European Review of Applied Psychology 71 (2021) 100622

Available online at ScienceDirect www.sciencedirect.com

Elsevier Masson France EM|consulte www.em-consulte.com/en

Original article

Associations between romantic attachment and sexual satisfaction through intimacy and couple support among pregnant couples

A.-L. Gagné [a], A. Brassard [a,*], K. Bécotte [a], I. Lessard [a], M.-F. Lafontaine [b], K. Péloquin [c]

[a] *Département de psychologie, Université de Sherbrooke, Québec, Canada*
[b] *Département de psychologie, Université d'Ottawa, Ontario, Canada*
[c] *Département de psychologie, Université de Montréal, Québec, Canada*

ARTICLE INFO

Article history:
Received 15 October 2019
Accepted 22 November 2020

Keywords:
Couple
Pregnancy
Sexual satisfaction
Attachment
Relational processes

ABSTRACT

Introduction. – Expecting a first child is a challenging period for relationship partners, especially in regard to their sex life. In fact, sexual satisfaction can diminish for most pregnant couples.
Objective. – This research aimed to explore the associations between attachment insecurity (anxiety and avoidance) and sexual satisfaction through relationship intimacy and partner support among both partners during pregnancy.
Method. – During the second trimester of pregnancy, 127 first-time parent couples completed online questionnaires assessing romantic attachment, sexual satisfaction, intimacy, and couple support. This study was cross-sectional. Path analyses based on the *Actor-Partner Interdependance Model* were conducted.
Results. – Results revealed the presence of indirect associations between attachment avoidance, but not anxiety, and lower sexual satisfaction, via intimacy and couple support, in women and men. Men's attachment avoidance was also indirectly related to their pregnant partners' lower sexual satisfaction through these variables.
Conclusion. – These results highlight the importance of relational processes, namely intimacy and support, in sexual satisfaction during a pregnancy.

Mots clés :
Couple
Grossesse
Satisfaction sexuelle
Attachement
Processus relationnels

RÉSUMÉ

Introduction. – La première grossesse est une période de bouleversements pour le couple, en particulier au niveau de la sexualité. En effet, la satisfaction sexuelle peut diminuer pour une majorité de couples de futurs parents.
Objectif. – Cette recherche avait pour but d'explorer les liens entre les insécurités d'attachement (anxiété et évitement) et la satisfaction sexuelle par le biais de l'intimité et du soutien conjugal chez les deux partenaires pendant la grossesse.
Méthode. – Pour ce faire, 127 couples au deuxième trimestre de grossesse de leur premier enfant ont répondu à des questionnaires en ligne mesurant l'attachement, la satisfaction sexuelle, l'intimité et le soutien conjugal. L'étude était corrélationnelle et transversale. Des analyses acheminatoires reposant sur le *Actor-Partner Interdependance Model* ont été menées.
Résultats. – Les résultats ont révélé des associations indirectes entre l'évitement, mais pas l'anxiété, et la faible satisfaction sexuelle des femmes et des hommes pas le biais de l'intimité et du soutien conjugal. L'évitement de l'homme était aussi indirectement lié à l'insatisfaction sexuelle de la femme par le biais de ces processus.
Conclusion. – Ces résultats soulignent l'importance des processus relationnels d'intimité et de soutien pour préserver une bonne satisfaction sexuelle pendant une période critique pour le couple.

* Corresponding author. Faculté des lettres et sciences humaines, Université de Sherbrooke, 2500, boul. de l'Université, Sherbrooke, Québec, J1K 2R1, Canada.
E-mail addresses: Anne-Laurence.Gagne@usherbrooke.ca (A.-L. Gagné), A.Brassard@usherbrooke.ca (A. Brassard), Katherine.Becotte@usherbrooke.ca (K. Bécotte), Isabelle.Lessard@usherbrooke.ca (I. Lessard), Marie-France.Lafontaine@uottawa.ca (M.-F. Lafontaine), Katherine.Peloquin@umontreal.ca (K. Péloquin).

https://doi.org/10.1016/j.erap.2020.100622
1162-9088/

Pregnancy with a first child is a unique period in a couple's life because of the many physical (e.g., weight gain, nausea, fatigue, discomfort; Cowan & Cowan, 1992; Foxcroft, Callaway, Byrne, & Webster, 2013) and psychological (e.g., fears, worries, lowered self-esteem; Johnson, 2011), changes experienced, especially by women. Of note, some studies also showed hormonal changes in men during the transition to parenthood (Edelstein et al., 2017), as well as possible weight gain (Saxbe et al., 2018). Sexuality is highly disrupted during pregnancy (Pauls, Occhino, & Dryfhout, 2008). Indeed, several studies have documented changes in sexual behaviors (e.g., decreased frequency of intercourse and orgasms) as well as sexual difficulties or dysfunctions during this period (de Pierrepont, Polomeno, Bouchard, & Reissing, 2016; Johnson, 2011; Pauleta, Pereira, & Graça, 2010). Although sexual satisfaction is recognized as a key component of a couple's well-being (Muise, 2017), no studies have adopted a dyadic perspective to examine the subjective sexual satisfaction of partners during pregnancy specifically. A recent dyadic study targeting the postpartum period revealed that the sexual satisfaction of each new parent is related to their partner's lower levels of stress (Tavares, Schlagintweit, Nobre, & Rosen, 2019), emphasizing the importance of exploring both partners' sexual satisfaction during pregnancy. Romantic attachment (Mikulincer & Shaver, 2016), intimacy (Štulhofer, Ferreira, & Landripet, 2014) and couple support (Jaworski et al., 2019) have been associated with sexual satisfaction in previous studies. Yet, theses factors were mostly examined during the postpartum period (e.g., Jaworski et al., 2019) and among couples experiencing sexual dysfunction (Leclerc et al., 2015) or seeking fertility treatments (Purcell-Lévesque, Brassard, Carranza-Mamane, & Péloquin, 2019). The present study thus aimed to explore whether romantic attachment, intimacy, and couple support could be associated with the variations in sexual satisfaction among couples expecting their first child.

1. Sexual satisfaction

Sexual satisfaction is defined as "an affective response arising from one's subjective evaluation of the positive and negative dimensions associated with one's sexual relationship" and is a central component of sexual well-being (Byers, Demmons, & Lawrance, 1998, p. 258). A satisfying sex life promotes emotional connection between partners and increases their pleasure, sexual desire, and couple satisfaction (Impett, Muise, & Peragine, 2014). Studying sexual satisfaction in future parenting couples is important because it is associated with the short- and long-term couple stability and psychological well-being (Ein-Dor & Hirschberger, 2012; Kashdan, Goodman, Stiksma, Milius, & McKnight, 2018). Several studies have documented a decline in sexual satisfaction over the course of pregnancy (see Serati et al., 2010 for a review), mainly due to major body changes experienced by women, limitations in sexual positions (Gökyildiz & Beji, 2005), or fears of hurting the baby (Beveridge, Vannier, & Rosen, 2018). However, most studies have focused on the behavioral aspects of sexuality, neglecting psychological and relational factors that could modulate the sexual satisfaction of future parents.

