Building a Secure Attachment During Pregnancy

An Experiential Project

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Abstract

This literature review discusses the history of attachment theory as well as the research on attachment theory. Research shows that mother infant attachment begins in utero and plays a significant role in human development throughout the lifespan. Attachment classifications affect all areas of growth including emotional, mental and physical development from birth to adulthood. Several studies have demonstrated that maternal fetal attachment can be enhanced through various therapeutic methods such as psycho-education, art therapy, yoga and mindfulness. Programs that have shown to be effective at helping mothers strengthen maternal fetal attachment can help ensure a more positive outcome for both mother and baby. Included in the appendices of this literature review is a mother baby wellness program that offers an example of what might become more standard care for pregnant women based on the current findings.
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History of Attachment Theory

John Bowlby was one of the first psychologists to have an interest in studying the bond between young children and their primary care givers. Bowlby studied children in orphanages and institutions and found they frequently displayed emotional disturbances. He noticed these children also had trouble forming intimate and lasting relationships with others. He came to believe that the mother-infant bond, or attachment, was crucial to healthy human development (Bowlby, 1958).

Another pioneer in the theory of attachment was Mary Ainsworth. She made significant contributions to the field. While Bowlby focused on how attachment is impacted in extreme cases such as children in orphanages and institutions, Ainsworth shifted that focus to view the attachment theory applied to a typical family (Ainsworth & Bell, 1970).

Ainsworth spent many years observing the bond between mother-infant dyads studying the attachment process. She noted the ways in which mothers responded to their babies and how that affected their attachment to each other. In the early 1970s, she came up with an experiment that could be used to determine how well a baby (at 12 months of age) was attached to its mother. The experiment involved watching the way the baby responded to being left alone in an unfamiliar environment, and then again how it responded when the mother returned. She used the results of this experiment to classify three types of attachment. What she found was that babies who were securely attached (the term used to describe a well bonded baby) were upset when their mothers left the room (often crying) but easily comforted by her return. Usually after a short reunion with her (and her still in their sight), they were ready to go back to exploring the room independently again. Children who were insecurely attached (the term used to describe a poorly bonded baby) however, had very different reactions. Some ignored their mom all
together, which Ainsworth labeled an *insecure-avoidant* attachment. Others were ambivalent upon her return (reaching for her one minute and pushing her away the next minute) which she labeled an *insecure-ambivalent* attachment (Ainsworth, 1979).

Ainsworth's research led to significant contributions to understanding attachment process. Mothers who responded promptly to their babies’ needs had infants who were securely attached. Infants who had an insecure avoidant attachment had mothers who had been rated *insensitive* or *rejecting*. Infants who had an insecure-ambivalent attachment had mothers who treated their infants in an inconsistent manner (Ainsworth, 1979). It’s important to note that during this time, the research on the attachment process was on the biological mother.

Ainsworth had found three types of attachment classifications: secure, insecure ambivalent (also sometimes referred to as insecure anxious), and insecure avoidant (Ainsworth, 1979). In 1986, Mary Main and Judith Solomon discovered a fourth category of attachment classification which was labeled *disorganized-disoriented attachment* (Main & Solomon, 1986). In these cases, parents were often frightening or frightened and infants often displayed disorganized behavior when they were around their parents (Main & Solomon, 1993). These four attachment classifications are what researchers continue to use in current attachment research.

**Risks of an Insecure Attachment**

The risks of having an insecure attachment have been studied extensively. One of the most intensive long-term studies on attachment took place at the University of Minnesota and tracked families for over 30 years beginning in pregnancy. These researchers found that young children who had an avoidant attachment or anxious attachment classification at 12 months were more likely to have behavior problems in preschool (Egeland, Sroufe, & Erickson, 1985).
Preschoolers with avoidant and anxious attachments were more likely to be ranked as dependent (Sroufe, Pancake, & Fox, 1983). Children who had trouble with boundary issues often had anxious attachment histories (Sroufe, Egeland, Carlson, & Collins, 2005). Insecure attachment classification was correlated with lower math and reading performance in elementary school (Egeland, Pianta, & O’Brien, 1993). Researchers found that in adolescence and adulthood, a resistant attachment in infancy was correlated with anxiety disorders at 17 and a 1/2 (Warren, Huston, Egeland & Sroufe, 1997). Avoidant attachment was found to be related to pathology in general and later was found to correlate with conduct disorders (Aguilar, Sroufe, Egeland, & Carlson, 2000; Renken, Egeland, Marvinney, Mangelsdorf, & Sroufe, 1989). Anxious attachment (with no distinction between avoidance and resistance) was found to be associated with depression (Duggal, Carlson, Sroufe, & Egeland, 2001). In reviews of several studies on the effects of insecure attachment and violence in children, a direct association between insecure attachment and violent and aggressive behavior was found (Kokkins, 2012; Savage, 2014).

