

Effects of Reproductive Coercion on Young Couples' Parenting Behaviors and Child Development: A Dyadic Perspective

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A growing number of studies have demonstrated a strong association between reproductive coercion and unintended pregnancy among adolescent and young adult females. However, few studies have examined how a pregnancy resulting from an experience of reproductive coercion affects parenting and the child's development. To address this gap in the current literature, the present study sought to examine the effect of reproductive coercion on parenting competence, caregiving involvement, and child development at 6- and 12-months postpartum using a dyadic perspective. The data were collected from a prospective cohort study of 296 pregnant adolescent females and their male partners ($N = 592$ participants), who were followed from pregnancy to 12-months postpartum. The Actor Partner Interdependence Model (APIM) was used to examine the effects of an individual's (actor) and their partner's (partner) experience of reproductive coercion on parenting competence, caregiving involvement, and child development. Generalized Estimating Equations were performed to test associations between reproductive coercion and parenting outcomes. An actor's experience of reproductive coercion was significantly associated with lower parenting sense of competence 12-months postpartum. Our findings suggest that reproductive coercion may interfere with adolescents' transition into parenthood. Programs should consider reproductive coercion as a possible form of trauma and adopt activities that aim to mitigate its effects on children of adolescent and young adult parents.


Keywords: reproductive coercion, parenting, couples, child development, family systems

Reproductive coercion is emerging as a critically important public health issue in both domestic and global settings. Reproductive coercion occurs when a partner uses coercion, through

force or threats, to control pregnancy-related outcomes (American College of Obstetricians and Gynecologists, 2013; McCauley et al., 2016; Miller et al., 2010; Miller & McCauley, 2013; Willie et al., 2017). These behaviors include *pregnancy coercion*, threats to promote pregnancy, and *contraception sabotage*, direct actions to prevent contraception use (McCauley et al., 2016; Miller et al., 2010; Miller & McCauley, 2013). There are several adverse health and behavior outcomes associated with reproductive coercion including rape-related pregnancies (Basile et al., 2018), unintended pregnancies (Miller et al., 2014), low contraception use (Katz, Polshuck, Beach, & Olin, 2017), intimate partner violence (Clark, Allen, Goyal, Raker, & Gottlieb, 2014; Willie et al., 2017), and poor mental health (McCauley, Falb, Streich-Tilles, Kpebo, & Gupta, 2014; Willie & Callands, 2018).

Reproductive coercion was originally studied in the United States within the context of intimate partner violence among adolescent and young adult females, and these studies have illustrated the importance of reproductive coercion for adolescent sexual and reproductive health (McCauley et al., 2016; Miller & McCauley, 2013; Miller et al., 2014). For instance, a number of studies have shown that females who experience intimate partner violence are more likely to also experience reproductive coercion (Clark et al., 2014; Miller et al., 2014; Miller & Silverman, 2010),

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The ideas presented in this article have not disseminated at prior engagements (e.g., conferences, meetings, and/or website). While the ideas and concepts in this article are new, several publications have used this dataset. In particular, one publication examined associations of relationship and family factors with parenting at 6-months postpartum. Building upon this study, another publication examined depression as a mediator and gender as a moderator of the association between relationship factors and parenting at 6- and 12-months postpartum. This research was supported, in part, by the National Institute of Mental Health under Grants T32MH020031 and R01MH75685 (PI: Trace Kershaw) and F31MH113508 (PI: Tiara C. Willie).

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but recent research suggests that reproductive coercion can occur in relationships without intimate partner violence (Grace & Anderson, 2016). Further, Miller et al. (2014) found that the odds of an unintended pregnancy was higher among adolescent and young adult females who experienced reproductive coercion than females without those experiences. This association was also relevant for adolescent and young adult females with and without experiences of intimate partner violence (Miller et al., 2014). While the risk of unintended pregnancies is higher among females who experience reproductive coercion, this association may be contributing to the high prevalence of adolescent pregnancy (Sedgh, Finer, Bankole, Eilers, & Singh, 2015) and unintended pregnancies among adolescent females in the United States (Finer & Zolna, 2016). Therefore, if carried to term, reproductive coercion could be an important determinant of early childbearing and adolescent parenting.

