Contraception

Original research article

Psychometric properties and refinement of the Reproductive Coercion Scale☆,☆☆,★

Heather L. McCauley[a,*], Jay G. Silverman[b], Kelley A. Jones[c],
Daniel J. Tancredi[d], Michele R. Decker[e], Marie C. McCormick[f],
S. Bryn Austin[f,g], Heather A. Anderson[c], Elizabeth Miller[c]

[a]Department of Human Development & Family Studies, Michigan State University, East Lansing, MI, USA
[b]Division of Global Public Health, Department of Medicine & Center on Gender Equity & Health, University of California, San Diego, La Jolla, CA, USA
[c]Division of Adolescent & Young Adult Medicine, Department of Pediatrics, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA
[d]Department of Pediatrics and Center for Healthcare Policy & Research, University of California, Davis, Sacramento, CA, USA
[e]Department of Population, Family and Reproductive Health, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD, USA
[f]Department of Social & Behavioral Sciences, Harvard T.H. Chan School of Public Health, Boston, MA, USA
[g]Division of Adolescent and Young Adult Medicine, Boston Children's Hospital, Boston, MA, USA

Abstract

Objective: Identification and refinement of psychometric properties of the Reproductive Coercion Scale (RCS) for use in survey research and clinical practice.

Study design: Young women aged 16–29 years seeking services in 24 Pennsylvania and 5 California family planning clinics completed questionnaires. Data were pooled for analysis (*n*=4674), and underlying domains were assessed using Horn's Parallel Analysis and Exploratory Factor Analysis. Multidimensional Item Response Theory was used to refine the scale and assess reliability and validity of a short-form RCS.

Results: The full, nine-item RCS had two underlying domains: pregnancy coercion and condom manipulation. Five items were retained in the short form: three about pregnancy coercion (e.g., "told you not to use birth control...") and two for condom manipulation (e.g., "taken off the condom while you were having sex..."; one of these items is the combination of two original items on damaging the condom that were combined because of similar statistical properties and face validity and a third item on removing the condom was retained on its own). Recent reproductive coercion was reported by 6.7% and 6.3% of the sample with the full and short-form RCS, respectively. Characteristics of women reporting reproductive coercion were similar with both forms.

Conclusion: Findings indicate that reproductive coercion includes pregnancy coercion and deliberate manipulation of condoms to promote pregnancy. Moreover, women experience reproductive coercion across a continuum of severity. We selected items that varied in RC severity and discrimination to generate a five-item short-form RCS for survey research and clinical practice.

Implications: This study assesses the psychometric properties of the RCS, identifying pregnancy coercion and condom manipulation as underlying domains of reproductive coercion. Recommendations for using the RCS in research and clinical practice are discussed.
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1. Introduction

Women of reproductive age are at highest risk for intimate partner violence (IPV) and experience poor reproductive health outcomes including unintended pregnancy [1–4], miscarriage [5] and preterm labor as a result of violence victimization [6]. Researchers have suggested several mechanisms that may underlie the association between IPV and poor sexual and reproductive health including forced or coerced sex and diminished self-efficacy to negotiate condom use with an abusive partner [7–10].

A qualitative study by Miller and colleagues [11] found explicit links between pregnancy-promoting behavior by coercive male partners and unintended pregnancy. Adolescent girls described male partners breaking condoms, refusing to use condoms and destroying birth control pills to promote a pregnancy. Other qualitative studies illustrate tactics including male partners telling women they "do not believe in contraception" and want children [12], with partners attempting to control not only conception but the outcome of a pregnancy [13]. These behaviors are facets of reproductive coercion (RC), defined by the American College of Obstetricians and Gynecologists (ACOG) as "behavior intended to maintain power and control in a relationship related to reproductive health..." [14]. RC includes explicit attempts to impregnate a partner against her will, control outcomes of a pregnancy and interfere with using contraception [15].

Research on RC has rapidly emerged in recent years. Using the Reproductive Coercion Scale (RCS), Miller and colleagues [3] found that almost 26% of a family planning clinic-based sample of 16- to 29-year-old women in Northern California had experienced RC in their lifetime. Another study by the same team in 24 family planning clinics in Western Pennsylvania found that 5% of women in the sample had experienced RC in the past 3 months [4]. In both studies, RC was associated with statistically significant, elevated odds of unintended pregnancy [3,4]. Another clinic-based study by Clark and colleagues [16] found that 16% of women seeking routine care at obstetrics and gynecology clinics had experienced RC, while a recent study found that 8% of almost 6000 college students reported RC, providing evidence beyond the clinical setting [17]. RC has also been assessed in global settings using items modified from the RCS, with evidence that RC may be perpetrated both by partners and extended family [18,19]. Moreover, emerging evidence from samples in the United States and other countries indicate that RC may impact women's mental health (e.g., posttraumatic stress disorder symptoms, anxiety, stress symptoms), extending the literature on the health impacts of RC [18,20].