Insecure attachment has also been found to significantly affect neural development as well as impact physical health. Research has shown that neurobiological systems that assist in emotional responding are developed and affected by the infant caregiver relationship (Moutsiana-Halligan et al., 2014). Even 20 years later, the security of the mother-infant attachment continued to affect neural and emotional functioning (Moutsiana-Halligan et al., 2014). Maunder and Hunter (2008) found correlations with insecure attachment classifications and an increased risk in various physical diseases.

**Positive Outcomes of Secure Attachment**

Infants who are raised with sensitive and responsive caregivers and develop a secure attachment are able to successfully form relationships throughout their lifespan. Other positive
benefits of a secure attachment include a correlation with higher emotional intelligence (Hamarta, Deniz, & Saltali, 2009) and higher self-esteem (Chia-huei, 2009). Infants with a secure attachment at 12 months of age have better emotional regulation at 20 years of age (Moutsiana-Halligan et al., 2014). Preschoolers with secure attachment histories were observed to be more empathetic and more active participants in their peer groups (Sroufe, 2005). In childhood, children with secure attachment histories were found to more frequently have reciprocated, close friendships and were less likely to be isolated (Sroufe, 2005). In adolescents, those with a secure attachment history were more effective in mixed-gender peer groups and had observable leadership qualities (Sroufe, 2005). Finally, those who had secure attachment histories as infants were found to have higher quality romantic relationships as adults (Roisman, Collins, Sroufe, & Egeland, 2005).

**Individual Psychology as a Lens for Attachment**

As the research is demonstrating, infants and children need to be viewed together with their parents when considering mental health issues, treatment programs, and prevention. For therapists who work with this population, it is important to have a useful framework to work with. Alfred Adler, who was the founder of Individual Psychology, believed strongly in looking at a client’s environment and close relationships when working with mental health. Given the importance Adler placed on viewing the whole person in context, Individual Psychology provides a useful lens to further examine attachment theory through Individual Psychology therapists are obligated to look at the mental health of both the mother and infant together instead of separately. As the research demonstrates, it is imperative that therapists begin to adapt this viewpoint.
Individual Psychology also looks closely at how a client is successfully navigating through the life tasks of work, love and community (Oberst & Stewart, 2003). They see the symptoms of emotional problems as issues resulting from “failed attempts to achieve a sense of competence, self-esteem, and significance that emerges from successfully meeting the life tasks” (Oberst & Stewart, 2003, p. 51). Looking at the research regarding the developmental outcomes of an insecure attachment, it becomes obvious that an insecure attachment sets up the human being to struggle with the life tasks. Not only that, but research has shown that mothers who have an insecure attachment are more likely to have lower maternal-fetal attachment (MFA) in pregnancy and have children with an insecure attachment at one year of age (Huth-Bocks, Levendosky, Bogat, & Von Eye, 2004). From an Adlerian perspective, then, it could be argued that developing a secure attachment in infancy helps to ensure the human being has the skills to successfully meet the life tasks, which will then generate a sense of competence, self-esteem, and significance. Furthermore, a secure attachment helps to ensure that as parents they are able to raise children who are more likely to have the skills to do the same.

**Who Is at Risk for Low Maternal-Fetal Attachment**

Given the importance of a secure attachment, and that it is known to begin in utero, it is crucial to look at who is at risk for a low MFA. Women with very little social support are at risk for a weaker MFA (Alhusen et al., 2012). Another researcher studying this aspect in more depth found that both lack of social support outside of the partner relationship, as well as lack of social support by the husband-partner were both correlated with lower MFA (Condon & Corkindale, 1997). Women who are depressed during pregnancy are also at risk (Alhusen, Gross, & Hayat, 2013; Dubber, Reck, Muller, & Gawlik, 2015). Women who have a history of perinatal loss were found to have some disturbances in specific maternal-fetal attachment behaviors, but
overall had no significant difference from women who had not experienced perinatal loss (Mehran, Simbar, Shams, Remezani-Tehrani, & Nairi, 2013). Women who have had a previous abortion are at more of a risk for not developing a strong MFA (Rowe, Wynter, Steele, Fisher, & Quinlivan, 2013). Women struggling with an unwanted pregnancy or who are discontent with their pregnancy are at risk (Ossa, Bustos, & Fernandez, 2012). Women with a high-risk pregnancy also have a risk of adequate mother-fetal attachment (Pisoni-Stronati et al., 2014). Adolescents are sometimes slower to develop maternal-fetal attachment but by the end of pregnancy they were found to have no significant differences when compared with adults (Rowe et al., 2013). While some studies have shown that anxiety is not a significant predictor of the level of MFA (Dubber et al., 2015), one study has shown that the degree of anxiety in unwed mothers does have a negative correlation with the degree of MFA (Hwang, 2005).