Notably, in Pauleta et al.'s (2010) study, an important number of pregnant women reported decreases in sexual activity (55%), sexual desire (32.5%), and sexual satisfaction (27.7%) throughout pregnancy. A dyadic study by Sagiv-Reiss, Birnbaum, and Safir (2012), conducted over all three trimesters of pregnancy, showed a decline in sexual enjoyment in women as well as feelings of being less loved by their partner, although these findings did not emerge among men. These results suggested that, beyond behavioral and physical factors, intra- and interpersonal variables can also explain variations in couples' prenatal sexual satisfaction. Some studies also supported the relevance of focusing on couples' sexual satisfaction during the second trimester since, during this period, the physical symptoms (nausea, headaches, fatigue) of pregnancy as well as the fears of losing the baby are weaker than in the first and third trimesters (Gökyildiz & Beji, 2005; Nguyen & Carbonne, 2012; Pauleta et al., 2010). Therefore, as physical changes and discomfort in women are less incapacitating during the second trimester compared to the third, pregnant couples' sexuality during this stage might be more similar to that of the pre-pregnancy period (Chang, Chen, Lin, & Yu, 2011).

Studies conducted in other contexts than pregnancy have identified romantic attachment as a key factor for understanding variations in sexual satisfaction (e.g., Brassard, Dupuy, Bergeron, & Shaver, 2015). During the transition to parenthood, Simpson and Rholes (2019) have argued that the attachment system of both partners would be implicated due to current and future changes related to the birth of the child. It thus appeared particularly relevant to study romantic attachment to explore prenatal sexual satisfaction among couples expecting their first child.

2. Attachment

Attachment theory (Bowlby, 1969) postulates that the first attachment bond developed by an individual constitutes the model on which future attachment bonds, including the romantic ones, will be based (McConnell & Moss, 2011). Based on the responses provided by available attachment figures (e.g., parents, romantic partners), a sense of security or insecurity is developed in the individual. In adulthood, the romantic partner becomes the primary attachment figure (Hazan & Shaver, 1987; Feeney, 2016). Two continuous dimensions (that can co-exist) characterize romantic attachment insecurity: anxiety and avoidance (Brennan, Clark, & Shaver, 1998). Attachment anxiety is a fear of rejection based on a negative image of the self that manifests itself as hypervigilance regarding the partner's availability. When a relational threat is perceived, the attachment system tends to hyperactivate (e.g., heightened emotions, excessive proximity seeking) to obtain reassurance from the partner. Attachment avoidance is a discomfort with emotional intimacy paired with an excessive need for independence, based on a negative view of others as unreliable. When a threat to one's independence is perceived, the attachment system tends to deactivate (e.g., denial) to minimize the sense of emotional vulnerability and need for comfort (Mikulincer & Shaver, 2016).

In adulthood, the attachment system and the sexual system (i.e., motivations, cognitions, emotions, and behaviors related to sexuality) of each partner are interrelated (Birnbaum & Reis, 2019). Individuals with attachment insecurity (anxiety and/or avoidance) report more sexual difficulties (Stefanou & McCabe, 2012) and dissatisfaction (Brassard, Péloquin, Dupuy, Wright, & Shaver, 2012). Previous authors have suggested that individuals with attachment anxiety experience more sexual dissatisfaction because of their emphasis on their sexual performance instead of their own desires (Birnbaum, 2007) and their tendency to engage in sexual intercourse to feel reassured about their partners' love (Brassard, Shaver, & Lussier, 2007). Conversely, individuals with attachment avoidance want to be independent from their partners, thereby reducing their tendency to engage in sexual intercourse (Dewitte, 2012). They may be uncomfortable with the physical and emotional proximity of sex (Mikulincer & Shaver, 2016), which may increase their sexual dissatisfaction.

A few dyadic studies using community and clinical samples of couples have found that both partners' attachment insecurity (anxiety, avoidance) can contribute to an individual's own sexual dissatisfaction (e.g., Brassard et al., 2012; Butzer & Campbell, 2008), supporting the relevance of studying couples from a dyadic per-

spective using attachment as the theoretical framework. Indeed, both partners' attachment insecurity (Simpson & Rholes, 2019) and sexual dissatisfaction (Nezhad & Goodarzi, 2011) are known risk factors of couple dissatisfaction during the transition to parenthood. Yet, there is a dearth of research on attachment and sexuality during pregnancy (Dewitte, 2012) despite the physical and psychological changes couples are facing. Dyadic studies are needed to shed light on how couples could preserve a satisfying sex life during this challenging period. Studies have found links between attachment insecurity and sexual dissatisfaction in other stressful contexts affecting sexuality in couples, such as fertility treatments (e.g., Purcell-Lévesque et al., 2019). Moreover, Leclerc et al. (2015) identified the mediating role of sexual communication to explain the association between higher level of attachment insecurity and lower sexual satisfaction among couples in which women suffered from sexual pain, suggesting that relational processes may contribute to sexual satisfaction in stressful contexts. The present study examined intimacy and couple support in couples of future parents to explore whether these relational processes can explain the links between romantic attachment and prenatal sexual satisfaction.

3. Intimacy

Intimacy is a dynamic relational process involving self-disclosure from one partner and responsiveness from the other (Reis & Shaver, 1988). Self-disclosure is defined as the verbal and non-verbal communication of personal thoughts and emotions. Partner responsiveness is defined as the verbal and non-verbal responses provided to the partner that the partner interprets as understanding, validating, and caring. Mikulincer and Shaver (2016) identified nearly 30 studies supporting the links between higher level of attachment insecurity (anxiety and avoidance) and perceived lower intimacy in couples. However, both components of intimacy (self-disclosure and responsiveness) are related to increased sexual satisfaction in adult relationships (Rehman, Rellini, & Fallis, 2011). A dyadic study by Bois et al. (2016) revealed that intimacy is linked to greater sexual satisfaction in both partners of couples in which women suffered from sexual pain. The authors suggested that self-disclosure would allow partners to reveal their discomforts without fear of being judged, which would make it easier for them to explore sexuality despite sexual difficulties and stress. It seems that the process of intimacy could assist in navigating through the many changes experienced during pregnancy by allowing partners to feel welcomed to share their concerns with each other. Although few postpartum studies have found links between intimacy and greater sexual satisfaction (e.g., Nezhad & Goodarzi, 2011), none have targeted intimacy as a relational process that may explain the links between attachment and prenatal sexual satisfaction in the unique context of pregnancy.

4. Couple support

Couple support is "the set of supportive actions or attitudes that one is likely to provide and perceive receiving from the partner in order to meet one's needs" (Brassard, Houde, & Lussier, 2011, p. 71). The provision of support reflects what each individual perceives that they offer to help their partner cope with difficulties, while received support is the perception of the support that one is provided by the other partner (Taylor & Turner, 2001). Both types of support are important for couple satisfaction (Brassard et al., 2011). Numerous studies have documented the links between higher level of attachment insecurity (anxiety and avoidance) and lower provided and received couple support (see McLeod, Berry, Hodgson, & Wearden, 2019, for a review). In the prenatal context, a study by Iles, Slade, and Spiby (2011) revealed that both higher levels of attachment anxiety and avoidance were related to greater dissatisfaction with received support in couples of future parents. It is also known that sexual satisfaction is better in couples in which partners offer each other support (Bolger & Amarel, 2007). Yet, the association between couple support and sexuality has been studied predominantly in couples with health problems (e.g., Blackmore, Hart, Albiani, & Mohr, 2011; Lankveld, Ruiterkamp, Näring, & de Rooij, 2004). Findings showed that the received and provided support between partners reduced the burden of disease-related stress within the couple, thereby promoting sexual satisfaction for both the ill individuals and their partners. In community couples, partners who are sensitive to each other's needs report greater sexual satisfaction, with sensitivity mediating the link between one partner's attachment avoidance and the other partner's sexual satisfaction (Péloquin, Brassard, Lafontaine, & Shaver, 2014). Although couple support has not been linked to prenatal sexuality, Jaworski et al.'s (2019) retrospective study found that new mothers reported better postpartum sexual satisfaction when they perceived receiving higher couple support during pregnancy. The authors suggested that the support received by these women contributes to reducing their stress related to the psychosocial and physiological changes experienced during and after pregnancy, which promotes their sexual desire and pleasure. As such, couple support could help alleviate stress and foster partners' adjustment to the changes experienced through pregnancy.

