



## Articles

# Pregnant Women's View on Their Relationship: A Comparison With Nonpregnant Women

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## Abstract

The positive effects of partner support on pregnancy outcomes and maternal (mental) health are well established in the literature. Less is known about pregnant women's perceptions of their partner and relationship, and whether these differ from those of nonpregnant women. Therefore, in the current study, data were collected through an online questionnaire among pregnant ( $n = 66$ ) and nonpregnant ( $n = 59$ ) women with similar demographic profiles. The results show that pregnant women reported feeling significantly more happy with both their partner and their relationship than nonpregnant women. Importantly, we did not find any differences in self-esteem or mate value between groups. Although the present study is mainly exploratory, we suggest that pregnant women may show a positive bias in the way they view their partner and their relationship, which in turn may be beneficial to her own as well as her child's mental and physical health.

*Keywords:* pregnancy, relationship satisfaction, partner satisfaction

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Pregnancy is a unique period in a woman's life. These relatively short interludes have profound influences on virtually every aspect of a woman's life, not only after the pregnancy has resulted in motherhood, but also during the pregnancy itself. Various studies have shown that women's cognitive functioning, specifically their verbal learning and memory, undergoes changes during pregnancy. For example, [Buckwalter et al. \(1999\)](#) report that pregnant women demonstrated more difficulties with verbal learning, and that their learning styles were less effective and more haphazard. Other research shows that during pregnancy, women's emotional functioning also undergoes changes. Research by [Pearson, Lightman, and Evans \(2009\)](#) shows that women in their third trimester of pregnancy become more sensitive to faces signaling negative emotions, specifically threat or anger. This suggests that as women approach delivery, they become more vigilant of threats in their environment, possibly as a preparation for the nurturing tasks of motherhood. As pregnancy affects cognitive and emotional functioning, one can expect that it may also affect relational functioning, i.e., the way women feel about their partner and their relationship. In the current study we therefore investigated whether pregnant women's view of their partner and their relationship differed from that of nonpregnant women.

A growing body of research suggests that not only a pregnant woman's own physical health and health behavior, but also the characteristics of her relationship and of her partner may have a profound influence on the health of her unborn child. For example, research by [Paul, Garcia, Manhart, Holmes, and Hitti \(2009\)](#) showed that pregnant women who indicated that their partner was a 'womanizer', or that their partner had visited prostitutes, were at a significantly greater risk for preterm births. Moreover, [Martin, McNamara, Milot, Halle, and Hair \(2007\)](#) report that women whose partners were involved in their pregnancy – e.g. they discussed the pregnancy with them, attended childbirth classes with them, or bought things for the baby – were 1.5 times more likely to receive prenatal care in the first trimester. Women who smoked at conception reduced their cigarette consumption 36% more when their partner was involved than when their partner was not involved in the pregnancy. Generally, partner and relationship related stresses can increase the risk of preterm birth – the latter being a leading cause of infant mortality worldwide ([Messer, Dole, Kaufman, & Savitzl, 2005](#)).

In addition to research on maternal physical health, there has been a growing interest in the role of partner support and relationship satisfaction on maternal mental health, more specifically in the factors contributing to antenatal and postpartum depression. The prevalence of both antenatal and postpartum depression is currently estimated at 10-15% (e.g., [Beck, 2001](#); [Bennett, Einarson, Taddio, Koren, & Einarson, 2004](#)). Thus, determining whether and how the quality of women's relationship can contribute to the prevention of these disorders is of importance. A recent study by [Røsand, Slinning, Eberhard-Gran, Røysamb, and Tambs \(2011\)](#) among 51.000 pregnant women showed that pregnant women's relationship satisfaction can buffer against risk factors such as somatic disease, maternal smoking, and work stress. Conversely, relationship dissatisfaction was the largest predictor of maternal emotional distress. Similarly, a longitudinal study by [Iles, Slade, and Spiby \(2011\)](#) showed higher levels of postpartum depression and posttraumatic stress after childbirth among women and men with less secure attachment and greater relationship dissatisfaction. Moreover, these symptoms of posttraumatic stress and depression were positively related within couples, that is, maternal depression predicted paternal depression, and vice versa.

