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Another Look at Heterosocial Behaviors: One Side of the Early Intimate Sexual Behaviors Coin

Betty J. Braxter, PhD, RN, CNM[Assistant Professor],

Department of Health Promotion & Development, School of Nursing, University of Pittsburgh, 440 Victoria Building, Pittsburgh, PA., 15261, U.S.A., Tel: 1-412-624-7188

Willa M. Doswell, PhD, RN, FAAN[Associate Professor], and

Department of Health Promotion & Development, School of Nursing, University of Pittsburgh, 440 Victoria Building, Pittsburgh, PA., 15261, U.S.A., Tel: 1- 412-624-8977

Dianxu Ren, PhD[Assistant Professor]

Department of Health and Community Systems, School of Nursing, University of Pittsburgh, 360 Victoria Building, Pittsburgh, PA. 15261, U.S.A., Tel: 1-412-383-5240

Willa M. Doswell: wdo100@pitt.edu; Dianxu Ren: dir8@pitt.edu

Abstract

The number of adolescent births is once again on the rise. Heterosocial competence described as successful interactions (i.e., heterosocial behaviors) with males (Grover et al., 2005; 2007) is one emerging factor that has been found to be associated with adolescent sexual behavior. The aims of this cross sectional design study with 159 African American middle school girls using the Theory of Reasoned Action (Ajzen & Fishbein, 1980) were to describe and assess the relationship between heterosocial behaviors and sexual behaviors. Data was obtained using four surveys. The results suggest that heterosocial behaviors were a significant predictor of sexual behaviors ($p < .001$).

Keywords

heterosocial behaviors; sexual behaviors; middle school girls; infant mortality; low birth weight; preterm delivery; health disparities; racism; stress; African American; pregnancy

Introduction

Adolescent births are once again on the rise. The most current birth report for 2006 indicates an overall 3% rise in births to adolescents' ages 15-19 years, interrupting a 14 year decline (Martin et al., 2009). For African American teens, the increase between 3 to 5% was comparable to the increase noted among their other ethnic counterparts. Although health (e.g., preeclampsia-eclampsia, sexually transmitted infections (STIs), preterm births) and social (e.g., reduced job opportunities due to high school dropout, higher rates of single parenthood) consequences associated with adolescent pregnancy are well known (Eure, Lindsay, & Graves, 2002; Hoffman & Maynard, 2008; Zeck, Walcha, Tamussion, & Long, 2008), the United States continues to have one of the highest adolescent pregnancy rates among the industrialized countries of the world (www.healthyteennetwork.org).

As the challenge of the adolescent pregnancy problems continues, health disparities associated with teen pregnancy also continue. The adverse risks associated with adolescent pregnancy for African Americans are higher compared to other ethnic groups. For example, the risk of extreme preterm births for African American babies remains about two to three times that of Euro American infants (Martin et al. 2009). African American teens compared to other ethnic groups are also more likely to be single custodial parents and living below the poverty level (www.census.gov/prod/2007/pubs).

Heterosocial Competence

With the current increase in the adolescent pregnancy rate and continued health disparities related to teen pregnancy, researchers and those who provide care to the adolescents are concerned, given the health and socioeconomic consequences associated with childbearing during adolescence. Researchers once again are re-evaluating factors associated with engaging in early intimate sexual behaviors and re-examining extant theoretical frameworks to predict adolescent sexual behavior. One factor that has been the focus of an emerging body of work with respect to sexual behavior is the concept of “heterosocial competence”, which refers to successful interactions with members of the opposite sex (Grover et al., 2005, 2007). These interactions typically occur in a variety of settings (i.e., school, home) within varied social contexts described as heterosocial contexts (HSC) (i.e., with friends, when grown-up are and are not around) and incorporate diverse sexual behaviors referred to as heterosocial behaviors (HSB), including kissing.