5. The present study

The aim of this study was to explore whether attachment insecurity would be associated with sexual satisfaction during pregnancy through intimacy and couple support in both partners. The first hypothesis was that attachment insecurity (anxiety and avoidance) would be related to lower levels of intimacy, couple support, and sexual satisfaction in both members of the couple. The second hypothesis was that a higher perception of intimacy and couple support in couples would be associated with greater sexual satisfaction in both partners. The third hypothesis was that an indirect association between attachment insecurity and sexual satisfaction would emerge via the intervening variables of intimacy and couple support. Exploratory analyses were conducted to examine partner effects and gender differences, as previous research was insufficient to formulate specific a priori hypotheses.

6. Methods

6.1. Participants and procedure

The present study was part of a larger ongoing longitudinal study on the transition to parenthood, which includes four assessment points (second trimester of pregnancy to 12 months postpartum). Only the data collected at the first assessment point was used for the present study, targeting couples' experience during pregnancy. The sample included 127 French-Canadian first time pregnant couples from the general population. To take part in the study, couples had to be in their second trimester of pregnancy, be 18 years or older, live together, have internet access, and understand and read French. Because of important differences in terms of sexual limitations (MacPhedran, 2018), at-risk pregnancy was an exclusion criterion. The study was approved by the Research Ethical Board of the CIUSSS de l'Estrie – CHUS, in the province of Québec, Canada.

Participants were mostly born in Canada (85.4 %) and their first language was French (92.9%). Women were aged 18 to 39 years (M = 27.65, SD = 3.93) and men were aged 20 to 41 years (M = 29.35, SD = 4.36). All couples reported being in a heterosexual relationship,

for an average of 4 years (SD = 2.87, ranging 1–12 years). Couples were married (20.5%) or living together without being married (79.5%). Regarding education, 50.4% of women and 32.3% of men had a university degree, 29.1% of women and 25.2% of men had a college degree (in Quebec, college is a 3-year post-high school technical training or a 2-year pre-university training), whereas 20.5% of women and 42.6% of men had a high school degree or less. Participants were working (women: 54.3%; men: 84.3%), or studied (women: 7.9%; men: 13.4%), while 39.6% of women were on prenatal or sick leave or were not working (2.4% of men). In total, 11.5% of the sample earned less than CAN$ 20,000 per year, 49.8% earned between CAN$ 20,000 and 49,999 per year, and 38.7% earned CAN$ 50,000 and more per year. At the time of the study, women were at an average of 22 weeks of pregnancy (SD = 4.72) and most pregnancies were planned (78.0%). Almost one out of four couples (23.6%) had experienced a previous miscarriage and 6.3% of couples had received fertility treatments. Some participants (21.3%) reported taking medication for a physical or psychological health problem, such as attention deficit disorder, anxiety, depression, thyroid problems, asthma, or diabetes.

Couples were recruited through advertisements in various settings (hospitals, birth centers) and social media platforms via posters, emails, or flyers during events (e.g., maternity fairs). Interested participants (N = 473) answered a brief eligibility questionnaire online where they provided their contact information. A total of 276 interested participants were excluded because they were not expecting their first child (n = 82), were past the second trimester of pregnancy (n = 109), did not cohabitate (n = 36), or reported an at-risk pregnancy (n = 49). Our team then contacted eligible partners to explain the project and answer their questions. When both partners agreed to participate (70 couples were excluded because the second partner did not agree), each partner received an individual internet link to access the consent form and the baseline questionnaires on the secure platform Qualtrics. Confidentiality was insured by assigning a numeric code to each couple, allowing us to pair the partners together. Each partner received a CAN$ 10 compensation upon completion of the questionnaires.

6.2. Instruments

A questionnaire gathered sociodemographic information on participants (gender, age, relationship duration, education, income, etc.) and information regarding the pregnancy (e.g., number of weeks pregnant, planned pregnancy, previous miscarriage). Sixteen validated questionnaires were administrated to each partner, including the five used in the current study. These measures were already validated and translated in French (see Supplementary file). Alpha coefficients in this sample are shown in Table 1.

Attachment-related anxiety and avoidance were assessed with the abridged 12-item version of the *Experiences in Close Relationships scale* (ECR-12; Lafontaine et al., 2016). Items are answered on a seven-point Likert scale ranging from 1 "strongly disagree" to 7 "strongly agree". Anxiety and avoidance scores are created by averaging each scale's six respective items (e.g., *I worry about being abandoned*, *I don't feel comfortable opening up to romantic partners*). A higher score indicates a higher level of anxiety or avoidance. ECR-12 shows adequate factorial structure and internal consistency across five samples, including a sample of French-Canadian couples (anxiety α = .78–.87; avoidance α = .74–.83). Criterion validity is supported by correlations between anxiety and avoidance scores and lower scores of relationship satisfaction and higher scores of psychological distress (Lafontaine et al., 2016).

Sexual satisfaction was assessed with the *Global Measure of Sexual Satisfaction* (GMSEX; Lawrance & Byers, 1998, translated in French by Jodoin et al., 2008). The GMSEX assesses satisfaction with sexual activities with a partner using five seven-point bipolar items: good-bad, pleasant-unpleasant, positive-negative, satisfying-unsatisfying, and valuable-worthless. Items are summed to create a global score, higher scores indicating better sexual satisfaction (ranging 5-35). The GMSEX has shown excellent internal consistency (α = .92) among a sample of French-Canadian couples (Péloquin, Byers, Callaci, & Tremblay, 2019). Its construct validity was also established with the *Index of Sexual Satisfaction* (Hudson, Harrisson, & Crosscup, 1981).

Relational intimacy was assessed with the *Intimacy scale*, based on Reis and Shaver's model of intimacy (1988). The scale assesses the perception of one's self-disclosure and partner disclosure, along with the perception of the partner's responsiveness. It includes nine items (e.g., *How much do you disclose your private thoughts to your partner*?) answered on a seven-point scale ranging from 1 "not at all" to 7 "a lot". All items are averaged to form the global score, a higher score indicating a perception of high intimacy within the relationship. The scale evidenced a Cronbach alpha of .91 in a French-Canadian sample of couples (Bois et al., 2013).