**Strengthening MFA**

Given the findings then, on the populations at risk as well as the developmental implications a secure versus insecure attachment has on a child’s mental health and well-being, it makes sense to ask the question *can maternal fetal attachment be enhanced, and if so, what programs or methods have been effective?* Fortunately, research does clearly and repeatedly demonstrate that MFA can in fact be strengthened through various practices and programs.

**Education on MFA**

Several studies have demonstrated that simply educating pregnant women about attachment helps to improve MFA. In one study, researchers compared a control group of pregnant women who attended regular prenatal care with a treatment group of women, who (in addition to regular prenatal care) received education about MFA and the benefits of a secure attachment. They were also taught methods of attachment behavior which included; “counting
fetus movements and recording them, positive imagining of fetus appearance, speaking to the fetus, imaging breastfeeding the baby, and touching the abdomen” (Abasi, Tafazoli, Esmaily, & Hasanabadi, 2013 p. 816). The treatment group women were given forms and asked to record these behaviors as they practiced them at home. After four weeks of classes with the treatment group, the researchers found a significant increase in MFA according to the Maternal-Fetal Attachment Scale. Interestingly, the researchers also found that the mean mental health score of the treatment group improved over the course of the study while the mean mental health of the control group deteriorated. This study provides convincing evidence that through education and attachment behaviors, MFA can be strengthened. It also demonstrates that mental health and MFA are related. As the researchers concluded, “Research findings indicate that MFA behavior education can improve MFA, and this will result in enhancing mothers’ mental health. Subsequently, mothers’ mental health affects fetus health, and finally the children’s health.” (Abasi et al., 2013 p. 819).

Other groups of researchers have found similar results. One study with a similar make-up of education components along with singing, dance, and massage sessions also found the treatment group had significantly strengthened their MFA scores (Bellieni et al., 2007). A study in Korea found that the mothers improved fetal-maternal attachment scores as well through classes that focused on fetal-infant education, relaxation breathing techniques, maternity exercises, writing letters and prayers to the baby, and group processing about their experience of pregnancy (Chang, Kim & Kim, 2001).

**Educating the Father on MFA**

Another important study demonstrating that maternal-fetal attachment can be strengthened looked at the relationship between the father and mother, and in particular how
educating fathers about attachment might influence mothers’ MFA score. These researchers compared a group of women receiving regular prenatal care with a treatment group whose husbands participated in an attachment and parenting education course. The course took place in four 60 to 90 minute sessions and included topics such as the importance of attachment, attachment behaviors and how attachment is created, and how the father can help facilitate a stronger MFA. The researchers found that training the fathers regarding attachment enhanced MFA (Akbarzade, Setodeh, Sharif, and Zare, 2014). This study is particularly important because as research has demonstrated (and as it was addressed earlier in this paper), a mother’s attachment to her unborn baby is strongly affected by the support she is receiving from her husband or partner. In addition, in keeping with the framework of Individual Psychology, this program offers a very holistic method to increasing MFA. The majority of the research on MFA has focused on the mother alone, but given what is known about developing a strong maternal-fetal attachment, that leaves an incomplete picture. This study helps to shine a light on how therapists and practitioners can balance out their focus on both parents of the unborn baby.

Art Therapy

There is limited research specifically on art therapy and MFA; however, there is a significant amount of research on the effectiveness of art therapy. Research has demonstrated that art therapy is effective at treating a variety of symptoms, age groups, and disorders (Slayton, D’Archer, & Kaplan, 2011). Art therapy has been proven to be an effective treatment for depressed adults (Chandraiah, Anand, & Avent, 2012) as well as new mothers with depression (Ponteri, 2011). In general, art therapy has demonstrated the ability to improve a person’s mood to a more pleasurable one (Petrillo & Winner, 2011). Additionally, art therapy has shown to help decrease anxiety (Sandmire, Gorham, Rankin, & Grimm, 2012).
While there is a limited amount of research on art therapy with pregnant women and attachment, art therapy has been effective at improving the relationship between infants-preschoolers and their parents. Proulx (2003) has demonstrated that painting helped new mothers decrease depression symptoms, increase self-esteem, and improve the relationship with their infants. Proulx worked with very young children (sometimes under a year old) and their parents to help build attachment and enhance the parent child relationship through art. She has created several art therapy interventions that can be used with parent-child dyads and has witnessed success through her practice in enhancing the parent-child bond (Proulx, 2003). This study demonstrated art therapy is a great therapeutic tool to use with enhancing relationships and attachment security in pre-school aged children and their parents.