Heterosocial competence also incorporates a variety of skills that range from the ability to initiate and maintain communication, engage in age appropriate social behaviors, and negotiate conflict to the ability to build deeper levels of intimacy and unite developing sexuality with affection/feelings (Connolly, Furman, & Konarski, 2000; Kelly, 1982). Failure to achieve heterosocial competence may place adolescents at risk for engaging in risky sexual behaviors (i.e., early intimate sexual behaviors) because they maybe less well prepared to negotiate with their partners about issues related to sexual behavior. Boy-girl sexual interactions significantly increase during the 5th to 11th grades (Sharabany, Gershoni, & Hofman, 1981), with the middle school period typically associated with the initiation of dating and engagement in intimate sexual behaviors (e.g., heavy petting, sexual intercourse) (CDC, 2008). Thus, caring for youth requires that providers are aware of the levels of heterosocial competence adolescents have achieved and the heterosocial behaviors in which they are engaged. However, a dearth of information exists on the issues related to heterosocial competence (i.e., heterosocial contexts (HSC), heterosocial behaviors (HSB)) among African American middle school girls.

Theoretical Framework

Although the cause of the recent pregnancy rate increase is unknown, a re-examination of existing theoretical frameworks appears warranted given that frameworks provide a systematic way of understanding events. Frameworks can also provide insight on the type of interventions needed. In our research, we have found that the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1981) is useful when explaining African American girls' engagement in early intimate sexual behaviors (e.g., French kissing, light petting, heavy petting, sexual intercourse) (Doswell, Kim, Braxter, Taylor, Kitutu, & Hsu, 2003). The TRA posits that the most proximal determinant of behavior is intention to engage in the behavior, with intention co-predicted by attitudes and subjective norms. Attitudes refer to the views the adolescent holds toward the behavior and may be either positive or negative. Norms are an adolescent's estimate of the social pressure to engage or not engage in the behavior. Attitudes and norms are informed by underlying behavioral and normative beliefs. Given

our past work with the TRA as a framework for understanding early intimate sexual behaviors, we were interested in examining the potential contribution of heterosocial competence.

To address the lack of information on heterosocial competence aspects (heterosocial contexts, heterosocial behaviors) among African American middle school girls and its association with constructs in the TRA, we conducted the current analysis. Thus, the aims of this study with African American middle school girls using the TRA were to: 1) describe the heterosocial behaviors endorsed by the girls, 2) assess the level of intimate sexual behaviors in which girls engage, and 3) examine the relationship between heterosocial behaviors and intimate sexual behaviors.

Methodology

Sample

Following the receipt of approval from the Institutional Review Board at the University of Pittsburgh and from the principals of five public middle schools located in western Pennsylvania, enrollment into a randomized clinical trial (5RO1HD039757-05), referred to as the NIA study, was initiated. NIA is a Swahili word that means “sense of purpose”. The study was designed to prevent or delay the adolescents from engaging in early intimate sexual behaviors. Criteria for inclusion in the study included: 1) self-reported African American group membership; 2) self-reported age 11-14 years; 3) the absence of anorexia/bulimia, or selected chronic or reproductive diseases (e.g., diabetes, Cushing syndrome); 4) no history of a prior or current pregnancy as determined by self-report; 5) no current or past participation in a pregnancy prevention program; and 6) no membership in a school special education class for handicapped and mentally challenged children.

Procedures

Upon receipt of parental consent and the girls' assent, a total of 159 middle school girls completed our baseline assessment, which was comprised of seven surveys after school. For this analysis, data was drawn from four self-report surveys.