Taken together, these and other studies suggest that it is beneficial for a pregnant woman's physical and mental health, as well as for the health of her unborn child to have – and to keep – a committed relationship with a supportive partner. Interestingly, studies on the transition to parenthood reveal that becoming parents negatively affects relationship quality and satisfaction (e.g., [Doss, Rhoades, Stanley, & Markman, 2009](#); [Lawrence, Rothman, Cobb, Rothman, & Bradbury, 2008](#); [Simpson, Rholes, Campbell, Tran, & Wilson, 2003](#)). For example, in an 8-year prospective study by [Doss et al. \(2009\)](#), both mothers and fathers experienced sudden negative changes in relationship functioning after the birth of their first baby that tended to persist over time, whereas nonparents who were questioned at the same points in time did not report such negative relationship changes. In another study ([Belsky & Pensky, 1988](#)), especially mothers reported the largest declines in marital satisfaction, presumably due to the fact that they must deal with pregnancy, childbirth and intensive postpartum child care, in addition to career-related stressors. Furthermore, a study by [Lawrence et al. \(2008\)](#) showed that parents who were more satisfied before the pregnancy, experienced greater declines in satisfaction across the transition to parenthood than parents who reported lower levels of prepregnancy satisfaction. Taken together, these results indicate that, as suggested by [Huston and Holmes \(2004\)](#), a 'honeymoon' period in couples' relationships *during* pregnancy might exist, which causes partners to have a positive view of one another. These authors suggest that the drop in satisfaction parents report after the child is born, might thus be less due to parenthood and its stressors, than to high levels of satisfaction during pregnancy.

Although the studies reported here show how relationship satisfaction changes after pregnancy, it is unclear whether pregnant women are indeed happier than nonpregnant women to begin with. Therefore, in the current paper we explicitly compared pregnant and nonpregnant women to investigate whether pregnant women's relationship satisfaction differs from nonpregnant women, i.e. whether pregnant women are more positive about their partner and their relationship than nonpregnant women. Based on the literature reviewed above, it was expected that pregnant women will report feeling more satisfied with both their partner and their relationship than nonpregnant women, as such a 'positive bias' would benefit not only a pregnant woman's mental and physical health, as well as her relationship, but ultimately her unborn child as well.

In addition to measuring relationship satisfaction and partner satisfaction, we included a measure of self-esteem in our study to control for this variable's influence on our results. Research (e.g. [Knee, Canevello, Bush, & Cook, 2008](#); [Murray, Griffin, Rose, & Bellavia, 2003](#)) has shown that self-esteem can be contingent on one's relationship, and vice versa. Controlling for this variable reduces the possibility that differences in relationship satisfaction are due to self-esteem, rather than due to the influence of pregnancy. Similarly, we included single-item measures of participants' self-reported mate value and their opinion of their partner's mate value to control for the possibility that these variables would be responsible for any differences found between groups. Research has shown that although partners' mate values are highly correlated, discrepancies in partners' mate value can be responsible for marital dissatisfaction, as well as having a mate that is of lower 'quality' than oneself ([Shackelford & Buss, 1997](#)).

## Method

### Participants and Design

Participants were recruited via advertisements on several popular Dutch websites. The ads were placed in forum sections on women's interest websites as well as on websites specifically targeted at pregnant women aged 20-35. On the forum of the women's interest sites discussions take place on topics ranging from relationships, parenting, societal issues, to entertainment and gossip. Similarly, the forum targeted at pregnant women contains, in addition to question-and-answer sections about pregnancy and parenting, many general interest discussions. The ads read as follows (the sentence between brackets was included for pregnant women only): 'For a research project of the University of Groningen on relationships and emotions we are looking for women between 20 and 35 years old, who are currently in a steady heterosexual relationship [and pregnant with their first child]. Participation is anonymous, and completing the online study takes about 15 minutes. All participants can enter our raffle, in which two gift tokens of 50 Euros each will be allotted.'

Sixty-six pregnant women (mean age = 27.56,  $SD = 3.20$ ) and 59 nonpregnant women (mean age = 27.24,  $SD = 3.54$ ), all currently in a heterosexual relationship, replied to these recruitments. All stimuli and procedures were approved by the Ethical Committee Psychology of the University of Groningen.

### Materials and Procedure

Participants filled in the study online. A link to the survey (built in Qualtrics; Qualtrics Labs Inc., Provo, UT) was provided in the recruitment advertisements. Upon following this link, they were welcomed to the study and informed that the researchers were interested in their opinions about relationships and emotions and that participation would be voluntary and anonymous. Furthermore, they read that at the end of the study they would be able to leave their email address to participate in a raffle in which two gift certificates of € 50 each would be allotted.

Participants first answered some demographic questions (for a summary, see Table 1).

