

THE INFLUENCE OF GENDER ROLE IDEOLOGY ON DEVELOPMENTAL  
TRAJECTORIES OF DISMISSIVE ATTITUDES TOWARD SEXUAL HARASSMENT IN  
EARLY ADOLESCENCE

BY

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## **Abstract**

Sexual harassment of adolescent girls by their male peers is prevalent in schools, and tends to be normalized and dismissed by students and school personnel as a natural characteristic of cross-gender interactions in adolescence. This study highlights the gendered nature of sexual harassment in adolescence by examining the longitudinal association between socially constructed gender role ideologies and dismissive attitudes toward sexual harassment. Data were collected from 147 males and 164 females in three racially and economically diverse middle schools across four semesters. At each wave of data collection, students completed measures of masculinity and femininity ideology, sexual harassment perpetration and victimization, and attitudes toward sexual harassment. Growth curve modeling was used to examine developmental trajectories of dismissive attitudes toward sexual harassment and identify factors that account for different patterns of change. In the best-fitting model for females, dismissive attitudes decreased linearly over time, and endorsement of traditional masculinity and femininity ideologies was associated with dismissive attitudes across time. The final model accounted for 18.7% of the within-person variance and 27.8% of the between-person variance in dismissive attitudes. For males, a nonlinear change trajectory provided the best fit to the data. Traditional and nontraditional masculinity ideologies and sexual harassment perpetration accounted for different patterns of change. The final model accounted for 31.6% of the within-person variance and 41.5% of the between-person variance in dismissive attitudes. The results support a feminist sociocultural model of sexual harassment, which posits that sexual harassment arises from gendered power differentials that are legitimized and maintained by hegemonic masculinity ideology. Implications for the development of school prevention and intervention programs are discussed.

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## **Chapter 1**

### **Introduction**

Most research on sexual harassment has focused on adults in the workplace or students in university settings (Holt & Espelage, 2007; Strouse, Goodwin, & Roscoe, 1994). However, there is increasing evidence that sexual harassment begins to emerge during early adolescence (American Association of University Women [AAUW], 2001). Several qualitative investigations revealed endemic sexual victimization of adolescent girls by boys in high schools, with verbal insults and indirect forms of sexual aggression being an everyday occurrence (Berman, McKenna, Arnold, Taylor, & MacQuarrie, 2000; Duncan, 1999; Shute, Owens, & Slee, 2008; Timmerman, 2003). The sexualized aspect of peer victimization has been a peripheral, if not absent, feature of the literature on bullying and aggression in middle schools. Whenever school-based sexual harassment has been examined by bullying researchers, it has been considered a deviant or pathological characteristic of individual perpetrators. In contrast, adult sexual harassment research has been guided by feminist sociocultural theory, which emphasizes the central role of broad societal influences.

According to feminist sociocultural theory, the sexual harassment of females by males is the result of culturally entrenched male-female power differentials (Shute et al., 2008). From this perspective, sexual harassment is thought to exist on a continuum with more severe examples of hostility toward women, such as sexual assault and dating or domestic violence. Despite evidence that sexual harassment often persists, escalates, and generalizes to other relationships over time (Strouse et al., 1994), investigations of sexual harassment among adolescents have operated under the assumption that cross-gender harassment is a natural part of adolescent development. Adolescent research has generally failed to consider the gendered nature of sexual

harassment in schools. Given the pervasive victimization of adolescent girls by boys in coeducational school settings, a deeper understanding of factors that contribute to the emergence and perpetuation of sexual harassment during early adolescence is crucial for the development of school-based prevention and early intervention programs. The current study addresses this need by examining how adolescent perceptions of sexual harassment are shaped by gender role attitudes over time.

### **Prevalence and Consequences of Peer Sexual Harassment**

Results of national surveys indicate that sexual harassment is pervasive in both middle school and high school. For example, after surveying 8-11<sup>th</sup> grade students from 2,064 public schools, the AAUW (2001) reported that 88% of females and 83% of males had experienced peer sexual harassment during their lifetime. The most common form of reported harassment was nonphysical in nature, with 76% of students being targets of sexual jokes, gestures, rumors, or taunting. One quarter of the students indicated they had experienced these types of behaviors “often,” and 36% of the girls reported first being the target of sexual harassment in sixth grade (AAUW, 2001). Research shows that school-based sexual harassment is largely a public phenomenon, occurring in classrooms, hallways, and schoolyards in the presence of others (Timmerman, 2003), which supports the notion that “it is a broad cultural phenomenon rather than the occasional covert display of aberrant behaviors” (Shute et al., 2008, p. 486). Some researchers have even suggested that peer sexual harassment reflects a school culture that normalizes harassment by dismissing it as a natural characteristic of adolescent development (Terrance, Logan, & Peters, 2004).

The high frequency at which sexual harassment is occurring in schools is especially alarming considering the range of negative emotional, psychological, and educational consequences for victims. Although both boys and girls report experiencing sexual harassment, studies consistently show that girls experience more severe, intrusive, and intimidating forms of harassment (Hand & Sanchez, 2000) and suffer higher levels of distress as a result (Gruber & Fineran, 2008; Ormerod, Collinsworth, & Perry, 2008; Shute et al., 2008). Several studies have found that girls report a higher prevalence of boy-to-girl victimization than do boys (Owens, 1998; Shute et al., 2008; Tulloch, 1995), perhaps because the same behaviors that girls label harassment tend to be perceived by boys as “harmless fun.” Ormerod et al. (2008) found that while 96% of the girls and 88% of the boys in their sample of 578 high school students reported experiencing peer sexual harassment, it was more frequent and upsetting for the girls. In a large national survey, 66% of the girls compared to 28% of the boys were upset by the sexual harassment they experienced, and boys were three times more likely than girls to report they were not at all upset (AAUW, 2001). Female victims of sexual harassment are more likely to feel embarrassed, self-conscious, afraid, and reluctant to go to school or talk in class (Bayliss, 1995). Their grades often decline as a result of becoming less attentive or motivated in class (AAUW, 1993). Additional psychological outcomes include negative self-evaluation, low self-esteem, anxiety, and feelings of isolation, sadness, and anger. Some of the physical symptoms experienced by victims of sexual harassment include headaches, poor sleep, and loss of appetite (Ormerod et al., 2008). The severe ramifications for adolescent girls who are victimized in school highlights the continual need for more effective prevention and intervention efforts.



## **Tolerance of Sexual Harassment**

Despite evidence that peer sexual harassment occurs at an alarming rate in schools, has detrimental psychological, social, and academic consequences for victims, and tends to become more severe over time, incidents of adolescent peer sexual harassment often go unchecked by school authorities (Terrance et al., 2004). While bullying has received national attention and become increasingly unacceptable in response to several large-scale school shootings, there remains a degree of cultural acceptance of sexual harassment among adolescents, teachers, and school personnel (Bayliss, 1995; Tulloch, 1995). Mazer and Percival (1989) defined attitudes conducive of sexual harassment as those that dismiss the seriousness of harassment, place blame on the victim, or tolerate harassment as a natural, expected characteristic of heterosexual interactions. It is surprising that more than twenty years after Mazer and Percival identified them as problematic, tolerant or dismissive attitudes toward sexual harassment continue to be the norm rather than the exception in school settings. A number of qualitative studies have found that teachers rarely take adolescent girls' complaints about sexual harassment seriously; instead, girls' experiences are often minimized and dismissed with statements reflecting a "boys will be boys" attitude (Bayliss, 1995; Berman, Izumi, & Arnold, 2002; Luft & Cairns, 1999; Tulloch, 1995). In addition to dismissing boys' victimization of girls as harmless fun, teachers may even blame girls for being sexually precocious (Berman et al., 2002; Chambers, van Loon, & Tincknell, 2004; Duncan, 1999). In response to chronic sexual harassment and repeated minimization of their experiences by adults, adolescent girls can become desensitized and eventually internalize dismissive attitudes toward sexual harassment (Larkin, 1994).

