

# Abortion and the sexual lives of men and women: Is casual sexual behavior more appealing and more common after abortion?

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**ABSTRACT.** Previous research indicates that abortion increases risk for experiencing difficulties maintaining committed relationships, sexual dysfunction, and psychological problems. In the present descriptive study, associations between abortion and attitudes and behaviors associated with casual sexual activity were examined after controlling for family of origin, socio-demographic, reproductive history, and sexual history variables. The National Health and Social Life Survey (NHSLs), a multistage probability sample of 3,432 men and women between the ages of 18 and 59 was the data source. Among women, abortion was associated with more positive attitudes toward sex with strangers and with being forced to have sex; whereas the male experience of a partner abortion was correlated with attitudes endorsing sex with more than one partner and with strangers. Abortion among men and women predicted disagreement relative to restricting sexual activity to love relations, more sex partners in the last year, and endorsement for having sex with an acquaintance. Male experience of a partner abortion also increased the likelihood of having sex with a friend. Finally, abortion predicted engagement in various impersonal sexual behaviors over the previous 12 months among males and females. Strengths of the study include the large nationally representative data source and employment of a variety of control variables.

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**KEYWORDS.** Induced abortion. Intimate relationships. Casual sexual activity. Descriptive study.

**RESUMEN.** Estudios anteriores indican que el aborto incrementa el riesgo de tener dificultades en mantener relaciones comprometidas, disfunciones sexuales y problemas psicológicos. En el presente estudio descriptivo se estudia la asociación entre el aborto y las actitudes y comportamientos relacionados con la vida sexual ocasional controlando la familia de procedencia, variables sociodemográficas, historial reproductivo y sexual. Los datos fueron tomados de la Encuesta Nacional sobre Salud y Vida Social (*The National Health and Social Life Survey*, NHSLS) con una muestra transversal probabilística de 3.432 mujeres y hombres entre 18 y 59 años de edad. Entre las mujeres, el aborto se asociaba con actitudes positivas hacia el sexo con desconocidos y estar forzada para tener sexo, mientras que la experiencia de aborto en las parejas de los varones correlacionaba con actitudes de tener sexo con más de una persona y con desconocidos. Entre mujeres y hombres, el aborto predecía el desacuerdo relacionado con restringir la actividad sexual a relaciones amorosas, más parejas sexuales en el último año y tener sexo con conocidos. La experiencia de aborto en la pareja en los varones también incrementaba la probabilidad de tener sexo con amigas. Finalmente, el aborto predecía involucrarse en varios comportamientos sexuales impersonales a lo largo de los 12 meses anteriores entre las mujeres y los hombres. Los puntos fuertes del estudio son la gran fuente de datos representativos a nivel nacional y la gran variedad de variables controladas.

**PALABRAS CLAVE.** Aborto inducido. Relaciones íntimas. Actividad sexual casual. Estudio descriptivo.

The level of emotional intimacy associated with human sexuality varies significantly with many individuals engaging in casual sexual behavior that is devoid of any substantive emotional connection and occurs outside an enduring relationship. Casual sex is usually defined in terms of the absence of a commitment or an emotional relationship with a sexual partner or alternatively in terms of a short interval of time (often less than a day) between meeting someone and engaging in intercourse (Herold, Maticka-Tyndale, and Mewhinney, 1998). In recent years, social scientists have attempted to identify demographic and personal factors that discriminate between individuals who have an affinity for causal sex and those who are uninterested in physical contact without emotional intimacy. Interest in this area of scholarship has been largely motivated by awareness of the psychological, behavioral, and physical risks inherent in engagement in casual sex, the most obvious being transmission of STDs (Sexually Transmitted Diseases) (Cooper, Shapiro, and Powers, 1998; Feeney, Noller, and Patty, 1993; Leigh, Aramburu, and Norris, 1992; Lottes, 1993; Norris, Phillips, Station, and Pearson, 2005; Winslow, Franzini, and Hwang, 1992).

