Romantic love is associated with euphoria, focused attention, feelings of dependence and the activation of brain areas involved in motivation and reward. Thus, love represents a goal-oriented state that promotes the imperative to be with the loved one and preserve the relationship. Sexual activity may play a role in efforts to establish and maintain such relationships.

Biology may also facilitate some of the connection between love and sexual behavior. While romantic love and sexual arousal involve different brain activation patterns, the biological processes involved in sexual intimacy and romantic love include a common hormonal component, oxytocin. Because the effects of oxytocin are estrogen-dependent, the biological connections between love and sexual desire may be more extensive for women than for men.

Sexual activity has consequences not only for the quality of the relationship in which it occurs, but also for the sexual and reproductive health of individuals. STDs are common during young adulthood and can have significant adverse consequences for reproductive health. Although most prevention interventions focus on casual sexual activity or new sexual partners, sexual behavior in long-term loving relationships still carries risk of infections, particularly if one partner has a viral infection or acquires an infection from a concurrent partner.

Furthermore, most research on the sexual activity of young adult couples focuses on vaginal sex, but available evidence suggests that young adults engage in a range of sexual practices. The 1992 National Health and Social Life Survey obtained comprehensive information on the sexual activities of more than 3,000 individuals, of whom about 15% were young adults (aged 18–24). Overall, 85% of the young adults had engaged in vaginal sex in the past year. Most had experienced fellatio (69% of women and 74% of men) and cunnilingus (75% and 72%, respectively) at some time, and a sizable proportion (16% of each) had had anal sex. Similarly, in a 1991 study of Midwestern undergraduates, 17% of sexually experienced heterosexual males and 18% of females reported ever having had anal intercourse.

In this study, we explore participation in vaginal, oral and anal sex among young adults currently in a long-term relationship with a member of the opposite sex. We also examine how these behaviors are related to love between partners, controlling for relationship type and selected characteristics of the respondent. Since we are interested in the connections between love and sexual activity, we exclude short-term relationships, which may represent “hookups” or which may last but have not yet afforded the partners the opportunity to establish a pattern of sexual behavior.

We hypothesize that respondents who report high levels of love for their partners, and who report that their partners feel high levels of love toward them, participate in a greater variety of sexual activities than those who report mutually low levels of love. In addition, we hypothesize that this association is modified by the respondent’s sex.

**METHODS**

**Sample**

We used data from Wave 3 of the National Longitudinal Study of Adolescent Health (Add Health). In Wave 1 of Add Health, professional interviewers conducted face-to-face, in-home, computer-assisted interviews with more than 20,000 students enrolled in grades 7–12 in 1994–1995. These respondents included a core nationally representative sample of about 12,000 adolescents and several supplementary samples from typically underrepresented groups, such as adolescents with disabilities; black children of highly educated parents; and adolescents of Cuban, Puerto Rican and Chinese ethnic backgrounds. In Wave 3, some 15,197 Wave 1 respondents were reinterviewed from August 2001 through April 2002, when they were 18–26 years old.

Respondents in Wave 3 were asked to list all romantic or sexual relationships they had had since the summer...