Reproductive coercion is prevalent among adolescent and young adult females (Alexander, Volpe, Abboud, & Campbell, 2016; Miller et al., 2010) and obstetrics and gynecological care patients (Clark et al., 2014), but there is very little understanding of how a pregnancy that resulted from reproductive coercion influences parenting behaviors and involvement, and the child's development. To address this gap in the research literature, the current study examines the effect of reproductive coercion on parenting behaviors and involvement, and child development among pregnant adolescent females and their male partners.

Reproductive Coercion as a Determinant of Parenting and Child Development

The parenting and child development implications of reproductive coercion have yet to be examined, but the ecological framework proposed by Belsky (1984) postulates a potential relationship. According to Belsky (1984), parenting practices and expectations are influenced and shaped by multiple factors from three general sources: (a) parent's characteristics, (b) child's characteristics, and (c) contextual sources of support and stress. Parental characteristics, such as education and psychological health, shape parents' ability to provide sensitive care (defined by patience, endurance, and commitment). Child characteristics, such as age, can influence how a parent treats the child. Finally, support and stress can promote and/or undermine parenting; and sources of support and stress can come from the marital relationship, social networks, employment, and formal social resources. Using Belsky (1984) framework, reproductive coercion is a contextual stressor derived from the marital relationship. Reproductive coercion inherently represents discordant pregnancy intentions between partners, which may be a source of conflict and stress among adolescent and young adult parents.

Parenting

Very little research has positioned reproductive coercion as a contextual stressor for adolescent and young parents, but previous research has examined the parenting implications of relationship conflict (Davies, Winter, & Cicchetti, 2006; Ehrensaft, Knous-Westfall, & Cohen, 2017; Engfer, 1988; Renner, Cavanaugh, & Easton, 2015), and this work may be useful to frame the potential role of reproductive coercion. First, several studies have provided evidence for the spillover hypothesis in the context of parenting

and conflict (Davies et al., 2006; Ehrensaft et al., 2017; Engfer, 1988; Huth-Bocks, Levendosky, Theran, & Bogat, 2004). The spillover hypothesis indicates that emotions from the marital relationship can affect other relationships within the family system such as the parent-child relationship (Engfer, 1988). For example, marital conflict may reduce parents' emotional and physical availability to their children, which can in turn negatively impact children's development including emotional and behavioral functionality (Davies et al., 2006; Ehrensaft et al., 2017). In addition, experiences of intimate partner violence are associated with lower parenting competence and self-efficacy (Huth-Bocks et al., 2004; Renner et al., 2015). Contrary to the spillover hypothesis, some findings are consistent with the compensatory hypothesis, which suggests that conflict creates a barrier for love and support within the marital relationship and as a result parents become more involved with their children. For example, Levendosky, Huth-Bocks, Shapiro, and Semel (2003) found that mothers who experience intimate partner violence were engaging in positive parenting practices to shield or protect their child from the effects of intimate partner violence. Expanding upon the previous research on the spillover hypothesis, reproductive coercion may reduce a parent's emotional and physical availability to their child if the parent feels they were coerced into the pregnancy. Similarly, according to the compensatory hypothesis, experiences of reproductive coercion may make it difficult for love and trust to manifest within the marital relationship, and parents may become more involved with their child as a result.

Child Development

A parent's experience of reproductive coercion may shape a child's "healthy development," the ability to grow up where their social, emotional, and educational needs are met (Centers for Disease Control and Prevention, 2018). To foster healthy development, children must be provided with a safe and loving home and spend time with family (Centers for Disease Control and Prevention, 2018). Previous research indicates that conflict between parents can negatively impact child's development such as developmental milestones (Osofsky, 1995; Pynoos, 1994) and socioemotional and educational development (Rhoades, 2008). For example, previous research suggests that conflict can impact parent-child attachment, which could impact the child's development (e.g., behavioral problems; Brock & Kochanska, 2016). Building from this research, we hypothesize that reproductive coercion, as a contextual stressor, may produce conflict between parents and interfere with a child's "healthy development."

Transitioning to Parenthood as an Adolescent and Young Adult

The impact of reproductive coercion on parenting and child development is particularly important for parenting adolescents and young adults. Transitioning to parenthood can be a stressful time for adolescents and young adults. Parenting adolescents may experience social and emotional problems such as depression (Brown, Harris, Woods, Buman, & Cox, 2012), lower educational attainment and earnings (Cox, Buman, Woods, Famakinwa, & Harris, 2012), and relationship dissolution (Gavin et al., 2002), which could create social and economic challenges to parenting.