Table 1

*Demographic Variables for Pregnant Women (N = 66) and Nonpregnant Women (N = 59).*

| Demographic                                     | Total     | Pregnant women | Nonpregnant women |
|---|-----------|----------------|-------------------|
| Age (years)                                     | 27.41     | 27.56          | 27.24             |
| SD  | 3.36      | 3.20           | 3.54              |
| <b>Highest education</b>                        |           |                |                   |
| High school                                     | 9.6%      | 7.6%           | 11.9%             |
| College   | 61.6%     | 68.2%          | 54.2%             |
| University                                      | 24.8%     | 16.7%          | 33.9%             |
| Post-University                                 | 0.8%      | 1.5%           | --                |
| Not specified                                   | 3.2%      | 6.1%           | --                |
| <b>Work outside the house (hours)</b>           |           |                |                   |
| < 16  | 11.2%     | 7.6%           | 15.3%             |
| 17-32   | 32.8%     | 31.9%          | 33.9%             |
| > 32  | 41.6%     | 44.0%          | 39.0%             |
| None  | 14.4%     | 16.7%          | 11.9%             |
| <b>Yearly income (Euros) (N = 97)</b>           | 22.050,61 | 20.473,67      | 23.595,37         |
| <b>Partner's yearly income (Euros) (N = 85)</b> | 32.792,93 | 30.376,11      | 35.386,59         |
| <b>Relationship duration</b>                    |           |                |                   |
| 3-6 months                                      | 1.6%      | --             | 3.4%              |
| 6-12 months                                     | 2.4%      | 3.0%           | 1.7%              |
| 12-18 months                                    | 4.0%      | 1.5%           | 6.8%              |
| >18 months                                      | 92.0%     | 95.5%          | 88.1%             |

Next, they filled out the Rosenberg Self-Esteem Scale (Rosenberg, 1965). On a scale from 1 (*strongly disagree*) to 4 (*strongly agree*) participants indicated how much they agreed with statements like 'I wish I could have more respect for myself' and 'On the whole, I am satisfied with myself'. Coefficient alpha = .87,  $M = 3.19$  ( $SD = .49$ ). After filling in the RSE, participants answered a number of questions about their relationship. On a sliding scale with endpoints 0 (very dissatisfied) to 100 (very satisfied), participants indicated their satisfaction with their relationship ( $M = 86.56$ ,  $SD = 12.52$ ) and their satisfaction with their partner ( $M = 87.90$ ,  $SD = 12.17$ ). Next, they 'graded' themselves and their partner on their suitability as partner. On a scale ranging from 1 to 10, participants answered the following questions: 'If you were to grade yourself on your suitability as a romantic partner, what grade would you give yourself?' ( $M = 7.70$ ,  $SD = .99$ ) and 'If you were to grade your partner for his suitability as a romantic partner, what grade would you give him?' ( $M = 8.14$ ,  $SD = 1.22$ ). From now on, we will refer to these two variables respectively as 'own mate value' and 'partner's mate value'. In the final part of the study, participants filled in the Relationship Interaction Satisfaction Scale (Buunk, 1990). On a five-point scale ([1] = never, [5] = very often) participants indicated how often 8 statements applied to them. Examples are: 'I feel happy when I'm with my partner', and 'We have quarrels'. Coefficient alpha = .83,  $M = 4.42$  ( $SD = .39$ ).

After completing all questions, participants were debriefed, thanked for their participation, and given the option to leave their email-address to participate in the raffle.

## Results

*Correlations.* First of all, correlations between all variables were calculated, separately for pregnant and nonpregnant women (see Table 2). For pregnant women, all variables were positively associated with each other. For nonpregnant women however, their own mate value was not associated with any of the other variables, suggesting that nonpregnant women's relationship and partner satisfaction do not seem associated with their opinion about their own mate value. Conversely, whereas nonpregnant women's self-esteem was related to all other variables, pregnant women's self-esteem was only positively correlated with their own mate value and their relationship satisfaction.

Table 2

*Correlations for Pregnant (N = 66) and Nonpregnant Women (N = 59) Between Variables Included in the Study.*

|  | 1     | 2     | 3     | 4     | 5     | 6     |
|--|-------|-------|-------|-------|-------|-------|
| 1. Satisfaction Relationship                   |       | .82** | .05   | .51** | .76** | .28*  |
| 2. Satisfaction Partner                        | .88** |       | .18   | .63** | .78** | .35** |
| 3. Own Mate Value                              | .42** | .39** |       | .21   | .12   | .40** |
| 4. Partner's Mate Value                        | .47** | .48** | .38** |       | .71** | .27*  |
| 5. Relationship Interaction Satisfaction Scale | .79** | .79** | .55** | .53** |       | .32*  |
| 6. Rosenberg Self-Esteem Scale                 | .26*  | .12   | .35** | .03   | .23   |       |

*Note.* Correlations above the diagonal are for nonpregnant women, correlations below the diagonal are for pregnant women.