Instruments

The Heterosocial Behavior Questionnaire (Westney, Jenkins, & Benjamine, 1983; modified by Doswell, 1999) is a self-report rating scale comprised of 10-items assessing two aspects, social contexts (e.g., where the boy-girl interactions occurred (HSC)) and heterosocial behaviors (e.g., behavior engaged in by boys and girls (HSB)). Social contexts items for example assessed if during the past year the girl had spent time alone with a boy in a private place (e.g., someone's apartment) without any grown-ups around. In like manner, heterosocial behaviors items specifically assessed the way in which girls communicate with boys (e.g., call boys on the phone) as well as behavior (e.g., hugged boys) with the modifications by Doswell resulting in dating related items added to the scale. Using a 5-point rating scale, response options were coded from 0 (Never) to 5 (Frequently; more than 5 times). Total scores on the scale ranged from zero to thirty. Cronbach alphas of 0.79 (social contexts) and 0.82 (heterosocial behaviors) were generated with the current sample of girls.

A second self-report measure, the Sexual Behavior Inventory (SBI) (Treboux, & Busch-Rossnagel, 1985; modified by Doswell, Braxter, Taylor, & Ren, 2008), was used to assess the frequency of the following intimate sexual behaviors within two types of relationships (i.e., casual boyfriend, steady boyfriend) during the past year: French kissing (kissing with the tongue), light petting, heavy petting, and sexual intercourse. Light petting was defined as having a boy touch a girl's body over her clothes. Heavy petting referred to having a boy

touch a girl's body under her clothes. We modified the SBI by describing the intimate behaviors within the contexts of respectively casual and steady boy relationships. The rating format and response options in the SBI mirrored that of the Heterosocial Behavior Questionnaire. Total scores on the SBI ranged from zero to twenty-four. Our assessment of the reliability of the scale yielded a Cronbach alpha of 0.81.

In our effort to further understand the participants and their interactions with boys, we also queried the girls on their perception of how their respective boyfriend(s) acted toward them with respect to their age. Using an 8-point rating scale, participants could select from 1 (younger than their age) to 4 (their age) to 7 (a lot older than their age), to 8 (no boyfriend).

Girls also completed a pubertal development assessment which consisted of 5 pictures depicting female Tanner stage breast development(i.e., Stages 1 to 5) (Tanner, 1971). Our past work with middle school girls has documented that this population is able to determine their stage of breast development.

Statistical Analysis

All statistical analyses were performed using SAS version 9.1 (SAS Institute Inc., Cary, N.C.). Descriptive statistics were performed to examine sample characteristics. Additionally, descriptive statistics were performed to address: aim 1 (describe heterosocial behaviors); and aim 2 (assess level of intimate sexual behaviors). For aim 3 (examine relationship between heterosocial behaviors and intimate sexual behaviors,) linear regression models were generated. A 0.05 critical value of alpha was used to determine statistical significance.

Results

The sample was comprised of 159 middle school African American girls with a mean age of 12.5(0.93) years. Approximately 28.8% (n= 46) of the girls were in 6th grade, 45.6% (n= 73) in the 7th grade, and 25.6% (n= 40) in the 8th grade. Based on self-reporting, the modal response on the assessment of pubertal status, specifically Female Tanner Stage: Breast development, was 4 (i.e., areola forms secondary mound on the breast). In response to the perceived maturation question related to how their respective boyfriend(s) acted toward them, fifty percent (n=80) of the participants indicated that they did not have a boyfriend. The remaining 50% of the sample most frequent response was the “their age” category.

Heterosocial Behaviors

A majority of the girls (51%; n=81) had spent time with a group of boys and girls when there were no grown-ups around. In contrast, sixty-eight percent (n=108) of the sample had not during the past year interacted with a mixed group of boys and girls inside a private place (e.g., someone's home or apartment). Similarly, an overwhelming number of girls (81.8%; n=130) had not spent time alone with a boy in a private without grown-ups being around. The most prevalent heterosocial behavior was calling boys on the phone reported by 62% (n=98) followed by hugging a boy with the response reported by 51.2% (n=81) of the middle school girls. Girls' response with respect to number of boyfriends during the past year was similar to the response on the perceived maturation item. Approximately 52% (n=83) of the girls reported that they had not had a boyfriend during the past year. Another 34% (n=54) of the girls selected the one or two boyfriend category; 14% (n=22) reported 3 or more boyfriends. Response by the girls to a query related to dating or “going out with a boy” during the past year yielded the following information: 77% (n=122) had not been on a date; 18% (n=29) had been on one or two dates; and the remaining 5% (n=8) had been on 3 or more.

