

## Emotional cushioning in pregnancy after perinatal loss

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### **Abstract:**

Women pregnant again after prior perinatal loss fear another loss and thus protect their emotions and avoid prenatal bonding. This phenomenon, emotional cushioning, appears to be a complex self-protective mechanism and is proposed here as a unique combination of circumstances and responses used by women to cope with the anxiety, uncertainty, and sense of vulnerability experienced in these subsequent pregnancies. Related literature is reviewed to clarify and circumscribe what emotional cushioning is. In this mixed-methods study, a convenience sample of women pregnant after perinatal loss ( $N=63$ ) completed the Pregnancy Anxiety Scale during and following pregnancy and responded to questions regarding 'holding back their emotions' in pregnancy. The purpose was to describe the range and prevalence of emotional cushioning, to compare pre- and post-natal reports of emotional cushioning, and to examine relationships between emotional cushioning and pregnancy anxiety pre- and post-natally. The majority of women (58.7%) reported some emotional cushioning. Emotional cushioning questions were significantly and positively correlated with pregnancy anxiety. Clinical and research implications are discussed.

### **Article:**

Women pregnant again after prior perinatal loss often describe their experience of protecting their emotions and avoiding prenatal bonding, due to fear of another loss. Trust in successful pregnancy has been broken. Previous research on pregnancy after perinatal loss (PAL) identified the common yet complex self-protective mechanism called emotional cushioning (EC), presented here as a unique combination of circumstances and responses used by women to cope with the anxiety, uncertainty, and sense of vulnerability experienced in these subsequent pregnancies. This study was undertaken to increase understanding of the characteristics of EC and its relationship to pregnancy anxiety.

Pregnancy is often seen as a time for positive emotions and hopeful expectations of a new baby. This is in sharp contrast to the PAL woman's experience, where pregnancy does *not* equal baby. The experience is a combination of hope for a positive outcome and fear of a negative one, with a focus toward the clinical and objective aspects of pregnancy, and a desire to shield the pregnancy from public participation (Côté-Arsenault & Freije, 2004).

Pregnancy anxiety is a predominant emotion in pregnancy after PAL and causes the women to be hypervigilant. Women in PAL carefully scrutinise their physical signs and symptoms to insure detection of anything out of the ordinary (Côté-Arsenault, Donato & Earl, 2006). They try not to think too deeply about the future with this baby because it may never come to be. Therefore, women protect themselves by compartmentalising the pregnancy and avoiding its emotional aspects for as long as possible. The self-protection that women use during PAL can be called 'emotional cushioning'.

### *Characteristics of emotional cushioning*

Emotional cushioning requires acknowledgement of the current pregnancy. EC can be a conscious or subconscious mechanism that serves as emotional self-protection from pregnancy anxiety, specifically the potential emotional pain and hurt of another loss. Indeed, women may not even be aware of the level of their pregnancy anxiety at the time. It seems that women utilise EC to 'get through' the pregnancy (Côté-Arsenault et al., 2006) and to avoid having others worry about them. At the time, these women may not truly acknowledge the depth of their fear. Ironically, if the women let others know about their protective shell it is less effective as a protection because accepting help requires talking about what they are trying to put aside. EC serves as a way to avoid the emotional attachment and investment in their baby, which would be the primary source of pain if another loss occurs (O'Leary & Thorwick, 2008). The lack of control of the outcome of pregnancy is a given for women in PAL; successful pregnancy cannot be guaranteed, so the women live with ubiquitous uncertainty. Emotions are held back until they have a greater certainty of success or a live baby in their arms. Although levels of EC might vary individually and over time to some degree (Côté-Arsenault & Marshall, 2000), EC allows women to be pregnant in the moment, maintain their current roles and relationships, and not focus on the uncertain future.

## REVIEW OF THE LITERATURE

### *Emergence of emotional cushioning*

The notion of EC first emerged from two focus group studies conducted by the first author (Côté-Arsenault & Marshall, 2000; Côté-Arsenault & Morrison-Beedy, 2002). One group had pregnant women with past losses, the other group included women who were not pregnant but had experienced losses in the past. The surprise came with the realisation that the women who were most emotional were those who had moved past their childbearing years. Those slightly older women cried, held each other's hands, and were quite emotional. Those currently pregnant or with very young babies shared their emotional loss stories and their current fears in a matter-of-fact manner, with limited affect. This realisation was contrary to what was expected. However, the women in the retrospective group were able to explain that they had held back their emotions during their pregnancies, by lowering expectations, not getting overly excited about the pending birth, nor too attached to the future baby to prevent the devastation the previous loss(es) caused. These women were very much aware and able to describe their past self-protection.