The *Questionnaire de soutien conjugal* (QSC; Brassard et al., 2011) assesses couple support offered and received by partners within their couple relationship. The scale is comprised of eight items (e.g., *My partner encourages me when I need it*) answered on a five-point scale ranging from 1 "never" to 5 "always". All items are averaged to form a global score, a higher score indicating a perception of high couple support (both offered and received) within the relationship. The reliability of the QSC was demonstrated among French-Canadian couples from the community (α = .89) and its concomitant validity is supported by positive associations with relationship satisfaction (Brassard et al., 2011).

6.3. Data analysis strategy

A path analysis based on the Actor-Partner Interdependence Model (APIM; Kenny, Kashy, & Cook, 2006) was conducted to examine the associations among both partners' attachment anxiety and avoidance, intimacy, couple support, and sexual satisfaction. The specified model allowed for both actor effects (e.g., link between one's perception of intimacy and one's own sexual satisfaction), and partner effects (e.g., link between one's perception of intimacy and the partner's sexual satisfaction) to be simultaneously tested as well as indirect effects through intimacy and couple support (with 90% CI estimated on 5000 bootstrapping samples), while considering the non-independence of the dyadic data. As recommended by Kenny et al. (2006), an omnibus within-dyad test of distinguishability was performed to determine whether women and men should be treated as indistinguishable dyad members in the path analysis. To perform this test, variances for all variables and actor and partner effects were constrained to be equal for women and men. A Chi^2 difference test was then conducted to compare the constrained model to a non-constrained model. Following Kline's (2016) recommendations, three indices assessed the adjustment of the model to the data:

- a non-significant Chi^2;
- the Comparative Fit Index (CFI; values > .95 indicate good fit);
- the Root Mean Square Error of Approximation (RMSEA; values < .08 indicate good fit).

There were no missing values in the data set. According to Ackerman, Ledermann, and Kenny (2015), a sample of 127 couples allowed the estimation of small to medium ($\beta \geq .20$) actor and partner effects with a statistical power of .91 at an alpha level of .05.

Table 1
Descriptive statistics, Cronbach's alpha coefficients, and Pearson correlations for attachment anxiety and avoidance, intimacy, couple support, and sexual satisfaction in couples ($n = 127$).

	1	2	3	4	5	6	7	8	9	10
1. Attachment anxiety M	–									
2. Attachment avoidance M	.22*	–								
3. Intimacy M	−.28**	−.46**	–							
4. Couple support M	−.29**	−.32**	.62**	–						
5. Sexual satisfaction M	.03	−.02	.26**	.25**	–					
6. Attachment anxiety W	.13	.05	−.13	−.20*	−.03	–				
7. Attachment avoidance W	.12	−.01	−.28**	−.21*	−.14	.31**	–			
8. Intimacy W	−.23*	−.33**	.49**	.40**	.07	−.19*	−.29*	–		
9. Couple support W	−.27**	−.21*	.43**	.46**	.06	−.11	−.18*	.70**	–	
10. Sexual satisfaction W	−.03	−.01	.20**	.06	.45**	−.05	−.27**	.33**	.27**	–
M	3.05	2.45	5.74	4.27	26.69	3.71	2.00	5.71	4.31	25.03
SD	1.39	1.20	.86	.54	5.62	1.47	1.10	.87	.50	6.52
α	.86	.83	.87	.88	.87	.87	.87	.88	.86	.89

M: men; W: women.
* $p < .05$.
** $p < .01$.

7. Results

7.1. Preliminary analyses

Table 1 presents descriptive statistics and alpha coefficients for the study variables. Although men reported slightly higher sexual satisfaction than women, both partners' sexual satisfaction scores appeared slightly lower than those of couples from the community while higher than those of distressed couples seeking treatment (see Péloquin et al., 2019). Preliminary Pearson correlations were conducted to ensure that attachment dimensions, intimacy, couple support, and sexual satisfaction were minimally correlated between both partners. The sexual satisfaction's scores of each partner were positively correlated (relatively large effect size), which supported the relevance of conducting dyadic analyses. Moderate to relatively large positive correlations were also found between intimacy, couple support, and sexual satisfaction (higher levels of intimacy and couple support were related to higher levels of sexual satisfaction in each partner; also in Table 1). Although attachment insecurity scores were negatively related to couple support and intimacy, only women's higher level of attachment avoidance was related to their lower sexual satisfaction.

7.2. Main analyses

The path analysis based on the APIM (Kenny et al., 2006) examined all hypotheses simultaneously. Prior to the analysis, the distinguishability of dyads test revealed the presence of gender differences ($\Delta\chi^2(22) = 37.06$, $p = 0{,}023$). The model constraining all associations to be equal presented a poor fit to the data ($\chi^2(33) = 60.47$, $p = .002$, CFI = .901, RMSEA = .084, 90% CI [.051; .116]). Since the model with no constraints also presented a poor fit ($\chi^2(55) = 23.40$, $p = .009$; CFI = .957; RMSEA = .103, 90% CI [.049; .158]), a partially constrained model was retained. This model allowed significant gender differences to emerge, showed an adequate fit ($\chi^2(39) = 37.95$, $p = .061$; CFI = .962; RMSEA = .060, 90% CI [.000; .100]), and did not differ from the original model ($\Delta\chi^2(16) = 14.55$, $p = .558$).

In support of the first hypothesis, Fig. 1 shows that attachment anxiety was related to a lower perception of intimacy in men and women, whereas only men's anxiety was related to their perception of less couple support (actor effects). As for partner effects, higher anxiety in one partner was related to lower perceived couple support in the other partner among both men and women. Attachment avoidance in both partners was related to their own (actor effect) and their partner's (partner effect) lower levels of perceived intimacy and couple support. These effect sizes were small in magnitude, except for one moderate effect size in the link between men's attachment avoidance and their perception of a lower intimacy. Contrary to the first hypothesis, attachment anxiety and avoidance were not directly associated with sexual satisfaction, when intimacy and couple support were included as intermediary variables. In support of the second hypothesis, perception of a higher intimacy was related to higher sexual satisfaction in both men and women, but with small effect sizes. Perception of higher couple support was also related to higher sexual satisfaction for men and women, but these effect sizes were even smaller.

The indirect effect of attachment insecurity and sexual satisfaction via intimacy and perceived couple was tested using bootstrapping on 5000 random samples (Preacher & Hayes, 2008). In support of the third hypothesis, three indirect associations were significant (see Table 2). First, attachment avoidance in women was indirectly related to their lower sexual satisfaction through their perception of lower intimacy and couple support. That is, the more a woman reported attachment avoidance, the less she perceived being intimate and experiencing support in her relationship, which in turn was related to her lower sexual satisfaction. Second, attachment avoidance in men was related to their lower sexual satisfaction through their perceptions of lower intimacy and couple support. Finally, an indirect partner effect was found between attachment avoidance in men and their partners' lower sexual satisfaction through the women's perceptions of lower intimacy and couple support. No indirect associations between attachment anxiety and sexual satisfaction emerged via perceived intimacy and couple support.