Research on the prevalence and sexual and reproductive health impacts of RC has influenced clinical practice guidelines. In 2013, ACOG released a committee opinion recommending that obstetrician-gynecologists incorporate IPV and RC assessment into routine sexual and reproductive health care [14]. This approach includes universal education about IPV and RC, routine inquiry to normalize the conversation about RC, and brief harm reduction counseling (e.g., providing contraception options that an abusive partner cannot interfere with) [21]. The purpose of the present paper is to assess the psychometric properties of RCS items to elucidate the underlying dimensions of RC and to develop and provide guidance for using a short-form RCS in survey research and clinical practice.

2. Methods

2.1. Data

We used baseline data from two longitudinal randomized controlled trials in 5 California and 24 Pennsylvania family planning clinics [3,22–24]. Procedures were identical for both studies. We recruited English- or Spanish-speaking women aged 16–29 years seeking care at participating clinics. California data (n=1319) were collected between August 2008 and March 2009, and Pennsylvania data (n=3867) between October 2011 and November 2012. Upon entry to the clinic, trained research staff approached women and assessed them for eligibility. Interested women completed the informed consent process and a 30-min computer-based survey via audio computer-assisted self-interview. Participants received $15 for their time. We pooled the two datasets and women with missing data on any RCS item were removed, yielding an effective sample size of 4674 women. Study procedures were approved by institutional review boards at UC Davis, Harvard T.H. Chan School of Public Health, and University of Pittsburgh.

2.2. Measures

2.2.1. The Reproductive Coercion Scale

The RCS comprised nine dichotomous (yes/no) items used to assess participants' experience of recent (past 3 months) RC. Items are presented in tables below.

2.2.2. Intimate partner violence

IPV was assessed using items modified from the Revised Conflict Tactics Scale [25] and the Sexual Experiences Survey [26]. In California, IPV was assessed via four items: (1) have you ever been hit, pushed, slapped, choked or otherwise physically hurt by someone you were dating or going out with; (2) has someone you were dating or going out with insisted (without using force or threats) on having sex with you when you didn't want to; (3) has someone you were dating or going out with used threats to make you have sex with them; and (4) has someone you were dating or going out with used force (hitting, holding down, using a weapon) to make you have sex with them. In Pennsylvania, three items were used to assess IPV. Physical violence (item #1, above) and sexual violence without force or threats (item #2, above) were identical to the California survey. The final item combined force *or* threats. A dichotomous variable was

created to indicate women who endorsed any IPV item compared to women who did not endorse any IPV. We tested these measures via cognitive interviewing with clients prior to data collection in California.

2.2.3. Unwanted pregnancy

Participants were asked how many times they had been pregnant. If they had ever been pregnant, they were asked "How many times have you been pregnant when you didn't want to be?" A dichotomous variable was created so that if they reported this experience one or more times, they were coded as having experienced an unwanted pregnancy.

2.3. Analysis

Demographics were described and tested for differences by state using Wald log-linear chi-square tests for clustered survey data. We used Horn's Parallel Analysis (HPA), a method that outperforms more well-known approaches (e.g., scree plots, Kaiser rule) to determine the number of underlying latent variables (i.e., factors or dimensions of RC) measured by the RCS [27,28]. We then sought to identify which survey items measured each latent variable. To achieve this, we conducted Exploratory Factor Analysis (EFA) with oblique rotation, which assumed that there was a degree of correlation between the items [29]. These statistical procedures provided factor pattern standardized regression coefficients (also called "factor loadings"), which helped to identify which items were correlated with each type of RC.

Once the dimensions of the RCS were defined, our goals were to characterize RCS items according to their individual and collective ability to reliably discriminate among patients experiencing mild or severe RC and assess whether a short-form RCS could be developed that would be quicker and thus more practical for clinicians to administer yet still have acceptable reliability and validity. We used Multidimensional Item Response Theory (IRT) to achieve these goals [30]. We specified a two-dimensional model of the full RCS scale, which allowed for correlation between the factors, to estimate item characteristic curves that describe for each item within each dimension (or trait) how the probability of an affirmative item response varies by dimension level. To select items for the short form, we compared items of similar difficulty (i.e., items for which a similar latent dimension level is required to achieve a 50% probability of an affirmative item response) and retained those with greater discrimination (items for which response probabilities vary more strongly with changes in latent dimension level).

