

PREGNANCY A TIME OF ENGAGEMENT OR DISENGAGEMENT WITH THE DEVELOPING FETUS

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INTRODUCTION

- Our research with prenatal attachment has consistently shown a wide variation of attachment scores (cf. Doan & Zimmerman, 2002)
- In our recent study (Zimmerman & Doan, 2005), the global attachment scores (using Condon's, 1993, measure of attachment) ranged from 36 to 70 for first time expectant mothers and 33 – 68 for mothers-to-be who have other children (possible range 0 – 76)
- also, on a measure of their initial reaction to the pregnancy, the range of scores obtained was from 1-10 (possible range 0-10)
- there was a statistically significant positive correlation between initial reaction and level of attachment for the first time pregnant women (i.e., those with a high initial reaction score also had a high level of prenatal attachment), but the relationship was not significant for the women who had previous children
- in the present paper, we hypothesized that the responses on the initial reaction and attachment scales were reflective of the women's level of engagement/disengagement. We were, therefore, interested in examining the responses to the open ended questions, of the women, who scored at the extreme ends of the attachment and initial reaction scales, to examine their levels of engagement/disengagement

PURPOSE OF PAPER

- To examine the emotional and cognitive involvement that expectant mothers (both first time and subsequents) experience in their attachment relationship with their developing fetus
- To discuss the levels of their initial reaction and attachment levels in terms of a continuum of engagement/disengagement with the pregnancy
- To discuss the theoretical and clinical implications of our findings

COMPONENTS OF PRENATAL ATTACHMENT

From our previous research and the related research literature, we have hypothesized that three types of factors were related to levels of prenatal attachment, i.e., cognitive, emotional and behavioural skills and strategies (Doan & Zimmerman, 2002, 2003).

COGNITIVE SKILLS AND ABILITIES

- ability to think abstractly
- ability to recognize the fetus as a separate person
- ability to mentally conceptualize, have an internal working model or mental representation of the developing fetus (Benoit, Parker & Zeanah, 1997; Fonagy & Target, 1997; Zeanah, Zeanah & Stewart, 1990)

EMOTIONAL SKILLS AND ABILITIES

- Empathy and sensitivity seem essential constituents
- Are related to the feelings about the fetus, the pregnancy, the physical changes to the body, and the self concept
- There is a wide variation of responses during pregnancy including happiness, or anger, or sadness, or anxiety
- Emotional responses may remain the same or change during pregnancy
- Are related to the feelings about the fetus, the pregnancy, the physical changes to the body, and the self concept

BEHAVIOURAL SKILLS

- Part of attachment relationship requires time commitment to engage in behaviours that reinforce the interaction between the expectant mother and her fetus
- Examples include: talking to the baby, touching the baby, etc.

METHOD

Participants

The information reported here was part of a study on prenatal attachment in women expecting their first child or pregnant women who have another child or children (Zimmerman & Doan, 2003).

- Of the 171 first time expectant mothers and 50 women who were expecting a child subsequent to having a typically child or children (subsequents), those on the extreme end of the continuum on the measures of initial reaction and level of prenatal attachment, i.e., 22 first time mothers and 16 subsequents, were selected
- Those at the end of the continuum were selected by dividing the range of responses for the entire group into thirds, indicating those in the high, medium and low groups. For the initial reaction to being pregnant, those in the high, medium and low groups, for the first time expectant mothers and the subsequents had a score of 10, 8-9 and <7 respectively (out of a possible score of 0-10)
- For the attachment scores, the range of scores for first time mothers and subsequents in the high group were 63 -70 and 58-68; in the medium group were 56-62 and 53-57; and in the low group were 36-55 and 33-52 respectively (out of a possible total score from 0 – 76)
- From the total population, for first time expectant women and subsequents, there were 4.7 and 4 per cent in the low/low, 1.7 and 6 percent in the low/high, 11.7 and 16 percent in the high/low, and 61 and 18 percent in the high/high, initial reaction and attachment groups respectively. From this population, selecting the extreme scores, there were 9 (6 first time and 3 subsequent mothers) in the low/low group, 3 (2 first time and 1 subsequent) in the low/high group, 17 (8 first time and 7 subsequents) in the high/low group and 11 (6 first time and 5 subsequents) in the high/high group.
- The age range of the first time mothers was from 22 to 39 years, and of the subsequents was 29 to 39 years. The number of weeks pregnant varied in the first time group from 10 to 37 weeks and for the subsequents from 17 to 38 weeks.