#### *Predictors of engagement in impersonal/casual sexual activity*

In a large scale cross-cultural survey of over 16,000 people in 10 world regions, Schmitt (2003) found that when compared to women, men prefer more variety in sexual

partners, require less time to elapse before engaging in intercourse, and they tend to more actively seek short-term sexual relationships. Other studies have revealed that men tend to be more interested in casual sex than women (Oliver and Hyde, 1993) and they report significantly higher numbers of lifetime sexual partners than women (an average of 12.3 vs. 3.3 in a United States national sample, Smith, 1991). Compared to men, women who engage in casual sex have been found to enjoy it less and to feel more guilt associated with it (Herold and Mewhinney, 1993).

The research devoted to understanding predictors of casual sex other than gender has been somewhat limited. There is evidence indicating individuals who engage in uncommitted sex compared to those who do not are more likely to have experienced parental divorce during childhood (Barber, 1998). Low self-esteem and high fear of intimacy were found by researchers Paul, McManus, and Hayes (2000) to be associated with a higher likelihood of engaging in hookups or brief sexual encounters between strangers or acquaintances in an adolescent sample.

Similarly, in a multinational meta-analysis, Vargas-Trujillo, Gambaro, and Botella (2006) found that adolescents who engaged in high-risk sexual activity tended to have lower self-esteem. In addition, avoidant attachment style, characterized by the tendency to minimize closeness in personal relationships, has consistently predicted a preference for and tendency to engage in more frequent casual sexual behavior and a decreased likelihood of engaging in sexual behavior as a means of expressing love for one's partner (Cooper, Shaver, and Collins, 1998; Gentzler and Kerns, 2004; Paul *et al.*, 2000; Tracy, Shaver, Albino, and Cooper, 2003).

Reproductive history has been overlooked in the literature as a possible correlate of casual sexual activity, yet common sense would suggest that women who choose birth are more inclined to be in committed relationships and are less free to engage in casual sexual behavior due to the responsibilities inherent in parenting. Conversely, abortion history is likely for many reasons to be associated with heightened interest in casual sexual behavior. It is reasonable to assume that more permissive sexuality may lead to increased need for abortion and women who choose abortion may do so in order to maintain a freer sexual life. There is also empirical evidence (reviewed briefly below) indirectly suggesting that an abortion experience may precipitate engagement in casual sexual activity. The purpose of this study was to explore associations between abortion history in women and in men who have experienced a partner's abortion and the endorsed appeal of various impersonal sexual behaviors as well as involvement in impersonal sexual activity following termination of pregnancy.

#### *Abortion as a predictor of relationship problems and casual sexual activity*

Partner communication problems following abortion have been identified (Bagarozzi, 1994; Freeman, Rickels, and Huggins, 1980; Speckhard and Rue, 1994), and an increased risk for separation or divorce following an abortion is well documented (Barnett, Freudenberg, and Wille, 1992; Bracken and Kasi, 1975; Lauzon, Roger-Achim, Achim, and Boyer, 2000; Rue, Coleman, Rue, and Reardon, 2004). Women with an abortion history are also at an increased risk for sexual dysfunction (Bianchi-Demicelli *et al.*, 2002; Boesen, Rorbye, Norgaard, and Nilas, 2004; Fok, Nelson Siu, and Lau, 2006;

Miller, 1992; Rue *et al.*, 2004; Tornbom and Moller, 1999). A recently published study revealed that 6.2% of the Russian women and 24% of the American women sampled experienced sexual problems that they attributed to a previous abortion (Rue *et al.*, 2004). More than 30% of women in a Swiss longitudinal study reported a minimum of one sexual problem 6 months after an abortion (Bianchi-Demicelli *et al.*, 2002).

Fok and colleagues' work (2006) revealed that 33.7% of women reported a post-abortion decrease in sexual desire and 26.9% indicated decreased enjoyment in sexual activity following abortion. The frequency of a variety of sexual behaviors decreased as well, including vaginal intercourse (30.8% reduction), fantasy (18.2%), and kissing (21.2%) among others. The authors noted that fear of pregnancy was probably not the sole reason for the less frequent activity given that various behaviors would not lead to impregnation. They specifically indicated that some couples viewed the joy of sexual activity as the origin of "their need to destroy a new life" (p. 258); while a significant proportion also "felt less attractive after abortion" (p. 258). These responses were viewed by the researchers as evidence that the abortion triggered psychological trauma which interfered with healthy sexual functioning.