Chetu (2015) correlated the effects of art therapy and an increase in MFA. In this study, pregnant women participated in an art therapy based intervention and were found to have increased their attachment toward their developing baby as well as an improved emotional connection with their fetuses (Chetu, 2015). In combination with the above studies that included elements of using imagination and visualization along with creative expression (singing, dancing, and movement) it appears that engaging the brain in art while focusing on enhancing attachment is an effective method to strengthen MFA. This study suggests that art therapy in particular could be very useful in helping pregnant women increase their attachment to their unborn babies.

**Mindfulness and Yoga**

Mindfulness and yoga has also been found to be an effective way to increase MFA. Author and founder of Mindfulness-Based Stress Reduction Jon Cabot Zin described mindfulness as the “awareness that arises through paying attention, on purpose, in the present
moment, non-judgmentally” (Mindful Staff, 2017, para. 2). Muzik, Hamilton, Rosenblum, and Waxler (2012) demonstrated that mindfulness yoga is effective at reducing depressive symptoms and increasing MFA. The researchers in this study defined yoga as using a “meditative focus combined with physical poses” (Muzik et al. 2012, p. 236). The content of the class was summarized as follows.

The M-Yoga curriculum differed from typical prenatal hatha yoga classes by highlighting mindfulness practice, with targeted instructions, reminders, and readings. Participants were taught mindfulness techniques including breathing, guided visualization and relaxation. The instructors consciously made it a part of class to continually remind women to focus inward toward the sensations of their body, listen to the feedback of body during asana, and be aware of how their bodies are changing to support their growing baby. A significant aspect of the intervention was being "mindful" of the baby, to sense its unique persona, which in turns facilitates the attachment process. (Muzik et al., 2012, p. 236)

After the 10-week mindfulness yoga course, women were found to have significantly reduced symptoms of depression. Their MFA score had also significantly increased (Muzik et al., 2012).

Beddoe, Yang, Kennedy, Weiss, and Lee (2009) found that mindfulness-based yoga during pregnancy was successful at reducing perceived stress and trait anxiety in the third trimester of pregnancy. Newham, Wittkowski, Hurley, Aplin, and Westwood (2014) found that prenatal yoga was effective at reducing a woman's anxieties toward childbirth and preventing increases in depressive symptomatology. A handful of studies have been done using mindfulness during pregnancy with very promising results indicating that mindfulness is useful in reducing
prenatal depression (Duncan & Bardacke, 2010), prenatal anxiety (Vietan, & Astin, 2008) and decreasing perceived stress (Guardino, Dunkel-Schetter, Bower, Lu, & Smalley, 2014).

Similar to meditation, other mindfulness based techniques have been shown to have a positive effect on MFA as well. Relaxation training has been shown to be effective at improving MFA and reducing anxiety (Toosi, Akbarzadeh, Sharif, & Zare, 2014). In another study, guided imagery was found to promote MFA in women with unplanned pregnancies (Kordi, Fasanghari, Asgharipour, Esmaily, 2016).

**Discussion**

Bowlby, and later Ainsworth, demonstrated that the attachment an infant makes with its primary caregiver is crucial for healthy human development. Current research has proven just how significant attachment is in the areas of mental, social, and physical health. Infants with an insecure attachment are more at risk for behavioral problems, mental health issues, social and boundary issues, as well as physical health issues. They are more likely to be bullied or be a bully. They are also more likely to struggle in their relationships as adults.

Infants with a secure attachment are more likely to show empathy as children, have better social skills, have a higher self-esteem, have higher emotional intelligence, and more leadership abilities. They are also more likely to have higher quality romantic relationships as adults.

Considering the importance of the relationship in the development of a secure attachment, Individual Psychology provides an ideal lens for viewing this relationship and the mental health of both the infant and the mother. Through Individual Psychology, it becomes clear that attachment security directly affects the ability an individual has to navigate the three life tasks, and therefore, contribute to society.
All of this evidence suggests that it is crucial to find ways to strengthen attachment security. Ideally, this should begin in-utero where attachment first develops. Through programs such as attachment education, art therapy, yoga and mindfulness, MFA can be enhanced.