Previous research suggests that the romantic relationship between adolescent mother and father tend to dissolve soon after the birth of the child (Gee & Rhodes, 2003). A dissolved relationship can place a strain on the coparenting relationship and make it difficult for adolescent fathers, in particular, to be involved in their child's life (Farrie, Lee, & Fagan, 2011). Further, children of adolescent and young adult parents are at risk for emotional and behavior disorders and cognitive delays because of environmental and economic disadvantages (Larson, Bagnato, Miglioretti, Barone-Martin, & McNeal, 2017).

A Dyadic Perspective

To date, the majority of research on controlling behaviors and parenting tends to focus on one parent, in particular the mother of the child. From a family systems perspective, the behaviors and roles of individuals within a family unit are interdependent (Minuchin, 1985). The Actor-Partner Interdependence Model utilizes a dyadic framework to explain how individuals within family units influence each other (Kenny, Kashy, & Cook, 2006). Utilizing the Actor-Partner Interdependence Model, one's personal experience of reproductive coercion may impact one's parenting behaviors (i.e., actor effect). Further, one's partner's experience of reproductive coercion may shape one's own parenting competency and behaviors (i.e., partner effect). While previous research has primarily focused on female's experiences of reproductive coercion, it is possible that males experience reproductive coercion as well. Fathers of children born to adolescent females face a number of barriers that can limit their access to and engagement with their children including increased stress, cohabitation, and lack of financial resources (Savio Beers & Hollo, 2009). It is possible that experiences of reproductive coercion may be another understudied barrier to parenting and caregiving time for this vulnerable group of fathers. This is particularly salient because previous research indicates that the involvement of fathers (e.g., caregiving time) can positively impact the development of children born to adolescent females over time (Howard, Lefever, Borkowski, & Whitman, 2006).

The Current Study

The goal of the current study was to examine the actor-partner effects of reproductive coercion on parenting (i.e., competence, parental, and partner caregiving time) at 6- and 12-months postpartum, and child development at 12-months postpartum using a dyadic framework. Based on previous research, we hypothesize that:

Hypothesis 1: For both actor and partner, the experience of reproductive coercion will be negatively associated with one's parenting competence (at 6- and 12-months), parental caregiving time (at 6- and 12-months), and child development (at 12-months).

Hypothesis 2: For both actor and partner, the experience of reproductive coercion will be positively associated with one's partner's caregiving time (at 6- and 12-months).

In addition, we explored the moderating effect of gender for all associations among reproductive coercion, parenting, caregiving time, and child development for all time points.

Materials and Method

The current study is a secondary data analysis of a prospective cohort of pregnant adolescents and their male partners (Kershaw et al., 2013). There were 296 couples ($N = 592$ participants) who were recruited between 2007 and 2011 from obstetrics/gynecology clinics. Participants were eligible if: (a) female was in the second/third trimester at baseline; (b) both partners reported being in a romantic relationship with each other; (c) female aged 14–21 years old at baseline, male at least 14 years at baseline; (d) both reported being the biological parents of the unborn baby; (e) both agreed to participate; and (f) both were able to speak English/Spanish. We focused on females age 14–21 because of their heightened risk for negative reproductive health outcomes including sexually transmitted diseases, HIV, and rapid repeat pregnancies, which was a primary focus of the parent grant (Gavin et al., 2013). For male partners, we did not cap the age because research has shown that male partners tend to be older than female adolescents, and we wanted to capture natural relationships (Bukowski, Laursen, & Rubin, 2018) and not only include couples where both members were adolescents because this may not be generalizable to all pregnant adolescents and their partner and may miss couples with substantial risk profiles.

Participants were approached at participating obstetrics/gynecology clinics and told about the study. We approached either female participants, male participants, or the couple (if both attended the clinic visit). If only one participant attended the clinic visit, they were told about the study and given information to refer their partner to our research assistant for recruitment (the overwhelming majority of couples were recruited by first recruiting the female participant and having her refer her male partner). It should be noted that all participants provided informed consent and parental consent was not obtained. In the state of Connecticut, adolescents can make independent health care decisions and consent regarding their own reproductive health care and their child's care (as is the case for expectant parents) and, therefore, both adolescent females and males were considered able to give informed consent for participation in this study. Written informed consent for each participant was obtained at baseline.