8. Discussion

The present study explored the associations between three factors (romantic attachment, intimacy, couple support) and sexual satisfaction in both partners expecting their first child. Using a dyadic perspective, it documented the presence of indirect effects via two relational processes – intimacy and couple support – in the associations between both partners' attachment avoidance and sexual satisfaction during a crucial period in the transition to parenthood, namely the second trimester of pregnancy. Results revealed that greater attachment avoidance in pregnant women and their partners were related to their own sexual dissatisfaction (actor effects) through their own perception of low intimacy and couple support, supporting hypothesis 2 (H2) and partially supporting hypothesis 3 (H3). In addition, greater attachment avoidance in men was related to their pregnant partners' sexual

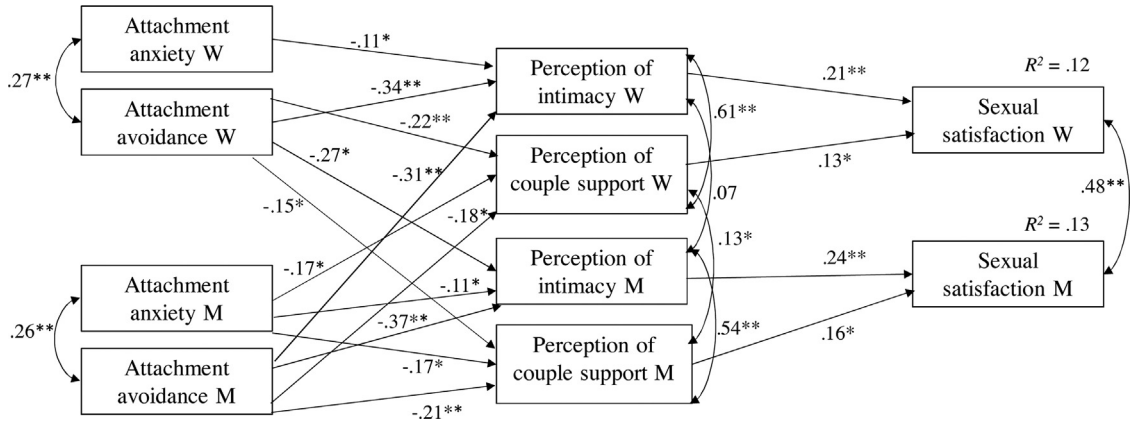

Fig. 1. Intimacy and couple support as intermediary variables of the dyadic associations among attachment insecurities and sexual satisfaction in couples expecting their first child. $\chi^2(36) = 37.95$, $p = .061$; CFI = .962; RMSEA = .060, 90% CI [.000; .100]. *Note*. Standardized regression coefficients are shown. W: women; M: men. * $p < .05$. ** $p < .01$.

Table 2
Indirect effects of attachment insecurity dimensions on sexual satisfaction through intimacy and couple support.

Predictor	Outcome	Intimacy W	Intimacy M	Couple Support W	Couple Support M	Total indirect effect		
		B	*B*	*B*	*B*	*B*	*SE*	*p*
Anxiety W	Sexual satisfaction W	−.107	−.037	−.0290	.095	−.077	.127	.549
Anxiety W	Sexual satisfaction M	.008	−.061	.027	−.102	−.127	.120	.289
Avoidance W	Sexual satisfaction W	**−.423**	−.208	**−.165**	.116	**−.680**	.271	**.002**
Avoidance W	Sexual satisfaction M	.032	−.347	.155	−.124	−.285	.189	.127
Anxiety M	Sexual satisfaction W	−.061	−.064	−.102	.105	−.121	.134	.368
Anxiety M	Sexual satisfaction M	.005	−.107	.095	−.112	−.119	.140	.419
Avoidance M	Sexual satisfaction W	**−.347**	−.253	**−.124**	.155	**−.571**	.236	**.006**
Avoidance M	Sexual satisfaction M	.026	**−.423**	.116	**−.165**	**−.446**	.218	**.020**

Unstandardized regression coefficients are shown. Significant coefficients are in bold. W: women; M: men.

dissatisfaction through the pregnant women's perception of low intimacy and couple support (partner effect). Contrary to hypothesis 1 (H1), no direct associations were found between future parents' sexual satisfaction and attachment anxiety or avoidance, above and beyond these indirect associations.

Results for H1 differed from those of past studies that have established a direct association between attachment insecurity and sexual satisfaction. However, these previous studies included couples from the community (Butzer & Campbell, 2008), clinically distressed couples (Brassard et al., 2012) and couples undergoing fertility treatments (Purcell-Lévesque et al., 2019) rather than future parents. Thus, it is possible that pregnancy as a time of family planning as well as the physical symptoms and bodily changes experienced by pregnant women during the second trimester contributed to the lack of replication of a direct association between attachment insecurity and sexual well-being during this period; attachment avoidance seemed to be associated to sexual well-being through more proximal factors, such as intimacy and couple support.

8.1. Indirect effects via intimacy

Pregnancy is a challenging period for the pregnant woman and also for her partner because of the many changes experienced on both a physical and psychological level. Hence, each partner may feel the need to be emotionally closer to the other in order to better manage the stress inherent to this period, to adjust to the woman's changing body, or to share their fears about sex and the future arrival of their first child (Ramsdell, Franz, & Brock, 2019). Our findings for H2 were consistent with those of Khajehei and Doherty (2018), whose qualitative study revealed that women identify the lack of intimacy in their sex life during pregnancy as an important relational factor contributing to their sexual experience. Some studies have shown that intimacy is an equally important factor for men in promoting sexual satisfaction (Štulhofer et al., 2014; Nakić Radoš, Soljačić Vraneš, & Šunjić, 2015). Specifically, Štulhofer et al. (2014) pointed out that in recent years, greater emphasis has been placed on men's emotional expression, encouraging them to reveal themselves, especially in their sex life. During pregnancy, both men and women are likely to experience sexual fears (e.g., harming the baby, causing early delivery; Nakić Radoš et al., 2015). Yet, a high level of attachment avoidance can create discomfort at the thought of revealing oneself to others (Mikulincer & Shaver, 2016), preventing partners from sharing these concerns. In the absence of a safe space to share their needs, discomforts, or worries, it could be difficult for partners to make adjustments to their sexual repertoire, leading to less pleasurable – or sometimes more painful – sexual activities. A distance could also grow between partners, which may lead them to avoid sexual activities, a frequent complaint during pregnancy (Beveridge et al., 2018), or to being dissatisfied with the lower frequency of sex during this period. Pregnant women may be especially sensitive to their avoidant partners' difficulties with emotional connection, as they are the ones facing the multiple bodily and hormonal changes of pregnancy.

8.2. Indirect effects via couple support

Our results for H2 also suggested, to a lesser extent, that avoidant attachment was indirectly associated with lower sexual satisfaction during pregnancy via the perception of low couple support. These results are consistent with those of Péloquin et al. (2014), who showed that offering sensitive support to the partner mediated the link between one's avoidance of intimacy and one's partner's sexual satisfaction. While the study by Iles et al. (2011) found

that future parents' attachment anxiety and avoidance were both related to their dissatisfaction with received support, our results suggested that – in the second trimester of pregnancy – the perception of lower received *and* given support within couples would explain the association between attachment avoidance and lower sexual satisfaction among partners. As described by Jaworski et al. (2019) among postpartum mothers, the experience of couple support during pregnancy was likely beneficial to the future parents' sexual satisfaction. Future parents with high levels of avoidant attachment have shown lower provisions of assistance to their partners (Feeney, Alexander, Noller, & Hohaus, 2003; Simpson, Rholes, Campbell, Tran, & Wilson, 2003) but also less capacity to perceive that their partners were providing them with support. Men with high levels of attachment avoidance who are not physically experiencing pregnancy, may experience difficulty in showing their partner that they support them during this stressful time (Johansson, Edwardsson, & Hilingsson, 2015). Moreover, pregnant women may be more negatively affected by the lack of support from avoidant partners, as couple support plays a key role in the physical, sexual, and psychological health of individuals (Darwiche, Milek, Antonietti, & Vial, 2019). Such results suggested that it is indeed possible that future parents' sexual satisfaction may be diminished during pregnancy because they do not feel supported through the various stressors presenting during this crucial period. However, supporting a partner (e.g., by normalizing the pregnancy experience) in the changes that occur during the second trimester may facilitate the other partner's own acceptance of the changes experienced, particularly in their sexual life (e.g., lower frequency of intercourse, decreased desire of their partner). Therefore, collaboration during pregnancy may make it easier for both partners to weather these changes (Ramsdell et al., 2019).