While attachment itself has been studied extensively, all of the programs that have been shown to effectively strengthen MFA need more research to validate their outcomes. In each of these program areas, it would be beneficial to have additional studies validating the outcomes of these studies, as well as checking the effectiveness across a variety of races, cultures, and ages. In the area of art therapy in particular, given how effective art therapy has already proven to be with depression, anxiety, and relationship building, it would seem very likely that art therapy could prove to be an incredibly effective treatment in working with mothers who are at risk of a lower MFA. The little study that has been done supports this hypothesis, but more research should be done in the area of art therapy and MFA.

Doctors, nurses, and other practitioners involved in prenatal care should be educated about the importance of MFA, as well as who is at risk for low MFA and what can be done about it. Therapists should also be educated about this research as well as encouraged to look through the lens of Individual Psychology when working with pregnant mothers. Prenatal wellness programs should be established based on the research that has demonstrated promising results in the way of enhancing attachment. Once such programs exist it, should be standard practice to encourage all women to attend a prenatal wellness program.
References


Appendices
Appendix A

Prenatal Wellness Program Description

The Prenatal Wellness Program was created side by side with all of the most current research demonstrating the enhancement of maternal-fetal attachment and maternal-fetal well-being. Each session or intervention was developed and modeled after the various programs in the literature review that demonstrated they were effective at helping to strengthen MFA and includes a holistic approach that focuses on providing art therapy experientials using an Individual Psychology model. This program would take place once a week over a four week period.

The first part of each of the four day session will begin with an hour of Mindfulness Yoga followed by a short reading on mindfulness. As it was highlighted in the literature review, Mindfulness Yoga has been shown to increase maternal-fetal attachment (Muzik, M. et al., 2012). In addition, Mindfulness-Based Childbirth and Parenting Education has been shown to increase positive affect and decrease anxiety, depression and negative affect (Bardacke, N., 2010). For the Prenatal Wellness Program the Mindfulness Yoga class will be instructed by a certified prenatal yoga instructor and is modeled after the Mindfulness Yoga class highlighted above. The yoga instructor will be well educated in adapting poses to participant’s physical needs as well as their expressed emotional needs. The readings at the end will be taken from a variety of mindfulness experts such as Nancy Bardacke who designed the Mindfulness-Based Childbirth classes or Jon Kabit-Zinn, the founder of mindfulness.
Following a nutritious snack the Art Therapy session will begin. Art therapy offers pregnant women the opportunity to get in touch with their feelings and emotions through images versus words. This is especially important for transition times (such as pregnancy and birth) when often people don’t have the words to describe these new experiences. The process of transitions or transformations are discussed in the book “Spirituality and Art Therapy” in which they refer to transformation as “a process well known to artists, taking raw materials and manipulating them in various ways to create new form, and it is transpersonal by its very nature for it requires a committed relationship to a source of being beyond the skin-clad ego” (Farrelly-Hansen, M., 2001). Pregnancy is also often a profoundly spiritual experience for mothers to be and art making offers the chance to connect with themselves and their unborn baby in a spiritual way. Again from the book “Spirituality and Art Therapy” Mimi Farrelly-Hansen wrote,

...art making is not about fixing but about entering into a relationship with what is. Some call it witnessing, others listening, still others attending to the needs of the soul. However described, its fruits resemble the outcome of many spiritual practices: a heightened awareness of self and other, a reawakening of the senses and the body, a new ability to inhabit fully the present moment, a sense of awe at the mysterious ways that the images which visit us speak of realities beyond our conscious understanding, a greater sense of acceptance for all aspects of ourselves and others, love compassion and gratitude for some larger, deeper ineffable presence to which we all (human beings, animals, plants) belong.

The art therapy sessions for the Prenatal Wellness Program were modeled after the Prenatal Attachment Optimizing Intervention Program developed by Art Therapist Camelia Chetu (2015). Each art therapy group will begin with a short check in so the therapist can assess
where the participants are at and guide the group and art making process accordingly. Each
group begins with some guided imagery to get the participants in touch with their emotions and
bodies before beginning the art directive. After art making, there will be time for participants to
share and process their experiences.

For lunch a highly nutritious and meal lunch will be served with an hour of social time.
Ample time to eat and socialize helps to foster a relaxed setting where additional support and
potential friendships might develop for participants. As it was highlighted in the literature
review, adequate social support is important in developing a strong maternal-fetal attachment

Music therapy follows lunch. This component was added based on some of the studies
reviewed in the literature review that included music as a part of their program. Additionally
there have been a few researchers to study the effects of mothers singing lullabies to their unborn
babies. The results have been promising, reporting that singing lullabies had a soothing and
calming effect on the mothers and appeared to facilitate the expression of difficult emotions
(Barry, Carolyn, Gamble, Mascarenas, & Turner, 2011). Another study found that after their
babies were born, mothers who had sung lullabies during pregnancy were more able to calm their
newborns to sleep and to breastfeed for longer (Montemurro, 1996). While these studies don’t
specifically measure maternal-fetal attachment, the results indicate that singing may in fact be a
tool in helping to create maternal-fetal well-being and possibly facilitate a stronger bond. The
music component of the Prenatal Wellness Program will be taught by a music therapist and will
include some brief education about the benefits singing has on both mother and baby.