\* $p < .05$ . \*\* $p < .01$ .

*MANOVA.* Since correlational analyses revealed that the dependent variables in the current study were in general quite strongly correlated with each other, a MANOVA was conducted with pregnancy as a factor and participants' satisfaction with the relationship, satisfaction with the partner, relationship satisfaction, partner's mate value, own mate value, and mean self-esteem as dependent variables. The overall model was significant,  $F(1, 123) = 3.16$ ,  $\eta^2 = .14$ ,  $p < .01$ .

Univariate tests show that there were significant differences between pregnant and nonpregnant women for satisfaction with the relationship ( $F(1, 123) = 14.93$ ,  $\eta^2 = .11$ ,  $p < .001$ ), satisfaction with the partner ( $F(1, 123) = 8.23$ ,  $\eta^2 = .06$ ,  $p < .01$ ), relationship satisfaction ( $F(1, 123) = 4.10$ ,  $\eta^2 = .03$ ,  $p < .05$ ), and partner's mate value ( $F(1, 123) = 3.40$ ,  $\eta^2 = .04$ ,  $p < .05$ ). This indicates that on a variety of measures pregnant women indicated significantly more satisfaction with their relationship and their partner than nonpregnant women. Univariate tests further showed there was no significant difference between pregnant and nonpregnant women for own mate value ( $F(1, 123) < .01$ , *ns.*) and self-esteem ( $F(1, 123) = .53$ , *ns.*). For an overview of all means and SD's, see Table 3.

Table 3

Means and SD's for Dependent Variables for Total Sample (N = 125), Pregnant Women (N = 66) and Nonpregnant Women (N = 59).

|   | Total | Pregnant women | Nonpregnant women |
|---|-------|----------------|-------------------|
| Satisfaction with relationship              | 86.56 | 90.44          | 82.22             |
| SD  | 12.52 | 11.34          | 12.44             |
| Satisfaction with partner                   | 87.90 | 90.77          | 84.69             |
| SD  | 12.17 | 10.32          | 13.31             |
| Own mate value                              | 7.70  | 7.70           | 7.69              |
| SD  | .99   | 1.01           | 0.97              |
| Partner's mate value                        | 8.14  | 8.38           | 7.88              |
| SD  | 1.22  | .91            | 1.45              |
| Relationship Interaction Satisfaction Scale | 4.42  | 4.49           | 4.35              |
| SD  | .39   | .37            | .40               |
| Rosenberg Self-Esteem Scale                 | 3.19  | 3.22           | 3.16              |
| SD  | .49   | .46            | .51               |

*Covariates.* Although we took great care to recruit pregnant and nonpregnant women that had similar demographic backgrounds, we wanted to control for any influences of participant age, relationship duration, and relationship status (i.e. whether participants were married, cohabiting, etc). Therefore, these variables were entered into the MANOVA as covariates. This analysis revealed that these variables did not influence our results (all  $p$ 's > 0.5), and we therefore did not consider these variables for further analysis.

## Discussion

Pregnancy has profound influences on women's cognitive (Buckwalter et al., 1999) and emotional functioning (Pearson et al., 2009). The present research examined whether pregnancy also affects the way women see their partner and their relationship. More specifically, it was hypothesized that pregnant women may have a more positive view of their relationship than nonpregnant women, that is, that they would display a positive bias in their relationship and partner satisfaction. To investigate this hypothesis, pregnant and nonpregnant women reported on their relationship and their partner.

The results showed that as expected, pregnant women had a more positive view of their partner and felt more satisfied with their relationship than nonpregnant women. Moreover, we did not find any differences in self-esteem between pregnant and nonpregnant women. Research (e.g. Murray, Griffin, Rose, & Bellavia, 2003) has shown that self-esteem can be contingent on one's relationship, and vice versa. Since no differences in self-esteem between pregnant and nonpregnant participants were found in the current study, differences in relationship and partner satisfaction cannot be attributed to this variable. Interestingly enough, for pregnant women, their own mate value was positively associated with relationship satisfaction and partner satisfaction, whereas for nonpregnant women, their own mate value was not associated with any other variable, including self-esteem. Although these results do not permit us to infer causal relationships, one may speculate that, apparently, for pregnant women their own role in the relationship is tightly bound to the way they feel about their partner and the relationship itself. This might suggest that the satisfaction of pregnant women with their relationship and their partner is influenced by the positive view they have about their own role in the relationship. Conversely, it is possible that their happiness



with their relationship could positively affect their mate value. Future research should try to establish the causal relationship between relationship satisfaction and mate value, and investigate whether these two variables might be contingent on one another for pregnant, but not for nonpregnant women.

