

# **What's Love Got to Do with It? Sexual Behaviors of Opposite-Sex Couples through Emerging Adulthood**

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## **Introduction**

Emerging adulthood is a period beyond adolescence when adult roles and relationships are being established. It is a time of great transitions, as many individuals engage in long-term sexual and romantic relationships, cohabitation, or marriage for the first time. Despite the importance of these relationships, it can be difficult to obtain representative information regarding the sexual activities engaged in by young adults and their current romantic partners. Public health research and interventions have often focused exclusively on vaginal sex or on men who have sex with men. However, opposite-sex sexuality also encompasses a broad range of activities that have consequences for the quality of the relationship in which they occur as well as the sexual and reproductive health of the individuals.

## *Sexual Activities of Young Adults*

Detailed recent data on sexual activities from nationally representative samples of young adults are rare, particularly information on non-vaginal sex. One notable exception is the National Health and Social Life Survey (NHSLS), which obtained comprehensive information in 1992 on the sexual activities of 18 to 59 year olds (Laumann, Gagnon, Michael, & Michaels, 1994). Age and marital status were found to be associated with frequency of sexual intercourse in the entire sample (ages 18-59), but racial, ethnic, religious, and educational groups only displayed minor variations. Although only about 15% of the sample was made up of young adults (ages 18-24), some conclusions can be drawn about this age group. Over 85% of the young adults in the study had engaged in vaginal sex in the past year. Among young adult women, 69% had ever experienced fellatio and 75% had ever experienced cunnilingus. Among young adult men, 74% had ever experienced fellatio and 72% had ever experienced cunnilingus. However, oral sex was not a common characteristic of each sexual event for male-female partnerships in the same way as vaginal intercourse (only 20% to 30% included oral sex in their most recent sex event). In contrast to oral sex, having experienced anal sex was less common (about 16% of young males and females reported ever having had anal sex) and was much less likely to have been part of the most recent sexual event (less than 2%). This finding is consistent with a 1991 study of Midwestern undergraduates that found that 17% of sexually experienced heterosexual males and 18% of females reported ever having had anal intercourse (Reinisch, Hill, Sanders, & Ziemba-Davis, 1995).

## *Romantic Love and Sexuality*

The relationship of love to sexual activity is complex. Functional MRI studies of people experiencing feelings of romantic love versus those experiencing sexual arousal show very different brain activation patterns, indicating that romantic love is distinct from basic sexual arousal and drive (Arnow *et al.*, 2002; Aron *et al.*, 2005; Redoute *et al.*, 2000). However, sexuality is clearly an important component of romantic relationships, as indicated by well-documented associations of sexual activity and satisfaction with relationship quality, stability, and love among married and dating men and women (Christopher & Sprecher, 2000; Feilmee, Sprecher, & Bassin, 1990; Regan, 2000; Sprecher, 2002). Sexual intimacy is often described as a way to express feelings of love, particularly among women (Martson, Hecht, Manke, McDaniel, & Reeder, 1998; Robinson, Balwell, & Ward, 1980; Roche & Ramsbey, 1993). In addition, people who are passionately in love report higher levels of sexual activity and excitement when thinking of their partners (Aron & Henkemeyer, 1995; Sprecher & Regan, 1998).

Romantic or passionate love is associated with a range of emotional responses, including euphoria, focused attention, and feelings of dependence (Aron *et al.*, 2005; Jankowiak & Fischer, 1992). While people sometimes feel the negative emotion of jealousy with passionate love, most men and women associate love with positive emotions and experiences (e.g., happiness, closeness, tenderness) to a greater degree than negative ones (Regan, Kocan, & Whitlock, 1998; Sprecher & Regan, 1998). Functional MRI studies have demonstrated that viewing pictures of a partner one is “in love” with (versus a picture of a familiar individual) activates brain areas associated with mammalian reward and motivation (Aron *et al.*, 2005; Bartels & Zeki, 2000). This

supports the view of romantic love not as an emotion itself but as a goal-oriented state that leads to various specific emotions related to the imperative to be with the beloved and preserve the relationship (Aron *et al.*, 2005). Sexual activity may play a role in efforts to establish and maintain such relationships.