The psycho-education sessions will include education for both the mother and the
mother’s partner or support person. If the mother does not have a partner, a parent, friend or
caring relative may step in. Educating and teaching supportive partners on attachment is important to the success of this program since it has been shown that both partner support and outside support are significant factors in increasing MFA (Condon, 1997). In addition, the program developed for educating father’s that was discussed in the literature review demonstrated that educating fathers on attachment helped to foster a stronger MFA in their partners (Akbarzade, Setodeh, Sharif, & Zare, 2014). Additionally, educating mothers on attachment and attachment promoting behavior also helped to strengthen MFA (Abasi, Tafazzoli, Esmaily, & Hasanabadi, 2012). By educating both the mothers and their supportive partners this program aims to build a strong MFA for mothers as well as create a supportive and balanced preventative system of care.

Following the psycho-education sessions, mothers and their partners will work with a massage therapist. The partners will be guided through some simple massage techniques that can be performed on the mothers. Research has shown that massage therapy is beneficial for pregnant women and can help reduce depression and anxiety (Diego, Field, Kuhn, Hernandez-Reif, & Schanberg, 2009). In addition, infants whose mothers participated in the massage study had better neonatal outcomes (Diego et al., 2009).

The very last thing the mother’s leave the day workshop with is a journal prompt. This helps them to integrate what they have learned into their daily life. It also helps to provide some continuity of care throughout the rest of their pregnancy.
Appendix B

Four Day Schedule
Prenatal Wellness Program

Four Day Schedule

A four-day workshop to be held once each weekend over four weeks

9:00- Mindfulness Yoga
10:30- Snack
10:45- Art Therapy
12:00- Lunch
1:00- Music Therapy
1:30- Psycho-education
2:30- Massage Therapy
3:00- Closing
Appendix C

Daily Schedule
Day 1

1. 9:00- Mindfulness Yoga

   A. Brief check-in on mats. Women share how they are feeling physically and emotionally.

   B. Yoga led by certified prenatal yoga instructor. Instructor tailors yoga poses to feelings expressed in check in as well as general prenatal poses.

   C. Mindfulness Reading

       - “So what is mindfulness?” pages 10-12 and the “Raisin Meditation” pages 32-33, both from the book “Mindful Birthing” by Nancy Bardacke.

2. 10:30- Nourishing homemade snack

3. 10:45- Art Therapy

   A. Check in. Women share changes that have occurred during the week or how they are feeling about their pregnancy.

   B. Art Therapy Directive led by Art Therapist

       - “Prenatal Bond” adapted from session 1 of Camelia Chetu’s art therapy work with pregnant women documented in “The Effects of Art-Therapy Techniques on Prenatal Maternal-Fetal Attachment” (Chetu, 2015).

       Process: Various items such as feathers, star shapes, shells, beans and seeds, pieces of yarn and rope, dried herbs and flowers, various religious symbols, etc will be placed on display for participants to look through. The women will be invited to touch them, smell them, etc. and notice which ones they are drawn to. Then they will be asked to choose several objects to use to make a symbolic representation of their own relationship to their fetus in the form of a collage or
art piece. After everyone is finished each participant will be encouraged to share their piece with the group.

3. 12:00- Nourishing homemade lunch and social hour

4. 1:00- Music Therapy
   A. Prenatal Singing led by Music Therapist
      - Each week a few lullabies are practiced as a group and the benefits of singing to baby are discussed.

5. 1:30- Psycho-education (spouse or support partner arrives)
   A. Pregnant women are split from partners for class on maternal-fetal attachment, infant attachment and attachment promoting behaviors.
      - Session one will discuss maternal-fetal attachment and the benefits of attachment. This training will be modeled after the “Maternal-Fetal Attachment Education” Program (Abasi, E., et al., 2012).
   B. Spouse/support partner participates in class on maternal-fetal attachment, infant attachment and partner’s role in helping to facilitate attachment.
      - Session one will discuss maternal-fetal attachment and the benefits of maternal-fetal attachment. This training will be modeled after the “Father Training on Attachment Skills” program (Akbarzade, M. et al., 2014).

6. 2:30- Massage Therapy
   A. Trained massage therapist teaches partners/support person how to safely massage their pregnant partner and how this is beneficial.
7. 3:00 - Closing

A. Relaxation Training
   - A therapist trained in the Benson Relaxation method guides participants through relaxation exercise.