Although qualitative methods have revealed dismissive attitudes toward sexual harassment among teachers, and a number of quantitative studies have examined tolerance of

sexual harassment in adult populations, relatively few studies have been conducted to explore adolescent attitudes about sexual harassment. Student attitudes about peer sexual harassment are particularly important to understand because they influence how students perceive, interpret, and respond to harassing behavior. Evidence suggests that adults with dismissive attitudes are more likely to perpetrate sexual harassment and tolerate being harassed by others (e.g., Hull & Burke, 1991; Malamuth, 1989). In addition, “tolerant attitudes contribute to a milieu in which others may more easily perpetrate violence without fearing negative consequences” (Vogt, Bruce, Street, & Stafford, 2007, p. 881). Thus, in holding dismissive attitudes, even students who are not directly involved in perpetrating sexual harassment can contribute to a cultural climate in which the victimization of adolescent girls by boys is deemed acceptable and allowed to continue. Indeed, research shows that when students perceive teachers and administrators as tolerant of sexual harassment, there is a corresponding increase in peer sexual harassment (Cheshire, 2004; Ormerod et al., 2008). This study was designed to examine the developmental pattern of dismissive attitudes toward sexual harassment among early adolescents. Another study aim was to determine the extent to which dismissive attitudes influence students’ intentions to intervene or confront sexual harassment occurring between peers.

### **The Sociocultural Model of Sexual Harassment**

Theoretical explanations of adult sexual harassment emphasize the role of gender and power, viewing sexual harassment as “the product of a gender system maintained by a dominant, normative form of masculinity” (Uggen & Blackstone, 2004, p. 66). Feminist sociocultural theories posit that the socialization of men into traditional masculine gender roles that encompass a need for power and dominance in relationships and hostility toward women promotes violence

against women (Russell, 1975; Sanday, 1990). Traditional masculinity ideology is characterized by anti-femininity, homophobia, emotional restrictiveness, competitiveness, toughness, and aggressiveness (Levant, 1996; Pleck, 1995), and this form of heterosexual masculinity continues to be privileged over all forms of femininity and alternative masculinities in the American gender system. Connell (1987) described it as *hegemonic masculinity* to denote its function as a method of social domination, a strategy for maintaining the subordination of women. It has been argued that sexual harassment is a form of sexism that serves to uphold patriarchy by enforcing a primarily masculine worldview and keeping women in less powerful positions (O'Neil & Egan, 1993). While the literature on bullying and aggression in schools has largely ignored the gendered and sexualized nature of girls' victimization by boys, the literature on sexual harassment "views harassing behaviors as arising from culturally legitimated gendered power differentials, which can render victimizing behaviors and resultant female disadvantage invisible" (Shute et al., 2008, p. 478).

Consistent with theories that sexual harassment is an exertion of male dominance over women and a manifestation of hegemonic masculinity, research consistently shows that men are more tolerant of sexual harassment than women (e.g., Fineran & Bennett, 1999; Hilton, Harris, & Rice, 2003; Strouse et al., 1994; Wiener & Hurt, 2000), and that men's endorsement of traditional masculinity ideology is correlated with attitudes conducive of sexual harassment (Blazina, Pisecco, & O'Neil, 2005; Fischer, 1996). The relation between gender role ideology and sexual harassment in adolescents has not been thoroughly studied, but some research indicates that tolerance of sexual harassment is correlated with male dominance beliefs in high school boys (Fineran & Bennett, 1999) and gender role conflict in college men (Kearney, Rochlen, & King, 2004). Terrance et al. (2004) found that high school males and females who

endorsed traditional gender role attitudes were less likely to label ambiguous verbal/visual behaviors (e.g., derogatory comments, sexist jokes, leering, and whistling) as sexual harassment. After carrying out extensive ethnographic research of adolescents in the United Kingdom, utilizing interviews, case studies, and classroom observations over a seven year period, Duncan (1999) concluded: “boy-to-girl bullying (and, indeed, much boy-to-boy bullying) can only be understood within the context of a culture of misogyny” (Shute et al., 2008, p. 479). A similar conclusion was reached by an investigator in Australia (Martino, 1997), who observed that social status was conferred on adolescent boys who displayed a particular type of masculinity that involved denigrating anything feminine. The current study was designed to assess the relation between adolescents’ endorsement of this “normalized masculinity” and dismissive attitudes toward sexual harassment.

## **Conclusion**

Despite rich theoretical and empirical understanding of sexual harassment in adult populations, the commonplace sexual harassment of adolescent girls occurring in high schools has gone unrecognized until fairly recently. Accumulating evidence suggests that rates of sexual harassment in high school are particularly high (AAUW, 2001), and female victims often suffer enduring negative consequences (Hand & Sanchez, 2000). Several qualitative investigations revealed that school-based peer sexual harassment tends to be normalized and dismissed by students and teachers, contributing to a climate in which sexually harassing behaviors are allowed to flourish despite significantly disadvantaging adolescent girls (Bayliss, 1995; Berman et al., 2002; Duncan, 1999; Luft & Cairns, 1999; Tulloch, 1995). The aim of this study is to bridge the gap between bullying and sexual harassment research by highlighting the gendered

nature of adolescent boys' victimization of girls, and demonstrating that traditional gender role ideology, particularly masculinity ideology, is an important underlying factor in peer sexual harassment. More specifically, this study examines the influence of traditional gender role ideologies on developmental trajectories of dismissive attitudes toward sexual harassment in early adolescence.

## **Chapter 2**

### **Literature Review**

As discussed in the first chapter, peer sexual harassment is a common occurrence in schools, yet the gendered nature of the phenomenon has not been acknowledged as readily in adolescent research as it has in the adult sexual harassment literature. This chapter provides a more extensive review of the literature, starting with a discussion of how sexual harassment is defined. After providing a definition of sexual harassment, the chapter includes a closer analysis of how peer victimization in schools has traditionally been studied, contrasting this approach with the feminist sociocultural framework that has guided research on adult sexual harassment. Feminist sociocultural theory and its consideration of hegemonic gender role ideologies is then described in further depth, followed by a section highlighting important cultural variations in masculinity and femininity ideologies. After explaining the importance of studying the connection between gender role ideology and attitudes toward sexual harassment during early adolescence, the chapter concludes with an explanation of methodological considerations and an outline of the main research questions and hypotheses.

#### **Defining Sexual Harassment**

Sexual harassment has been difficult to define because of the diverse legal, sociological, feminist and psychological perspectives from which it has been examined (McMaster, Connolly, Pepler, & Craig, 2002). Legal definitions of sexual harassment fall into two categories. Quid pro quo harassment occurs when a person in a position of power makes decisions that could affect the status of an employee or student based on whether or not the person complies with a sexual demand. The other category of sexual harassment defined by the Supreme Court in 1986

encompasses behavior that creates a hostile environment and impairs individuals' ability to work or function effectively. The Office of Civil Rights defined this type of sexual harassment as:

unwelcome sexual advances, requests for sexual favors, and other verbal, nonverbal, or physical conduct of a sexual nature by an employee, by another student, or by a third party, that is sufficiently severe, persistent, or pervasive to limit a student's ability to participate in or benefit from an educational program or activity, or to create a hostile or abusive educational environment. (Department of Education, 1997, p. 12038)

School-based peer sexual harassment falls under this category because targets of the harassment often suffer many negative consequences, including difficulties performing well in school due to decreased attention in class, skipping or dropping classes, and decreased quality of work (Fineran & Bennett, 1999). However, establishing which behaviors should be considered unwelcome, severe, or persistent depends on the perceptions of individual students. Therefore, it can be difficult to identify specific behaviors that contribute to a hostile environment. The apparent equal status of the students involved in peer sexual harassment, and the often-ambiguous nature of the behaviors, also makes it difficult to clearly identify those behaviors in school settings that constitute sexual harassment (Terrance et al., 2004).

Consistent with the definition offered by the Office of Civil Rights, the current study considers any unwanted and unwelcome sexual behavior as sexual harassment, including both physical forms (e.g., pulling off clothing, grabbing or touching, forcing someone to do something sexual) and non-physical forms (e.g., spreading sexual rumors, making sexual gestures, comments, or jokes, writing sexual messages or graffiti about someone). The extent to which such behaviors create a hostile environment is open to interpretation. Although research shows that ambiguous, non-physical forms of harassment are pervasive in schools and take a major toll on adolescent girls' self-esteem (Orenstein, 1994), school personnel often disregard this type of harassment as harmless fun. Recognizing that such dismissive attitudes allow sexual harassment

to continue despite its detrimental consequences for girls, the goal of this study is to gain a better understanding of how dismissive attitudes toward sexual harassment develop in early adolescence.

