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The Association Between Sexual Health and Physical, Mental, and Social Health in Adolescent Women

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A B S T R A C T

Purpose: Developmental models link sexual well-being to physical, mental/emotional, and social well-being, yet little empirical literature evaluates these relationships in adolescents. Better understanding of how and when sexuality complements other aspects of health may yield important points to enhance existing health education and prevention efforts.
Methods: Data were drawn from a 10-year longitudinal cohort study of sexual relationships and sexual behavior among adolescent women (N = 387; 14–17 years at enrollment). Sexual health data were drawn from quarterly partner-specific interviews and were linked to physical, mental/emotional, and social health information in annual questionnaires. Random intercept, mixed effects linear, ordinal logistic, or binary logistic regression were used to estimate the influence of sexual health on health and well-being outcomes (Stata, v.23, StataCorp, College Station, TX). All models controlled for participant age and race/ethnicity.
Results: Higher sexual health was significantly associated with less frequent nicotine and substance use, lower self-reported depression, lower thrill seeking, higher self-esteem, having fewer friends who use substances, higher religiosity, better social integration, lower frequency of delinquent behavior and crime, and more frequent community group membership. Sexual health was not associated with the number of friends who used cigarettes.
Conclusions: Positive sexually related experiences in romantic relationships during adolescence may complement physical, mental/emotional, and social health. Addressing specific aspects of healthy sexual development during clinical encounters could dually help primary prevention and health education address other common adolescent health issues.

IMPLICATIONS AND CONTRIBUTION

Higher sexual health in adolescent women is associated with improved physical, mental/emotional, and social health, including lower nicotine and substance use, lower self-reported depression, higher self-esteem, more positive attitudes toward school and less frequent delinquency/crime. Experience in romantic/sexual relationships may complement skills needed to support positive health behavior.

As articulated by several national and international health governing bodies, sexual health broadly encompasses the multiple factors that contribute to an individual's sexual well-being throughout their lifetime [1,2]. Among young people, rather than stressing the potential adverse outcomes associated with sexuality (e.g., unintended pregnancy or sexually transmitted infection), the sexual health perspective emphasizes the positive developmental contributions that sexuality provides to adolescent well-being within the context of emerging romantic relationships [3]. Participation in several different dating partnerships is normative during the teenage years [4]. Experiences in these relationships can help adolescents hone the array positive skills—such as emotional self-regulation, interpersonal

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communication, and negotiation—that they will need to manage healthy relationships in adulthood [5–8].

The centrality of sexuality and relationships during the adolescent years could mean they also play a critical role in the development of young people's physical, mental/emotional, and social health [3,9–11]. The correlation of sexuality with overall health and well-being is well documented among adults but is less delineated among adolescents. For example, among midage and older age adults, frequency of partnered sex, sexual, and relational satisfaction correlates with better overall self-reported physical and psychological health [12,13]. Such findings are echoed in emerging adults, among whom sexual enjoyment and sexual satisfaction are linked to higher quality daily interpersonal interactions, increased autonomy, and improved empathy [14,15]. Similar work in adolescents, however, is mixed—some studies suggest that sexuality, sexual experience, and relationships are associated with both higher and lower levels of health and well-being, while other studies show no relationship [16–18].

One explanation for this conflicting set of findings among adolescents is that most studies only examine the impact of one or two single sexual health indicators rather than a full set of healthy sexual development measures, as predictors of health. Three widely cited sexual health definitions, as well as our own empirical research, support using a multidimensional approach to assessing sexual health in adolescents and linking this measure to different nonsexual health and well-being outcomes. For example, The World Health Organization defines sexual health as "…a state of physical, emotional, mental and social well-being related to sexuality," [1] and the National Consensus on Adolescent Sexual Health additionally emphasizes that for adolescents these dimensions are closely linked with "sexual development and reproductive health, as well interpersonal relationships…" [19] These statement affirm that adolescent sexual health arises from four dimensions of sexual well-being—emotional, attitudinal, physical, and social—that also represent key relationship-based experiences adolescents use to learn how to manage sexuality in adulthood. Our empirical studies on sexual health have operationalized these definitions [20–22], demonstrating that these four dimensions work collectively as a single measure, with this measure predicting fewer partners, more frequent condom use, lower sexually transmitted infection (STI), and less frequent sexual coercion [20–22]. We utilize a similar measurement approach to sexual health in the current article.