In a review article, Bradshaw and Slade (2003) concluded that 10-20% of women experience sexual problems in the early weeks and months after an abortion while 5-20% of women report sexual difficulties a year later. Male responses to a partner's abortion are understudied; however, post-abortion sexual problems in the early weeks post-abortion were indicated by 18% of men who were psychologically impacted by a partner's abortion (Lauzon *et al.*, 2000).

Partner conflict may enter into abortion decision-making when there are differences in opinion regarding how the pregnancy should be resolved and/or if relationship-based information, such as commitment, interest in having children, life-style factors, and long-term goals are addressed. Further, post-abortion psychological effects on one or both parties (reviewed below) may conceivably add to earlier conflicts and/or new relationship problems could emerge following the procedure. If individuals with an abortion experience begin to have difficulty in the context of committed relationships after an abortion, they may logically become more inclined to gravitate toward achieving sexual satisfaction outside the bounds of a committed, intimate relationship.

Abortion history has been found to increase risk for negative emotions including anger, self-reproach/guilt, grief, depression, anxiety, and suicidal ideation in women and in men who have been through a partner's abortion (Coleman and Nelson, 1998; Cogle, Reardon, and Coleman, 2003, 2005; Coyle and Enright, 1997; Fergusson, Horwood, and Ridder, 2006; Holmes, 2004; Rue *et al.*, 2004; Shostak, McLouth, and Seng, 1984) and is associated with an increased risk for substance abuse (for a review see, Coleman, 2005). Adverse psychological and behavioral effects of abortion may elevate the risk for withdrawn, antagonistic, or aggressive partner-directed behavior and increase risk for involvement in less emotionally taxing, uncommitted relationships. Depression (Cogle *et al.*, 2003; Reardon and Cogle, 2002; Soderberg, Janzon, and Slosberg, 1998) and guilt (Kero, Hoegberg, Jacobsson, and Lalos, 2001; Rue *et al.*, 2004) are among the most commonly observed psychological effects of abortion and these responses may involve feelings of self-reproach and not deserving the enduring

affection of another (Coleman, 2005; Coleman, Reardon, Strahan, and Cogle, 2005), thereby increasing the probability of engagement in impersonal sexual activity. Finally, if an abortion is regretted and precipitates significant guilt reactions, individuals may simply come to associate sex with the abortion and experience discomfort with sexual activity.

Previous research suggests that abortion history increases the likelihood of difficulties maintaining committed relationships, sexual dysfunction, and psychological problems which may include substance abuse. However, no existing studies have explored associations between abortion and attitudes toward casual sexual activity or the tendency to engage in impersonal sexual behavior. Based on the literature reviewed above, the two hypotheses detailed below were generated and tested. Although insufficient previous research related to men and abortion precluded specification of hypotheses involving the men sampled, the associations described in the hypotheses pertaining to the female data were also explored with the male data.

Compared to women who have never aborted, women who have aborted were hypothesized to report a greater willingness to engage in sexual behavior without love and were expected to report higher levels of endorsement relative to the appeal of distinct forms of impersonal sexual activity (sex with more than one partner, forcing another or being forced to have sex, watching others have sex, and sex with a stranger) after controlling for a variety of demographic, personal, and situational variables found to be associated with the decision to abort. Compared to women without a history of abortion, women with an abortion history were hypothesized to report more frequent sexual partners, more frequent sex with acquaintances and friends, and more frequent engagement in impersonal sexual behaviors (group sexual activity, sex during a casual encounter, forced sexual activity, payment for sexual activity, and purchasing or renting an x-rated video) in the last 12 months after controlling for a variety of demographic, personal, and situational variables found to be associated with the decision to abort.