Intimate Sexual Behaviors

French kissing was the most frequently reported intimate sexual behavior by 24% (n= 38) of the girls. The least reported intimate sexual behavior was sexual intercourse with 98% of the girls indicating that they had not engaged in intercourse. However, approximately 20% (n=32) girls had engaged in light petting and about 9% (n=14) had engaged in heavy petting. The number of girls engaging in French kissing with casual boys (23%; n=37) was comparable to the number who engaged in the intimate behavior with steady boyfriends (25%; n= 40). The same pattern existed with respect to light petting (casual boys-20%, n=32; steady boyfriends -21%, n=33)). For heavy petting, a slightly different pattern emerged, 7% (n= 11) of the girls had engaged in the intimate behavior with casual boys compared to 11% (n=17) with steady boyfriends.

Heterosocial Contexts and Intimate Sexual Behaviors

The results of our first linear regression analysis, after controlling for age and pubertal status (i.e., Tanner breast stage development), yielded a significantly positive relationship ($p < .0001$) between heterosocial contexts and intimate sexual behaviors (Model 1) as expected. Heterosocial contexts explained 27% of the variance in intimate sexual behaviors. The equation model reflected the following: $\text{Total SBI} = -4.28 + 0.606 \text{ HSC}$. Thus, as the frequency of the social contexts increased so did engagement in intimate sexual behaviors.

Heterosocial Behaviors and Intimate Sexual Behaviors

The second regression analysis, (Model 2), also yielded a significantly positive relationship ($p < .0001$) between heterosocial behaviors and intimate sexual behaviors. The relationship was again expected with 46% of the variance in intimate sexual behaviors explained by heterosocial behaviors. The following equation was generated from the analysis: $\text{Total SBI} = -3.15 + 0.523 \text{ HSB}$. Our results suggest as the number of heterosocial behaviors increased in frequency so did the engagement in intimate sexual behaviors.

Discussion

This is one of the few studies to examine the concept of heterosocial competence, specifically heterosocial behaviors with middle school African American girls. Previous studies by Westney, Jenkins, & Benjamin (1983) focused on upper elementary school girls, not girls in middle school. Similarly, the work by Grover and colleagues (2005; 2007) targeted primarily Euro-American adolescents, not African American teens. Several important findings are revealed that have implications for the development of and implementation of interventions designed to assist African American middle school girls delay or prevent engagement in early intimate sexual behaviors.

Our first aim was to describe the heterosocial behaviors in which the middle school girls engaged. It was of interest to find that most of the girls had not been alone with a mixed group of boys and girls or with just one boy without adults being around. The finding is surprising given that statistics from the National Campaign to Prevent Teen Pregnancy in their overview on the sexual behavior of young adolescents has typically found that young teens age 10-14 years report being at parties without any grown ups around (www.thenationalcampaign.org). Girls in our study may have failed to be as candid as possible when responding to the heterosocial contexts items given negative societal views related to adolescents being alone without adult supervision. Additionally, our sample of girls were drawn from a moderate size city located in the northeastern geographic region of the county and the reported responses of girls from the region may differ from counterparts living in other areas of the country.

Girls had, however, engaged in calling boys on the phone and reported hugging boys. This finding suggests that those working with middle school girls should query them with regard to such behaviors as calling boys and hugging them. Querying girls on these behaviors can provide an avenue for providing information related to healthy and age appropriate female-male interactions.