### **Peer Victimization in Schools**

Sexual harassment in middle schools has only recently become a subject of investigation. One potential explanation for the lack of research in this area is the widely held assumption that sexual harassment is a normative part of adolescence (Fineran & Bennet, 1999). Some investigators have attributed the rise in sexual harassment during early adolescence to the biological and social changes that accompany puberty, including the development of secondary sex characteristics, the increase in sex hormones, more frequent cross-gender interactions, and the formation of mixed-gender peer groups (e.g., Fiering & Lewis, 1991; McMaster et al., 2002; Pellegrini, 2001). Early adolescents are just beginning to explore sexuality and learn appropriate ways of expressing sexual desire, thus “sexually harassing behaviors may often be crude or aggressive attempts by some early adolescents to express developmentally appropriate sexual interest” (McMaster et al., 2002, p. 93).

When not completely dismissed as a normative feature of adolescence, school-based sexual harassment has been treated as another dimension of bullying or aggression. Bullying research has typically been conducted through the lens of developmental psychology, with an emphasis on individual characteristics that predict bullying behavior. Within this framework, bullying has been defined as a specific form of aggression that involves an imbalance of power and is usually ongoing (Sullivan, 2000). Bullying research has mainly focused on same-gender relationships, and evidence suggests that the majority of bullying victims and perpetrators are



boys (Rigby, 1998; Tulloch, 1995). Some investigators consider bullying a strategy used by young adolescents to gain access to social resources (e.g., McMaster et al., 2002; Pellegrini, 2001). Pellegrini (2001) found that bullying in sixth grade predicted increased frequency of dating in seventh grade, which in turn predicted increased perpetration of sexual harassment. The results were interpreted as evidence that “bullying and its association with dominance may be attractive to girls” (p. 130), which led the author to conclude that sexual harassment is simply an artifact of increased opportunity for cross-gender interaction in adolescence.

Although a large proportion of adolescent boys also report experiencing sexual harassment, girls experience sexual harassment at a significantly higher rate and are more likely to be targets of intrusive and intimidating forms of sexual harassment (AAUW, 2001; Hand & Sanchez, 2000; Ormerod et al., 2008). Fineran and Bennett (1999) studied 342 students in a large urban high school and found notable gender differences in the actual behaviors experienced and perpetrated. The girls experienced more of the overtly sexual forms of harassment, such as being pressured for a date, called sexually offensive names, cornered sexually, and pressured to do something sexual. The only behavior perpetrated more by girls than boys was making negative comments about someone’s body, weight, or clothing. Research also suggests that when girls perpetrate sexual harassment targeted at boys, it is usually in retaliation or self-defense in response to victimization (Duncan, 1999; Shute et al., 2008). Thus, the use of sexual harassment by adolescent girls might be “an indicator not of dominance but of reaction to dominance” (Fineran & Bennett, 1999, p. 638).

Given the gender differences in patterns of sexual harassment perpetration and victimization, along with overwhelming evidence that girls suffer substantially more negative consequences as a result of being sexually harassed, it is surprising that gender and power issues

have not been considered key factors in the literature on peer victimization in adolescence. Commenting on the disparity between the sexual harassment literature and the bullying and aggression literatures, Shute et al. (2008) suggested that the sexualized nature of cross-gender victimization has gone undetected in bullying research because of its theoretical and methodological approach. Bullying and aggression studies tend to use standardized questionnaires that ask about isolated behaviors, which does not allow for an in-depth look at the context in which the behaviors occur. To better understand the nature of cross-gender victimization in high schools, Shute et al. (2008) conducted interviews with 40 girls, 32 boys, and seven teachers without referencing the terms *sexual harassment*, *bullying*, or *aggression*. The investigators asked participants to describe typical interactions between boys and girls, common behaviors that occur, and how girls respond. They found that verbal victimization of girls by boys was an everyday occurrence. For example, boys frequently called girls “bitches,” “sluts,” and “whores,” spread sexual rumors, and made jokes and comments about girls’ body parts. Although the boys were aware that their behavior was hurtful to girls, they minimized the harmful intentions by claiming they were just joking and having fun, and they blamed the girls for taking it too seriously.

Shute et al. (2008) concluded that the everyday sexual bullying of adolescent girls in schools must be understood in terms of broader sociocultural issues, not just in terms of individual differences and pathologies. They argued: “denying the gendered nature of such behaviors permits adults to assume a political naivety among school students that is misplaced even in the case of younger children” (Shute et al., 2008, p. 487). Despite the absence of a formal hierarchical relationship among students, it is important to recognize the informal power differential that exists between male and female adolescents. Because peer sexual harassment in

school reflects and reinforces the gendered power hierarchy evident in society, it has been argued that high schools serve as training grounds for men's aggression and dominance (Hand & Sanchez, 2000; Stein, 1995; Terrance et al., 2004). The goal of this study is to gain a better understanding of how broad sociocultural influences might contribute to the development of attitudes conducive of sexual harassment even before students reach high school.

### **Gender Role Ideologies**

MacKinnon's (1979) feminist sociocultural formulation of sexual harassment as men's use of power and dominance over women has been the foundation of adult sexual harassment research and legislation and has informed many related theories about the role of gender and power differentials. For MacKinnon, the privileging of heterosexual masculinity disempowers both females and males who do not conform to traditional masculinity norms. Connell (1987) referred to this gender system as hegemonic masculinity and posited, "gender-based inequalities and discrimination are maintained and negotiated through interrelations among differently gendered (and therefore differently privileged) subjects within a larger gender system" (Uggen & Blackstone, 2004, p. 66). Tolman and Porche (2000) argued that femininity ideology is also a fundamental component of patriarchy that oppresses girls and women. According to feminist theory and oppression theory, rather than being a benign or natural set of beliefs, "oppressive hegemonic ideologies are pervasive, persistent, and vested with institutional power, are positioned as 'reality' or 'the way things are,' and operate through internalization" (Tolman & Porche, 2000, p. 366). Ideologies include norms for regulating the relationships and conduct of subordinate group members in a way that supports and enhances the power of the dominant group. Subordinate group members also tend to be dehumanized and objectified, which limits

their self-knowledge and sense of personal power when such views are internalized (Freire, 1970).

Within the social constructionist framework, masculinity and femininity ideologies are distinguished from the concept of biologically fixed masculine and feminine personality traits because ideologies are culturally constructed “social norms, rules, or expectations that dictate what is considered acceptable masculine and feminine behaviors and attitudes within particular historical and social contexts” (Oransky & Fisher, 2009, p. 57). Hegemonic masculinity and femininity ideologies are perpetuated and reproduced through differential gender role socialization, and exert influence over behavior when individuals internalize gender role norms (Mahalik et al., 2003; Pleck, Sonenstein, & Ku, 1994). Dominant cultural definitions of masculinity in the United States emphasize toughness, dominance, and the need for power in interpersonal relationships (Lisak, 1994). Traditional masculinity ideology also encompasses a denigration of femininity and homosexuality, and promotes emotional stoicism (Levant, 1996).

According to feminist psychodynamic developmental theory: “gender inequities emerging from structural power differences produced in patriarchy are a fundamental organizing principle in girls’ psychological development” (Tolman, Impett, Tracy, & Michael, 2006, p. 86). Although multiple femininity ideologies exist in America (Collins, 1990), the hegemonic femininity ideology traditionally linked with the patriarchal system of the dominant, White middle class culture in the United States is characterized by the expectation for girls and women to be nice and kind, which often requires females to silence their true thoughts and feelings in order to avoid hurting others (Brown & Gilligan, 1992; Tolman & Porche, 2000). Research and theory suggests that internalizing societal pressures to behave in “feminine” ways (e.g., avoiding conflict, suppressing anger) results in loss of voice or inauthenticity in relationships (Theran,

2009), which has been correlated with depressive symptoms, disturbed eating patterns, and low self-esteem in adolescent girls (Tolman et al., 2006). Another oppressive aspect of traditional femininity ideology is the sexual objectification of girls and women. Internalizing an objectified view of the self can lead females to relate to themselves as objects, engaging in constant body surveillance and appearance evaluation at the expense of feeling like embodied subjects of their own experiences (McKinley & Hyde, 1996; Tolman & Debold, 1993).