## Method

### *Participants*

The analyses presented in this report are based on respondent data from the National Health and Social Life Survey (NHSLs), a multistage probability sample of 3,432 non-institutionalized United States men and women between the ages of 18 and 59 (Laumann, Gagnon, Michael, and Michaels, 1994). The purpose of this study was to gather basic information on adult sexual behavior and related social, attitudinal, and health-related characteristics of adults in response to the relative scarcity of data on adult sexual practices. More generally, the investigators sought to identify the full range of sexual behaviors and to identify patterns that may be associated with particular types of partnerships or attitudes. The NHSLs is widely recognized as the best large data set on American sexuality (Baumeister, Cantanese, and Wallace, 2002).

The data were collected at the National Opinion Center of the University of Chicago in 1992 with a response rate of 78.6%. For the full sample, 43% were female and 57% were male. The majority of the respondents were white (71.4%), with 16% black, 9.4%

Hispanic, 1.9% Asian/Pacific Islanders, and 1.2% Native Americans. With regard to education, 14.5% had not graduated from high school, 63% were high school graduates, 15.5% were college graduates, and 6.9% reported an advanced degree.

### *Procedure*

The respondents provided socio-demographic, health, and sexual (attitudes and behavior) information in face-to-face interviews that were supplemented by brief written questionnaires for particularly sensitive topics. The survey was administered in a face-to-face interview format in the respondents' homes. Approximately 220 interviewers who participated in an intensive, three-day training session collected the data. Questions on the survey addressed a wide range of specific topics: demographics, economic and social background including histories of all marriages, cohabitational intervals, and conceptions, and their respective outcomes. Information pertaining to sexual behavior over the past year was gathered followed by detailed questions relevant to the respondents' most recent sexual behavior, and then the survey addressed lifetime sexual history. Finally, information was gathered about childhood and adolescent sexual experiences, sexual victimization, sexual health, sexual dysfunctions, and sexual attitudes. Cases wherein abortion history data were available were included in the analyses (1091 females and 872 males). The type of the study is descriptive (Montero and León, 2007) edited according to the norms by Ramos-Álvarez, Valdés-Conroy, and Catena (2006).

### *Measures*

#### Independent variable

- The independent variable for all analyses dealt with abortion history: one or more abortion(s) *vs.* none among the female respondents and a history of having had at least one partner who aborted *vs.* not having experienced a partner abortion among males. Among the males sampled 105 (12%) experienced a partner abortion and 767 (88%) did not; whereas among the females, 214 (19.6%) had an abortion and 877 (80.4%) did not.

#### Attitudinal dependent variables

- Five items related to endorsed appeal of impersonal sexual behaviors were employed (sex with more than one partner, forcing another to have sex, being forced to have sex, watching others have sex, sex with strangers.) Range of scores on the individual items was from 1 (*very appealing*) to 4 (*not at all appealing*).
- Expressed willingness to have sex with someone only if in love was measured with one Likert-type item, with a score of 1 (*strong agreement*) and a score of 4 (*strong disagreement*).

#### Behavioral dependent variables

- Number of sex partners in the last year.
- Sexual behavior with a friend and sexual behavior with an acquaintance over the past 12 months were each assessed with a single dichotomously scored *yes/no* item.
- Impersonal sexual behaviors that occurred at least once in the last 12 months

(group sexual activity, sex during a casual encounter, forced sexual activity, payment for sexual activity, and purchasing or renting an x-rated video) were all assessed dichotomously (*yes or no*).

#### Control variables

The following variables were explored as predictors of an abortion history in female respondents and as predictors of partner abortion history among male respondents: a) family of origin variables including number of siblings, respondent living with mother and father at age 14, age first left home; b) socio-demographic variables including age, race, United States native, household income, frequency of religious service attendance, marital status, cohabitation status, and education; c) reproductive history variables including number of births and experience of a miscarriage or stillbirth; and d) sexual history variables including childhood sexual abuse involving kissing, touching of genitals, oral sex, vaginal sex, or anal sex, age of first vaginal sex, number of partners prior to age 18, and number of forced sexual encounters before age 18.