### *Health and Sexuality*

In addition to having implications for the quality of a relationship, sexual activity and dynamics have important reproductive and sexual health consequences for the individual. Sexually transmitted infections (STIs) are common during young adulthood and can have significant adverse consequences for reproductive health, including pelvic inflammatory disease, infertility, ectopic pregnancy, preterm birth, and fetal abnormalities (Land & Evers, 2002; Laumann *et al.*, 1994; Moodley & Sturm, 2000). Although most prevention interventions focus on more casual sexual activity or new sexual partners, sexual behavior in longer-term loving relationships still carries risk of infections, including viral infections with long durations or new infections from concurrent partners. This is particularly salient for young adults, considering the high incidence and prevalence rates for many STIs for this age group (Laumann *et al.*, 1994; Miller *et al.*, 2004). We need to better understand sexual behavior in young adult relationships to guide service provision and clinical advice as well as education policy.

### **Research Aims and Hypotheses**

Establishing romantic relationships and engaging in sexual activity is an important component of emerging adulthood for many individuals and is connected to issues of health, love, and wellbeing. Health professionals, educators, and counselors should have a thorough knowledge of what types of behaviors arise in young adult sexual

relationships so they can provide relevant services and information. In this study, I explored participation in vaginal, oral, and anal sex by young women and men currently in heterosexual relationships. I also examined the role of love between partners in predicting these experiences, controlling for relationship type and respondent's sex, race and ethnicity, current age, and age at first sex. I tested the hypothesis that reports by respondents of higher levels of love for their partners, as well as reports that they think their partners feel higher levels of love toward them, will predict participation in a greater variety of types of sexual activities. In addition, I tested the hypothesis that the effect of love on the content of the current sexual relationship is modified by the respondent's sex (male or female).

## **Research Methods**

### *Study Sample*

I used data from Wave III of the National Longitudinal Study of Adolescent Health (Add Health). In Wave I of Add Health, professional interviewers conducted face-to-face, in-home, computer-assisted interviews with over 20,000 adolescent students enrolled in grades 7 to 12 in 1994-1995. These respondents included a core of about 12,000 adolescents who comprised a nationally representative sample and also several supplementary samples from groups that may normally be under represented in samples, such as disabled children, Black children of highly educated parents, and children with Chinese, Cuban and Puerto Rican ethnic backgrounds. In Wave III, 15,197 of the original Wave I respondents were re-interviewed from August 2001 through April 2002. The interviews included questions on the status of the respondent's

romantic relationships and of their sexual experiences and behaviors. Add Health respondents ranged in age from 18 to 26 years old at Wave III.

In Wave III, respondents were asked to list any romantic relationships and sexual relationships they had at any time since the summer of 1995, including relationships that began more than six years ago if they continued at least until June 1995. For each listed relationship, respondents were asked if they had sexual relations with that partner, defined as “vaginal intercourse (a man inserts his penis into a woman’s vagina), oral sex (a person puts his or her mouth on another person’s sex organs), or anal sex (a man inserts his penis into his partner’s anus or asshole).” Respondents were then asked to indicate which of these partners they had sex with most recently. Of the 14,322 respondents who were assigned weights by Add Health in Wave III, 11,087 (78% weighted) reported having a most recent sexual partner since 1995. Of these respondents, 7,468 were still in a relationship with their most recent sex partner (52% weighted of all Add Health respondents with weights).

Of the current sexual relationships reported, 126 were same-sex relationships (less than 1% weighted of the total sample). Unfortunately, the number of same-sex relationships was too small for meaningful analyses and they were dropped from this study. Although the definition given in Add Health for sexual relations as vaginal intercourse, oral sex, or anal sex is fairly broad, there are many activities such as mutual masturbation that were not included and so the wording of the question may have excluded some same-sex relationships from being counted as current sexual relationships.

To be sure that the relationship examined had the opportunity to establish a range of sexual activities, I excluded those under 3 months duration. This left 6,978 eligible respondents with a current, sexually active relationship of over 3 months duration (48% weighted of all Add Health respondents with weights). Of the 6,978 respondents with qualifying opposite sex relationships, 6,329 (91% weighted of eligible) had complete data on demographics, age at first sex, whether they engaged in vaginal, oral or anal sex with their current partner, and love between partners. Eligible respondents with missing data were somewhat less likely to be cohabitating and more likely to be of Black or Hispanic race and ethnicity (design-based  $F(1, 128)$ ,  $p\text{-values} < 0.05$ ). The study sample includes the 6,329 eligible respondents with complete data.