Oppressive masculinity and femininity ideologies also contain implicit cultural expectations or scripts related to “normal” male and female behavior in heterosexual interactions. Boys and men are portrayed as hormone-driven instigators of sexual activity while girls and women are expected to be passive objects of sexual desire responsible for regulating sexual activity (Basow & Rubin, 1999; Fine, 1988; Graber, Brooks-Gunn, & Galen, 1998). Feminist theorists have argued that the lines between flirting and dominance are hard to distinguish when aggressive sexual pursuit of females by males is normalized within the culture as a natural characteristic of heterosexual relationships (Tolman, Spencer, Rosen-Reynoso, & Porche, 2003). It was hypothesized in this study that girls who scored high on a measure of inauthenticity in relationships, which theoretically reflects a silencing of the self and the internalization of “traditional” femininity ideology, would be more likely to dismiss the seriousness of sexual harassment.

### **Cultural Variations in Gender Role Ideology**

Recognizing that the literature on masculinity and femininity ideology has been Eurocentric in focus and neglectful of other social identities (Buckley & Carter, 2005; Connell, 2005), gender researchers have begun to develop a more nuanced understanding of how men’s

and women's realities encompass a range of interconnected identities. Because gender role norms vary according to cultural, historical, and local contexts, some scholars have recommended that the more inclusive plural terms, *masculinities* and *femininities*, be used instead of the monolithic descriptors (Smiler, 2006). Such an approach honors the fluidity of hegemonic gender ideologies and the different sociocultural spaces that individual men and women occupy.

Because many studies have not found significant differences between racial or ethnic groups in the United States in terms of their endorsement of patriarchal beliefs or hegemonic masculinity ideology (Levant & Majors, 1997; Pleck, Sonenstein, & Ku, 1993), theorists and researchers have argued that a common constellation of norms comprise "traditional" masculinity in contemporary societies (Connell, 2000; Pleck, 1995). However, understanding how hegemonic masculinity ideology operates in racial minority groups requires consideration of both race-based and gender-based oppression. For example, some writers have discussed how acquiescing to pressures of hegemonic masculinity can be seen as an adaptive strategy for African American men, as a way of bargaining for access to the rewards and social status that accompany masculinity in a patriarchal society (Chen, 1999; Johnson II, 2010). Johnson II (2010), a Black American male psychologist, published a narrative of his own socialization experiences as a Black man, identifying numerous parallels between his own life experiences and bell hooks' (2004) theoretical analysis of the association between various forms of oppression. According to hooks (2004), narrow constructions of Black masculinity, such as the hyper-masculinity represented in modern hip-hop and sports culture, are outcomes of a patriarchal, White supremacist society. She posited that many Black American parents socialize their male children to believe that emotional expression, especially crying, is a form of weakness because

their children need to be “hard” enough to handle the difficulties of living in a racist society. hooks (2004) also described how mass media socialize Black boys to believe that only the strong and violent survive, and argued that the misogyny and sexism depicted in rap music reflects prevailing values in a White patriarchal society.

While recognizing that the historical influences and cultural pressures that perpetuate hegemonic or “traditional” masculinity ideology differ in important ways for White Americans and racial minorities, endorsement of traditional masculinity ideology was not expected to vary by race in this study. However, it was suspected that the extent to which adolescent boys and girls endorse “nontraditional” masculinity ideology might differ according to race. As the result of many broad social changes since the 1960s, men’s roles in society have shifted and become less clearly defined. For example, with more women in the workforce, men no longer own the breadwinner identity and many are taking more active parenting roles (Pompper, 2010). Also, popular culture and mass media have contributed to the objectification of male bodies and created new commercial markets by offering alternative definitions of masculinity, such as the fashionable, image-conscious “metrosexual” man. As a result of these social changes, definitions of masculinity and manhood have become more inclusive and flexible: “Today’s *new man* is domesticated, sensitive, expressive” (Pompper, 2010, p. 684).

Based on ethnographic research with primarily White men, Anderson (2009) outlined a theory of *inclusive masculinity*, a newer masculinity that rejects homophobia, violence, and misogyny. However, evidence suggests that the “new sensitive man” is a characteristic of middle- to upper-class White American culture, and is not as readily available or acceptable to men in racially and economically oppressed groups. For example, in her interviews with two generations of African American, Asian, White, and Latino men, Pompper (2010) asked men to

define masculinity and talk about what characteristics they consider masculine. The men of color shared perceptions of masculinities and male gender roles that were “steeped in ethnic heritage earmarked by pride, responsibility, and sometimes conflict” (p. 689). She interpreted her findings as consistent with anthropological findings that members of ethnic minority groups often resist acculturation for fear of showing disloyalty to their group by adapting to new ideas. Her interviews with age- and ethnically-diverse men did not reflect the nontraditional “inclusive masculinity” construct described by Anderson (2009). Instead, her research suggested that hegemonic masculinity ideology still has a strong impact on how men of color define themselves, perhaps because racism and classism render them systematically powerless, giving them fewer means to attain the benefits of Western patriarchy. In contrast, men with racial and/or economic privilege, who have access to financial, occupational, and political sources of power, do not need to adhere as rigidly to traditional notions of manhood to feel powerful and dominant. Given the research outlined above, it was hypothesized that White boys and girls would be more likely to endorse nontraditional masculinity ideology compared to adolescents from other racial backgrounds.

Although many studies have not found significant differences between racial and ethnic groups in patriarchal beliefs or masculinity ideology (e.g., Levant & Majors, 1997; Pleck et al., 1993), studies have revealed differences between racial/ethnic groups in femininity ideology. The dominant or hegemonic femininity ideology encompassing the idea that girls should be nice, quiet, passive, concerned about others, and in control of sexual desire describes a myth of White, middle-class femininity and does not necessarily apply to African American women (Buckley & Carter, 2005). African American women tend to describe themselves as more androgynous than White women and endorse more strong, active-instrumental traits, a difference which has been



attributed to the historical need for African American women to exemplify these traits in order to survive in the face of racial and economic oppression (Basow & Rubin, 1999; Harris, 1996).

Kane (2000) also described how differences in gender role orientation exist as a result of historical variations in gendered social arrangements by race, ethnicity, and class in the United States. “By necessity, Black women’s labor has been pivotal to the economic survival of the Black family: therefore, Black women’s definitions of womanhood have expanded beyond traditional notions of femininity to include hard work, perseverance, self-reliance, tenacity, resistance, and sexual equality” (Buckley & Carter, 2005, p. 649).

Numerous studies comparing White and Black girls indicate that Black girls are more androgynous (i.e., they endorse both feminine and masculine traits as desirable for both men and women) (Dade & Sloan, 2000; Palapattu, Kingery, & Ginsburg, 2006), maintain higher levels of self-esteem through adolescence (Buckley & Carter, 2005; Tolman et al., 2006), and are more likely to stand up for themselves (Brown & Gilligan, 1992; Morris, 2007; Taylor, Gilligan, & Sullivan, 1995; Theran, 2009). Qualitative studies of femininity ideology among adolescent girls indicate that Black and White girls from lower socioeconomic backgrounds are more likely to show resistance to hegemonic femininity than middle- or upper-class White girls, often despite pressure by schools and other institutions to conform (Brown & Gilligan, 1992; Morris, 2007). In a two-year ethnographic study of a public middle school, Morris (2007) observed Black girls competing in classrooms and standing up to authority figures and peers. Taylor et al. (1995) also found that Black girls resisted the imposition of the “perfect girl” image by being loud and outspoken toward male peers and teachers. Researchers interpret these confrontational behaviors as girls’ self-affirming strategies for managing their devalued race and gender status (Stevens, 1997). Rather than conform to femininity ideology that suppresses girls’ ability to be authentic in

relationships, these girls described alternative conceptions of femininity based on self-expression, standing up for oneself, and locating beauty internally (Brown & Gilligan, 1992).

Based on the observation that Black girls are less likely to endorse hegemonic (i.e. White, middle-class) notions of femininity, it was predicted that race would moderate the association between traditional femininity ideology and dismissive attitudes toward sexual harassment, such that the association would be stronger among White girls. However, the level of dismissive attitudes toward sexual harassment was not expected to differ significantly between White and non-White girls in the study. Although not specifically examined in the present study, other culturally relevant factors might account for dismissive attitudes among Black girls.