Measures:

- Maternal Antenatal Attachment Scale (MAAS, Condon, 1993) which is a 19 item self report paper and pencil questionnaire. The items were scored from "0" to "4" indicating how strongly or frequently they agreed with a particular statement describing their responses that indicated the quality of their attachment or the frequency of their attachment behaviours and feelings. The possible range of scores was 0 to 76 for the total score.
- ten point rating scale of initial feelings when pregnant which was scored from 0 =

- not happy; 5 = neutral; 10 = very happy
- five open ended questions

Questions

- Before you were ever pregnant, what did being a parent mean to you?
- Now that you are pregnant, what does being a parent mean to you?
- What kinds of feelings and thoughts did you experience, when you first found out you were pregnant?
- What kinds of feelings and thoughts have you been experiencing in the past two weeks?
- In your opinion, is your baby a distinct person at this time? Explain.

Procedure

- The study was advertised in prenatal programs, such as preparation for childbirth programmes, pregnancy exercise classes, etc., physicians' offices and community newspapers. The women who responded, indicating their interest, were then either emailed a questionnaire package, or mailed a questionnaire package and a self-addressed stamped envelope.
- The answers to the open-ended questions were coded independently by two observers. They were initially coded in terms of the applicable categories and then the number of women in each group who were in each category. There was a 90 percent agreement between coders. In the case of a disagreement, the categories were reviewed and a joint decision made about the appropriate group.

RESULTS

General

- In both first time and subsequent groups, there were women with all combinations of initial reactions and attachment levels, e.g., high/high; high/low, low/high; low/low
- Women in all trimesters were in all groups
- Some women's descriptions stressed cognitive aspects, e.g., "my thoughts are 12 weeks more to go"; some emotions and feelings, e.g., "excitement, anger, sadness; some pregnancy related behaviours, e.g., "whenever I put my hand on my stomach, it come to it, touches it with its own hand and kicks"
- The range of responses was from positive to negative, with some expressing their

ambivalence. The range was apparent both for first time mothers-to-be and for those with other children

- Responses were either self or baby focused (self focused answers were more prevalent in the low attachment groups)
- Women appeared either engaged in the pregnancy or more detached or disengaged

WHAT IS AN ENGAGED MOTHER?

In analyzing the level of engagement/disengagement, we referred to Nelson's (2003) meta-synthesis of nine qualitative studies on the transition to motherhood. Nelson summarized metaphors, phrases and themes related to engagement of a mother with her child. The criteria included:

- Establishing the intention to mother
 - Decision to have a child
 - Committing to new life circumstance
 - Working it out
 - Promoting health/well/being of child
 - engaging in the process of self-socialization;
 - getting ready;
 - giving of self;
 - dealing with reality;
 - experiencing love for the baby;
 - settling in;
 - coming to know baby;
 - realizing;
 - learning to care for the baby;
 - learning;
 - unexpected depth of love and attachment;
 - active striving.
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- As stated earlier, we hypothesized that the responses on the initial reaction and attachment scales were reflective of the women's level of engagement/disengagement
 - In order to illustrate this relationship, the statements by the women who scored in the extreme initial reaction/attachment categories were categorized. Some of the conclusions of their answers were as follows:

SOME CONCLUSIONS ABOUT THE FEELINGS AND THOUGHTS OF THE PAST TWO WEEKS

- Low/lows tended to report negative emotions and thoughts and were more self

focused (6 out of 6 for first time mothers-to-be, e.g., "anxiety about how my life will change and losing my freedom" (29 weeks pregnant); and 2 out of 3 for subsequents, were either negative or ambivalent). Also, 5 of the 6, of first time mothers and 2 out of 3 subsequents gave responses that were self referencing.