8.3. Attachment anxiety, intimacy, and support

While the results of the study highlighted the importance of intimacy and couple support as proximal relational factors related to sexual well-being, supporting H2, it is noteworthy that both attachment anxiety and avoidance were vulnerability factors in the perception of intimacy and support within the couple during pregnancy. Despite the absence of indirect associations, the results also indicated that high levels of attachment anxiety among future parents were related to their own perception of lower intimacy and partner support (in men only), as well as to their partners' perception of lower couple support (partner effect). A study by Péloquin, Lafontaine, and Brassard (2011), conducted among couples from the community, supported these results by revealing that more anxious individuals tend to be less open, not very sensitive nor very empathetic to their partners' needs. Because more anxious individuals are easily overwhelmed by their own emotions (Mikulincer & Shaver, 2016), they may have difficulty listening to their partners, offering support as well as appreciating their partner's support (McLeod et al., 2020). These findings highlighted the importance of focusing on both partners' attachment insecurity and relational processes in the transition to parenthood, since many stressors can activate the partners' attachment system (Simpson & Rholes, 2019).

8.4. Strengths and limitations

The dyadic approach used in the current study made it possible to explore the mutual influence between partners during the second trimester of pregnancy. Moreover, by examining three potential constructs simultaneously (romantic attachment, intimacy, and support), this study contributed to the advancement of knowledge on the correlates of sexual satisfaction during this crucial period. Although this study was original in its focus on factors not previously studied during pregnancy, it had some limitations. First, the cross-sectional correlational design of the study prevented causal links between the variables. Second, although the sample was adequate in size for the analyses conducted, it was very homogeneous in terms of sexual diversity, which hindered the generalization of results to same-sex couples. Third, the effects sizes and the total percentage of explained variance in sexual satisfaction remain small. In addition, this study used self-reported questionnaires only and its scope was limited to the measure of sexual satisfaction. Future longitudinal studies of more diverse couples may use a broader range of sexual functioning measures (e.g., repertoire, frequency, fears, communication) as well as daily diaries throughout pregnancy to offer a more comprehensive understanding of sexual behaviors, cognitions, and emotions in the context of pregnancy and attempt to explain more variance in sexual satisfaction.

9. Conclusion

In sum, the results of this study suggested that attachment insecurity – especially avoidance – was associated not only with future parents' sexual satisfaction, but also to their partners' satisfaction through both partners' perceptions of lower intimacy and couple support. These relationship processes appeared to be particularly important during pregnancy – at least in the second trimester as evidenced in our study – to promote sexual satisfaction in both future mothers and fathers. Our findings provided interesting prevention, assessment, and intervention targets for practitionners working with soon-to-be parents. In prenatal classes or meetings for instance, it would be relevant to offer psychoeduaction on the empirically validated relational processes that can promote sexual well-being during pregnancy despite the numerous changes and stressors that may be experienced by the couple during this period. Offering information on attachment insecurity and its role in relationship processes could also complement the existing programs. Prenatal interventions targeting intimacy and support building (e.g., how to self-disclose, listen empathically, and communicate support needs) would be relevant to foster the well-being of expecting parents. Since attachment anxiety and avoidance are vulnerability factors at the root of many relationship difficulties, emotionally-focused couple therapy (Johnson, 2004) might be useful in understanding pregnant couples' difficulties and helping partners become more supportive, open, and responsive to each other's needs.

Disclosure of interest

The authors declare that they have no competing interest.

Acknowledgment

This research was supported by a grant from the Social Sciences and Humanities Research Council (SSHRC #435-2018-0891). The first author is a recipient of a scholarship from the Social Sciences and Humanities Research Council (SSHRC).

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.1016/j.erap.2020.100622.

References

Ackerman, R. A., Ledermann, T., & Kenny, D. A. (2015). Power considerations for the Actor-Partner Interdependence Model. In *Paper presented at the meeting of Society for Personality and Social Psychology, Long Beach, CA*

Beveridge, J. K., Vannier, S. A., & Rosen, N. O. (2018). Fear-based reasons for not engaging in sexual activity during pregnancy: Associations with sexual and