Data were collected at baseline assessed during second/third trimester, 6 months postpartum, and 12 months postpartum. Participants completed computer-assisted interviews in a private research office and were remunerated \$25. Retention rate was: 196 males (66%) and 225 females (76%) for 6 months postpartum and 226 males (76%) and 261 females (88%) for 12 months postpartum assessments. Participants were retained using procedures we have developed in previous studies including collecting extensive contact information, sending monthly study newsletters with information relevant for our population (e.g., young parents), appointment reminders, and development of trustful relationships between study staff and our participants. Participants included in the subsequent analyses ($N = 421$; $N = 486$) did not differ from the participants excluded because of missing data ($N = 171$; $N = 106$) on any study variables. The current study did receive approval from a research ethics committee. Specifically, all procedures were approved by the Yale University Institutional Review Board.

Measures

Reproductive coercion. Reproductive coercion was assessed at baseline using items developed by Miller et al. (2010). For the current study, the reproductive coercion items were adapted to focus on experiences with the *current pregnancy* and to reflect the experiences of females and males (Willie et al., 2017). Participants were asked if the mother or father of their baby, ever tried to get them pregnant (or get pregnant) when they did not want to. The response options were Yes or No. Given the dyadic nature of the data, we used both actor and partner reports of reproductive coercion victimization and perpetration to construct a summary variable for reproductive coercion victimization. The actor reproductive coercion was coded as: yes to one's own report of victimization or yes to one's partner's report of perpetration. The partner reproductive coercion was coded as: yes to one's partner's report of victimization or yes to one's own report of perpetration. This measure of reproductive coercion has a significant association with intimate partner violence, which is evidence of predictive validity (Willie et al., 2017). More information on the adaptation process and evidence of validity can be found at (Willie et al., 2017).

Parenting competency. Parenting sense of competence was assessed using an adapted version of Gibaud-Wallston's and Wanderman's 17-item Parenting Sense of Competence Scale (Gibaud-Wallston & Wandersmann, 1978). This scale assesses whether parents feel capable, confident, and in control (Gibaud-Wallston & Wandersmann, 1978). Participants were asked to rate their agreement with the statements on a scale from 1 = *strongly disagree* to 5 = *strongly agree*. Responses were summed to form a total score with a Cronbach's $\alpha = .78$ at 6-months and 0.74 at 12-months.

Parental and partner caregiving time. Caregiving time was assessed by asking how many hours per week the person and their partner took care of the baby at 6- and 12-months postpartum.

Child development. Child development was assessed using items from the Child Development Inventory (Ireton, 1996). All participants (mothers and fathers) were asked to report (Yes vs. No) whether their child completed any of the 30 activities and/or behaviors commonly reported by or around 12-months postpartum within five domains (social, self-help, gross motor, fine motor, and language skills). Responses were summed to form a total score with higher scores indicating greater development progress across the five domains. The Cronbach's α was 0.88.

Depression. Depression was assessed using 15 items from the 20-item Center of Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). This scale measured the frequency of each depressive symptom. Participants were asked to rate the frequency of the symptom on a scale ranging 0 = *less than 1 day a week* to 3 = *Most of the time (5–7 days a week)*. Responses were summed to form a total score with a Cronbach's $\alpha = .85$ at 6 months and 0.85 at 12-months.

Social support. Social support was measured using an 11-item scale adopted from the MOS Social Support Survey (MOSS; Sherbourne & Stewart, 1991). Participants were asked how often they could receive companionship, assistance, and other forms of support from others. Participants were asked to rate this frequency on a 5-point scale ranging from 0 = *none of the time* to 4 = *all of the time*. Responses were summed to form a total score with a Cronbach's $\alpha = .82$ at 6-months and 0.80 at 12-months.

Sociodemographics and relationship characteristics. Sociodemographics and relationship characteristics were self-reported by participants: age, sex, race and ethnicity, household income, highest level of education completed, length of the relationship, employment status, nulliparous status, relationship status, and cohabitation status.