A consistent presence of EC was seen through the examination of quotes and themes from previous qualitative studies of the principal investigator (Côté-Arsenault & Marshall, 2000; Côté-Arsenault & Morrison-Beedy, 2001; Côté-Arsenault et al., 2006; Côté-Arsenault & Donato, 2007). Women reported protecting themselves in an emotional cocoon to ensure they could make

it through pregnancy emotionally intact. Pregnancy was viewed as a state in and of itself without a predictable outcome, but nearly all women had some hope that, this time, the result *might* be positive (Côté-Arsenault, Bidlack & Humm, 2001). Women reported similar self-regulated EC behaviours: delayed telling about being pregnant again, not calling their foetus 'baby', and postponing physical preparations for a baby's homecoming (Côté-Arsenault & Marshall, 2000; Côté-Arsenault et al., 2006; Côté-Arsenault & Donato, 2007).

Literature in other fields, including pregnancy, includes concepts similar to EC that need to be considered as potentially identical to it. Each will be considered, in turn.

### *Related concepts*

**Defence mechanisms.** Defence mechanisms are 'automatic psychological processes that protect the individual against anxiety and from the awareness of internal or external dangers or stressors' (American Psychiatric Association, 2000, p. 807) and can promote mental health (Juni, 1997). As coping skills, defence mechanisms fall on a continuum of adaptation (Stuart, 2009). The mechanisms most similar to EC fall into the 'highly adaptive' and 'mental inhibitions' levels of defences which are generally useful; these are suppression, avoidance, and intellectualisation (Burgess & Clements, 1997).

Suppression is the conscious act of postponing thoughts of disturbing problems, desires, feeling or experiences to be dealt with at a future, more opportune time; to control and inhibit the expression of unacceptable impulses and feelings (Burgess & Clements, 1997). In contrast, avoidance is the conscious or unconscious active removal or escape of oneself from sources of threat or conflict (thoughts, objects, feelings or experiences) to personal safety, comfort, or well-being (Vaillant, 1992), almost as if the threat never happened. Lastly, intellectualisation is the focus on abstract thinking or generalising to avoid experiencing disturbing feelings that may be part of the situation (American Psychiatric Association, 2000; Burgess & Clements, 1997). Intellectualisation often includes focusing only on the facts and is useful in that no emotion is experienced, thus anxiety is reduced.

Women use each of these defence mechanisms in PAL; however, none dominate the others, nor do they describe the totality of their self protection in PAL. The women *compartmentalise* their pregnancy, particularly the unborn baby, as separate from the rest of their world; they keep it in a neutral location in their mind to reduce awareness of the pregnancy. EC includes a combination of these ways of coping, but does not end there. This is likely because of the evolving process of becoming a mother causing changes to her self-concept, relationships with others and the baby, and one's status in society (Rubin, 1984).

**Expecting the worst.** The personal strategy of expecting the worst, found within psychology, relies on the belief that people who view a future event with negativity will be pleasantly surprised if the opposite occurs. If the event turns out positively it is thought that those with low expectations would not be adversely affected by such negative thinking. However, this has not been shown to be true. Studies by Showers (1992) and Marshall and Brown (2006) testing the effects of positive and negative expectations on subsequent success or failures failed to demonstrate beneficial effects of negative thinking regardless of outcome. Showers (1992) surmised that residual negative feelings were the result of the tremendous effort to prepare for or

overcome fears for the event and that these negative feelings may outweigh the short-term emotional benefits gained.

**Anticipatory grief.** The notion of anticipatory grief found in grief literature is defined as the preparation for death during or prior to an inevitable loss or death (Hynan, 1986; Rando, 1986), as opposed to the grief *after* a loss. In this instance a relationship exists that is being changed due to illness or death. While disagreement exists in the field of thanatology about the existence and correctness of the term ‘anticipatory grief’, most agree that if it exists, it is an adaptive mechanism. Rando (1986) agrees that this type of grief may be stimulated by past losses as well as current and future ones. It is notable that anticipatory grief is one of the accepted North American Nursing Diagnosis Association (NANDA) nursing diagnoses (see Table 1).