relationship well-being. *Journal of Psychosomatic Obstetrics & Gynecology*, *39*, 138–145. https://doi.org/10.1080/0167482X.2017.1312334
Birnbaum, G. E. (2007). Attachment orientations, sexual functioning, and relationship satisfaction in a community sample of women. *Journal of Social and Personal Relationships*, *24*, 21–35. https://doi.org/10.1177/0265407507072576
Birnbaum, G. E., & Reis, H. T. (2019). Evolved to be connected: The dynamics of attachment and sex over the course of romantic relationships. *Current Opinion in Psychology*, *25*, 11–15. https://doi.org/10.1016/j.copsyc.2018.02.005
Blackmore, D. E., Hart, S. L., Albiani, J. J., & Mohr, D. C. (2011). Improvements in partner support predict sexual satisfaction among individuals with multiple sclerosis. *Rehabilitation Psychology*, *56*, 117–122. https://doi.org/10.1037/a0023362
Bois, K., Bergeron, S., Rosen, N. O., McDuff, P., & Grégoire, C. (2013). Sexual and relationship intimacy among women with provoked vestibulodynia and their partners: Associations with sexual satisfaction, sexual function, and pain self-efficacy. *The Journal of Sexual Medicine*, *10*, 2024–2035. https://doi.org/10.1111/jsm.12210
Bois, K., Bergeron, S., Rosen, N., Mayrand, M.-H., Brassard, A., & Sadikaj, G. (2016). Intimacy, sexual satisfaction, and sexual distress in vulvodynia couples: An observational study. *Health Psychology*, *35*, 531–540. https://doi.org/10.1037/hea0000289
Bolger, N., & Amarel, D. (2007). Effects of social support visibility on adjustment to stress: Experimental evidence. *Journal of Personality and Social Psychology*, *92*, 458–475. https://doi.org/10.1037/0022-3514.92.3.458
Bowlby, J. (1969). *Attachment and loss: Vol. I. Attachment*. New York, NY: Basic Books.
Brassard, A., Shaver, P. R., & Lussier, Y. (2007). Attachment, sexual experience, and sexual pressure in romantic relationships: A dyadic approach. *Personal Relationships*, *14*, 475–493. https://doi.org/10.1111/j.1475-6811.2007.00166.x
Brassard, A., Houde, F., & Lussier, Y. (2011). Élaboration et validation du Questionnaire de Soutien Conjugal (QSC) [Elaboration and validation of the Questionnaire de Soutien Conjugal (QSC)]. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, *43*, 69–77.
Brassard, A., Péloquin, K., Dupuy, E., Wright, J., & Shaver, P. R. (2012). Romantic attachment insecurity predicts sexual dissatisfaction in couples seeking marital therapy. *Journal of Sex & Marital Therapy*, *38*, 245–262. https://doi.org/10.1080/0092623X.2011.606881
Brassard, A., Dupuy, E., Bergeron, S., & Shaver, P. R. (2015). Attachment insecurities and women's sexual function and satisfaction: The mediating roles of sexual self-esteem, sexual anxiety, and sexual assertiveness. *Journal of Sex Research*, *52*, 110–119. https://doi.org/10.1080/00224499.2013.838744
Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson, & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). New York, NY: Guilford Press.
Butzer, B., & Campbell, L. (2008). Adult attachment, sexual satisfaction, and relationship satisfaction: A study of married couples. *Personal Relationships*, *15*, 141–154. https://doi.org/10.1111/j.1475-6811.2007.00189.x
Byers, E. S., Demmons, S., & Lawrance, K. A. (1998). Sexual satisfaction within dating relationships: A test of the Interpersonal Exchange Model of Sexual Satisfaction. *Journal of Social and Personal Relationships*, *15*, 257–267. https://doi.org/10.1177/0265407598152008
Chang, S., Chen, K., Lin, H., & Yu, H. (2011). Comparison of overall sexual function, sexual intercourse/activity, sexual satisfaction, and sexual desire during the three trimesters of pregnancy and assessment of their determinants. *The Journal of Sexual Medicine*, *8*, 2859–2867. https://doi.org/10.1111/j.1743-6109.2011.02420.x
Cowan, C. P., & Cowan, P. A. (1992). *When partners become parents: The big life change for couples*. New York: Basic Books.
Darwiche, J., Milek, A., Antonietti, J.-P., & Vial, Y. (2019). Partner support during the prenatal testing period after assisted conception. *Women and Birth*, *32*, e264–e271. https://doi.org/10.1016/j.wombi.2018.07.006
de Pierrepont, C., Polomeno, V., Bouchard, L., & Reissing, E. (2016). Que savons-nous sur la sexualité périnatale ? Un examen de la portée sur la sexopérinatalité – partie 1. *Journal de gynécologie obstétrique et biologie de la reproduction*, *45*, 796–808. https://doi.org/10.1016/j.jgyn.2016.06.003
Dewitte, M. (2012). Different perspectives on the sex-attachment link: Towards an emotion-motivational account. *Journal of Sex Research*, *49*, 105–124. https://doi.org/10.1080/00224499.2011.576351
Edelstein, R. S., Chopik, W. J., Saxbe, D. E., Wardecker, B. M., Moors, A. C., & LaBelle, O. P. (2017). Prospective and dyadic associations between expectant parents' prenatal hormone changes and postpartum parenting outcomes. *Developmental Psychobiology*, *59*, 77–90. https://doi.org/10.1002/dev.21469
Ein-Dor, T., & Hirschberger, G. (2012). Sexual healing: Daily diary evidence that sex relieves stress for men and women in satisfying relationships. *Journal of Social and Personal Relationships*, *29*, 126–139. https://doi.org/10.1177/0265407511431185
Feeney, J. A. (2016). Adult romantic attachment: Developments in the study of couple relationships. In J. Cassidy, & P. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 435–463). New York, NY: Guilford.
Feeney, J. A., Alexander, R., Noller, P., & Hohaus, L. (2003). Attachment insecurity, depression, and the transition to parenthood. *Personal Relationships*, *10*, 475–493. https://doi.org/10.1046/j.1475-6811.2003.00061.x
Foxcroft, K. F., Callaway, L. K., Byrne, N. M., & Webster, J. (2013). Development and validation of a pregnancy symptoms inventory. *BMC Pregnancy & Childbirth*, *13*, 1–9. https://doi.org/10.1186/1471-2393-13-3
Gökyildiz, Ş., & Beji, N. K. (2005). The effects of pregnancy on sexual life. *Journal of Sex & Marital Therapy*, *31*, 201–215. https://doi.org/10.1080/00926230590513410
Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, *52*, 511–524. https://doi.org/10.1037/0022-3514.52.3.511
Hudson, W. W., Harrison, D. F., & Crosscup, P. C. (1981). A short-form scale to measure sexual discord in dyadic relationships. *Journal of Sex Research*, *17*, 157–174. https://doi.org/10.1080/00224498109551110
Iles, J., Slade, P., & Spiby, H. (2011). Posttraumatic stress symptoms and postpartum depression in couples after childbirth: The role of partner support and attachment. *Journal of Anxiety Disorder*, *25*, 520–530. https://doi.org/10.1016/j.janxdis.2010.12.006
Impett, E. A., Muise, A., & Peragine, D. (2014). Sexuality in the context of relationships. In L. D. D. Tolman (Ed.), *APA handbook of sexuality and psychology* (pp. 269–316). Washington, DC: American Psychological Association.
Jaworski, M., Panczyk, M., Królewicz, I., Belowska, J., Krasuski, T., & Gotlib, J. (2019). Partner's support during pregnancy as the mediator of women's sexual satisfaction after childbirth. *Sexual and Relationship Therapy*, 1–15. https://doi.org/10.1080/14681994.2019.1575507 (Advance online publication)
Jodoin, M., Bergeron, S., Khalifé, S., Dupuis, M.-J., Desrochers, G., & Leclerc, B. (2008). Male partners of women with provoked vestibulodynia: Attributions for pain and their implications for dyadic adjustment, sexual satisfaction, and psychological distress. *The Journal of Sexual Medicine*, *5*, 2862–2870. https://doi.org/10.1111/j.1743-6109.2008.00950.x
Johansson, M., Edwardsson, C., & Hildingsson, I. (2015). Expecting fathers experience pregnancy-related changes: A longitudinal study with a mixed method approach. *Journal of Men's Health*, *11*, 11.
Johnson, C. E. (2011). Sexual health during pregnancy and the postpartum (CME). *The Journal of Sexual Medicine*, *8*, 1267–1284. https://doi.org/10.1111/j.1743-6109.2011.02223.x
Johnson, S. M. (2004). *The practice of emotionally-focused couple therapy*. New York: Brunner-Routledge.
Kashdan, T. B., Goodman, F. R., Stiksma, M., Milius, C. R., & McKnight, P. E. (2018). Sexuality leads to boosts in mood and meaning in life with no evidence for the reverse direction: A daily diary investigation. *Emotion*, *18*, 563–576. https://doi.org/10.1037/emo0000324
Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York: Guilford Press.
Khajehei, M., & Doherty, M. (2018). Women's experience of their sexual function during pregnancy and after childbirth: A qualitative survey. *British Journal of Midwifery*, *26*, 318–328. https://doi.org/10.12968/bjom.2018.26.5.318
Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). New York, NY: Guilford Press.
Lafontaine, M.-F., Brassard, A., Lussier, Y., Valois, P., Shaver, P. R., & Johnson, S. M. (2016). Selecting the best items for a short-form of the Experiences in Close Relationships questionnaire. *European Journal of Psychological Assessment*, *32*, 140–154.
Lankveld, W. van., Ruiterkamp, G., Näring, G., & Rooij, D. de. (2004). Marital and sexual satisfaction in patients with RA and their spouses. *Scandinavian Journal of Rheumatology*, *33*, 405–408. https://doi.org/10.1080/03009740410010317
Leclerc, B., Bergeron, S., Brassard, A., Bélanger, C., Steben, M., & Lambert, B. (2015). Attachment, sexual assertiveness, and sexual outcomes in women with provoked vestibulodynia and their partners: A mediation model. *Archives of Sexual Behavior*, *44*, 1561–1572. https://doi.org/10.1007/s10508-014-0295-1
MacPhedran, S. E. (2018). Sexual activity recommendations in high-risk pregnancies: What is the evidence? *Sexual Medicine Reviews*, *6*, 343–357. https://doi.org/10.1016/j.sxmr.2018.01.004
McConnell, M., & Moss, E. (2011). Attachment across the life span: Factors that contribute to stability and change. *Australian Journal of Educational & Developmental Psychology*, *11*, 60–77.
McLeod, S., Berry, K., Hodgson, C., & Wearden, A. (2020). Attachment and social support in romantic dyads: A systematic review. *Journal of Clinical Psychology*, *76*, 59–101. https://doi.org/10.1002/jclp.22868
Mikulincer, M., & Shaver, P. R. (2016). *Attachment in adulthood: Structure, dynamics, and change* (2nd ed.). New York, NY: Guilford Press.
Muise, A. (2017). When and for whom is sex most beneficial? Sexual motivation in romantic relationships. *Canadian Psychology*, *58*, 69–74. https://doi.org/10.1037/cap0000094
Nakić Radoš, S., Soljačić Vraneš, H., & Šunjić, M. (2015). Sexuality during pregnancy: What is important for sexual satisfaction in expectant fathers? *Journal of Sex & Marital Therapy*, *41*, 282–293. https://doi.org/10.1080/0092623X.2014.889054
Nguyen, A., & Carbonne, B. (2012). Sexualité pendant la grossesse. *La lettre du gynécologue*, *2*, 368–369.
Nezhad, M. Z., & Goodarzi, A. M. (2011). Sexuality, intimacy, and marital satisfaction in Iranian first-time parents. *Journal of Sex & Marital Therapy*, *37*, 77–88. https://doi.org/10.1080/0092623X.2011.547336
Pauleta, J. R., Pereira, N. M., & Graça, L. M. (2010). Sexuality during pregnancy. *The Journal of Sexual Medicine*, *7*, 136–142. https://doi.org/10.1111/j.1743-6109.2009.01538.x
Pauls, R. N., Occhino, J. A., & Dryfhout, V. L. (2008). Effects of pregnancy on female sexual function and body image: A prospective study. *The Journal of Sexual Medicine*, *5*, 1915–1922. https://doi.org/10.1111/j.1743-6109.2008.00884.x
Péloquin, K., Lafontaine, M.-F., & Brassard, A. (2011). A dyadic approach to the study of romantic attachment, dyadic empathy, and psychological partner aggression. *Journal of Social and Personal Relationships*, *28*, 915–942. https://doi.org/10.1177/0265407510397988