Data Analysis

We conducted basic descriptive statistics (prevalence, means) to describe characteristics of the total sample and by participant's sex. McNemar's χ^2 and paired *t* tests were conducted to assess sociodemographic differences between female and male participants. Next, the Actor-Partner Interdependence Model (Kenny et al., 2006) was used to assess the actor-partner effects of reproductive coercion on parenting behaviors and child development. Actor effects refer to the association of one's personal characteristic on one's outcome (e.g., participant's experience of reproductive coercion on participant's parenting behaviors). Partner effects refer to the association of a partner's characteristic on one's outcome (e.g., participant's experience of reproductive coercion may on partner's parenting behaviors). Generalized Estimating Equations (GEE) with an exchangeable correlation structure, a semiparametric approach to longitudinal analyses, was used to assess the actor-partner effects of reproductive coercion. We first assessed overall actor and partner effects. Next, to assess whether actor and partner effects differed between female and male partners, we conducted tests of effect modification by entering a Sex \times Reproductive Coercion interaction term for each outcome. All models controlled for baseline sociodemographics, depression, social support, and relationship characteristics. These variables were included because they were deemed relevant factors for parenting and child development based on Belsky (1984)'s model. All analyses were performed using SPSS software (Version 24; SPSS, Inc.). Significance was assessed using $p < .05$ and all hypothesis tests were two-sided.

Results

Characteristics of Participants

Table 1 provides characteristics of the 296 couples. The sample was African American (40% females; 48% males), Hispanic/Latino (40% females; 36% males), White (20% females; 11% males), and Another racial group (4% females; 4% males). On average, males were older than females (mean [*SD*] = 21.33 years [4.06] vs. mean [*SD*] = 18.71 years [3.36]; $p < .001$). The average income was higher for males than females (mean [*SD*] = 17,439 [21,504] vs. mean [*SD*] = 13,497 [15,530]; $p = .005$). Males tended to have only one child than females (21 vs. 25%; $p < .001$).

Differences in Parenting and Child Outcomes Between Females and Males

Table 2 displays differences in outcomes for females and males. Females had higher parenting competency at 6-months (mean [*SD*] = 71.00 [7.03] vs. mean [*SD*] = 68.46 [7.42]; $p < .001$) and 12-months postpartum than males (mean [*SD*] = 71.31 [7.38] vs. mean [*SD*] = 68.36 [7.81]; $p < .001$). Females engaged in more

Table 1
Socio-Demographics and Reproductive Coercion and Differences Between Females and Males

Independent variables	Overall (<i>N</i> = 592)	Females (<i>n</i> = 296)	Males (<i>n</i> = 296)	<i>p</i>
Age, <i>M</i> (<i>SD</i>), years	20.01 (3.36)	18.71 (1.63)	21.33 (4.06)	<.001
Race and ethnicity, <i>N</i> (%)				.01
African American	261 (44)	117 (40)	144 (49)	
Hispanic/Latino	225 (38)	117 (40)	108 (36)	
White	81 (13.7)	50 (16)	31 (11)	
Another race	25 (4.2)	12 (4)	13 (4)	
Income, <i>M</i> (<i>SD</i>)	15,471 (18,869)	13,497 (15,530)	17,439 (21,504)	.005
Education, <i>M</i> (<i>SD</i>), years	11.79 (1.86)	11.75 (1.82)	11.84 (1.89)	.45
Employment, <i>N</i> (%)				.19
Working full time	115 (19.4)	23 (7)	92 (31)	
Working part time	147 (24.8)	61 (21)	86 (29)	
Not working	358 (55.4)	212 (72)	116 (40)	
Nulliparous, <i>N</i> (%)	138 (23.3)	63 (21)	75 (25)	<.001
Relationship length, <i>M</i> (<i>SD</i>)	26.91 (19.75)	26.60 (19.52)	27.24 (20.01)	.07
Cohabitation status, <i>N</i> (%)	368 (62)	185 (63)	183 (63)	<.001
6-month cohabitation status, <i>N</i> (%)	248 (58)	123 (56)	125 (61)	<.001
12-month cohabitation status, <i>N</i> (%)	255 (69)	128 (68)	127 (72)	<.001
Reproductive coercion, <i>N</i> (%)	58 (9.8)	27 (9)	31 (11)	.64
6-month depression, <i>M</i> (<i>SD</i>)	9.22 (7.43)	9.07 (7.89)	9.38 (7.04)	.17
12-month depression, <i>M</i> (<i>SD</i>)	9.10 (7.31)	8.74 (7.28)	9.51 (7.46)	.03
6-month social support, <i>M</i> (<i>SD</i>)	24.83 (9.57)	25.92 (9.07)	23.55 (9.97)	.02
12-month social support, <i>M</i> (<i>SD</i>)	25.58 (9.31)	26.13 (9.33)	24.14 (9.35)	.001