**Table 1:** Nursing diagnosis: anticipatory grieving.

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NANDA Definition: Intellectual and emotional responses and behaviors by which individuals, families, communities work through the process of modifying self-concept based on the perception of potential loss.

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From Gulanick et al. (2009).

Anticipatory grief was the focus of a study of school-aged children anticipating the death of a parent due to terminal illness (Saldinger, Cain & Porterfield, 2003). In spite of having time to come to terms with the impending death, these anticipated parental deaths remained traumatic.

The difference between anticipatory grief and EC is that with anticipatory grieving a relationship with the dying person exists and the death is inevitable; in PAL it is the avoidance of both a relationship with the baby and the concomitant acknowledgement of the baby as a person that is being avoided. The intent of EC is not to grieve prior to loss; instead, the goal is that, if a loss were to occur, grief would be avoided.

**Tentative pregnancy.** Rothman (1986) introduced the phenomenon of ‘the tentative pregnancy’, describing it as women withholding their emotional ties to their conceived baby until learning the results of their prenatal tests (e.g. amniocentesis, ultrasounds). Learning whether the baby is deemed ‘healthy’ would then lead to the decision of whether or not to continue the pregnancy. The holding back of emotions in this situation shares similarities with the emotional cushioning, wanting a baby but postponing getting attached until more is known, but the situation differs in that while awaiting test results a woman is in the position to choose her next step, even though this decision can be very difficult (Rillstone & Hutchinson, 2001; Sandelowski & Barroso, 2005). The tentative pregnancy is about waiting to choose; PAL is about having no choice/control over the outcome.

**Guarding and connecting.** Another related concept, guarding, was coined by McGeary (1994) in a grounded theory study that revealed the basic social process of ‘guarding’ in response to the uncertainty of a current high-risk pregnancy. As a consequence of guarding, McGeary found effects regarding the women’s ‘connecting’ to their babies. When they were most uncertain about the pregnancy, they did more guarding and resisted connecting emotionally with their baby. Likewise, when they saw that they and their baby were fine, they allowed themselves to engage in connecting with their baby. The medical risks caused current concern. This is in contrast with PAL, where the fear is in the repetition of the past even with no immediate threats to the pregnancy.

Robinson (2001) examined the above-described concepts – anticipatory grief, tentative pregnancy, and guarding/connecting – in relationship to prenatal screening. She found that prenatal testing interfered with investment in the future and the baby, that mothers putting their emotions on hold is harmful, and that prenatal screening is not a benign component of prenatal care.

In summary, there are similarities between emotional cushioning and these related concepts. Anxiety is the common thread; however, the contexts within which each is found differs. Emotional cushioning remains unique due to its manifestation within pregnancies subsequent to perinatal loss. Therefore, further inquiry of emotional cushioning is deemed warranted.

The presence and characteristics of EC are known; however, the prevalence and degree of emotional cushioning in women experiencing PAL has not been studied. Also unknown is women's perceptions of EC during the pregnancy as compared to after the birth and the apparent relationship between pregnancy anxiety and emotional cushioning. These knowledge gaps and questions were addressed in the mixed-methods study reported here. The research questions are: (1) How do women describe their experience of emotional cushioning? (2) What is the range of degrees and prevalence of emotional cushioning reported? (3) Are degrees of emotional cushioning, prenatal pregnancy anxiety, retrospective report of pregnancy anxiety, and self-assessment of pregnancy worry related? (4) Is there a significant difference between pregnancy anxiety reported prospectively during pregnancy and pregnancy anxiety reported retrospectively?

## METHODS

### *Sample*

The sample for this analysis, part of a larger PAL longitudinal study, consisted of 63 women pregnant after perinatal loss, recruited with convenience and snowball sampling, through community canvassing, public and private obstetrical practices in central New York, and Internet pregnancy loss support groups in the US, who completed all data collection points (Côté-Arsenault, 2007). All women met the inclusion criteria of English fluency, previous spontaneous pregnancy loss, and not yet feeling foetal movement at Time 1.