Variables identified as significant predictors of female respondent abortions included older age, fewer births, history of miscarriage, not having lived with both parents at age 14, less frequent religious attendance, and earlier age at first intercourse. Variables found to predict male partners' abortions included a partner having had a miscarriage, being unmarried, more education, and having left home at a young age. Significant predictors of the choice to abort were used as controls in the primary analyses.

## Results

### *Hypothesis 1 results: Attitudes regarding impersonal sexual activity*

#### *Appeal of specific impersonal sexual activities*

A multivariate analysis of variance (MANOVA) was conducted with abortion history as the independent variable and five items related to endorsed appeal of impersonal sexual behaviors or behaviors unlikely to be associated with feelings of love as the dependent variables (sex with more than one partner, forcing another to have sex, being forced to have sex, watching others have sex, sex with strangers). The multivariate effect using Hotellings Trace as the omnibus  $F$  was significant with the female data when all history and socio-demographic variables found to significantly predict the choice to abort were controlled ( $F_{(5, 1055)} = 4.94, p < .0001$ ) and without the control variables implemented ( $F_{(5, 1076)} = 7.29, p < .0001$ ). As indicated in Table 1, two of the univariate  $F$ -tests were significant when controls were included, appeal of being forced to have sex and appeal of sex with strangers. When the male data were examined, the multivariate effect was again significant with controls applied ( $F_{(5, 849)} = 4.88, p < .0001$ ) and without controls ( $F_{(5, 860)} = 4.61, p < .0001$ ). Two of the univariate tests using male data were significant with the control variables included, appeal of sex with more than one partner and appeal of sex with strangers (see Table 1). In each case of significant univariate effects with both the male and female data, individuals with abortion experience rated the behaviors as more appealing compared to individuals

without a history of abortion. Based on these results, partial support for the first hypothesis was obtained.

**TABLE 1.** MANOVA univariate results comparing abortion and no abortion groups relative to reported appeal of impersonal sexual behaviors.

<i>Variable</i>	<i>Univariate F</i>	<i>Adjusted Mean (SE) for significant effects</i>
<b>Female</b>		
Sex with more than one partner	$F_{(1, 1059)} = 2.66, p = .103^1$ $F_{(1, 1080)} = 8.22, p = .004$	
Forcing another to have sex	$F_{(1, 1059)} = 2.33, p = .127^1$ $F_{(1, 1080)} = 3.84, p = .050$	
Being forced to have sex	$F_{(1, 1059)} = 8.90, p = .003^1$ $F_{(1, 1080)} = 16.17, p < .0001$	Abortion: 3.84 (.03) No abortion: 3.92 (.01)
Watching others have sex	$F_{(1, 1059)} = 2.19, p = .139^1$ $F_{(1, 1080)} = 6.85, p = .009$	
Sex with stranger	$F_{(1, 1059)} = 21.77, p < .0001^1$ $F_{(1, 1080)} = 30.19, p < .001$	Abortion: 3.53 (.05) No abortion: 3.77 (.02)
<b>Male</b>		
Sex with more than one partner	$F_{(1, 853)} = 17.12, p < .0001^2$ $F_{(1, 864)} = 15.96, p < .0001$	Abortion: 2.37 (.11) No abortion: 2.84 (.04)
Forcing another to have sex	$F_{(1, 853)} = .66, p = .657^2$ $F_{(1, 864)} = .86, p = .863$	
Being forced to have sex	$F_{(1, 853)} = 2.78, p = .096^2$ $F_{(1, 864)} = 2.02, p = .156$	
Watching others have sex	$F_{(1, 853)} = 2.72, p = .100^2$ $F_{(1, 864)} = 4.60, p = .032$	
Sex with stranger	$F_{(1, 853)} = 5.87, p = .016^2$ $F_{(1, 864)} = 6.49, p = .011$	Abortion: 2.88 (.09) No abortion: 3.12 (.03)

*Notes.* Range of scores is from 1 (very appealing) to 4 (not at all appealing).

<sup>1</sup> Controls for age at first vaginal intercourse, having lived with both parents at age 14, number of live births, having had a miscarriage, frequency of religious attendance, age.

<sup>2</sup> Controls for age left home, educational level attained, partner miscarriage, marital status.