- High/highs were more baby focused (e.g., "worry constantly about the baby, am I eating the right foods, am I eating enough, is the baby active enough" -25 weeks) and expressed a range of emotions from excitement to worrying about the kind of mother they would be (4 out of 5 of the first time mothers were baby focused).
- High/low groups appeared more disengaged in the pregnancy, focusing on their work, their fears of labour, maintaining normal life patterns, or concern about their lack of involvement in the pregnancy. Some expressed mixed feelings, but, with a concern about the level of responsibility, e.g., "too much work, room for baby, schoolwork, house organization, too much social stuff with friends and family" or "very busy, lucky my pregnancy has been easy, can still swim twice a week; am a little worried about labour and logistics of taking care of the baby" (36 weeks). Of the 8 first time mothers, 8 expressed negative or ambivalent feelings and were self oriented. Of the 3 subsequents, 2 were negative and 1 positive, e.g., "feeling very tired and heavy, my thoughts have been regarding my children, will they let their dad do bathing, reading to them, getting up at night or will they resent the baby" (36 weeks).
- Some women had an high initial reaction and later mixed or negative feelings, i.e., initial reaction may not necessarily be a good indicator by itself of later thoughts and feelings. Initial reaction is much more predictive of later functioning when considered in combination with the level of prenatal attachment

SOME CONCLUSIONS FROM THE QUESTION "WHAT KINDS OF FEELINGS AND THOUGHTS DID YOU EXPERIENCE WHEN YOU FIRST FOUND OUT YOU WERE PREGNANT?"

- While retrospective data, findings again suggest a range of feelings from anger, to fear, to confusion, to focusing on their physical state, to mixed feelings, to very positive excitement
- Low/low groups expressed the most negative comments, which included that they were sad, shocked, angry, upset, scared, worried. The negativity was found both with first time mothers and subsequents (6 out of 6 first time mothers-to-be and 3 out of 3 subsequents), e.g., "sad, upset, cried, did not know what to do, it was not the right time to have this baby.."; "very upset at the father, I could not get out of bed"; "scared about the change in lifestyle".
- High/high groups tended to be very positive and happy (3 out of 5 first time mothers and 4 out of 6 subsequents), e.g., "excited, wow"; "excitement and

happy”.

- There were some who rated themselves as initially as happy with the pregnancy but who had a low attachment score. Many of these women had concerns about their ability to be a mother, “what do I do once it is here” or “wow, now what do I do”; were involved in other aspects of their lives, such as their career, were concerned about the survival of the fetus; or did not like to be pregnant.
- Possible implications include addressing the issues related to low attachment in a variety of ways, i.e., some may need to learn how to relate to the fetus; some general time management skills; some may need to address the negativity they are feeling

ANSWERS TO THE QUESTION: “BEFORE YOU WERE PREGNANT, WHAT DID BEING A PARENT MEAN TO YOU?”

- Answers included fantasy based comments (“I imagined preparing colourful, tasteful meals for a table of young children full of joy. I saw us laughing and playing outside, lots of running and big hugs. I saw bathing them at night and brushing their hair and reading them bedtime stories and tucking them in for a peaceful nights rest”
- Responsibility was stressed by others (“being a parent meant having a lifetime of responsibility”)
- Others had a more negative preconception (“being a parent means conflict with the child when it is older”, or “sacrificing” or “loss of flexibility”
- Some seemed quite detached from the concept (“I thought being a parent was for other people and not for me”)
- Many were positive (“I always wanted to be a mother, because I love kids”; “parenting means the things I saw in my parents, responsibility, strength , love, patience, understanding”
- Thus, the preconceptions varied considerably along the dimensions of fantasy/reality; positive/negative; detached/involved, personally based/impersonal.

ANSWERS TO THE QUESTION: “BEFORE YOU WERE PREGNANT, WHAT DID BEING A PARENT MEAN TO YOU?”

- In general the most positive descriptions were expressed by the high/high group; the more fantasy oriented and negative comments were reported by the low attachment group.