B. Journal Prompt (to do at home sometime throughout the week)
   - Spend a few minutes trying to think mindfully about your pregnancy. Record some of your thoughts in your journal.

Day 2

1. 9:00 - Mindfulness Yoga
   A. Check in on mats. Women share how they are feeling physically and emotionally.
   B. Yoga led by certified prenatal yoga instructor. Instructor tailors yoga poses to feelings expressed in check in as well as general prenatal poses.
   C. Mindfulness Reading
      - “Moving forward in your pregnancy” from page 8, “Finding your breath” from page 9-10, and “The practice of breath awareness” from page 11, all from the book “The Mindful Mother” by Naomi Chunilal.

2. 10:30 - Nourishing homemade snack

3. 10:45 - Art Therapy
   A. Check in. Women share changes that have occurred during the week or how they are feeling about their pregnancy.
   B. Art Therapy Directive led by Art Therapist
“Connecting to Body and Baby” adapted from session 2 of Camelia Chetu’s art therapy work with pregnant women documented in “The Effects of Art-Therapy Techniques on Prenatal Maternal-Fetal Attachment” (Chetu, 2015).

Process: After a short guided imagery exercise, each participant will draw and paint the shape of her body, her baby in her body, and the areas of her body she feels its presence. Crayons and watercolor paints will be used as the art medium. After everyone has finished with their piece participants will be asked to share their experience.

3. 12:00- Nourishing homemade lunch and social hour

4. 1:00- Music Therapy
   A. Prenatal Singing led by Music Therapist
      - Each week a few lullabies are practiced as a group and the benefits of singing to baby are discussed.

5. 1:30- Psycho-education (souse or support partner arrives)
   A. Pregnant women are split from partners for class on maternal-fetal attachment, infant attachment and attachment promoting behaviors.
      - Session two will discuss attachment in infancy and the benefits of a secure attachment. This training will be modeled after the “Maternal-Fetal Attachment Education” Program (Abasi, E., et al., 2012).
   B. Spouse/support partner participates in class on maternal-fetal attachment, infant attachment and partners role in helping to facilitate attachment.
- Session two will discuss parental attachment to the baby and the benefits of attachment. This training will be modeled after the “Father Training on Attachment Skills” program (Akbarzade, M. et al., 2014).

6. 2:30- Massage Therapy

   A. Trained massage therapist teaches partners/support person how to safely massage their pregnant partner and how this is beneficial.

7. 3:00- Closing

   A. Relaxation Training

   - A therapist trained in the Benson Relaxation method guides participants through a relaxation exercise.

   B. Journal Prompt

   - Write your baby a letter. Give yourself time to imagine what you’re excited about, how you are feeling about becoming a mom to this little one, and thoughts on the connection you already have with your growing baby. Create an art piece for your baby based on your letter.

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**Day 3**

1. 9:00- Mindfulness Yoga

   A. Check in on mats. Women share how they are feeling physically and emotionally.

   B. Yoga led by certified prenatal yoga instructor. Instructor tailors yoga poses to feelings expressed in check in as well as general prenatal poses.

   C. Mindfulness Reading
- “Mindfulness in Everyday Life” and the seven guidelines for being more awake from pages 172 and 173 in “Mindful Birthing” by Nancy Bardacke

2. 10:30- Nourishing homemade snack

3. 10:45- Art Therapy
   A. Check in. Women share changes that have occurred during the week or how they are feeling about their pregnancy.
   B. Art Therapy Directive led by Art Therapist
      - “Emotions and Fears” adapted from session 4 of Camelia Chetu’s art therapy work with pregnant women documented in “The Effects of Art-Therapy Techniques on Prenatal Maternal-Fetal Attachment” (Chetu, 2015).
      Process: After a short guided imagery exercise focusing on the various emotions they are having during pregnancy, expecting mothers will have an opportunity to make a college of images representing the emotions they are experiencing. Precut images will be displayed on table for use in the collage as well as magazines and scissors if they prefer to cut their own. After they have all had a chance to finish their collage each participant will have the opportunity to share their art work and feelings associated with their images.

3. 12:00- Nourishing homemade lunch and social hour

4. 1:00- Music Therapy
   A. Prenatal Singing led by Music Therapist
      - Each week a few lullabies are practiced as a group and the benefits of singing to baby are discussed.

5. 1:30- Psycho-education (spouse or support partner arrives)
A. Pregnant women are split from partners for class on maternal-fetal attachment, infant attachment and attachment promoting behaviors.