### *Engagement in sex without love*

Female and male respondents were asked to indicate their level of agreement with a statement related to willingness to have sex with someone only if in love. Two analyses of covariance (ANCOVAs) were conducted to see if there were differences in male and female responses based on abortion history after controlling for variables discriminating between ever having and not having an abortion. Using the male data, a significant effect was observed ( $F_{(1, 849)} = 16.34, p < .0001$ ) for those with a partner abortion in their past indicating higher levels of disagreement with the statement ( $M = 2.64, SD = .87$ ) compared to men who did not report a partner abortion ( $M = 2.29, SD = .88$ ). A similar trend was observed with the female data, as women with an abortion history reported less agreement ( $M = 2.08, SD = .06$ ) than women without a history ( $M = 1.80, SD = .03$ ),  $F_{(1, 1059)} = 18.88, p < .0001$ . The score range was from 1 to 4, with higher scores indicative of greater disagreement.



*Hypothesis 2 results: Engagement in casual sexual activity**Number of sex partners in past year*

Two analyses of covariance (ANCOVAs) were conducted to examine possible differences in the number of sexual partners in the past year based on abortion history, with controls for variables identified as significant predictors of the choice to abort. Significant differences were observed using the female data ( $F_{(1, 1068)} = 6.30, p = .012$ ) and the male data ( $F_{(1, 858)} = 27.70, p < .001$ ). Females with an abortion history reported an average of 1.30 ( $SD = 1.01$ ) sexual partners; whereas women without an abortion history reported an average of 1.02 partners ( $SD = .80$ ). Similarly, men with a history of a partner abortion reported an average of 2.01 ( $SD = 1.56$ ) sexual partners; whereas men without an abortion history reported an average of 1.02 ( $SD = .80$ ) sexual partners.

*Sexual behavior with a friend and an acquaintance*

Logistic regression analyses were conducted to compare males and females with and without abortion experience relative to reported sexual behavior with a friend or acquaintance in the past 12 months. The results are presented in Table 2 below. Female respondents with an abortion history when compared to those without a history were found to be 209% more likely to engage in sex with an acquaintance after the control variables were applied. Although not significant with control variables included in the equation, without the use of controls, female respondents were identified to be 84% more likely to engage in sex with friends when compared to those without a past abortion. Males who reported a partner abortion when compared to males who did not were found to be 102% more likely to have had sex with an acquaintance and 93% more likely to have had sex with a friend after the controls were included in the analyses.

**TABLE 2.** Logistic regression results comparing abortion and no abortion groups relative to engagement in sexual behavior with a friend and an acquaintance.

<i>Dependent variable</i>	<i>OR</i> <i>No abortion group as</i> <i>reference group</i>	<i>95% CI</i> <i>for significant effects</i>
<b>Female</b>		
Sex with a friend	1.36, $p = .301^1$	
	1.84, $p = .023$	1.09 - 3.10
Sex with an acquaintance	3.09, $p = .003^1$	1.46 - 6.54 <sup>1</sup>
	3.85, $p < .0001$	1.93 - 7.70
<b>Male</b>		
Sex with a friend	2.35, $p = .004^2$	1.31 - 4.22 <sup>2</sup>
	1.93, $p = .021$	1.12 - 3.40
Sex with an acquaintance	2.25, $p = .043^2$	1.02 - 4.96 <sup>2</sup>
	2.02, $p = .071$	

<sup>1</sup> Controls for age at first vaginal intercourse, having lived with both parents at age 14, number of live births, having had a miscarriage, frequency of religious attendance, age.

<sup>2</sup> Controls for age left home, educational level attained, partner miscarriage, marital status.