### *Measures*

The following relationship characteristics were examined:

- Relationship Type. Relationships were categorized as dating, cohabitating, or married based on the respondent's report.
- Sexual Activities with Current Partner. For each of the sexual activities of interest, vaginal sex, fellatio (male receptive oral sex), cunnilingus (female receptive oral sex), and anal sex, the respondents were asked if they ever had that type of sex with their partner.
- Love for Partner and Perceived Love from Partner. Respondents were asked "how much do you love <partner>?" and "how much do you think <partner> loves you?" Answer choices were "a lot," "somewhat," "a little," or "not at all." From these questions, four categories were created to describe the exchange of love in the current relationship as perceived by

the respondent: (1) neither partner loves each other a lot, (2) both partners love each other a lot, (3) respondent loves partner a lot (not reciprocated), (4) partner loves respondent a lot (not reciprocated).

In addition, several respondent characteristics were controlled for in the analyses. Respondent's age at Wave III was recorded in years. Respondents were asked to report their age at first intercourse in years. Respondent's sex was coded male or female. The respondent's race and ethnicity were coded as Hispanic, non-Hispanic Black, Asian, other, or non-Hispanic White.

### *Statistical Analyses*

I used the Stata statistical package to incorporate weights, adjust for Add Health's sampling design, and provide estimates that are standardized to the U.S. Census Bureau estimates of this age group's population demographics (Chantala & Tabor, 1999; STATACorp). I first used univariate and tabular analyses to determine the weighted percentages of young adult males and females with their current opposite-sex sexual partners who engaged in each of the sexual activities (vaginal sex, fellatio, cunnilingus, and anal sex). I then used multiple logistic regression models to determine demographic and relationship predictors of the types of sexual activities. As almost all of the respondents experienced vaginal sex, this outcome is not modeled. Preliminary analyses showed significant interaction terms between respondent's sex and love between partners, so males and females were modeled separately.

## **Results**

Of the entire young adult weighted sample of Wave III (N=14,322), 48% did not report a current sexual relationship, 6% reported a relationship that was not eligible or



had incomplete data, 45% reported vaginal sex, 39% reported fellatio, 39% reported cunnilingus, and 10% reported anal sex with a current partner of over 3 months. All subsequent analyses are based on the study sample (N=6,329, those respondents with an eligible current sexual relationship).

The study sample was slightly over half female and the average current age was 22 years (range 18-26). About 70% of the participants were White, with more respondents in dating than in cohabitating or married relationships, as would be expected for this age group (Table 1). Most male and female respondents in relationships of three months or longer reported that they loved their partners “a lot” (88%) and they perceived that their partners loved them “a lot” (89%) (Table 1). Most respondents (84%) reported that both partners loved each other “a lot” and love was associated with cohabitating and married relationship status (design-based  $F(5, 703) = 37.5$ ,  $p < 0.05$ ) (Figure 1).

Almost all study sample respondents reported having vaginal intercourse in their current, sexually active relationship, and the large majority also reported fellatio and cunnilingus. In contrast, anal sex was less common. There were significant differences between females and males in the levels of each type of sexual behavior except for anal sex (Table 2). It is interesting to note that both sexes reported higher levels of receiving oral sex than providing oral sex.

When examined in terms of the most common types of combinations of behaviors, most study sample respondents reported a broad range of sexual behaviors, with the substantial majority including vaginal sex, cunnilingus and fellatio in their current relationship. A substantial proportion also added anal sex to that combination. Just

under 10% reported only vaginal sex, and it was also relatively uncommon to engage in vaginal sex plus just one type of oral sex and not the other (Figure 2).