For instance, Stephens and Phillips (2003) described how the sexual scripts available to adolescent Black girls today have evolved from historical portrayals of African American women as wild, exotic, animalistic, and sexually promiscuous, and are especially evident in youth hip-hop culture. “Although rap music began as an underground and often highly political art form, it was quickly appropriated and depoliticized within the prevailing business climate of the 1980s ... with the majority of money fueling the industry coming from White-owned corporations” (Stephens & Phillips, 2003, p.13). As a result, modern rap music contains objectifying, derogatory, and demeaning lyrics and images of Black women. These sexist, racist, and misogynist representations of African American female sexuality are extremely problematic for Black adolescent girls. According to symbolic interaction theory, “how an individual thinks about herself, how she relates to others, and how others think and relate to her are based on symbolic meanings that have been associated with sexuality” (Stephens & Phillips, 2002, p. 5). Given that cultural sexual scripts serve as guidelines for sexual behaviors and expectations, the extent to which adolescent girls have internalized these stereotypes might influence their level of

tolerance for sexual harassment. Indeed, research has shown that frequent music video exposure is associated with greater acceptance of women as sexual objects among college women (Ward, 2002) and more accepting attitudes toward sexual harassment in high school students (Strouse et al., 1994).

Another important way that race and gender intersect to shape Black females' responses to sexual harassment is what some researchers refer to as the "code of silence" (St. Jean & Feagin, 1997). In a study by Buchanan and Ormerod (2002), the possibility of being perceived as racially disloyal was identified as a barrier to Black women reporting sexual harassment perpetrated by Black men. Results of a qualitative investigation of gender ideologies among Black adolescents suggest that a core component of femininity in this community is being supportive of Black men (Kerrigan et al., 2007). When asked what it means to be a woman, almost all of the female participants described the importance of remaining empathetic to the social constraints faced by young Black men. The girls often tolerated sexual prowess and infidelity by Black boys, attributing their partners' behaviors to social pressure from male peers to be "players."

Guided by the theoretical and empirical research described above, it was hypothesized that White and non-White students would report similar levels of dismissive attitudes toward sexual harassment. However, endorsement of traditional femininity ideology was expected to correlate positively with dismissive attitudes in White females and to play less of a role for males and non-White females.

## **Gender Role Ideology and Sexual Harassment**

Research has supported feminist sociocultural theories that socialization into traditional gender roles promotes sexual violence. Numerous studies have found that men who endorse patriarchal beliefs are more likely to accept and perpetrate sexual harassment (e.g., Check & Malamuth, 1983; DeKeserdy & Kelly, 1993; Jacobs, 1996; Powell, 1986; Sinn, 1997; Vogt et al., 2007; Wade, 2001; Wade & Brittan-Powell, 2001). In an examination of the relation between college men's masculinity ideology, gender-related traits, and attitudes toward gender equity and sexual harassment, Wade and Brittan-Powell (2001) found that men who endorsed traditional attitudes about masculinity were more likely to hold attitudes conducive of sexual harassment. Although studies have consistently found that females are less tolerant of sexual harassment than males (Fineran & Bennett, 1999; Hilton et al., 2003; Strouse et al., 1994; Wiener & Hurt, 2000), recent research suggests that beliefs about gender rather than gender itself better predict attitudes toward sexual harassment (Russell & Trigg, 2004).

For example, Russell and Trigg (2004) surveyed 457 college students and found that masculine features were not associated with tolerance of sexual harassment, while sexist beliefs (women need to be taken care of, wives should not be more successful in a career than husbands, women enjoy sexually teasing men, etc.) explained a significant amount of the variation in tolerance of sexual harassment. In a study of high school students, Hilton et al. (2003) examined the relation between traditional gender role attitudes and perceived seriousness of sexual aggression by asking respondents to indicate the seriousness of various scenarios portraying physical or sexual aggression. Boys and girls who endorsed traditional gender role attitudes rated the scenarios as less serious, especially when the scenarios portrayed male-to-female sexual aggression. Boys and girls who reported perpetrating more sexual aggression were also less

likely to evaluate the scenarios as serious. In another study of high school students, Fineran and Bennett (1999) found that endorsement of male dominance beliefs was associated with perpetration of sexual harassment in both boys and girls, although the correlation was stronger for boys.

While a positive association between traditional masculinity ideology and tolerance of sexual harassment has been demonstrated, the relation between traditional femininity ideology and sexual harassment has not been thoroughly studied. However, some evidence suggests that women with more traditional gender role attitudes are less likely to label behaviors as sexual harassment and more likely to underplay the seriousness of the behavior and its consequences (Reilly, Lott, Caldwell, & DeLuca, 1992). Using the Attitudes Toward Women Scale for Adolescents (AWSA; Galambos, Petersen, Richards, & Gitelson, 1985) to measure gender role attitudes, Terrance et al. (2004) found that high school students who endorsed traditional gender roles were less likely to label sexually implicit verbal/visual behaviors as sexual harassment compared to students with nontraditional gender role attitudes. Researchers have not directly examined the association between loss of voice and attitudes toward sexual harassment, though one could speculate that adherence to cultural pressure to suppress anger and avoid conflict would result in tolerance of sexual harassment. In a qualitative study of women's responses to interpersonal prejudice, Hyers (2007) found that college women whose situational goals were consistent with gender-related norms (i.e., to avoid conflict, to avoid being seen as "irrational" or "bitchy," or to avoid embarrassing or upsetting the perpetrator) were less likely to make an assertive response to the incident. This study extends this research by examining the influence of both masculinity and femininity ideology on dismissive attitudes toward sexual harassment.

## **Early Adolescent Development**

Perhaps because sexual harassment occurring in middle schools has been treated as a normal part of adolescence or another form of bullying, there have been few studies of the relation between gender role ideology and attitudes toward sexual harassment among early adolescents. However, it is important to investigate the development of gender role ideology and its association with attitudes toward sexual harassment in early adolescence because individuals' exploration of gender and sexuality emerges during this time. Cultural stereotypes of masculinity and femininity are perhaps never more salient than at the start of adolescence because this is the time when boys and girls are most concerned with learning what is expected of them as adults (Basow & Rubin, 1999). Furthermore, "at a time in their lives where awareness of gender differentiation is particularly heightened and conformity to stereotypical gender roles strongly reinforced, gender role attitudes may play a pivotal role in determining adolescents' perceptions of sexually harassing behaviors" (Terrance et al., 2004, p. 482).

During adolescence, students' conceptions of gender roles shift as a result of cognitive, physical, and social changes that occur at this developmental stage (Arnett, 2001). Alfieri, Ruble, and Higgins (1996) found that entrance into junior high is associated with increased gender role flexibility, which is then followed by an intensification of gender role stereotypes during the transition to high school. Young adolescents have increased cognitive capacities for considering different meanings of gender. Boys and girls begin seeing themselves and others as sexual beings as a result of hormonal changes and the development of secondary sex characteristics. Research shows that social factors also play a prominent role in changing gender-related attitudes and behaviors, perhaps to a greater extent than either physical or cognitive factors (Alfieri et al., 1996). Social influences come from various sources, including friends, teachers, parents, and the

media. Adults and peers both serve as socialization agents that perpetuate cultural constructions of masculinity and femininity through modeling and differential reinforcement of behaviors deemed appropriate on the basis of gender. During early adolescence, the influence of peer groups becomes especially salient as young people begin spending more time with friends and less time with parents (Arnett, 2001).

In a longitudinal study of gender ideology trajectories from adolescence through young adulthood, Davis (2007) found that initial gender ideologies were strongly correlated with indicators of gender egalitarianism in the family of origin. However, family factors had no additional effects on gender ideology as adolescents transitioned to adulthood. Rates and direction of change in gender ideology were more strongly influenced by individuals' experiences with education, employment, and heterosexual relationships, leading to the following conclusion: "change in ideology during young adulthood is less a function of parental and other background characteristics and more a function of the gendered experiences in young adulthood" (Davis, 2007, p. 1035). This conclusion is consistent with the idea that school cultures in which boy-to-girl sexual bullying is dismissed and normalized become training grounds for reproducing the gendered power hierarchy that exists in society (Hand & Sanchez, 2000). Therefore, the current study was designed to examine how changes in gender role ideologies are associated with different patterns of change in dismissive attitudes toward sexual harassment during middle school.

### **Methodological Considerations**

One major limitation to current sexual harassment research is the absence of studies examining psychological, attitudinal, and contextual correlates of sexual harassment in early

adolescence. Furthermore, few studies have examined how attitudes toward sexual harassment differ across racial/ethnic groups. This study addresses these limitations by examining how beliefs about masculinity and femininity are associated with early adolescents' dismissive attitudes toward sexual harassment, and how associations among these variables might differ by race and gender.