- There was a mixture of feelings within each of the groups, although the high/high group were all positive but one, who said that before becoming pregnant, she didn't think of it; the high/low group (5 of 15) was the only one in which there were fantasy responses, perhaps indicating unrealistic feelings-happy for the idea of pregnancy without the ability to conceptualize what it is about; and the low/low group had more negative comments than any other group i.e., 4 of the 6 first-time mothers-to-be made negative comments. There were also 3 of the 7 subsequents in the high/low group who had a more self oriented, negative response to the idea of parenting.
- Therefore, even prior to becoming pregnant, there were some in the low attachment group that had a conception of parenting that was unrealistic or negative. This was a finding that was supported by some of our previous research (Doan & Zimmerman, 2002)

"NOW THAT YOU ARE PREGNANT, WHAT DOES BEING A PARENT MEAN?": SOME COMMENTS

- In some cases the response to the meaning of parenting was the same both before, and after, becoming pregnant
- For others, there was an added element of reality, e.g, one of the fantasy responders added "I continue to hope for similar moments but recognize the reality of teething, crying, sickness, injury, fears of not knowing what to do next"
- Many emphasized the added element of responsibility, e.g., "same as before but add the responsibility to raise a good person and to try not to succumb to using the tv as a babysitter to be more active to enrich my child's life"
- There were a few answers, all within the low/low group, that were suggestive of problems, e.g., "fun, play around with the kids and some responsibility" or "conflict with the child when it is older" or :financial responsibility and time, burden, physical hardship, emotional and mental drain, discipline, efficiency, everything my parents went through good and bad but still overwhelmingly good"

PREGNANT WOMEN'S CONCEPTUALIZATION OF THE FETUS AS A PERSON

- Women conceptualize the developing fetus as a person regardless of the stage of fetal development/pregnancy. There are also some who describe the fetus as not a person, even very late in the pregnancy (at 37 weeks-"it still seems surreal, I have a difficult time realizing I have a human life growing inside me" or at 36 weeks "no, I have not associated a gender or name to it yet")

- In general, those who were high in attachment, tended to view the fetus as a person (i.e., 8 of 8 in first time mothers and 3 of 3 in the subsequents), even early in the pregnancy (10 weeks-“totally, I truly believe that personalities and characters are developed in the womb”).
- Of those who were low in attachment, some expressed a view of the fetus as a person and some did not. Of those who were low in attachment, 9 of 14 the first time mothers who were low in attachment felt the fetus was a person and 5 did not; 4 of the subsequents, low in attachment felt the fetus was a person and 4 did not.
- The types of rationale, used by those who believed the fetus was not a person, included not having a name, gender, personality, emotions or ties to people or the ability to survive independently
- There were several reasons to explain the fetus as a person. Some were very concrete, i.e., because of physical development, e.g., heart, feet, etc., or physical movement, e.g., kicking, moving. Some of the subsequents stated that since their child had maintained a consistent personality from birth, their developing baby must be a person. Others had a more abstract concept of what “being a person” meant, e.g., “from the moment you conceive the child they become a distinct person who experiences everything their mother is going through”
- These findings suggest that women have different cognitive ability to conceptualize and be attached to a developing fetus. Other women seem to be more concrete in their thinking and start to think of the fetus as a person only when there is a physical sign of development or at birth. Of the women in the low attachment group, who stated the fetus was a person related a concrete, physical reason to explain why the fetus was a person. For example, one woman in the low/low group, who was 37 weeks pregnant, stated “now it still seems surreal, I have a difficult time realizing I have a human life growing inside me”.

SOME GENERAL CONCLUSIONS

- Women in the high/high group (6 of the 6 first time mothers and 3 of the 5 subsequents) were consistently engaged in every aspect of the pregnancy, i.e., the conception of pregnancy, the reaction to their own pregnancy, their reactions later in pregnancy, their level of attachment and their ability to perceive the fetus as a separate person.
- Negative comments were more likely to be stated by those with a lower level of attachment. These women were more likely to be disengaged during their pregnancy (6 of the 6 first time mothers and 3 of the 3 subsequents in the low/low group were either disengaged or ambivalent. Some expressed a desire to just get through the pregnancy).