### *Multivariable Logistic Regression Models of Sexual Behaviors*

Logistic regression models demonstrated that, for males, reports that both partners love each other a lot were associated with higher odds of engaging in fellatio (OR = 1.80), cunnilingus (OR = 3.91), and anal sex (OR = 3.09) compared to reports that neither partner loves each other a lot, controlling for demographic factors (Table 3). In addition, reports by males of loving a partner a lot even when the partner was not perceived as reciprocating that level of love were associated with higher levels of cunnilingus (OR = 5.19) and anal sex (OR = 5.61) compared to neither partner loving the other a lot (Table 3).

For females, reports that both partners love each other a lot were associated with higher odds of engaging in fellatio (OR = 2.59) and cunnilingus (OR = 3.27) compared to reports that neither partner loves each other a lot (Table 3). Odds of fellatio were also higher among females who loved their partner a lot even if they did not think their partner reciprocated that level of love (OR= 2.01) compared to females who reported neither partner loved each other a lot. Furthermore, females who thought their partner loved them a lot had higher odds of cunnilingus even when they did not reciprocate that level of love (OR = 2.57) compared to those who reported neither partner loved each other a lot. Anal sex was not predicted significantly by reports of love for females (Table 3).

Cohabiting females had higher odds of anal sex and married females had higher odds of fellatio compared to dating females (Table 3). Married and cohabiting males

also had higher odds of anal intercourse than dating males. Black females had lower odds of cunnilingus, fellatio and anal sex and Latina females had lower odds of cunnilingus and fellatio compared to White females. Latino and Black males had lower odds of performing cunnilingus and lower odds of receiving fellatio compared to White males. Older male and female respondents had higher odds of fellatio and cunnilingus compared to younger respondents. Males and females who reported an older age at first intercourse had lower odds of anal sex, and females with older ages at first intercourse also had lower odds of fellatio and cunnilingus (Table 3).

### **Discussion**

This study reveals substantial heterogeneity in the sexual lives of young adults that is often neglected in studies that focus solely on vaginal intercourse. Overall, reports of mutually high levels of loving between partners are associated with a wide range of sexual activities, including oral sex for males and females, and anal sex for males. Reports of loving one's partner very much are also associated with providing oral sex for that partner among males and females, whether that love is perceived to be reciprocated or not. This may reflect a greater willingness to give pleasure and dedicate time to one's partner based on how much love is felt for the partner. The result that females who thought their partner loved them very much had higher odds of cunnilingus may reflect their perception of providing oral sex as a loving or caring act by their partner.

While causal directionality between loving and sexual activity is difficult to assess, the overall association between a variety of sexual activities and higher levels of love in a relationship may play an important role in the building of stable, rewarding

relationships among young adults. My results show that mutually high levels of love are reported among 94% of married couples (compared to 89% of cohabitating couples and 76% of dating couples) and that, even when controlling for love, married and cohabitating couples often have higher odds for sexual activities beyond vaginal intercourse. Thus, both love and varied sexual activity appear to be major components of committed relationships. Considering the benefits of stable and loving relationships for individuals and for raising children (Amato, 2005; Nock, 2005), it is important to emphasize the positive role of sexuality in loving relationships in young adulthood, when family formation often occurs.

The findings that providing oral sex is associated with loving one's partner and that relationships that include oral sex generally include both male and female receptive oral sex are consistent with social exchange concepts. More equitable feelings and sexual behaviors may lead to greater relationship quality in terms of satisfaction, love, and commitment (Sprecher, 2002). Future research is needed to further explore the interconnections between love, commitment, and sexual activities from the perspective of balancing costs and rewards in a relationship (Lawrence & Byers, 1995; Sprecher, 1998). Considering the high proportion of marriages that end in divorce, a better understanding of the factors that contribute to successful relationships is important for counselors and other practitioners.

In addition to love between partners, several other factors played important roles in predicting sexual activities. Older respondents generally had higher odds of participating in non-vaginal sexual activities, but this trend was not significant for anal sex. The length of time respondents have been sexually active was also important,

particularly for females. Male and female respondents who were older when they had first sexual intercourse had lower odds of anal sex, and females with older ages at first sex had lower odds of cunnilingus and fellatio. It may be that individuals who have been sexually active for longer may be more comfortable with a range of sexual activities. Black and Latino males and females had lower odds of oral sex and Black females had lower odds of anal sex compared to White females. While race differences in the use of sexual techniques such as oral sex may be partially due to differences in education level, it has also been proposed that some of the sexual techniques that gained popularity in the primarily White, middle and upper middle class, urban, "singles" culture of the early 1960s did not spread much into other groups as sex partner choice tends to be homophilous (Laumann *et al.*, 1994).