The reliability of the scales was assessed by estimating total information curves (TICs), which represent the information collected across all items in either the RCS or the short-form RCS. The TIC is equal to the inverse of the square of the standard error of measurement (SEM), both of which vary as a function of the latent dimension level. We visually compared TICs and calculated total information parameters and SEMs among women with dimension levels

of 1.0, 1.5 and 2.0 standard deviations above the mean (i.e., women with increasing RC severity), to assess how well the two scale versions performed. We then produced estimated dimension levels for all possible item combinations of the short-form RCS to inform clinicians and researchers of the severity of RC a patient may be experiencing if they endorse any combination of short-form RCS items. Finally, to assess validity, we calculated frequencies of scale items among the total sample, and compared differences in IPV and unwanted pregnancy among the RC traits via chi-square tests and logistic regression, as we know from our previous work that women who have experienced RC are more likely to report both of these outcomes [3,4]. Descriptive statistics, HPA and EFA were conducted using SAS v9.4. IRT models were estimated with Mplus software, using two-parameter logistic regression models with latent variable variances fixed at 1.

3. Results

We present the demographic characteristics for the entire sample and by state in Table 1. The California sample was more racially diverse than the Pennsylvania sample, with significantly greater proportions of the California sample reporting being non-White (77%) and not US-born (16%), compared to the Pennsylvania sample (19% non-White, 2% non-US born). The Pennsylvania sample reported higher levels of education (21% with at least a college degree, compared to 11% in the California sample).

HPA identified two factors underlying recent RC. The factor loadings from EFA are presented in Table 2. Six items primarily loaded onto factor one, which included the use of various coercive tactics to pressure women to become pregnant, that we labeled "pregnancy coercion." Three items primarily loaded onto factor two, which we identified as "condom manipulation," including male partners actively interfering with condom use during sex to promote pregnancy.

Using a multidimensional IRT model [31] to accomplish the aforementioned goal of creating a short-form scale that captures a range of coercive behaviors and severity, we estimated discrimination and threshold (severity) parameters for pregnancy coercion and condom manipulation (Table 3). Three items were retained for pregnancy coercion, including the most commonly endorsed item ("told you not to use birth control") and two items with moderate discrimination and difficulty that reflect clinically relevant markers of pregnancy coercion. For condom manipulation, we combined two items — "put holes in the condom so you would get pregnant" and "broken the condom on purpose while you were having sex so you would get pregnant" — into a single item given the similar discrimination and threshold parameters and parallel content. We also retained the third item in the dimension, resulting in two final items that assess condom manipulation (see below).

Table 1
Demographic characteristics of the total sample and by state

	Total (*n*=4674), % (*n*)	California (*n*=1245), % (*n*)	Pennsylvania (*n*=3429), % (*n*)
Age (y)			
16–20	38.6 (1806)	43.1 (536)	37.0 (1270)
21–24	35.1 (1641)	33.4 (416)	35.7 (1225)
25–29	26.3 (1227)	23.5 (293)	27.2 (934)
Chi-square p value[a]			.1037
Race			
White	65.2 (3049)	22.8 (284)	80.6 (2765)
Black/African American	17.1 (798)	27.8 (346)	13.2 (452)
Hispanic/Latina	9.1 (423)	29.5 (367)	1.6 (56)
Asian	2.0 (95)	5.5 (68)	0.8 (27)
NH/PI/NA/AN[b]	2.0 (92)	5.9 (74)	0.5 (18)
Multiracial/Other	4.6 (217)	8.5 (106)	3.2 (111)
Chi square p value[a]			<.0001
Relationship status			
Single or dating	33.3 (1557)	32.9 (410)	33.5 (1147)
Serious relationship	59.1 (2761)	58.2 (724)	59.4 (2037)
Married	7.6 (356)	8.9 (111)	7.1 (245)
Chi-square p value[a]			.1560
Education			
Less than 12th grade	20.1 (938)	22.2 (276)	19.3 (662)
High school graduate	28.6 (1338)	33.9 (422)	26.7 (916)
Some college	33.3 (1557)	33.1 (412)	33.4 (1145)
College graduate	18.0 (841)	10.8 (135)	20.6 (706)
Chi-square p value[a]			.0017
US born			
Yes	94.6 (4421)	84.5 (1052)	98.3 (3369)
No	5.4 (253)	15.5 (193)	1.8 (60)
Chi-square p value[a]			<.0001

[a] Wald log-linear chi-square test for differences in demographic characteristic by state, accounting for clinic-level clustering.
[b] NH/PI/NA/AN: Native Hawaiian, Pacific Islander, Native American, or Alaska Native.