The characteristics of the sample were a mean age of 30 years (range 20–42; SD 5.2), well educated (range 10–20 years of school; M=15.02; SD 2.57), widely varying income (Mode US \$60–79,000, range US \$0–>\$120,000), and primarily married (69.8%; 17.2% partnered or co-habiting). The racial composition was majority Caucasian (84%; 7.9% African American; 3.2% Hispanic; 4.8% other). The women had been pregnant greater than 4 times, on average (range 2–13; M=4.11; SD=2.0).

### **Data collection and instruments**

Self-report questionnaires were completed at three points across pregnancy (Time 1: 10–17 weeks, Time 2: 22–24 weeks, and Time 3: 32–34 weeks) and once during postpartum (Time 4: up to 6 weeks post-birth). See Table 2 for time schedule of instruments.

**Table 2:** Timetable of data collection and instruments.

Weeks gestation	Time 110–17 weeks	Time 222–24 weeks	Time 332–34 weeks	Time 4postpartum
Instruments completed	Demographics PAS (prospective)	PAS (prospective)	PAS (prospective)	– PAS (retrospective) – Worry VAS – EC: open text Self description 2 questions

PAS, Pregnancy Anxiety Scale; VAS, visual analogue scale; EC, emotional cushioning questions.

**Pregnancy anxiety.** The Pregnancy Anxiety Scale (PAS) measures concern about pregnancy and its outcome, 9-items, VAS format (0–100 mm) (see Table 3). The mean of the nine responses is computed for the scale score. Evidence of content and construct validity has been reported elsewhere (Côté-Arsenault, 2003, 2007). Reliability estimates include parallel form ( $r=0.97$ ) and internal consistency (Cronbach alphas of 0.74–0.83). In this sample, Cronbach’s alpha were 0.85–0.87. The PAS was completed at three prenatal data collection points. During the postpartum period (Time 4) women were again asked to complete the PAS, but this time looking retrospectively at their pregnancies (e.g. When I *think back* about this pregnancy, I felt anxious).

**Table 3:** Pregnancy Anxiety Scale items.

1. When I think about this pregnancy I feel anxious.
2. I feel overwhelmed because of the anxieties related to this pregnancy.
3. I am confident that this baby will be fine.\*
4. I worry whether I will be able to bring this pregnancy to term.
5. I feel anxious when people talk about the future with this baby.
6. I am concerned that my efforts and sacrifices for this pregnancy won’t be enough.
7. I feel that I am holding-back my emotions about this pregnancy.
8. I worry about getting myself through this pregnancy.
9. Becoming emotionally attached to my baby is easy.\*

\* reverse score

**Emotional cushioning.** Three additional items were also asked at Time 4: (1) Right now, today, how worried were you, really, during your pregnancy? (Worry VAS: Not at all worried=0; The most worried I’ve ever been=100). (2) Is this different from the way you felt (or allowed yourself to feel) during pregnancy? (open text). (3) Looking again at item 7 (‘I feel that I am holding back my emotions about this pregnancy.’), do you feel that you were holding back your emotions during your pregnancy? (open text). The visual analogue scales were measured by two independent raters, achieving inter-rater reliability of 99%.

Due to the descriptive nature of the larger study retrospective measurement of EC was done so as not to interfere with women’s normal responses to PAL.

### *Data analysis*

**Women’s descriptions of holding back emotions.** Emotional cushioning textual data were analysed in two different ways. Content analysis was done to identify categories of the degree of emotional cushioning women described, then thematic analysis was done to discover themes within those responses.

**Content analysis.** Content analysis was done using guidelines from Weber (1990) in the following manner. The responses from the two open text emotional cushioning items were transcribed verbatim into a word file, without any identifiers. Copies of the transcript were read independently by three researchers for discovery of content categories. Five categories were generated from the women’s responses, thus creating a Likert scale ranging from ‘no worry & no emotional cushioning’ (coded as ‘1’) to ‘had worry and definitely experienced emotional cushioning’ (coded as ‘5’). Next, returning to individual responses, each response was assigned a code (1 to 5) for the degree of emotional cushioning described by each woman. All team members independently and then collectively agreed with the coding; two discrepancies were discussed and consensually re-coded.