My findings did not support previous research indicating that married couples had less oral sex (Laumann *et al.*, 1994). This may partly result from the current study sample being restricted only to young adults. Relationship type played a more substantial role in predicting anal sex than it did for oral sex, with cohabiting males and females and married males having higher odds of anal sex. Anal sex patterns were also unusual in that, while there were no sex differences in the reported prevalence of the behavior, only males showed a strong association between love and anal sex. Additional variables beyond the scope of this study should be explored in future research to predict heterosexual anal sex behaviors, particularly for females.

These results provide helpful guidance for STI and HIV prevention efforts, particularly considering the high prevalence of many infections among this age group and the serious consequences for fertility and reproductive health. This nationally

representative research indicates that about 40% of young adults are in a current relationship that includes fellatio and about 40% are in a relationship that includes cunnilingus. Furthermore, about one in 10 engage in anal sex within a current relationship. Given how common oral and anal sex practices are, the lack of adequate research on disease transmission and the efficacy of safer sex options for non-vaginal sexual activities is unacceptable. In particular, additional research is needed on the acceptability, proper use, and efficacy of dental dams. A dental dam is a sheet of latex (usually about 6x8 inches) used as a barrier between the mouth and the vulva (vaginal and clitoral area) or the anal area to prevent the transmission of infection. Like condoms, dental dams are now available in a variety of styles, colors, and even flavors.

In an age of abstinence-only education when many people enter young adulthood without the most rudimentary training in safer sex practices, any institutions that work with young adults (e.g., community colleges, universities, health clinics) have an opportunity to provide needed education and services. It is important for young adults to understand that condoms or dental dams should be used during fellatio, anal sex, and cunnilingus. Some universities have taken the lead in improving access not only to condoms but also to dental dams, and provide valuable information about using dental dams on their web pages (e.g., Barnard at <http://www.barnard.edu/health/dentaldams.htm> and Johns Hopkins at <http://www.jhu.edu/~shcenter/dentaldams.html>). Schools can also incorporate dental dams into short sexual health orientation activities (Fennell, 1993).

This study's estimate that a substantial number (about 10%) of young adults have had anal sex with a current sexual partner of over three months supports earlier findings

that anal sex is a component of heterosexual behavior for many young adults, and indicates that a broad range of young women and men require protection from STIs during anal sex (Erickson *et al.*, 1995; Reinisch *et al.*, 1995; Voeller, 1991). While the need to protect men who have sex with men from anal transmission of infection is often discussed in the public health community, the risk for women in opposite-sex couples is not as well recognized, even though more women may be having receptive anal intercourse than men (Voeller, 1991). This lack of attention is unfortunate because many opposite-sex couples may be under the impression that oral and anal sex are “safe” because they do not carry the risk of pregnancy (Halperin, 1999; Halpern-Felsher, Cornell, Kropp, & Tschann, 2005; Remez, 2000). Among those reporting anal sex in one clinic study, condom use by heterosexual women was rare (7%) compared to condom use by homosexual (71%) or bisexual (53%) men (Chetwynd, Chambers, & Hughes, 1992). However, anal sex risks for women include rectal STIs, anal cancer, and greater HIV transmission risk than vaginal sex (Frisch *et al.*, 1997; Halperin, 1999; Voeller, 1991). Despite this, clinical sexual histories often do not cover condom use during anal sex or condom use problems or questions (Kurth, Holmes, Hawkins, & Golden, 2005). Taking a careful sexual history in a clinical setting may elicit questions from women about anal sex practices and safety and may assist in providing appropriate health advice. Furthermore, institutions should not exclude opposite-sex relationships from education efforts regarding condom use for anal sex.