- The women in the low attachment, combined with a low initial reaction to the pregnancy, gave more fantasy oriented and negative comments about parenting and negative comments about pregnancy. There were also some in this group who had difficulty perceiving the fetus as an individual.
- Some women focused on a self oriented response to the issues, e.g., "the baby has its own personality, but I am providing the lifeline" or "it absolutely depends on me now" or "if I could give it a name, it would become a person"
- There was a continuum of levels in each of the components of attachment, i.e., cognitive, emotional and behavioural, e.g., concrete thinking to abstract thinking; emotional attachment, related mostly to the mother, to emotional attachment related directly to the fetus; or interacting very little with the fetus to a high level of interaction
- There was also a continuum of the level of how positive or negative the responses were: some very positive, others ambivalent and some, negative.
- Some mothers reworked their conceptualizations during the pregnancy, e.g., a very positive initial reaction, but later attachment may be low and representation of the fetus limited which is a consistent finding with Stern's (1995) suggestion that during pregnancy, mothers rework and reactivate mental representations of themselves and their fetuses
- In spite of the limited sample, the findings in our study are consistent with theories that suggest different maternal approaches

THEORETICAL IMPLICATIONS

- One of most thorough theories, describing the different approaches women have to pregnancy, is that of Raphael-Leff (e.g., 1995)
- Her three categories were facilitator, regulator or reciprocator
- The facilitator is the most engaged in the pregnancy: e.g., immediately emotional over the pregnancy; avoids what may be harmful; wears maternity clothes before necessary; restricts social contacts; once movement is experienced, the fetus becomes a separate individual; feels enriched by an internal presence only she can experience
- The regulator is at the other end of the engagement continuum, e.g., wishes to regulate her life; considers pregnancy as a tedious means of getting a baby; avoids introspection; decides not to share her pregnancy until truly pregnant; wants to be treated as usual; resolves to minimize changes in her lifestyle and internal world; remains autonomous and detached; may be more active socially; does not want the pregnancy to become the focus of her being; when baby

moves she may begin to feel something is within her that remains beyond her control; is reluctant to invest fetus with human personality traits; by late pregnancy most are fed up with the internal battering and distracting kicking which affects both sleep and work; some even intensify their level of detachment

- The Reciprocator is more ambivalent about the pregnancy, both overjoyed and regretful of changes in her professional and personal life; pregnancy does not dominate her life but adds a new richness and warmth to couple's experience of each other; tries to balance inner absorption and acute awareness of world. The Reciprocator enjoys her pregnancy as a preparatory time, is keen to have it end so she can meet the baby

The work of Raphael-Leff, is very congruent with our findings: describing a continuum of involvement and responsivity in which there are components that are cognitive, emotional and behavioural and the level of engagement in all three components may vary from engaged to detached or disengaged. Our high/high group gave answers that are very similar to the description of the Facilitator. Our low/low group share many of the characteristics of the Regulator. Finally, the low/high and high/low groups were more likely to be ambivalent

SOME FINAL STATEMENTS

- Question: to what degree are these expectant mothers, who are less engaged, likely to have problems during pregnancy. Sharp & Bramwell (2004) supported Raphael-Leff's model and found that women reporting regulator mothering orientation were at increased risk for postnatal depression.
- What is clear is that women have different approaches to pregnancy, and, therefore, different needs for intervention
- One way to evaluate their needs is through measures of prenatal attachment and the initial reaction to pregnancy and some general questions about their feelings and thoughts about pregnancy. This type of screening offers a great deal of information for minimal time investment
- This type of screening should be examined for its application with a wide range of cultural and language populations.
- Further research should be conducted in this area with "special" populations, e.g., adverse previous diagnoses such as fragile X syndrome, trisomy 18, etc.; previous loss in pregnancy or infancy
- As we understand more about the variance in the needs of pregnant women, courses could be developed for high school students addressing issues related to conceptualizing the concept of parenting; the fetus as a person; managing your time when you are pregnant; how to interact with the fetus, etc.

- We are presently analyzing our total data set of qualitative responses to the questions we described, including the sample of pregnant women who have a child with Downs Syndrome. This study will include not only the full spectrum of response combinations, i.e., low/medium and high initial reaction and low/medium and high attachment levels.

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