- Session three will teach attachment promoting behaviors such as counting and recording fetal movements, talking to the fetus, and rubbing the abdomen. Other attachment building behavior that they are participating in through the workshop (art and music therapy, etc.) will also be highlighted. This training will be modeled after the “Maternal-Fetal Attachment Education” Program (Abasi, E., et al., 2012).

B. Spouse/support partner participates in class on maternal-fetal attachment, infant attachment and partners role in helping to facilitate attachment.

- Session three will teach attachment promoting behaviors and how father’s can help enhance maternal-fetal attachment and support their partners. This training will be modeled after the “Father Training on Attachment Skills” program (Akbarzade, M. et al., 2014).

6. 2:30- Massage Therapy

A. Trained massage therapist teaches partners/support person how to safely massage their pregnant partner and how this is beneficial.

7. 3:00- Closing

A. Relaxation Training

- A therapist trained in the Benson Relaxation method guides participants through relaxation exercise.

B. Journal Prompt
- This week pick a day to do some art about pregnancy and/or becoming a mother. Draw or paint an image of yourself including your baby. Draw the layers of feeling you are having about birth and pregnancy around yourself depicted by the colors you feel represent that feeling
  - Paint/draw an image of your unborn baby surrounded by comforting words, colors and images
  - Paint/draw an image of yourself and your baby surrounded by comforting words, colors and images
  - Imagine a message your baby wants to tell you through images, draw or paint your baby's message to you

**Day 4**

1. 9:00- Mindfulness Yoga
   A. Check in on mats. Women share how they are feeling physically and emotionally.
   B. Yoga led by certified prenatal yoga instructor. Instructor tailors yoga poses to feelings expressed in check in as well as general prenatal poses.
   C. Mindfulness Reading
      - "Being Present" from page 25, and "Simple Acts of Ritual in a Pregnant Day"
      from page 24, all from the book "The Mindful Mother" by Naomi Chunilal.

2. 10:30- Nourishing homemade snack

3. 10:45- Art Therapy
A. Check in. Women share changes that have occurred during the week or how they are feeling about their pregnancy.

B. Art Therapy Directive led by Art Therapist

- “Mandala of Support” created by art therapist Amy Miller.

Process: Participants will be given a piece of water color paper with a mandala drawn on it. Using watercolor paints they will paint themselves and their baby (or an image that represents themselves and baby) in the very center. Around the outside of themselves they will paint images of people/places/things that support them- both now and after birth. After the participants are finished with their art they will be encouraged to share their art and their insights.

3. 12:00- Nourishing homemade lunch and social hour

4. 1:00- Music Therapy

A. Prenatal Singing led by Music Therapist

- Each week a few lullabies are practiced as a group and the benefits of singing to baby are discussed.

5. 1:30- Psycho-education (souse or support partner arrives)

A. Pregnant women are split from partners for class on maternal-fetal attachment, infant attachment and attachment promoting behaviors.

- Session four will teach attachment promoting behaviors after the baby is born.

Research on touch, singing, holding, responding and attunement will all be discussed.

B. Spouse/support partner participates in class on maternal-fetal attachment, infant attachment and partner’s role in helping to facilitate attachment.
- Session four will teach attachment promoting behaviors after the baby is born as well as how fathers/partners can continue to support the attachment between mother and baby.

6. 2:30 - Massage Therapy

A. Trained massage therapist teaches partners/support person how to safely massage their pregnant partner and how this is beneficial.

7. 3:00 - Closing

A. Relaxation Training

- A therapist trained in the Benson Relaxation method guides participants through a relaxation exercise.

B. Journal Prompt

- Participants will be given a list of journal prompts and encouraged to continue journaling throughout their pregnancy.

  - Paint/draw an image of your unborn baby surrounded by comforting words, colors and images
  
  - Paint/draw an image of yourself and your baby surrounded by comforting words, colors and images
  
  - Write a letter from your body to yourself. What does your body want or need? What care or nurturing is it craving? What food or activity is it asking for more of?
  
  - What fears or anxieties are you experiencing. Put them on paper and practice acknowledging and accepting those feelings.
- If/when you’re feeling ready to let go of your fears or anxieties create a small ceremony with your list. Could you put them in a fire? Or cut it up and create a piece of art?

- Imagine a message your baby wants to tell you through images, draw or paint your baby’s message to you.

- Open yourself up to the beauty of this moment exactly as it is right now even if it is a very ordinary one. What do you feel, see, hear, smell, touch. Tune into the experience both outside of yourself and inside of yourself. Draw or paint a picture of your experience.

- Draw or paint a picture just for your baby.

- Draw or paint a picture just for yourself.

- Imagine your life a year or two from now. How might you be feeling? Write yourself a letter of encouragement.