Table 2
EFA factor loadings (standardized regression coefficients) for pregnancy coercion and condom manipulation

Partner pregnancy-promoting behavior	Recent (past 3 months)		
	Total (*n*=4674), % (*n*)	Factor 1: pregnancy coercion	Factor 2: condom manipulation
Told you not to use any birth control (like the pill, shot, ring, etc.)	3.9 (182)	0.28	0.09
Said he would leave you if you didn't get pregnant	0.5 (24)	0.68	0.02
Told you he would have a baby with someone else if you didn't get pregnant	0.5 (22)	0.65	−0.03
Taken your birth control (like pills) away from you or kept you from going to the clinic to get birth control	0.4 (18)	0.37	0.02
Made you have sex without a condom so you would get pregnant	0.8 (36)	0.40	0.17
Hurt you physically because you did not agree to get pregnant	0.2 (10)	0.24	0.11
Taken off the condom while you were having sex, so you would get pregnant	2.7 (126)	0.20	0.35
Put holes in the condom so you would get pregnant	0.4 (20)	0.05	0.68
Broken the condom on purpose while you were having sex so you would get pregnant	0.6 (30)	−0.03	0.88

TICs and SEMs for the full RCS and short-form RCS are shown in Table 4, estimated for women with pregnancy coercion and condom manipulation dimension levels of 1.0, 1.5 and 2.0 standard deviations above the mean. These indicate that Total Information is higher (and hence SEM is lower) for women with more severe levels of condom manipulation or pregnancy coercion. Estimated dimension levels for each potential item combination in the short-form RCS are shown in Table 5. These findings illustrate that estimated dimension levels are higher (e.g., RC severity levels increase) when women endorse more RC types, especially ones that are less prevalent. To assess validity, we compared the short-form RCS to the full RCS for proportion of women identified as having experienced any RC, percent overlap with unwanted pregnancies and IPV, and predictive ability of the model to identify unwanted pregnancy and IPV (Table 6). While 6.7% of the sample endorsed recent RC with the full RCS, the short-form RCS identified 6.3%. Overlap with unwanted pregnancies and recent IPV as well as odds of experiencing those outcomes given RC were similar across the full and short-form RCS.

Based on these results, the final short-form RCS includes the following items:

In the past 3 months, has someone you were dating or going out with:

Pregnancy coercion:
1. Told you not to use any birth control (like the pill, shot, ring, etc.)
2. Taken your birth control (like pills) away from you or kept you from going to the clinic to get birth control
3. Made you have sex without a condom so you would get pregnant

Condom manipulation:
4. Taken off the condom while you were having sex, so you would get pregnant
5. Put holes in the condom or broken the condom on purpose so you would get pregnant

4. Discussion

The current findings indicate that the RCS, when used to assess recent experiences of RC, consists of two underlying dimensions, pregnancy coercion and condom manipulation. Pregnancy coercion involves coercive behaviors to promote

Table 3
IRT discrimination and threshold parameters for the full RCS

Recent RC	Discrimination (standard error)	Threshold (standard error)	Included in final scale
Pregnancy coercion			
Told you not to use any birth control (like the pill, shot, ring, etc.)	1.908 (0.220)	4.633 (0.292)	**Yes**
Said he would leave you if you didn't get pregnant	3.775 (0.716)	10.797 (1.616)	No
Told you he would have a baby with someone else if you didn't get pregnant	3.641 (0.675)	10.618 (1.528)	No
Taken your birth control (like pills) away from you or kept you from going to the clinic to get birth control	3.301 (0.585)	10.116 (1.332)	**Yes**
Made you have sex without a condom so you would get pregnant	3.945 (0.625)	10.547 (1.365)	**Yes**
Hurt you physically because you did not agree to get pregnant	2.357 (0.514)	8.757 (1.083)	No
Condom manipulation			
Taken off the condom while you were having sex, so you would get pregnant	4.084 (1.135)	8.609 (1.987)	**Yes**
Put holes in the condom so you would get pregnant	4.036 (0.868)	10.802 (1.893)	**Yes, combined**
Broken the condom on purpose while you were having sex so you would get pregnant			