Another limitation in the existing sexual harassment literature is the disproportionate use of cross-sectional designs (e.g., McMaster et al., 2002; Ormerod et al., 2008; Pellegrini, 2001; Roscoe, Strouse, & Goodwin, 1994; Strouse et al., 1994), which are limited by their inability to detect change over time. Longitudinal analyses, on the other hand, allow researchers to describe developmental patterns and identify predictors of change (Burchinal, Nelson, & Poe, 2006). This study utilizes growth curve analysis to examine the development of dismissive attitudes toward sexual harassment. Growth curve analysis has a number of advantages over traditional methods for measuring change (Francis, Fletcher, Stuebing, Davidson, & Thompson, 1991). For example, traditional approaches to repeated measures analysis, such as the mixed model analysis of variance (ANOVA), multivariate analysis of variance (MANOVA), and analysis of covariance (ANCOVA), analyze mean group differences in change over time at the expense of considering change as a characteristic of individuals. Growth curve analysis allows researchers to study change as a continuous process by describing individual growth curve trajectories. By formulating a model of change at the individual level, investigators can detect inter-individual differences in intra-individual change. When growth parameters are allowed to vary across individual participants, it is possible to identify correlates of different patterns of change. In contrast, when growth parameters are only allowed to vary across groups, as in trend analysis, within-group variability is considered random error. Growth curve analysis allows investigators



to describe the change process for separate individuals and for groups of individuals (Francis et al., 1991).

Growth curve analysis has several additional advantages over other methods of trend analysis. Unlike with ANOVA and MANOVA, it is possible to incorporate both discrete and continuous predictors of growth, including time-varying covariates (Burchinal et al., 2006). In addition, the individual growth curve approach is well suited to designs with more than two waves of data because nonlinear patterns of change can be modeled (Francis et al., 1991). This study utilizes hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992) to estimate individual growth curves and identify predictors of developmental patterns. As outlined by Burchinal et al. (2006), using HLM (also referred to as *multilevel modeling*) to analyze longitudinal data has the following advantages: (a) individual growth curves are allowed to vary in terms of both intercepts and slopes; (b) HLM can be used with missing data; (c) the model can include time-varying covariates; and (d) the estimation method used increases precision of parameter estimates and power to identify predictors of developmental patterns. In this study, multilevel modeling is used to examine whether patterns of change in dismissive attitudes toward sexual harassment differ between individuals, and to identify characteristics that account for variation in the growth parameters. The main characteristics of interest in this study include gender, race, endorsement of traditional and nontraditional masculinity ideology, and endorsement of traditional femininity ideology. The correlation between dismissive attitudes and self-reported frequency of sexual harassment perpetration and victimization is also examined.

## Summary and Research Questions

Sexual harassment in middle schools has only recently become a subject of investigation. Although research has documented the high prevalence of sexual harassment among early adolescents, few studies have examined how young individuals perceive and interpret sexual harassment. Specifically, research is needed to understand factors related to dismissive attitudes toward sexual harassment because tolerance of harassment by individuals, among peers, and within schools is known to perpetuate and maintain the behaviors. This study attempts to understand the sexual harassment of adolescent girls by male peers from a feminist sociocultural lens, which has been the predominant theoretical model in the adult sexual harassment literature but rarely applied to the study of bullying and harassment in schools. To illuminate the gendered nature of sexual harassment in middle school, this study examines how endorsement of masculinity and femininity ideologies correlates with dismissive attitudes toward sexual harassment over time. Multilevel modeling was used to explore the first three research questions outlined below, and linear regression was used to address the fourth question. Multilevel modeling was performed separately for males and females.

1. How do dismissive attitudes toward sexual harassment change over time?
2. Are there differences between individuals in the initial level or rate of change in dismissive attitudes toward sexual harassment?
3. Are there characteristics of the individual that predict developmental trajectories?
4. Do dismissive attitudes toward sexual harassment predict intent to reduce or confront sexual harassment?

On average, dismissive attitudes toward sexual harassment are expected to decrease linearly over time. This hypothesis is based on prior research documenting increased gender role

flexibility in early adolescence (Arnett, 2001). It is presumed that adolescents might become less dismissive of sexual harassment as they become more flexible in their gender role attitudes.

**Traditional masculinity ideology.** It is hypothesized that, for both males and females, greater endorsement of traditional masculinity ideology will be associated with higher levels of dismissive attitudes toward sexual harassment over time. This hypothesis is based on theory and previous findings that more traditional gender role attitudes are associated with greater tolerance of sexual harassment in both men and women (e.g., Hilton et al., 2003; Russell & Trigg, 2004).

**Nontraditional masculinity ideology.** For males and females, it is hypothesized that there will be an interaction between race and nontraditional masculinity ideology such that nontraditional masculinity ideology will be negatively correlated with dismissive attitudes toward sexual harassment, but the association will be stronger for White students than for racial minority students. Research suggests that adolescents with nontraditional gender role attitudes are more likely to label behaviors as sexual harassment (Terrance et al., 2004). Also, Anderson (2009) found that a core component of nontraditional masculinity (which he called *inclusive masculinity*) is the rejection of violence toward and dominance over women. Race is expected to moderate the association because previous research has revealed lower acceptance of nontraditional masculinities in racially oppressed groups (Pompper, 2010).

**Traditional femininity ideology.** It is hypothesized that, for females, there will be an interaction between race and traditional femininity ideology such that endorsement of traditional femininity ideology will be positively correlated with dismissive attitudes toward sexual harassment for White females but have no effect for racial minority females. Theoretically, White females who personally adhere to hegemonic femininity ideology by remaining passive and inauthentic in relationships have also internalized associated cultural scripts that normalize

males' aggressive sexual pursuit of females. Because girls from racially oppressed groups have been shown to resist the "good girl" image by valuing self-expression and standing up to male peers and authority figures (e.g., Brown & Gilligan, 1992; Morris, 2007), it is expected that they will report lower scores on traditional femininity ideology in this study. Also, while not a focus of this study, it is recognized that dismissive attitudes toward sexual harassment among girls from marginalized racial groups may be better accounted for by other factors that are more culturally relevant (Kerrigan et al., 2007).

Traditional femininity ideology is not expected to account for dismissive attitudes toward sexual harassment in males because, in this study, femininity ideology is measured with the Inauthentic Self in Relationships subscale of the Adolescent Femininity Ideology Scale (AFIS; Tolman & Porche, 2000). Items in this scale are worded in the first-person (e.g., "I express my feelings only if I can think of a nice way of doing it"). Thus, the scale does not measure respondents' beliefs about appropriate female behavior as much as it measures the extent to which an individual personally exemplifies the characteristics that are considered central to the female gender role. The scale was developed for use with adolescent females, so nothing is known about its validity in samples of adolescent males. In contrast, the scale used in this study to measure traditional and nontraditional masculinity ideology (AMIRS; Chu, Porche, & Tolman, 2005) contains items that assess beliefs about appropriate behavior for boys in the context of interpersonal relationships (e.g., "Boys should not let it show when their feelings are hurt"). Both males and females are able to endorse these attitudes about appropriate male behavior.

**Sexual harassment victimization.** It is hypothesized that, for females, more frequent sexual harassment victimization will be associated with higher levels of dismissive attitudes

toward sexual harassment. This hypothesis is based on previous research findings that girls become more tolerant of sexual harassment as a result of having their complaints repeatedly minimized and ignored by teachers and other adults (Larkin, 1994; Stein, 1995).

**Sexual harassment perpetration.** It is hypothesized that more frequent sexual harassment perpetration will be associated with higher levels of dismissive attitudes toward sexual harassment, but the association will be stronger in the multilevel model for males. This hypothesis is based on previous findings that males and females with tolerant attitudes about sexual harassment are more likely to perpetrate sexual harassment, though the correlation is stronger for males (Fineran & Bennett, 1999).

**Intent to intervene.** It is hypothesized that males and females with higher levels of dismissive attitudes toward sexual harassment will be less likely to report that they would attempt to reduce or confront sexual harassment among their peers. This hypothesis makes theoretical sense because students would not find it necessary to reduce or confront sexual harassment if they did not believe it was a serious problem. Also, some evidence suggests that adults with dismissive attitudes are more likely to tolerate being harassed by others without engaging in efforts to confront the matter (e.g., Hull & Burke, 1991; Malamuth, 1989).