Péloquin, K., Brassard, A., Lafontaine, M.-F., & Shaver, P. R. (2014). Sexuality examined through the lens of attachment theory: Attachment, caregiving, and sexual satisfaction. *Journal of Sex Research*, *51*, 561–576.

Péloquin, K., Byers, E. S., Callaci, M., & Tremblay, N. (2019). Sexual portrait of couples seeking relationship therapy. *Journal of Marital and Family Therapy*, *45*, 120–133. https://doi.org/10.1111/jmft.12328

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*, 879–891. https://doi.org/10.3758/BRM.40.3.879

Purcell-Lévesque, C., Brassard, A., Carranza-Mamane, B., & Péloquin, K. (2019). Attachment and sexual functioning in women and men seeking fertility treatment. *Journal of Psychosomatic Obstetrics & Gynecology*, *40*, 202–210. https://doi.org/10.1080/0167482X.2018.1471462

Ramsdell, E. L., Franz, M., & Brock, R. L. (2019). A multifaceted and dyadic examination of intimate relationship quality during pregnancy: Implications for global relationship satisfaction. *Family Process*, https://doi.org/10.1111/famp.12424

Rehman, U. S., Rellini, A. H., & Fallis, E. (2011). The importance of sexual self-disclosure to sexual satisfaction and functioning in committed relationships. *The Journal of Sexual Medicine*, *8*, 3108–3115. https://doi.org/10.1111/j.1743-6109.2011.02439.x

Reis, H. T., & Shaver, P. (1988). Intimacy as an interpersonal process. In S. W. Duck (Ed.), *Handbook of personal relationships* (pp. 367–389). Chichester, England: Wiley.

Sagiv-Reiss, D. M., Birnbaum, G. E., & Safir, M. P. (2012). Changes in sexual experiences and relationship quality during Pregnancy. *Archives of Sexual Behavior*, *41*, 1241–1251. https://doi.org/10.1007/s10508-011-9839-9

Saxbe, D., Corner, G. W., Khaled, M., Horton, K., Wu, B., & Khoddam, H. L. (2018). The weight of fatherhood: Identifying mechanisms to explain paternal perinatal weight gain. *Health Psychology Review*, *12*, 294–311. https://doi.org/10.1080/17437199.2018.1463166

Serati, M., Salvatore, S., Siesto, G., Cattoni, E., Zanirato, M., Khullar, V., et al. (2010). Female sexual function during pregnancy and after childbirth. *Journal of Sexual Medicine*, *7*, 2782–2790. https://doi.org/10.1111/j.1743-6109.2010.01893.x

Simpson, J. A., Rholes, W. S., Campbell, L., Tran, S., & Wilson, C. L. (2003). Adult attachment, the transition to parenthood, and depressive symptoms. *Journal of Personality and Social Psychology*, *84*, 1172–1187. https://doi.org/10.1037/0022-3514.84.6.1172

Simpson, J. A., & Rholes, W. S. (2019). Adult attachment orientations and well-being during the transition to parenthood. *Current Opinion in Psychology*, *25*, 47–52. https://doi.org/10.1016/j.copsyc.2018.02.019

Stefanou, C., & McCabe, M. P. (2012). Adult attachment and sexual functioning: A review of past research. *The Journal of Sexual Medicine*, *9*, 2499–2507. https://doi.org/10.1111/j.1743-6109.2012.02843.x

Štulhofer, A., Ferreira, L. C., & Landripet, I. (2014). Emotional intimacy, sexual desire, and sexual satisfaction among partnered heterosexual men. *Sexual and Relationship Therapy*, *29*, 229–244. https://doi.org/10.1080/14681994.2013.870335

Tavares, I. M., Schlagintweit, H. E., Nobre, P. J., & Rosen, N. O. (2019). Sexual well-being and perceived stress in couples transitioning to parenthood: A dyadic analysis. *International Journal of Clinical and Health Psychology*, *19*, 198–208. https://doi.org/10.1016/j.ijchp.2019.07.004

Taylor, J., & Turner, R. J. (2001). A longitudinal study of the role and significance of mattering to others for depressive symptoms. *Journal of Health and Social Behavior*, *42*, 310. https://doi.org/10.2307/3090217