Note. Column percentages are shown and are rounded and may not equal 100. Relationship length was measured in months. Income was measured in \$USD. All variables were measured at baseline, unless otherwise noted.

parental caregiving time at 6-months postpartum (mean [*SD*] = 141.54 [40.35] vs. mean [*SD*] = 93.70 [57.10]; $p < .001$) and 12-months postpartum than males (mean [*SD*] = 135.24 [44.84] vs. mean [*SD*] = 96.91 [59.50]; $p < .001$). Females reported more child development behaviors than males (mean [*SD*] = 17.95 [7.39] vs. mean [*SD*] = 16.02 [8.05]; $p < .001$). Males felt that their female partners engaged in more caregiving time at 6-months (mean [*SD*] = 137.56 [44.42] vs. mean [*SD*] = 100.99 [57.63]; $p < .001$) and 12-months postpartum (mean [*SD*] = 124.09 [53.23] vs. mean [*SD*] = 91.56 [65.60]; $p < .001$).

Actor-Partner Effects of Reproductive Coercion

Tables 3 and 4 display results from the unadjusted and adjusted GEE models. In the unadjusted model, there were three significant effects (two actor and one partner effects; Table 3). Experiencing of reproductive coercion was associated with lower actor parenting competency (i.e., actor effect; B (*SE*) = -2.78 (1.37); $p < .05$) and

believing that one's partner spent fewer hours with the child (i.e., actor effect; B (*SE*) = -24.12 (8.50); $p < .05$) at 12-months postpartum. A partner's experience of reproductive coercion was also associated with believing that one's partner spent fewer hours with the child at 6-months postpartum (i.e., partner effect; B (*SE*) = -26.01 (10.31); $p < .01$). However, after controlling for age, gender, household income, education, cohabitation status, relationship length, race and ethnicity, nulliparous, employment, depression, and social support, only one finding remained significant. Experiencing reproductive coercion remained significantly associated with lower parenting competency in the adjusted model (i.e., actor effect; B (*SE*) = -3.35 (1.22); $p = .006$). Effect modification terms by sex were not statistically significant for any model ($ps > .05$; not shown in the tables).

Discussion

This study found that experiences of reproductive coercion among adolescent and young adult parents negatively impacted

Table 2
Differences on Parenting Behaviors and Child Development Between Females and Males

Outcomes	Females	Males	<i>p</i>
6-months			
Parenting sense of competency, <i>M</i> (<i>SD</i>)	71.00 (7.03)	68.46 (7.42)	<.001
Parental caregiving time, <i>M</i> (<i>SD</i>)	141.54 (40.35)	93.70 (57.10)	<.001
Partner caregiving time, <i>M</i> (<i>SD</i>)	100.99 (57.63)	137.56 (44.42)	<.001
12-months			
Parenting sense of competency, <i>M</i> (<i>SD</i>)	71.31 (7.38)	68.36 (7.81)	<.001
Parental caregiving time, <i>M</i> (<i>SD</i>)	135.24 (44.84)	96.91 (59.50)	<.001
Partner caregiving time, <i>M</i> (<i>SD</i>)	91.56 (65.60)	124.09 (53.23)	<.001
Child development, <i>M</i> (<i>SD</i>)	17.95 (7.39)	16.02 (8.05)	<.001

Table 3
Unadjusted Associations of Reproductive Coercion With Parenting and Child Development

Independent variables	Parenting sense of competence		Parental caregiving time		Partner caregiving time		Child development
	6-month	12-month	6-month	12-month	6-month	12-month	12-month
	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)
RC-actor	-.73 (1.05)	-2.78 (1.37)*	-14.81 (10.37)	-3.62 (9.11)	-9.42 (10.18)	-24.12 (8.50)*	1.45 (1.12)
RC-partner	-.68 (1.07)	-.14 (1.33)	-3.72 (8.93)	-6.56 (8.11)	-26.07 (10.31)**	-14.83 (8.27)	-1.14 (1.19)

Note. RC = reproductive coercion. All outcomes are actor-level.