## **Chapter 3**

### **Method**

This chapter is divided into four sections. The first section describes characteristics of the study participants. The second section describes the measures selected and reviews information regarding their psychometric properties. The next section describes the study procedures. The final section outlines the procedure of multilevel modeling with longitudinal data.

#### **Participants**

The data analyzed for this study were a subset of data from an ongoing longitudinal study conducted by Dr. Dorothy Espelage and funded by the Center for Disease Control & Prevention (#1U01/CE001677), which is a broader investigation of risk and protective factors for bullying and sexual violence in youth. Secondary data analysis was performed using data collected in three Midwestern middle schools in 2008-2009. The data set only includes participants who provided data at all four waves, and participants with any missing data were excluded.

Participants from School A were 78.4% African American, 7.2% Hispanic, 4.8%

White/Caucasian, 2.4% American Indian or Alaska Native, and 7.2% identified as “Other.”

Participants from School B were 68.5% White/Caucasian, 15.1% African American, 4.1% Asian or Pacific Islander, 4.1% Hispanic, 1.37% American Indian or Alaska Native, and 6.85% identified as “Other.” Participants from School C were 53.3% African American, 31.4%

White/Caucasian, 4.8% Hispanic, 2.9% American Indian or Alaska Native, and 7.6% identified as “Other.” The sample consists of 147 males and 164 females. Of the males, 27 were in Grade 5 and 120 were in Grade 6 at the beginning of the study. Of the females, 25 were in Grade 5 and 139 were in Grade 6 at the beginning of the study. In Wave 1, 10 participants were age 10

(3.2%), 73 were age 11 (23.4%), 170 were age 12 (54.5%), 51 were age 13 (16.3%), seven were age 14 (2.2%), and one was age 16 (.3%).

## **Measures**

Participants completed a series of self-report measures included in the Middle School Bullying and Sexual Violence Survey. The scales used for the purposes of this study assess the frequency of sexual harassment victimization and perpetration, attitudes toward sexual harassment, masculinity ideology, femininity ideology, and intent to reduce or confront sexual harassment. Demographic information collected included gender, race/ethnicity, grade, and age.

**Sexual harassment.** The American Association of University Women Sexual Harassment Survey (AAUW, 2001) was used to measure the frequency with which students experienced and perpetrated sexually harassing behaviors in school within the last year. The self-report instrument consists of 26 items that measure 13 separate behaviors (e.g., “Spread sexual rumors about you” and “Pulled your clothing off or down”). Participants first indicated how often other students at school had done each of the 13 behaviors to them, and then indicated how often they had perpetrated each of the 13 behaviors against another student in school. The behaviors measured range in severity from non-physical behaviors such as making sexual jokes or comments to more intrusive physical behaviors such as forcing another student to do something sexual against his or her will. Response options range from 1 (*not sure*) to 5 (*often*). The first 13 item responses are summed to get a score for sexual harassment victimization and the second 13 item responses are summed to get a score for sexual harassment perpetration. Higher scores indicate higher frequency of experiencing or perpetrating sexual harassment. In addition to reporting how often they had perpetrated or experienced these behaviors in school

during the past year, students were asked to report the frequency with which they had experienced or perpetrated each behavior in their lifetime.

Numerous studies have obtained empirical support for the reliability and validity of the AAUW Sexual Harassment Survey in adolescent samples. In a longitudinal randomized controlled trial study supported by the National Institute of Justice, the measure was completed by 1,678 sixth and seventh grade students from three racially, ethnically, and economically diverse school districts (Taylor & Stein, 2007). Across the three waves of data collection, Cronbach alpha coefficients ranged from .68 through .75 for experiencing peer sexual harassment and from .67 through .72 for perpetrating peer sexual harassment. McMaster et al. (2002) administered a modified version of the AAUW Sexual Harassment Survey to a sample of 636 boys and 577 girls in grades 6-8. The researchers asked participants to indicate how often they had perpetrated and experienced each behavior in the last six weeks. Internal consistency estimates were high for perpetration ( $\alpha = .94$ ) and victimization ( $\alpha = .84$ ). Internal consistency estimates for the sexual harassment victimization items have ranged from .90 (Espelage & Holt, 2001) to .92 (Gruber & Fineran, 2008) in samples of high school students.

Support for the criterion-related validity of the AAUW Sexual Harassment Survey was obtained in a study of the relation between pubertal development, peer sexual harassment, and body consciousness in early adolescents (Lindberg, Grabe, & Hyde, 2007). Sexual harassment victimization was significantly correlated with self-surveillance ( $r = .39$ ) and body shame ( $r = .33$ ). Scores on the Sexual Harassment Survey were also correlated with scores on the Bullying Scale ( $r = .56$ ), Victimization in Relationships Scale ( $r = .42$ ), Abusive Behavior Inventory ( $r = .43$ ) and Childhood Trauma Questionnaire ( $r = .51$ ), further supporting the concurrent validity (Espelage & Holt, 2001).



**Dismissive attitudes toward sexual harassment.** An adapted version of the National Institute of Justice Survey of Attitudes and Behaviors Related to Sexual Harassment (Taylor & Stein, 2007) was used to measure dismissive attitudes toward sexual harassment. Taylor and Stein (2007) selected a large number of items from Ward's (2002) evaluation of an adolescent gender violence prevention program to be included in a survey administered to 1,678 middle school students across three waves of data collection. Six underlying dimensions emerged from exploratory and confirmatory factor analyses, and internal consistency estimates were calculated for each subscale at all three time points. Cronbach alpha coefficients ranged from .49 through .64 for Inappropriate Attribution of Girls' Fault in Sexual Harassment (four items), .55 through .69 for Belief that Gender Violence/Harassment is Not a Problem (six items), .34 through .46 for Attitudes that Reduce Sexual Harassment (four items), .75 through .85 for Intention to Confront Gender Violence/Harassment (six items), .73 through .79 for Attitudes Toward Preventing Sexual Harassment (three items), and .65 through .79 for Disposition About Own and Others' Personal Space (five items).

The 4-item Inappropriate Attribution of Girls' Fault in Sexual Harassment and 6-item Belief that Gender Violence/Harassment is Not a Problem subscales were used in the current study to measure dismissive attitudes toward sexual harassment. Respondents are asked to indicate how much they agree or disagree with each statement on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). Example items include "Girls are asking to be harassed when they wear short skirts and tight clothes" and "Sexual harassment isn't a serious problem in school." Item responses were averaged to compute a score for dismissive attitudes toward sexual harassment. High scores reflect a higher level of dismissive attitudes.

**Intent to reduce or confront sexual harassment.** The 4-item Attitudes that Reduce Sexual Harassment and 6-item Intention to Confront Gender Violence/Harassment subscales of the NIJ Survey of Attitudes and Behaviors Related to Sexual Harassment (Taylor & Stein, 2007) were used to measure intent to reduce or confront sexual harassment. Respondents are asked to indicate how much they agree or disagree with each statement on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). Example items include “I would tell a group of my male friends about their sexist language or behaviors if I hear it or see it” and “I have the skills to support a female friend who is being disrespected.” Item responses were averaged to compute a score for intent to reduce or confront sexual harassment. High scores reflect a higher level of intent.

**Masculinity ideology.** The Adolescent Masculinity Ideology in Relationships Scale (AMIRS; Chu et al., 2005) was used to measure students’ endorsement of traditional male norms within the context of interpersonal relationships. The scale contains 12 items such as “It is embarrassing for a boy when he needs to ask for help” and “Boys should not let it show when their feelings are hurt.” Respondents are asked to indicate their level of agreement with each statement on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). In the original measure, negatively worded items were reverse-scored and composite scores were calculated by averaging across all 12 items. However, Newlin and Espelage (2008) conducted a factor analysis of the AMIRS and found that a 2-factor solution provided the best fit to the data. They labeled the two factors Traditional Masculinity and Nontraditional Masculinity. The Nontraditional Masculinity subscale consists of items such as “I could respect a boy who backs down from a fight” and “It is important for boys to express their emotions.” The 7-item Traditional Masculinity subscale had an internal consistency estimate of .81. The 5-item Nontraditional Masculinity subscale had an

internal consistency estimate of .74. High scores on either subscale reflect greater endorsement of traditional and nontraditional masculinity ideology.