This study relies on self reports of sexual behaviors. A respondent's understanding of a question, perception of privacy, and the perceived social acceptability of various behaviors may influence self-reports (Brener, Billy, & Grady,

2003) This study examined reports on sexual experiences that are relatively recent (with a current partner) and used questions with clear, anatomically specific language to reduce possible misunderstandings (Brener *et al.*, 2003). Add Health also made use of computer-assisted self-interviewing (CASI). CASI reduces the risk of accidental disclosure to the interviewer or others and improves privacy, making it easier for respondents to report on sensitive topics such as sexual behaviors (Kann, Brener, Warren, Collins, & Giovino, 2002; Turner *et al.*, 1998). However, the data presented here may represent an underreporting of more stigmatized sexual behavior such as anal sex. In addition, some sexual experiences may be more memorable compared to others (*e.g.*, receiving oral sex versus performing it) and therefore may be more likely to be reported.

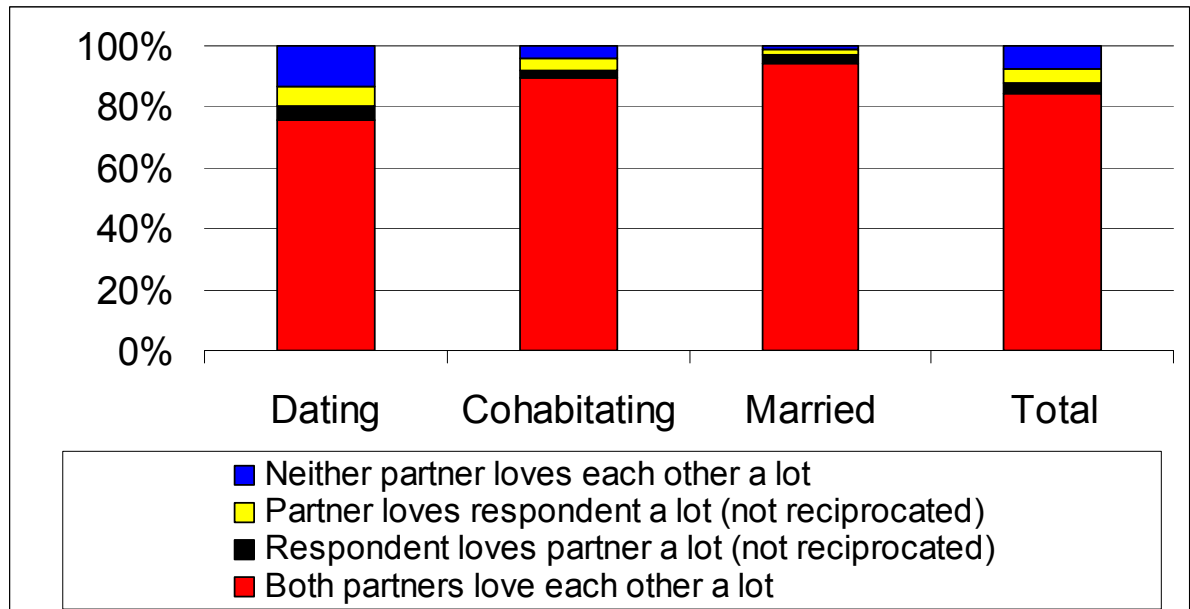
Because emerging adulthood is an important time in family formation as well as reproductive health, sexual dynamics and activity in relationships are of particular interest during this time. In addition to providing recent, extensive data on a variety of sexual activities, including anal sex, Wave III of Add Health is based on a nationally representative cohort of young adults, so the available sample size allowed detailed analyses that apply specifically to young adults. However, these estimates may under-represent the prevalence of the types of sexual activities in current relationships among all young adults. This study only includes sexual activities that took place in the context of a current relationship with the duration of at least three months, so activities in shorter relationships were not counted. In addition, some respondents may have had a current sexual relationship that was not reported and therefore not included in our study sample. Therefore, some individuals who were classified as either not having a