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

parenting behaviors, but not child development. Young parents who experience reproductive coercion had lower parenting competence at 12-months postpartum than young parents without reproductive coercion experiences. Despite diminishing parental competence, reproductive coercion did not impact caregiving time. Overall, these findings illustrate how reproductive coercion may interfere with adolescent couples' transition into parenthood, which could play a role in their child's socioemotional and behavioral wellbeing later in life.

Young parents who experience reproductive coercion expressed lower confidence in their parenting ability at 12-months postpartum. First, experiences of reproductive coercion might have forced adolescent females and males into parenthood before they were emotionally ready. In addition, children should be achieving important developmental milestones at 12-months postpartum such as crawling, early walking, communicating with language, and even problem-solving skills (Centers for Disease Control and Prevention, 2016). Young parents who felt coerced into parenthood may begin to doubt their parenting capabilities at this important developmental time for their child. Consistent with previous research, it is possible that young parents who experience reproductive coercion internalize negative representations of themselves as parents, which can affect their competence (Huth-Bocks et al., 2004; Renner et al., 2015).

Contrary to our hypothesis, experiences of reproductive coercion did not have a significant effect on child development. Past research on parental conflicts and child development indicates that conflicts can interfere with parent-child attachments, which could later influence a child's development (Brock & Kochanska, 2016). Our findings suggest that reproductive coercion could be a potential stressor for young parents; however, this stress may not be interfering with their child's "healthy development." One potential explanation for this unique finding stems from the compensatory

hypothesis. In particular, it is possible that while reproductive coercion may diminish trust within the young parents' relationship, the young parents may become more involved with their child and their child's development as a result. Future research is needed to better understand reproductive coercion and its impact on parent-child attachments and other developmental activities as the child ages (e.g., expressive language) and developmental delays (e.g., motor and speech problems).

These findings are novel, but are limited by the reliance on self-reported data and recruitment in the northeast region of the United States. Future studies should examine these associations in nationally representative samples. It is possible that experiences of reproductive coercion were underreported in the current study because of social desirability and reporting bias. The reports for caregiving time are self-reported and represent the parent's perception of their own and their partner's time spent with the child. Future studies that replicate our findings should incorporate objective measures of caregiving time. These findings are based on the experiences of young couples whose pregnancy reached full term and who stayed together throughout the 12 months postpartum period. Thus, these results may not be generalizable to couples who experienced reproductive coercion and choose to terminate the pregnancy, or couples who did not stay together a year after the child's birth.

Conclusions

Continued efforts are needed to screen for reproductive coercion (American College of Obstetricians and Gynecologists, 2013), especially among adolescent-headed families. Obstetrician-gynecologists and other sexual and reproductive health providers are uniquely positioned to identify these experiences to reduce its associated health consequences (Clark et al., 2014). Identifying these at-risk families at

Table 4
Adjusted Associations of Reproductive Coercion With Parenting and Child Development

Independent variables	Parenting sense of competence		Parental caregiving time		Partner caregiving time		Child development
	6-month	12-month	6-month	12-month	6-month	12-month	12-month
	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)	B (SE)
RC-actor	-.97 (1.03)	-3.35 (1.22)**	-10.87 (9.58)	2.83 (10.54)	-7.61 (8.81)	-9.34 (10.04)	1.38 (1.11)
RC-partner	-.83 (.98)	-.25 (1.29)	-2.98 (7.59)	-4.48 (9.15)	-17.16 (9.32)	-.25 (8.99)	-1.07 (.99)

Note. RC = reproductive coercion. All outcomes are actor-level. Models controlled for baseline covariates: age, gender, household income, education, cohabitation status, relationship length, race and ethnicity, nulliparous, employment, depression, and social support.

** $p < .01$.

postnatal visits and linking them to parenting programs may reduce the negative parenting impact of reproductive coercion. Programming targeting adolescent-headed families need to be sensitive to parenting in the context of reproductive coercion. Future research is needed to understand mechanisms linking reproductive coercion and parenting. Future studies should explore time-vary effects of reproductive coercion on children's later development.

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