**Thematic analysis.** Thematic analysis to discover common meanings and themes within the participant’s words began with repetitive re-reading of the transcript. Questions were asked of the preliminary data clusters such as ‘What are the women telling us?’ and ‘Are there patterns within their varying responses?’ Themes and patterns were identified and described. Themes were combined for clarity and to achieve saturation. Parsimony was eventually achieved and verified by reviewing the analysis process.

Quantitative data were entered into SPSS 17.0. Descriptive statistics (frequency, percentages, mean, standard deviation) were run. The mean PAS scores T1–3 were compared with T4 by paired *t*-test. Pearson correlations were run between PAS mean, T4 PAS, Worry VAS, and coded degree of emotional cushioning.

## RESULTS

### *Degrees of emotional cushioning*

A five-point Likert-type scale was developed through content analysis of participant textual responses. The resulting categories, codes, and frequencies of degrees of emotional cushioning are reported in Table 4. Codes 1, 2, and 3 indicate little or no worry and no use of emotional cushioning described by the participants. The majority of participants (58.7%) reported worry and some amount of holding back their emotions (codes 4 and 5).

**Table 4:** Degrees of emotional cushioning (*N*=63).

Code	Category & Descriptor	<i>f</i>	%	cumulative %
1	No worry & no EC‘Not worried during the pregnancy or now’	2	3.2	3.2
2	Worry but no EC‘Less worried now but did not hold back emotions’	4	6.3	9.5
3	Did not use EC‘Felt the same during the pregnancy as I do now’	20	31.7	41.3
4	Worried & used some EC‘More worried than I realized but did not completely hold back emotions’	13	20.6	61.8
5	Worried & definite use of EC‘Definitely more worried during the pregnancy than I allowed myself to be.’	24	38.1	100.0

EC, emotional cushioning.

### *Themes of women’s holding back*

Women’s textual responses focused around a felt conflict between ‘hope for the best’, and ‘despair – the worst is inevitable’. Within this basic conflict, two themes emerged: ‘Anxious versus Confident’ and ‘Withholding Self versus Sharing Self’.

**Anxious vs. confident.** Women reported having a great deal of worry about their pregnancy and baby, and how they used emotional cushioning to control their worry and gain confidence. Uses

of emotional cushioning varied widely across this sample of women and fluctuated across pregnancy: 'I was somewhat anxious until I got through the first trimester but after that I was fine. After seeing the heartbeat on my first sonogram I was fairly confident everything would be fine.'

The women often connected their self-protectiveness with their anxiety and worry. One woman confessed that 'I tried to put the worry to the back of my head. But now as I look back that didn't really work. I was worried about the outcome of this baby.' Another said, 'I really worried a lot during this pregnancy; this pregnancy was very stressful. Looking back it was actually a very uneventful perfect pregnancy (except the baby being breech). What ruined it was my experience with loss that allowed me to feel [that] anything and everything could/would go wrong.'

**Withholding self vs. sharing self.** Women described holding back their emotions either to protect themselves or to protect others from hurt and disappointment. Their emotional state was difficult enough; disclosing those feelings would have been too revealing. This woman was able to explain why she held back her emotions: 'I think I genuinely suppressed a lot of my anxiety because of my [desire to protect my] family.'

Keeping things more private allowed emotional cushioning to remain intact; too much sharing would compromise that protection. 'I always felt if I expressed what I actually felt I would somehow jeopardise my pregnancy.' Some also said that they did not share in order to protect their loved ones. 'Yes, I wanted to stay strong for my husband and myself. Outward I was strong but inside I was a mess.'

Allowing the normal process of developing an emotional bond with the baby was scary for some who feared leaving oneself open to grief and loss. Women described a continuum of bonding responses from not holding back – 'Not at all. I was in love with this baby since day 1, and openly expressed that emotion' to a middle ground – 'Yes, during pregnancy I was afraid to bond with the baby, but at the same time found it impossible not to' to delayed bonding – 'Yes, I felt as though I could not emotionally attach myself to this baby inside me until actually I held him.'

For similar reasons women shared that they were afraid or unable to prepare or enjoy preparations for their baby's arrival. 'I was anxious about why we lost our first son. It was hard to believe that we really would have a child – so I held back with some things. Nursery took a long time to put together and after our 'shower' we unpacked nothing until he was born.'

