## Patient teenagers?: A comparison of the sexual behavior of virginity pledgers and matched non-pledgers\*

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**Objective:** The US government spends over \$200 million annually on abstinence-promotion programs, including virginity pledges, and measures abstinence program effectiveness as the proportion of participants who take a virginity pledge. Past research used non-robust regression methods. This paper examines whether adolescents who take virginity pledges are less sexually active than matched non-pledgers.

Patients and Methods: National Longitudinal Study of Adolescent Health respondents, nationally representative sample of middle and high school who, when surveyed in 1995 never had sex or taken virginity pledge, and over age 15 (n=3440). Adolescents reporting virginity pledge on the 1996 survey (n=289) were matched with non-pledgers (n=645) using exact and nearest-neighbor matching within propensity score calipers on factors including pre-pledge religiosity and attitudes towards sex and birth control. Pledgers and matched non-pledgers were compared five years post-pledge on self-reported sexual behaviors and positive test result for *C. trachomatis*, *N. gonorrhoeae*, and *T. vaginalis*; and safe sex outside of marriage by use of birth control and condoms in past year and at last sex.

Results: Five years post-pledge, 84% of pledgers denied having ever pledged. Pledgers and matched non-pledgers did not differ in premarital sex, STDs, anal, and oral sex. Pledgers had 0.1 fewer past year partners, but the same number of lifetime sexual partners and age of first sex. Pledgers were 10 percentage-points less likely than matched non-pledgers to use condoms in the last year, and also less likely to use birth control in the past year and at last sex.

Conclusions: Virginity pledgers and closely-matched non-pledgers have virtually identical sexual behavior, but pledgers are less likely to protect themselves from pregnancy and disease before marriage than matched non-pledgers. Abstinence programs may not affect sexual behavior, but may increase unsafe sex. Federal abstinence education funds should be directed to programs which teach birth control, and do so accurately. Virginity pledges should not be used as a measure of abstinence program effectiveness.

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