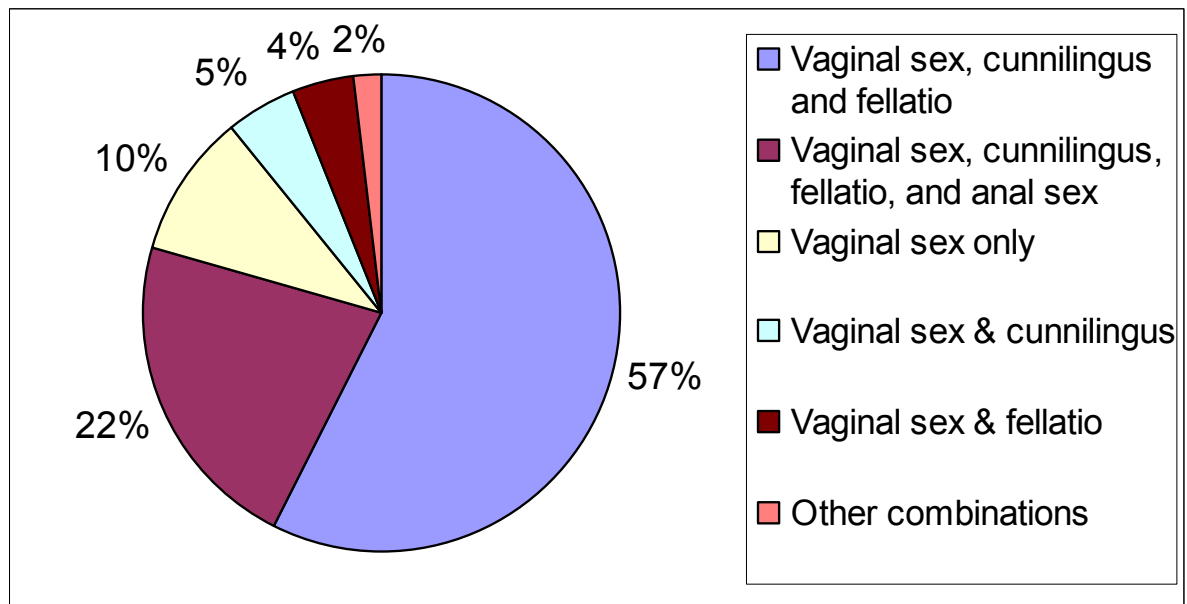
relationship or having an ineligible relationship may be having vaginal oral or anal sex with a current partner, so the estimated proportions of all young adults engaging in various activities with a current sex partner should be considered conservative.

Overall, we can conclude that most young adult couples engage in a variety of sexual activities within the context of a loving relationship and therefore programs that address health and wellbeing during emerging adulthood should cover issues relevant to a broad range of sexual activities. Oral and anal sex should not be neglected in studies of sexual behavior, clinical sexual histories, and interventions to prevent STIs. It is also important to recognize that many of the sexual activities take place in the context of longer-term, loving relationships that may not be considered risky by the individuals involved. Public health professionals need to balance an appreciation for the potentially positive roles of sexuality in relationships with effective approaches to help individuals express their sexuality safely.

**Figure 1: Love between partners and relationship status in current opposite-sex sexual relationships of over 3 months, weighted percentages (N=6,329).**



**Figure 2: Common combinations of sexual activities in current opposite-sex sexual relationship of over 3 months, weighted percentages (N=6,329).**



**Table 1: Characteristics of study sample respondents, weighted percentages.**

<b>Percentages of Study Sample Respondents (N=6, 329)</b>	
<b>Sex</b>	
Male	44.2
Female	55.8
<b>Race</b>	
White	68.5
Latino	11.3
Black	14.0
Asian	3.4
Other	2.1
<b>Relationship type</b>	
Married	26.5
Cohabiting	26.5
Dating	47.0
<b>Loves partner</b>	
A lot	87.7
Somewhat	7.5
A little	2.9
Not at all	1.9
<b>Partner loves him/her</b>	
A lot	88.8
Somewhat	7.2
A little	2.8
Not at all	1.3

**Table 2: Sexual activities in current opposite-sex sexual relationship of over 3 months by sex, weighted percentages.**

	<b>Females (N=3,735)</b>	<b>Males (N=2,686)</b>	<b>Study Sample (N=6,329)</b>
<b>Vaginal intercourse ever with current partner*</b>			
Yes	99.5	98.1	98.9
No	0.5	1.9	1.1
<b>Fellatio ever with current partner*</b>			
Yes	82.6	86.7	84.24
No	17.4	13.3	15.76
<b>Cunnilingus ever with current partner*</b>			
Yes	86.6	82.7	85.0
No	13.4	17.3	15.0
<b>Anal sex ever with current partner</b>			
Yes	22.6	22.9	22.7
No	77.4	77.1	77.3

\* Females and males differ significantly, Design-based F test p-value < 0.05.