*Impersonal sexual behavior*

A series of logistic regression analyses comparing male and female respondents with and without abortion experience were conducted using impersonal sexual behaviors that occurred at least once in the last 12 months as the dependent variables (group sexual activity, sex during a casual encounter, forced sexual activity, payment for sexual activity, and purchasing or renting an x-rated video). The results of these analyses are provided in Table 3. As indicated by the data presented, when controls were implemented, female respondents with an abortion history when compared to females without a history were 102% more likely to have engaged a casual sexual encounter, 249% more likely to have forced sex on another person, and the risk of having been forced to have sex was 83% higher. In addition, when controls were not included, the abortion group was found to have a 183% increased likelihood of engagement in group sex. Male respondents who had a partner who had obtained an abortion, when compared to males who did not indicate a partner abortion, were 120% more likely to engage in group sex, 149% more likely to report a casual sexual encounter, 107% more likely to have paid for or been paid to have sex, and 108% more likely to have reported purchasing or renting an x-rated video when controls were included. Without controls present in the analysis, men in the partner abortion group when compared to men in the no partner abortion group were 187% more likely to have forced another person to have sex.

**TABLE 3.** Logistic regression results comparing abortion and no abortion groups relative to engagement in impersonal sexual behavior.

<i>Dependent variable</i>	<i>OR</i> <i>No abortion group as</i> <i>reference group</i>	<i>95% CI for significant effects</i>
<b>Female</b>		
Engagement in group sex	2, $p = .07^1$ 2.82, $p = .003$	1.41 - 5.64
Sex during a casual encounter	2.02, $p = .041^1$ 1.72, $p = .094$	1.03 - 3.98 <sup>1</sup>
Having forced another to have sex	3.49, $p = .027^1$ 2.48, $p = .081$	1.15 - 10.64 <sup>1</sup>
Having been forced to have sex	1.83, $p = .002^1$ 1.82, $p = .001$	1.26 - 2.67 <sup>1</sup> 1.28 - 2.59
Having paid for having been paid for sex	.98, $p = .977^1$ 1.49, $p = .49$	
Ever having purchased or rented an x-rated video	1.06, $p = .800^1$ 1.45, $p = .108$	
<b>Male</b>		
Engagement in group sex	2.20, $p = .004^2$ 2.08, $p = .005$	1.28 - 3.77 <sup>2</sup> 1.24 - 3.49
Sex during a casual encounter	2.49, $p = .045^2$ 3.60, $p = .002$	1.02 - 6.09 <sup>2</sup> 1.59 - 8.16
Having forced another to have sex	2.39, $p = .117^2$ 2.87, $p = .049$	1 - 8.26

**TABLE 3.** Logistic regression results comparing abortion and no abortion groups relative to engagement in impersonal sexual behavior. (*Cont.*)

Having been forced to have sex	No affirmative responses	
Having paid for or having been paid for sex	2.07, $p = .006^2$	1.24 - 3.48 <sup>2</sup>
Ever having purchased or rented an x-rated video	2.35, $p = .001$	1.44 - 3.85
	2.08, $p = .001^2$	1.34 - 3.26 <sup>2</sup>
	1.98, $p = .002$	1.29 - 3.06

<sup>1</sup> Controls for age at first vaginal intercourse, having lived with both parents at age 14, number of live births, having had a miscarriage, frequency of religious attendance, age.

<sup>2</sup> Controls for age left home, educational level attained, partner miscarriage, marital status.

### Discussion

This study was conducted to compare men and women with and without abortion experience relative to endorsement of positive attitudes associated with casual sexual activity and more frequent engagement in casual sexual behaviors. Controls were instituted for family of origin, socio-demographic, reproductive history, and sexual history variables predictive of the choice to abort. Using the female data, abortion was associated with more positive attitudes toward sex with strangers and with being forced to have sex. With the male data, a partner abortion was significantly associated with attitudes endorsing sex with more than one partner and with strangers. Both men and women with an abortion experience reported higher levels of disagreement with a statement reflecting willingness to have sex only if in love, reported more sex partners in the last year, and were significantly more likely to have sex with an acquaintance. Males who experienced a partner abortion were also more inclined to have sex with a friend compared to males who never experienced a partner abortion. Finally, an abortion history was associated with a significantly higher likelihood of engagement in a variety of specific impersonal sexual behaviors in the previous 12 months, including sex during a casual encounter, having forced another to have sex, and having been forced by another to have sex among the women sampled. Engagement in group sex, sex during a casual encounter, having paid for or having been paid for sex, and having purchased or rented an X-rated video were the behaviors associated with a partner abortion among the males.

