indicated that they would appreciate support after a miscarriage. All of the proposed interventions appeared useful to the women, particularly the medical aspects of miscarriage. 95% felt that some sort of post-miscarriage support was necessary in general and 91% would have personally wanted support following their own miscarriage. Intervention that appeared the most useful were having and in-depth discussion with their doctor, the possibility of contacting a health care professional at any time, improved medical follow-up and group therapy for women who had experienced miscarriage. Information brochures, systematic appointments with a psychologist or	Need for providing more comprehensive care for women after miscarriage and provide information about how support could best be provided. Many means for providing support exist and new methods should be implemented to provide more systematic and widely available support.

				<p>psychiatrist was also considered to be helpful although less so. Women felt that the best timing for interventions was support immediately following the diagnosis of their miscarriage. Least favorable period was before or after any medical intervention.</p> <p>86% of women felt that their medical appointment was insufficient for dealing with the issues brought up by the miscarriage.</p>	
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