

Prenatal Attachment, Empathy, and Cognitive Adaptation to Pregnancy Subsequent to Having a Child with Down Syndrome

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Abstract

There has been extensive research into the areas of transition to parenthood, psychological processes during pregnancy, and having a child with disabilities. However, a much-needed topic of study is that of the unique experience which combines these three areas - pregnancy and parenting subsequent to having a child with disabilities. Understanding this experience, for example pregnancy after having a child with Down syndrome (DS), is important both from theoretical and clinical perspectives. Extending the knowledge and understanding of the experience of families who have a member with developmental disabilities must remain a continuing goal in order to offer appropriate services to these families. The present report describes the preliminary and partial results of a study undertaken to investigate some of the psychological processes during pregnancy in three groups of mothers: expecting their first child (FT; n=171); expecting subsequent to a typically developing child (TS; n=50); and, expecting subsequent to a child with Down syndrome (DS; n=11). The preliminary results described here pertain mainly to the group of mothers of children with DS who are expecting again. Established scales were used to measure prenatal attachment, empathy, and cognitive adaptation to stresses of pregnancy. As well, quantitative data were obtained for a number of issues using 10-point rating scales, and several open-ended questions were analyzed by identifying recurring themes. Although there were no significant group differences on any of the main measures, the correlations amongst the variables were significantly different for the DS group. This finding implies that the DS group is reacting to and describing their pregnancies differently. This should be taken into consideration when services are provided by the medical and social service community.

There is ample evidence that expectant parents experience feelings towards their unborn children (Condon, 1993). In some cases, the way women rate their feelings on prenatal attachment scales predicts their bonding behaviours once the child is born (Benoit, Parker & Zeanah, 1997; Condon & Corkindale, 1997). As pointed out by Condon and Corkindale (1997), a strong attachment to one's fetus should result in the wish to safeguard it both pre- and postnatally and therefore reduce the risk of abuse or neglect. Further research is needed to clarify what experiential variables, personality factors, and/or cognitive processes contribute to prenatal attachment.

There are many factors that may contribute to an optimal attachment between parent and child and recent research suggests that this relationship can start prior to the birth of the child. For example, it has been demonstrated that mothers' attachment-promoting behaviours, such as holding or kissing, are correlated with, among other factors: positive attitudes during pregnancy, emotional attachment to the unborn, and cognitive adaptation to the pregnancy (accepting the pregnancy, preparing for the maternal role, etc.) (Fonagy, Steele & Steele, 1991; Muller, 1996). Conversely, difficulties in adapting to pregnancy, as well as a lower level of attachment to the fetus, may indicate potential problems in the relationship between mother and child (Pollock & Percy, 1999). As well, according to Ainsworth (1985), in her well-accepted theory of child development and parenting, the key to promoting a positive attachment lies in the mother's ability to sensitively interpret and respond to her child's cues. Although it is sensitivity that Ainsworth and her contemporaries discuss, empathic ability has been implicated as an important attribute leading to sensitive responding (Quinn, 1991).

The lack of sufficient and appropriate research on the experience of subsequent pregnancy presents a disparity in the literature on prenatal and early parenting experience. In addition to this gap, another important yet neglected area is the potential influence the characteristics of the existing child may have on the mothers' feelings towards a subsequent fetus. For example, there is little if any information on expecting a child after one has a child with disabilities, although there is ample information on the experience of families who have a child with disabilities. From an examination of the literature on prenatal attachment and the early parenting experience, several questions emerge: How do women describe what being a parent means to them? Are the psychological processes that take place during pregnancy independent of the experience of motherhood or, is it possible that motherhood contributes to these processes as they develop throughout a subsequent pregnancy? Do different parenting experiences,

such as mothering a child with DS, effect the psychological processes of a subsequent pregnancy differently than mothering a typically developing child? Further, are there individual differences or personality characteristics such as empathy and cognitive coping styles that mediate the effects of the experience of mothering on a subsequent pregnancy?

This report will not address all of these questions, but rather offer some evidence that this group of mothers of children with DS who are expecting again, differs in several aspects from the other two groups.

Method

Participants

Participants were recruited by advertising in various DS websites and newsletters nationally and internationally, and by word of mouth. Eleven pregnant women who have a child with DS completed the questionnaire. The mean age of these mothers was 36.4, their average household income was 64,500 per annum, and on average they had 15 years of formal education. They had on average 3.5 children (ranging from 2 to 6).