We were surprised to find that only 2% of the participants reported that they had engaged in sexual intercourse. Our finding may reflect the impact of social desirability. We did, however, assess social desirability utilizing the Marlowe-Crowne Social Desirability scale (Crowne & Marlowe, 1960) and found no relationship between scores on the desirability scale and scores on the sexual behavior measure. Additionally, the finding may reflect the positive trend noted at the beginning of the 21st century in which fewer adolescents were engaging in sexual activity. Baseline assessments were conducted with our participants from 2001 to 2005. Current national surveys, typically, report that 15-20% of teens age 14 years and younger have engaged in sexual intercourse (CDC, 2008). Based on the findings from this study, an optimal period in which to intervene with respect to engagement in sexual intercourse appears to be the middle school years given a majority of girls have yet to have become sexually active. Thus, adolescent pregnancy prevention interventions and programs should target the middle school years.

Both of our models reveal the need for further examination of the concept of heterosocial competence among middle school girls given the positive association respectively between heterosocial contexts, heterosocial behaviors and engagement in early intimate sexual behaviors. As practitioners, our assessments should include questions that address the social contexts in which boy-girls interactions occur as well as the behaviors.

Study Limitations

The results of this study should be interpreted in the context of the following limitations. First, because this study employed a cross-sectional design with participants drawn from one geographical region, we are only able to assess association, not causation. Furthermore, our findings cannot be generalized to African American middle school girls living in other regions of the country. Second, our data is based on self-reported information. The limitations associated with self-report information are well documented (Schroder, Carel, & Vanable, 2003; Weinhardt, Forsyth, Carey, Jaworski, & Duran, 1998). Third, our instruments measured heterosocial competence (i.e., heterosocial contexts, heterosocial behaviors) using a narrow range of situations. For example, our heterosocial behaviors items did not assess communicative interactions using 21st century communication technology (e.g., text messages). Finally, the intimate sexual behaviors girls responded to failed to incorporate, oral sex. A body of work suggests that approximately 8-20% of teens engage in oral sex (Bersamin, Walker, Waiters, Fisher, & Grube, 2005; Halpern-Felsher, Cornell, Krupp, & Tschann, 2005; Markham, Flescher, Addy, Baumler, & Tortolera, 2009).

Implications for Future Research

Little is known about the concept of heterosocial competence, specifically heterosocial contexts and heterosocial behaviors, among ethnic minorities across different age groups. By examining the concept among different ethnic and racial groups, researchers will be able to examine the manner in which heterosocial competence possibly varies across the different groups. For example, how similar or different are the heterosocial contexts (situations) experienced by African American high school adolescents compared to Hispanic adolescents. Additionally, an examination of the concept with different adolescent age groups would provide an opportunity to assess how heterosocial contexts, heterosocial

behaviors, as well as heterosocial skills develop and change from a developmental perspective as proposed by Grover and colleagues (2007).

Similarly, the instruments we use to assess the distinct features of heterosocial competence (e.g., heterosocial behaviors) need to be modified to include 21st century communication methods. Girls are now conversing with boys for example via the use of email messages, text messages, chat rooms, and through on-line social networks. The impact of these types of communication methods on heterosocial behaviors for example as well as on intimate sexual behaviors have yet to be fully explored.

Furthermore, the sexual behavior measures utilized with adolescents need to incorporate oral sex in addition to vaginal intercourse. The inclusion of oral sex on sexual behavior measures will help to broaden our understanding of the relationship between heterosocial competence and early intimate sexual behaviors.

Finally, future research will need to explore the path and or mechanism by which social contexts and heterosocial behaviors, features of heterosocial competence, impact engagement in early intimate sexual behaviors with African American girls. Researchers will therefore be able to evaluate a theoretical framework like the Theory of Reasoned Action (Ajzen & Fishbein, 1980) as it pertains to both the identified features of heterosocial competence and early intimate sexual behaviors. This type of analysis will provide information that has for utility as researchers develop interventions designed to delay or prevent African American middle schools from engaging in early intimate sexual behaviors.

As we enter the end of the first decade in the 21st century, the need to design and implement strategies and intervention to delay and prevent adolescent pregnancy remains a challenge. Results from this study suggests that heterosocial competence and its impact on intimate sexual behaviors is one dimension that warrants further examination.

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