Interestingly, the pattern of effects was quite similar for men and women despite the evidence reviewed at the beginning of this article indicating that men tend to report more frequent casual sex and more enjoyment associated with it (Herold and Mewhinney, 1993; Oliver and Hyde, 1993). Then again, the evidence linking abortion to compromised mental health does tend to be consistent between the sexes (Coleman and Nelson, 1998; Coyle and Enright, 1997; Holmes, 2004; Shostak *et al.*, 1984). The possibility of additional

research identifying differential gender effects of abortion on sexuality remains high, since men's and women's roles are distinct in the decision-making process. Men may feel powerless when faced with a woman's firm decision to abort or alternatively they may have coerced their partners directly or indirectly to abort by refusing to become involved in parenting. In fact the available data do indicate that male responses to a partner's abortion may include feelings of voicelessness/powerlessness, repressed emotions, and anger among other negative reactions (Coyle and Enright, 1997; Gordon and Kilpatrick, 1977; Holmes, 2004; Kero *et al.*, 2001; Poggenpoel and Myburgh, 2002; Rothstein, 1991; Shostak *et al.*, 1984). Herold and Mewhinney, 1993.

This is the first study to explore associations between abortion and subsequent casual sexual attitudes and behavior and as a result it was largely exploratory. Although sexual history variables predictive of the choice to abort were controlled and abortion history preceded the assessment of casual sexual attitudes and behavior, suggestive of a causal connection, explicit determination of the directionality of effects is precluded by the correlational nature of the study. Future research aimed at identifying precise mechanisms linking abortion experience to casual sexual attitudes and behavior is needed to more substantively address causality. For example, is the association based on feelings of decreased self-esteem, fear of intimacy, feelings of not deserving to be loved/value, self-destructive tendencies, excessive need to affirm one's attractiveness, and/or a desire to escape from feelings of depression and/or anxiety, etc.?

An important limitation of this study and most studies relying on self-reports of abortion is that abortion history is often denied. In the United States, the abortion concealment rate may be as high as 60% (Jones and Forrest, 1992). Moreover, women who conceal their abortion experience, compared to those who do not, are more likely to suppress thoughts of the abortion, experience more intrusive abortion-related thoughts, and feel greater psychological distress (Major and Gramzow, 1999). Therefore, with accurate abortion histories, the percentages of respondents reporting engagement in casual sexual activity that is a response to abortion-related distress may have been even higher. Strengths of the study included the large sample size, use of nationally representative data, and employment of a variety of control variables.

There are now many published studies revealing associations between abortion and sexual dysfunction (Bianchi-Demicelli *et al.*, 2002; Boesen *et al.*, 2004; Fok *et al.*, 2006; Miller, 1992; Rue *et al.*, 2004; Tornbom and Moller, 1999) and although engagement in casual sex is not necessarily evidence of dysfunction, it is associated with heightened psychological risk (Cooper *et al.*, 1998; Cubbins and Tanfer, 2000; Ethier *et al.*, 2006; Oman, Vesely, Aspy, McLeroy, and Luby, 2004) and it may in some cases be a product of abortion-related trauma. If an abortion was experienced as traumatic and the pregnancy occurred as a result of a casual sexual experience, multiple outcomes are possible. Various adverse health risk behaviors may include the following: a) compulsive re-enactment of the sexual experience to gain some mastery over the abortion trauma; b) impersonal sex as punishment for the abortion; and/or c) attempts to undo the abortion by becoming pregnant again from random or casual sexual encounters (Angelo, 2004; Burke and Reardon, 2002; Speckhard and Rue, 1992, 1993). Continued research wherein men and women's feelings surrounding an abortion are examined along with assessments

of their general psychological health and their sexual behavior is needed to draw more definitive conclusions. Ideally future data collection efforts will include qualitative research in which men and women and their partners are interviewed and followed for several years after the experience in order to gain deeper, more substantive information regarding the attitudes, feelings, relationship dynamics, and sexual behavior of those who have experienced abortion.

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