Another woman differentiated sharing self with others: 'Took more alone time to talk to baby without others around. Didn't share ideas of baby with others freely beyond pregnancy symptoms. Gave optimistic persona in public regardless of true feelings.'

Vulnerability and skepticism were evident as the women tried to hold themselves together in whatever way possible. Perhaps if they did not talk about their biggest fears, they would not become reality. Feeling conflicted about this 'choice' was also evident.

### *Statistical analyses*

The mean PAS scores over three prenatal points were compared with postnatal retrospective reports. A paired t-test indicated that prospective prenatal PAS ( $M=38.14$ ;  $SD\ 16.78$ ) was significantly different than retrospective PAS ( $M=41.0$ ;  $SD\ 21.51$ ),  $t = -1.549$ ;  $p < 0.000$ . Prenatal pregnancy anxiety was significantly lower than retrospective report of pregnancy anxiety suggesting that pregnancy anxiety measurement may underestimate actual anxiety levels.

Pregnancy anxiety at Time 4 was significantly and highly correlated with women's report of 'how worried were you really' ( $r=0.741$ ;  $p < 0.00$ ) and moderately correlated with their reports of holding back their emotions ( $r=0.516$ ;  $p < 0.00$ ). How worried they were was significantly and moderately correlated with the degree they held back their emotions ( $r=0.561$ ;  $p < 0.00$ ). These findings indicate that the concepts of worry and pregnancy anxiety are very similar, and they both frequently coincide with emotional cushioning.

### DISCUSSION

Emotional cushioning is a contextually unique self-protective mechanism employed by many women during pregnancy after loss. While similar to several defence mechanisms and other psychological measures used during stressful pregnancies, emotional cushioning seems to be particular to the circumstance of pregnancy subsequent to loss. EC is a normal and adaptive process in most circumstances; women are engaged in appropriate physical behaviours but limit their emotional involvement. Most of these women (58.7%) were aware that they were holding back their emotions as evidenced by their textual responses in this study and in others (Côté-Arsenault & Donato, 2007; Côté-Arsenault & Freije, 2004; Côté-Arsenault & Mahlangu, 1999; Côté-Arsenault & Marshall, 2000; Côté-Arsenault & Morrison-Beedy, 2001).

Women's descriptions of their own degree of self-protection with emotional cushioning yielded five degrees of emotional cushioning and two conflict themes – basic conflict between despair and hope. Emotional cushioning ran the spectrum from 'no need' because there was no anxiety to a good deal of cushioning accompanied by high anxiety. Women connected their anxiety with emotional cushioning and these variables were also statistically significant and positively related. Retrospective views of their anxiety and worry were correlated with prospective pregnancy anxiety. Women described their attempts at remaining hopeful while recognising that the worst could happen. They revealed that finding and maintaining a middle ground in this conflict was not easy, and it seems that emotional cushioning allowed women to achieve this balance.

### CLINICAL IMPLICATIONS

Clinicians should recognise the existence and prevalence of emotional cushioning. This could be acknowledged to patients by stating that they may be more worried than they are comfortable saying. The goal is not necessarily elimination or reduction of anxiety, which is likely unrealistic. Women have reported that they do not want to call their care providers too often, to be seen as 'crazy' or 'crying wolf' with the possible risk of not being taken seriously when they need to be listened to. With care provider acknowledgment that anxiety and its concomitant emotional cushioning is common and normal the women may be more likely to call for support without concern for being misunderstood. Clinicians may see women focus on objective data such as foetal heart sounds and ultrasounds, as they yield brief periods of relief when symptoms and test results were deemed 'normal' (Côté-Arsenault et al., 2006). This focus on the

intellectual ‘head’ aspects of pregnancy rather than the emotional (heart) aspects is consistent with ethnographic findings of PAL (Côté-Arsenault & Freije, 2004).

Binding-in or attachment is a task of pregnancy (Rubin, 1984) often postponed by PAL women by utilising EC. This effect may have implications for mother’s future relationships with their babies (Armstrong & Hutti, 1999; Hughes, Turton, Hopper, McGauley & Fonagy, 2001). Concerns need to be explored with women who appear to have delayed attachment behaviours to discern the nature of these delays.