Longitudinal studies (e.g. [Doss et al., 2009](#); [Lawrence et al., 2008](#)) show that new parents experience sharp declines in relationship satisfaction, whereas couples without children do not show these declines during the same time period. Indeed, most of the research concerning relationship satisfaction in new parents focuses on the *transition* to parenthood, i.e. prepregnancy or pregnancy levels of satisfaction are compared with postpregnancy levels of relationship satisfaction. However, many of these studies do not explicitly compare pregnant women with nonpregnant women regarding their relationship satisfaction, whereas in our opinion these comparisons can provide information on base levels of relationship satisfaction in both these groups. As research on the role of relationship satisfaction and partner support in the development of antenatal and postpartum depression shows ([Røsand et al., 2011](#)), it may be important to detect deviations from these base rates as early as possible. Moreover, knowledge on the differences between pregnant and nonpregnant women's relationship satisfaction can offer insights into the drop in satisfaction experienced by so many new parents. As suggested by [Huston and Holmes \(2004\)](#), it could be that during pregnancy couples seem to experience a kind of 'honeymoon phase', causing one to have a positive bias regarding one's relationship and one's partner. Thus, perhaps the decline in relationship satisfaction often reported by new parents is not only caused by the strains of parenthood, but also by a return to the base rates of relationship satisfaction, similar to those of women who did not become pregnant.

The current study has a number of limitations. A first limitation is the fact that we did not employ a longitudinal design. This makes it impossible to determine exactly how pregnancy impacts one's relationship satisfaction, since we do not have information of either prepregnancy or postpregnancy levels of relationship satisfaction. Couples who choose to become parents might have different characteristics than couples who – currently – do not have children, and which are responsible for these higher levels of satisfaction. To limit the influence of this possibility on our results, we chose to recruit nonpregnant women who did indicate a desire to have children at one point in their lives. However, future studies should preferably employ a longitudinal design, tracking women's relationship satisfaction both before pregnancy, during pregnancy, and after delivery. Ideally, one would also track a control group of nonpregnant women for the same amount of time to investigate any fluctuations in relationship or partner satisfaction across time, as well as between groups. Similarly, although we argue that in the current study self-esteem does not (statistically) explain the differences in relationship satisfaction that were reported by our participants, theoretically it is possible that without being pregnant, the women in our pregnant sample would have had lower self-esteem and relationship satisfaction. Previous research did report that both one's own and one's partner's self-esteem impacts relationship satisfaction (e.g. [Robinson & Cameron, 2012](#)). Thus, again, longitudinal data would be necessary to determine the associations between self-esteem and relationship satisfaction for pregnant and non-pregnant women.

A second limitation is that we did not include the partners of our participants in our study. Having information from the partners' point of view would provide an even more complete picture of the existence of a positive bias in pregnant women's views of their partner and their relationship. Interestingly, a study by [Whisman, Gordon, and Chatav \(2007\)](#) revealed that husbands whose wife was pregnant were more likely to have committed an infidelity during the past 12 months than husbands whose wife was not pregnant. This strengthens our positive bias hypothesis – it could be that while the pregnant women are relatively more satisfied with their relationship, their partners are relatively less satisfied. However, when pregnant women's partners would report similar levels of satisfaction

as nonpregnant women's partners, as well as similar levels of support, we could state with more certainty that pregnant women exhibit a positive bias than the current results permit us to do. Future studies should therefore question both partners about their levels of satisfaction. A third potential limitation is that we did not investigate the possibility that some women in our sample of nonpregnant women might be experiencing fertility difficulties which might have affected their relationship satisfaction negatively. However, research by Lowyck, Luyten, Corveleyn, D'Hooghe, Buyse, and Demyttenaere (2009) has shown that romantic attachment to one's partner was positively related to well-being and relationship satisfaction during fertility treatments. Thus, the fact that the group of nonpregnant women in our research might have included women with fertility problems, would not necessarily have affected the relationship satisfaction in this group negatively.

To conclude, the current study investigated how pregnant and nonpregnant women viewed their partner and their relationship, and whether there were any differences between these groups. It was found that pregnant women reported feeling significantly more happy with both their partner and their relationship, and that these differences could not be attributed to differences in self-esteem. We suggest that pregnant women may show a positive bias in the way they view their partner and their relationship, which may be beneficial to her own as well as her child's mental and physical health. We also suggest that if indeed the drop in relationship functioning and satisfaction after the birth of a first child is partly due to the existence of an overly positive view of one's relationship during pregnancy, it might be wise to subtly warn pregnant women – and their partners – about the fact that these feelings could quite suddenly change after delivery.

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