In addition, five women who are mothers of a child with DS and who had already given birth to a subsequent child expressed an interest to participate. Their accounts of their experiences were also used in this study.

Procedure

Women responded to the advertising or personal requests by indicating their interest in the study. They were then either emailed a questionnaire package, or mailed by post a questionnaire package and a self-addressed stamped envelope. The completed questionnaires arrived either by post or email.

Instruments

The *Maternal Antenatal Attachment Scale* (MAAS; Condon, 1993). This is a 19-item self-report paper and pencil questionnaire which was validated through item analysis where the 19 retained items achieved a high internal consistency ($\alpha=0.82$). Factor analysis yielded two distinct factors, namely, quality of attachment ("quality"; 10 items), and, time spent in attachment mode ("time spent"; 9 items).

The *Cognitive Adaptation to Stressful Events* (CASE; Affonso, Mayberry, Lovett & Paul, 1994). The scale is a self-report paper and pencil questionnaire, which is comprised of 37 items in form of statements scored on an 11 point-scale, from "0" which represents "not-at-all" and "10" which denoted "constantly." A score of "1" to "3" denotes "occasionally" while a score of "4" to "6" represents "sometimes." Although the CASE was designed to include the dimensions of search for meaning, mastery, and self-enhancement, it was developed to encompass a holistic view of cognitive adaptation particularly during pregnancy and early parenting. Factor analysis supported the existence of a single factor. The CASE has a high internal consistency - Cronbach's alpha ranging from .94 to .96 in six-assessment points during pregnancy and early post-partum.

The *Interpersonal Reactivity Index* (IRI; Davis, 1983a, 1983b). The IRI is a self-report questionnaire, comprised of 28 statements, which has been well validated. The IRI has been touted as possibly the only empathy measure that takes both the cognitive as well as the emotional aspects of empathy into consideration. It is rated on a five-point scale from "0" to "4." The IRI is comprised of four subscales. Each subscale consists of seven items. Reliability for all subscales has been shown to be satisfactory ranging from .71 to .77 for internal reliability and, .62 to .72 for test-retest reliability. The subscales have repeatedly been shown to be distinct through factor analysis. They are: a) Perspective taking - a cognitive aspect of empathy; b) Fantasy - also a cognitive aspect of empathy; c) Empathic Concern - an emotional aspect of empathy, and d) Personal Distress - also an emotional aspect of empathy.

The *Open-ended questions and Demographic questionnaire*. This questionnaire was developed for this specific study and it has three general sections: information about the mother-to-be (basic demographic questions for a total of 18 scaled and five open-ended questions), information about the pregnancy and baby (21 questions five of which are open-ended and require describing feelings and thoughts, and five open-ended questions requiring factual information about prenatal testing and problems, if any, with the pregnancy), and information about the woman's relationship with her partner (eight questions about the perceived relationship between the woman and her partner).

Results

ANOVAs (SPSS) revealed that the three groups differed on only one of the main measures of this study, which was one of the scaled questions in the

"information about the pregnancy and baby" section: the initial reaction (degree of happiness) when they first found out they were pregnant was significantly lower for the DS group than the other two groups. On this scaled question, where "1" means "not happy at all" and "10" means "very happy," the DS group's mean response was 7.09, while the FT group rated themselves as 9.13 and the TS's mean score was 8.94.

However, correlations amongst the study variables were different in the three groups. Presented here are the results for the DS group.

Empathy and Attachment

Only one significant correlation was observed among items of the empathy (IRI) and attachment (MAAS) subscales. Time spent in attachment behaviours ("time spent") was very highly correlated with the "Perspective taking" subscale of Empathy ($r=.801$; $p>.001$).

Marital Relationship

Marital satisfaction and expected supportiveness of partner were very highly correlated ($r=.838$; $p>.001$).

Regarding the marital relationship, two of the DS mothers mentioned, in response to the question about their initial feelings to this pregnancy, that they were concerned about their partner's reaction to the unplanned pregnancy. Only when the reaction was positive, did they feel positive towards their pregnancy.