Item parameters for the two-dimensional IRT model were estimated using maximum likelihood estimation of two-parameter logistic regression models in MPlus Version 7.3. The marginal mean and variance of each latent variable were set at 0 and 1, respectively. The estimated covariance of the two latent variables is 0.830 (standard error=0.046). Threshold parameters describe the log-odds of a negative item response for a person with a mean trait level of 0. Hence, higher thresholds describe less frequently endorsed items. Discrimination parameters describe how the log-odds of a positive item response varies for a unit-change in the trait score.

a pregnancy while condom manipulation involves partners actively destroying condoms or interrupting condom use during sex to promote a pregnancy. These dimensions generally align with the previously hypothesized dimensions of RC, pregnancy coercion and birth control sabotage [3]. However, in these analyses, condom manipulation emerged as a dimension characterized by deliberate actions to destroy condoms specifically, with manipulation of hormonal contraceptives now part of the broader pregnancy coercion dimension.

One of our goals was to refine the RCS, given the need for parsimony in survey research. Generally, using the full nine-item scale will provide the most comprehensive assessment of RC. However, we found that a short-form of the scale performs well for researchers seeking to shorten their surveys. The version that achieved our goals of identifying women along the continuum of RC severity and having the best face validity given previous research on RC included three items for pregnancy coercion and two items for condom manipulation. "Told you not to use birth control" was the most commonly reported item in this study, a finding that is similar across most of the studies that have used the RCS [16–18]. Retaining this item allows us to

capture women who may be experiencing less severe forms of RC. We also retained "taking your birth control pills away…" and "made you have sex without a condom" in the pregnancy coercion dimension as moderately difficult items with acceptable discrimination, and reflects the stories that have emerged from previous qualitative research [11]. In the short-form RCS, condom manipulation was assessed with two items. "Putting holes in a condom" and "breaking a condom on purpose" to promote pregnancy were both similarly difficult items that had strong discrimination, indicating that if women report that they have experienced these behaviors, there is high likelihood they are experiencing RC. Because of their similar properties, these items were combined. The final item "taking the condom off during sex" is a less difficult item with acceptable discrimination of the latent construct and is another item that has been identified as salient in studies using the RCS [32].

In the current study, reliability was assessed via TICs and the SEMs determined by them. We found that women who experienced more severe RC, or endorsed more RC items, had higher estimated RC dimension levels. While the short-form RCS has the ability to identify women experiencing low levels of RC (e.g., women whose partners tell them not to use birth control), it is most sensitive among women who endorse multiple forms and especially among those who endorse less prevalent forms of RC. Therefore, clinicians incorporating RC assessment into their practice should ask about both pregnancy coercion ("could your partner be trying to get you pregnant?") and condom manipulation ("messing with or refusing to use condoms"). In our assessment of validity, RC remained strongly associated with unwanted pregnancy and IPV in the RCS short-form. Future studies may assess the validity of these items with other health outcomes, including mental health [18].

This study should be considered in light of several limitations. First, these data were collected among women

Table 4
Total information parameters and SEM for the RCS and short-form RCS, among women with dimension levels of 1.0, 1.5 and 2.0 standard deviations above the mean

	Total information (standard error)		
	SD=1.0	SD=1.5	SD=2.0
RCS			
Pregnancy coercion	1.28 (0.89)	1.85 (0.74)	4.08 (0.50)
Condom manipulation	1.20 (0.92)	2.33 (0.66)	5.91 (0.41)
Short-form RCS			
Pregnancy coercion	1.25 (0.90)	1.68 (0.77)	3.31 (0.55)
Condom manipulation	1.19 (0.92)	2.37 (0.65)	6.28 (0.40)

Table 5
Estimated dimension levels of all potential combinations of items in the short-form RCS