One possible consequence of using EC is that women do not reach out for support. Women with higher EC may present themselves through their high number of phone calls, visits or requests for additional prenatal tests. If women do not share their feelings and concerns with their network of family and friends, that support network cannot possibly know that there is a need for support.

### RESEARCH IMPLICATIONS

Results here indicate a direct relationship between pregnancy anxiety and EC that could affect the accuracy of measures of pregnancy anxiety during pregnancy. There is the potential for recall bias here since the woman has given birth to a healthy baby. A major challenge is the measurement of pregnancy anxiety during pregnancy if women do not report their true anxiety; physiologic measures of anxiety should be considered. Until further study, it should be considered that women’s anxiety might be higher than they perceive and was measured.

Measurement of emotional cushioning, and its relationship with gestational age, timing of past loss, and other reproductive variables, should be a topic of future work. The degrees of EC, used here as a rudimentary measure, should be the foundation of instrument development. Additional behaviours possibly related to EC, such as announcement of the pregnancy, transition to maternity clothes, preparations for baby, and naming the baby have been described in previous work (Côté-Arsenault et al., 2006; Côté-Arsenault & Donato, 2007). While recognising the need for additional work, the finding that emotional cushioning and pregnancy anxiety are positively correlated remains significant.

It is not known how effective EC is at reducing anxiety nor whether it can be influenced, but it is noteworthy that anxiety and stress in pregnancy have been implicated in poorer obstetric and maternal–child outcomes (DiPietro, Novak, Costigan, Atella & Reussing, 2006; Federenko & Wadhwa, 2004; Van den Bergh, Mulder, Mennes & Glover, 2005; Wurmser et al., 2006). Further work is needed to understand this phenomenon and determine appropriate intervention strategies.

This research is limited by its focus only on the mother’s experience. Evidence indicates that the fathers also worry about recurrent loss (O’Leary & Thorwick, 2006), but it is unknown if fathers employ EC as a way of coping with PAL. Another avenue for further investigation is maternal and paternal prenatal attachment and its relationship with EC.

This study has expanded our understanding of emotional cushioning and some aspects of its relationships with pregnancy anxiety. Since pregnancy is a period of development of a mother, as

well as a baby, the implications of the recognition and understanding of EC in pregnancy after perinatal loss could be far-reaching.

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#### REFERENCES

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Armstrong, D., & Hutti, M. (1998). Pregnancy after perinatal loss: The relationship between anxiety and prenatal attachment. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 27(2), 183–189.
- Burgess, A.W., & Clements, P.T. (1997). Stress, coping, and defensive functioning. In A.W. Burgess (Ed.), *Psychiatric nursing: Promoting mental health* (pp. 77–89). Stamford, CT: Appleton-Lange.
- Côté-Arsenault, D. (2003). The influence of perinatal loss on anxiety in multigravidas. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 32, 623–629.
- Côté-Arsenault, D. (2007). Threat appraisal, coping, and emotions in pregnancy after perinatal loss. *Nursing Research*, 56, 108–116.
- Côté-Arsenault, D., Bidlack, D., & Humm, A. (2001). Women's emotions and concerns during pregnancy following perinatal loss. *The American Journal of Maternal Child Nursing*, 26(3), 128–134.
- Côté-Arsenault, D., Donato, K., & Earl, S.S. (2006). Watching and worrying: Early pregnancy after loss experiences. *The American Journal of Maternal Child Nursing*, 31, 356–363.
- Côté-Arsenault, D., & Donato, K., (2007). Restrained expectations in late pregnancy following loss. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 36, 550–557.
- Côté-Arsenault, D., & Freije, M.M. (2004). Support groups helping women through pregnancies after loss. *Western Journal of Nursing Research*, 26, 650–670.
- Côté-Arsenault, D. & Mahlangu, N. (1999). The impact of perinatal loss on the subsequent pregnancy and self: Women's experiences. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 23, 274–282.
- Côté-Arsenault, D., & Marshall, R. (2000). One foot in – one foot out: Weathering the storm of pregnancy after perinatal loss. *Research in Nursing & Health*, 23, 473–485.