Six of the 11 mothers in the DS group reported that the current pregnancy was unplanned. This constitutes 54.5% compared with the FT and TS groups where only 21.1% and 20% respectively were reported. The reasons provided for having the unplanned baby were also different for these groups: where the DS group decided based on religious belief (50% "God's will") or would "never" consider an abortion (50%), the reasons given by the two other groups were as follows: "won't consider abortion" (FT=13%; TS=20%); "happy with the unplanned pregnancy anyway" (FT 27%; TS=30%); and, "it was time anyway" (FT 22%; TS 20%).

When it comes to the meaning of being a parent, the DS group responses had the following recurring themes: love; nurturance; responsibility and being a role model; must have trust and faith that you do the right thing; gift from God; and, being a role model. One mother also mentioned that being a parent means that unexpected outcomes are not a disaster.

Hopes and fears for the new baby

More than half the DS group were fearing medical or developmental issues and genetic abnormalities, and hoping for health and well being for the new baby. In addition, themes such as "loving the Lord," having a good disposition, supporting the sibling with DS, and sleeping through the night were also mentioned. Some mentioned that they particularly feared having to deal with the special needs of another child (should the baby have disabilities) as well as worries about coping with a new baby when the child with DS still needed a lot of attention.

Ten of the mothers in the DS group regarded the baby a distinct person, while one stated that she needed to experience his personality before she could regard him a person (sex of baby was known).

"Informants"

Five mothers of children with DS, who had already given birth to a subsequent child, shared their thoughts and feelings. An interesting finding was that even after the birth of a healthy child, the mothers hesitated to state that fact, but rather, they each described the baby as "seemingly" well, and "OK so far." They all emphasized that they loved the child with DS no less than the new baby. Four of the five experienced anxiety and guilt feelings during the pregnancy, which related to coping with a new baby when the child with DS still had so many needs. As well, despite experiencing relief when prenatal testing confirmed the well being of the fetus, these mothers reported continued anxiety about the fetus until the moment of birth and beyond.

Discussion

Despite the limitations of this study, this preliminary and partial report provides some insight into the experience of pregnancy and early parenting subsequent to a child with DS. The main limitation is the small sample size in relation to the comparison groups.

We can, however, conclude from these data that pregnant women who already have a child with DS appear to be more likely to report the pregnancy as unplanned, and are more likely to report religious/spiritual reasons for keeping the pregnancy. The religious aspect supports Gan-Wong's (1991) assertion that many families of children with disabilities find hope and cope through religion.

These mothers describe marital satisfaction as closely related to their expectation of partner-supportiveness with the new baby. This was also true for the FT group, but not so for the TS group. It is possible that in the first time mothers, the expectation of support is simply a wish, or an extension of their satisfaction with the marital relationship. In women who have already experienced the supportiveness (or lack thereof) of their partners with the child, the marital satisfaction is an unrelated issue. However, it seems that having a child with disabilities, such as DS, can either enhance or impair the marital relationship. There is ample evidence that indicates the negative impact of a child with disabilities on the family (see for example, Beckman, 1983). Some authors, however, found that a child with disabilities can enhance and strengthen the marital relationship (for example: Trute & Hauch, 1988). The results of the present study indicate that in families of children with DS who proceed to have another child, the strength of the marital relationship is very important not only in and of itself, but as it relates to the expected supportiveness with the children.

The relationship between attachment and empathy has not been previously formally reported. In this study, there is a very high correlation between a cognitive subscale of empathy, namely perspective taking, and the attachment subscale of time spent in attachment behaviours. Perspective taking, a cognitive subscale, is comprised of items that relate to the ability of one to imagine, or relate to, what another is experiencing. It is possible that through parenting a child with developmental disabilities, a mother needs to use much more of this skill than with children who develop typically and can actually communicate their needs and wants more clearly. It is possible that these mothers had high empathic abilities prior to having the child with DS, or, that they actually developed this skill or trait by mothering the child with DS.

The worries and stress these mothers described, indicate that their experience of a subsequent pregnancy goes beyond the "normal" or expected emotional experience of the mother of a typically developing child. It is possible that, as they describe it themselves - the fear that they might have to look after another child with disabilities, coupled with the straight forward worry and guilt that the new baby will impose limitations on their availability for the child with DS, poses a "special" need that should be addressed when serving these families - be it in the medical field (pediatrics, obstetrics, etc.), or the social/educational area.

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