Pregnancy coercion		Condom manipulation			Pregnancy coercion (standard error)	Condom manipulation (standard error)
Item 1	Item 2	Item 3	Item 4	Item 5		
N	N	N	N	N	−0.10 (0.93)	−0.10 (0.93)
Y	N	N	N	N	1.24 (0.70)	0.92 (0.71)
N	N	N	Y	N	1.38 (0.58)	1.88 (0.46)
Y	N	N	Y	N	1.92 (0.47)	2.08 (0.40)
N	N	N	N	Y	1.33 (0.59)	1.811 (0.47)
Y	N	N	N	Y	1.89 (0.47)	2.03 (0.41)
N	N	N	Y	Y	1.76 (0.50)	2.53 (0.39)
Y	N	N	Y	Y	2.16 (0.41)	2.66 (0.39)
N	Y	N	N	N	1.77 (0.55)	1.27 (0.59)
Y	Y	N	N	N	2.23 (0.42)	1.53 (0.50)
N	Y	N	Y	N	2.18 (0.41)	2.17 (0.38)
Y	Y	N	Y	N	2.47 (0.36)	2.26 (0.37)
N	Y	N	N	Y	2.16 (0.41)	2.12 (0.39)
Y	Y	N	N	Y	2.46 (0.36)	2.22 (0.37)
N	Y	N	Y	Y	2.38 (0.37)	2.74 (0.40)
Y	Y	N	Y	Y	2.63 (0.35)	2.83 (0.41)
N	N	Y	N	N	2.09 (0.46)	1.45 (0.52)
Y	N	Y	N	N	2.42 (0.38)	1.63 (0.47)
N	N	Y	Y	N	2.37 (0.37)	2.23 (0.37)
Y	N	Y	Y	N	2.62 (0.34)	2.31 (0.37)
N	N	Y	N	Y	2.36 (0.37)	2.19 (0.38)
Y	N	Y	N	Y	2.61 (0.35)	2.27 (0.37)
N	N	Y	Y	Y	2.54 (0.35)	2.80 (0.40)
Y	N	Y	Y	Y	2.78 (0.35)	2.89 (0.42)
N	Y	Y	N	N	2.61 (0.35)	1.71 (0.44)
Y	Y	Y	N	N	2.85 (0.35)	1.81 (0.42)
N	Y	Y	Y	N	2.79 (0.34)	2.36 (0.37)
Y	Y	Y	Y	N	3.03 (0.37)	2.44 (0.37)
N	Y	Y	N	Y	2.78 (0.34)	2.32 (0.37)
Y	Y	Y	N	Y	3.02 (0.36)	2.40 (0.37)
N	Y	Y	Y	Y	2.96 (0.36)	2.96 (0.43)
Y	Y	Y	Y	Y	3.26 (0.42)	3.09 (0.47)

N=no, item not endorsed; Y=yes, item endorsed. Item 1: Told you not to use any birth control (like the pill, shot, ring, etc.); Item 2: Taken your birth control (like pills) away from you or kept you from going to the clinic to get birth control; Item 3: Made you have sex without a condom so you would get pregnant; Item 4: Taken off the condom while you were having sex, so you would get pregnant; Item 5: Put holes in the condom or broken the condom on purpose so you would get pregnant.

seeking care at family planning clinics in California and Pennsylvania, and thus are not generalizable to the general population. Also, because these data were pooled across

Table 6
Associations of the RCS and short-form RCS with IPV and unwanted pregnancy.

	Short-form RCS, % (n)	RCS, % (n)
Any RC	6.3 (294)	6.7 (312)
Percent overlap[a]		
Unwanted pregnancy	40.1 (118)	40.7 (127)
IPV	36.1 (106)	36.5 (114)
RC as a predictor for:	OR (95% CI)[b]	OR (95% CI)[b]
Unwanted pregnancy	1.46 (1.12–1.91)	1.58 (1.21–2.04)
IPV	4.05 (3.09–5.30)	4.21 (3.24–5.47)

OR, odds ratio; CI, confidence interval.
[a] Percents are of those experiencing RC in each model.
[b] Adjusted for age, race, and state.

two studies, we were only able to assess the psychometric properties of the RCS measuring *recent* RC (compared to lifetime RC, which was measured in California only). However, pooling data was a strength of the study, increasing the sample size to allow us to understand recent (and perhaps, current) RC experiences among women seeking family planning care. Finally, while our physical and sexual IPV measures were tested via cognitive interviewing prior to data collection in California, they are not exhaustive and do not capture all forms of IPV.

In conclusion, findings suggest that RC comprises coercion regarding contraceptive use and pregnancy decisions as well as active manipulation of condoms. Women experience RC across a continuum of severity. Given that half of all pregnancies in the United States are unintended and evidence that women with histories of IPV are more likely to report having an unintended pregnancy, attention is needed to the role of RC in women's reproductive lives. Providers should consider universal education about IPV/RC with all reproductive health visits, direct assessment for RC

by inquiring about partner attempts to promote pregnancy and condom manipulation by their partner, and discuss contraceptive options that are less prone to partner interference.

Acknowledgments

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