**Table 3: Odds ratios of participating in fellatio, cunnilingus and anal sex by sociodemographics and relationship characteristics.**

	Fellatio			
	Females (N = 3,735)		Males (N = 2,594)	
	OR	95% CI	OR	95% CI
Neither partner loves each other a lot	1.00	--	1.00	--
Both partners love each other a lot	2.59*	1.82, 3.68	1.80*	1.23, 2.64
Respondent loves partner a lot (not reciprocated)	2.01*	1.08, 3.75	2.17	0.85, 5.49
Partner loves respondent a lot (not reciprocated)	1.25	0.66, 2.38	1.28	0.64, 2.56
Dating	1.00	--	1.00	--
Cohabiting	1.35	0.99, 1.85	0.88	0.56, 1.37
Married	1.44*	1.04, 1.99	1.12	0.67, 1.88
White	1.00	--	1.00	--
Latino	0.37*	0.25, 0.55	0.56*	0.36, 0.88
Black	0.16*	0.11, 0.23	0.23*	0.14, 0.38
Asian	1.18	0.56, 2.50	1.24	0.51, 3.04
Other	0.57	0.28, 1.17	1.35	0.55, 3.29
Age (centered)	1.15*	1.06, 1.25	1.13*	1.01, 1.26
Age of first intercourse (centered)	0.94*	0.89, 1.00	0.94	0.87, 1.01

	Cunnilingus			
	Females (N = 3,735)		Males (N = 2,594)	
	OR	95% CI	OR	95% CI
Neither partner loves each other a lot	1.00	--	1.00	--
Both partners love each other a lot	3.27*	2.30, 4.65	3.91*	2.57, 5.94
Respondent loves partner a lot (not reciprocated)	1.31	0.76, 2.26	5.19*	2.21, 12.18
Partner loves respondent a lot (not reciprocated)	2.57*	1.22, 5.42	1.51	0.82, 2.75
Dating	1.00	--	1.00	--
Cohabiting	1.29	0.93, 1.78	0.97	0.67, 1.40
Married	1.18	0.81, 1.72	1.22	0.76, 1.95
White	1.00	--	1.00	--
Latino	0.38*	0.27, 0.53	0.52*	0.36, 0.77
Black	0.23*	0.16, 0.33	0.32*	0.21, 0.47
Asian	1.14	0.61, 2.14	1.38	0.65, 2.94
Other	0.38*	0.17, 0.81	1.31	0.57, 3.01
Age (centered)	1.13*	1.04, 1.23	1.11*	1.01, 1.23
Age of first intercourse (centered)	0.89*	0.84, 0.94	0.99	0.93, 1.06

	Anal Sex			
	Females (N = 3,735)		Males (N = 2,594)	
	OR	95% CI	OR	95% CI
Neither partner loves each other a lot	1.00	--	1.00	--
Both partners love each other a lot	1.32	0.85, 2.03	3.09*	1.64, 5.82
Respondent loves partner a lot (not reciprocated)	1.08	0.59, 1.97	5.61*	2.30, 13.68
Partner loves respondent a lot (not reciprocated)	1.18	0.60, 2.32	1.74	0.78, 3.87
Dating	1.00	--	1.00	--
Cohabiting	1.53*	1.17, 2.02	1.85*	1.28, 2.69
Married	1.24	0.93, 1.65	1.49*	1.05, 2.13
White	1.00	--	1.00	--
Latino	1.02	0.74, 1.41	0.93	0.66, 1.30
Black	0.49*	0.34, 0.72	0.64	0.40, 1.03
Asian	1.15	0.69, 1.92	0.85	0.41, 1.74
Other	0.89	0.46, 1.70	1.07	0.51, 2.25
Age (centered)	1.05	0.98, 1.12	1.04	0.96, 1.12
Age of first intercourse (centered)	0.86*	0.82, 0.91	0.93*	0.88, 0.98

\* p < 0.05

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