- Côté-Arsenault, D., & Morrison-Beedy, D. (2001). Women's voices reflecting changed expectations for pregnancy after perinatal loss. *Journal of Nursing Scholarship*, 33, 239–244.
- DiPietro, J.A., Novak, M.F., Costigan, K.A., Atella, L.D., & Reusing, S.P. (2006). Maternal psychological distress during pregnancy in relation to child development at age two. *Child Development*, 77(3), 573–587.
- Federenko, I.S., & Wadhwa, P.D. (2004). Women's mental health during pregnancy influences fetal and infant developmental and health outcomes. *CNS Spectrums*, 9(3), 198–206.
- Gulanick, M., Meyers, J., et al. (2009). Nursing diagnosis: Anticipatory grieving. In *Nursing care plans: Nursing diagnosis and intervention*. Retrieved November 29, 2009, from <http://www1.us.elsevierhealth.com/MERLIN/Gulanick/Constructor/index.cfm?plan=24>
- Hughes, P., Turton, P., Hopper, E., McGauley, G.A., & Fonagy, P. (2001). Disorganised attachment behaviour among infants born subsequent to stillbirth. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 42(6), 791–801.
- Hynan, M.T. (1986). Anticipatory grief. *Special Care*, Fall, 22–23.
- Juni, S. (1997). Conceptualizing defence mechanisms from drive theory and object relations perspectives. *The American Journal of Psychoanalysis*, 57, 149–165.
- Marshall, M.A., & Brown, J.D. (2006). Emotional reactions to achievement outcomes: Is it really best to expect the worst? *Journal of Cognitive Emotion*, 20(1), 43–63.
- McGeary, K. (1994). The influence of guarding on the developing mother–unborn child relationship. In P.A. Field & P.A. Marck (Eds.), *Uncertain motherhood: Negotiating the risks of the childbearing years* (pp. 130–162). Thousand Oaks, CA: Sage.
- O'Leary, J., & Thorwick, C. (2006). Father's perspectives during pregnancy, postperinatal loss. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 35(1), 78–86.
- O'Leary, J., & Thorwick, C. (2008). Attachment to the unborn child and parental mental representations of pregnancy following perinatal loss. *Attachment: New Directions in Psychotherapy & Relational Psychoanalysis*, 2, 292–320.
- Rando, T.A. (Ed.) (1986). *Loss and anticipatory grief*. Lexington, MA: Lexington Books.
- Rillstone, P. & Hutchinson, S.A. (2001). Managing the reemergence of anguish: Pregnancy after a loss due to anomalies. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 30, 291–298.
- Robinson, J. (2001). Does prenatal screening provoke anticipatory grief? *British Journal of Midwifery*, 9, 307–311.

- Rothman, B.K. (1986). *The tentative pregnancy: Prenatal diagnosis and the future of motherhood*. New York, NY: Viking.
- Rubin, R. (1984). *Maternal identity and the maternal experience*. New York, NY: Springer.
- Saldinger, A., Cain, A., & Porterfield, K. (2003). Managing traumatic stress in children anticipating parental death. *Psychiatry*, *66*(2), 168–181.
- Sandelowski, M., & Barroso, J. (2005). The travesty of choosing after positive prenatal diagnosis. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *34*, 307–318.
- Showers, C. (1992). The motivational and emotional consequences of considering positive or negative possibilities for an upcoming event. *Journal of Personality and Social Psychology*, *63*(3), 474–484.
- Stuart, G.W. (2009). *Principles and practice of psychiatric nursing* (9th ed.). St. Louis, MO: Mosby Elsevier.
- Vaillant, G.E. (1992). *Ego mechanisms of defense: A guide for clinicians and researchers*. Arlington, VA: American Psychiatric Publishing.
- Van den Bergh, B.R., Mulder, E.J., Mennes, M., & Glover V. (2005). Antenatal maternal anxiety and stress and the neurobehavioural development of the fetus and child: Links and possible mechanism. A review. *Neuroscience and Biobehavioral Reviews*, *29*(2), 237–258.
- Weber, R. (1990). *Basic content analysis* (2nd ed.). Quantitative Applications in the Social Sciences, 49. Newbury Park, CA: Sage.
- Wurmser, H., Rieger, M., Domogalia, C., Kahnt, A., Buchwald, J., Kowatsch, M., et al. (2006). Association between life stress during pregnancy and infant crying in the first six months postpartum: A prospective longitudinal study. *Early Human Development*, *82*(5), 341–349.