Finally, a third definition offered by a former Surgeon General of the United States endorses the close integration of positive aspects of sexuality with well-being, emphasizing that "…sexual health…is connected with both physical and mental health, and…is important throughout the entire lifespan, not just the reproductive years." [8] While certainly important at every age, drawing from positive youth development and prevention science perspectives, we argue that sexual health may be particularly associated with health and well-being during adolescence. The primacy of learning and skill development in the context of romantic relationships and sexuality could mean that emerging sexual health dimensions are the same competencies young women need to support positive health behaviors and to protect themselves from a variety of health-related risks [23,24]. For example, the self-efficacy young women use to negotiate condom use and to refuse unwanted sex may also help them resist peer pressure for tobacco, alcohol and drug use [25], or for engaging in delinquent behaviors [26]. Likewise, a relationship characterized by intimacy and trust may foster better overall happiness and self-esteem [27]. Finally, the ability to balance or reconcile intense emotions is linked to lower levels of depression and thrill seeking [28], perhaps indicating ongoing experiences with partners would elicit a similar effect. No work, however, has linked a multidimensional model of sexual health to indicators of health and well-being.

In order to be useful from clinical, developmental, and public health perspectives, scientific efforts to understand the association between sexual health and health and well-being must both operationalize sexual health dimensions using a range of measures related to healthy sexual development and link the totality of these dimensions to a range of health-related outcomes. Accordingly, building on existing studies generally linking one or two single sexuality-related measures to health and on our own sexual health research [20–22], the objective of the current article was to understand the ability of a multidimensional construct of sexual health to predict physical, mental/emotional, and social health outcomes among adolescent women [20–22].

Methods

Larger study design and participants

Data were collected as part of a larger longitudinal cohort study of sexual relationships, sexual behaviors, and STIs among young women in middle-to-late adolescence (1999–2009) [29]. Participants (n = 38) were adolescent women receiving health care as part of the patient population in one of three primary care adolescent health clinics in Indianapolis, Indiana. These clinics serve primarily lower- and middle-income families residing in areas with high rates of early childbearing and STI. The average maternal education level was 12th grade. Eligibility included being 14–17 years of age, English speaking, and not being pregnant. Neither sexual experience nor sexual orientation was entry criterion in either study. Recruitment strategies remained the same during the duration of the study.

At quarterly intervals, participants contributed quantitative individual- and partner-specific interview data on sexual history, sexual attitudes, sexual behavior, and contraception. In each interview, participants could provide information on up to five "partners"—identified by initials or first name—including friends, dating partners, boyfriends, and sexual partners. While most studies define "partner" in the context of previous coital contact, the definition was broadened to include "personal relationships associated with close physical contact (like having sex, kissing, or holding hands) or spending time together." Such a focus permits understanding of how ongoing relationship-related dynamics impact health and well-being for young women, independent of the relatively static status labels (e.g., "main" or "casual") that may be associated with these relationships. Thus, relationships in this study could either include or exclude different types of sexual contact between a participant and her named partner, and this activity could change by the next interview. However, because the sexual health perspective is anchored in understanding the factors that precede sexual decision making [1,2], the presence or absence of sexual activity per se in a given relationship is not the primary focus of this article. In the larger study, participants contributed a total of 5,151 quarterly interviews; the median number of interviews completed per participant was 15 (range 1–47), while the median number completed per partner was four (range: 1–27). The number of completed interviews did not