Chu et al. (2005) developed the AMIRS from the perspective that masculinity is culturally constructed and items are intended to measure the extent to which individuals endorse cultural beliefs rather than masculine personality traits. The scale was created specifically for adolescents. The original 17-item pool was based on qualitative observational and interview data from 65 adolescent boys (77% White, 14% Black, and 9% Asian American). After piloting the 17-item survey in a racially and economically diverse sample of 34 eighth grade and 27 ninth grade boys, items were refined or eliminated based on participant feedback. The resulting 12-item survey was then administered to 278 middle and high school boys in a validation study. The reliability estimates were .71 for seventh graders, .67 for eighth graders, .70 for high school students and .70 for the combined sample. To evaluate construct validity, Chu et al. examined the correlations between the AMIRS and two other scales that measure aspects of masculinity. Scores on the AMIRS were moderately correlated with scores on the Male Role Attitude Scale ( $r = .54$ ) (Pleck et al., 1994) and three subscales of the Masculine Behavior Scale (Snell, 1989): Restrictive Emotionality ( $r = .41$ ), Inhibited Affection ( $r = .26$ ), and Exaggerated Self-Reliance ( $r = .31$ ). Concurrent validity was also demonstrated with significant correlations between the AMIRS and the Attitudes Toward Women Scale for Adolescents ( $r = -.42$ ) (Galambos et al., 1985), Rosenberg Self-Esteem Scale ( $r = -.32$ ) (Rosenberg, 1965), and the Acting Out Index from the Children's Depression Inventory ( $r = .27$ ) (Kovacs, 1992). Scores on the AMIRS were not significantly correlated with the Bem Sex Role Inventory, which measures masculine and feminine personality traits ( $r = .07$ ) (Bem, 1974), supporting the discriminant validity of the AMIRS.

**Femininity ideology.** The Inauthentic Self in Relationships subscale of the Adolescent Femininity Ideology Scale (AFIS; Tolman & Porche, 2000) was used to measure students' endorsement of traditional femininity ideology. The subscale contains seven items that are worded in the first-person in order to assess the extent to which individuals have internalized cultural femininity norms. Example items include "I express my feelings only if I can think of a nice way of doing it" and "I worry that I make others feel bad if I am successful." Respondents indicate their level of agreement with each statement on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). Negatively worded items are reverse scored and the mean of item responses is computed to obtain a total score. Higher scores indicate lower levels of authenticity in relationships.

Tolman and Porche (2000) developed the AFIS from the perspective that femininity is socially constructed. Therefore, items measure femininity as an ideology rather than a set of personality traits. The scale is anchored in research on female adolescent development that shows a tendency for girls to stop expressing their true thoughts and feelings in order to avoid conflict in relationships. The scale was also designed to assess the extent to which adolescent girls have internalized a view of themselves as objects. The initial item pool was generated through two methods. First, expressions of hegemonic femininity ideology were identified in the psychological literature, existing scales, and print media. Second, focus groups were conducted with 55 White, Black, and Latina girls from poor, working-class, and middle-class backgrounds. The initial 126-item survey was then administered to 33 girls in youth programs. Items were deleted if they had limited variability or inter-item correlations below .15, or if participants identified them as problematic or confusing. The remaining 42 items were administered to 192 girls from three middle schools (42% White, 19% Black, 17% Latina, 15% biracial, and 7%

other race/ethnicity). After removing items with low variability, the Inauthentic Self in Relationships (ISR) subscale had 12 items ( $\alpha = .64$ ) and the Objectified Relationship with Body (ORB) subscale had 11 items ( $\alpha = .62$ ). Two additional items were removed from each subscale after administering the survey to a third sample of eighth grade, high school, and college students. Among eighth grade girls, the 10-item ISR subscale had a reliability estimate of .67 and the 9-item ORB subscale had a reliability estimate of .70.

Tolman and Porche (2000) also investigated the construct, discriminant, and concurrent validity of the AFIS. The ISR subscale was negatively correlated with the Mutuality in Relationships subscale of the Mutual Psychological Development Questionnaire ( $r = -.39$ ) (Genero, Miller, Surrey, & Baldwin, 1992), supporting its construct validity. As predicted, the AFIS was not correlated with the Bem Sex Role Inventory (Bem, 1981), a trait measure of femininity. Correlations with theoretically related variables, including self-esteem ( $r = -.62$ ) and depression ( $r = .56$ ), supported the concurrent validity of the AFIS.

## **Procedures**

In spring 2008, the primary investigator attended parent-teacher conferences and staff meetings and announced the study in school newsletters, district newsletters, and emails from school principals. Letters describing the study purpose and procedures were sent to parents through mail and through email from the school principals along with parental consent forms for his/her child's participation in the data collection. Parents were asked to return the form only if they did not want their child to participate in the study. In addition, to ensure that participants understood their rights and risks, signed student assent forms were obtained at each wave of data collection. After the assent script was read aloud to students whose parents had passively

consented to their participation, students were asked to indicate their consent by signing the first page of the survey. Students were told that their participation was strictly voluntary and they could stop responding at any point during the survey and skip questions they did not want to answer. Students were also told that their answers would remain confidential unless they indicated that they had intentions of harming themselves or that someone else was harming them. They were also told that their names would be converted to numbers and removed from their survey answers before data entry.

The self-report surveys were administered in classrooms of 20 to 25 students during designated class periods. Survey administration lasted approximately 40 minutes. At each data collection, trained graduate and undergraduate students read the survey items out loud to participants, monitored participants' progress, and ensured data integrity by answering questions and noting when participants appeared to be responding randomly to survey items. The importance of privacy was emphasized during survey administration and students were given a blank sheet of paper to cover their answers as they worked. The same study procedures were followed in spring 2008, fall 2008, spring 2009, and fall 2009.

Participant names were converted to unique ID numbers within three hours of survey administration and removed from the survey and shredded. Participant names and ID numbers were stored in an Excel spreadsheet accessible only to the primary investigator. The smaller dataset used for this study only contains ID numbers. All research materials are stored on password-protected hard drives and university servers, and in locked file cabinets.

**Multilevel modeling.** Multilevel modeling is a flexible method for analyzing longitudinal data (Singer & Willett, 2003). A multilevel model for change includes four types of variables—the outcome measure, a measure of time, one or more time-varying predictors, and one or more

time-invariant predictors. In the current study, the outcome variable is a continuous measure of dismissive attitudes toward sexual harassment. This variable changes over time and was measured at each time point. Time is a predictor variable that can be measured in a number of ways. In this study, the data collection time point (1-4) was used as the indicator of time. Time was centered to give the intercept a meaningful interpretation. Centering the temporal predictor involves subtracting a constant from each value for time. In the current study, time was centered at the first wave of data collection by subtracting one from each time value (i.e., Time - 1). Therefore, the level-1 intercept refers to the true initial level of dismissive attitudes at the beginning of the study.

***The level-1 submodel.*** The level-1 component of the multilevel model is also known as the individual growth model. This model represents the estimated within-person change over time. Because time-varying predictors change within person over time, they are considered within-person variables and are included in the level-1 submodel. Using the notation of Singer and Willett (2003), the form of this model with one time-varying predictor is:

$$\text{Level-1: } Y_{ij} = \pi_{0i} + \pi_{1i}TIME_{ij} + \pi_{2i}X_{2ij} + \epsilon_{ij}. \quad (1)$$

In this model,  $Y_{ij}$  is the predicted outcome for person  $i$  at time  $j$ ,  $TIME_{ij}$  is the value of time for person  $i$  at time  $j$ ,  $X_{2ij}$  is the time-varying predictor,  $\pi_{0i}$  (initial status) is the value of  $Y$  when time is zero and the time-varying predictor is zero,  $\pi_{1i}$  (slope) is the conditional rate of linear change, controlling for the effects of time-varying predictors,  $\pi_{2i}$  is the unique effect of  $X_2$  on  $Y$ , and  $\epsilon_{ij}$  is the within-person error term. In the current study,  $Y$  represents dismissive attitudes toward sexual harassment and time-varying predictors include masculinity ideology,

femininity ideology, and sexual harassment perpetration and victimization in school over the past year.

**The level-2 submodel.** The level-2 submodel allows for examination of the relation between inter-individual differences in change trajectories and time-invariant characteristics of individuals. At this level, the individual growth parameters estimated in the level-1 model are the outcome variables and time-invariant predictors can be added to explain variation in these parameters. The form of the level-2 model with one time-invariant predictor is:

$$\begin{aligned}\text{Level-2: } \pi_{0i} &= \gamma_{00} + \gamma_{01}RACE_i + \zeta_{0i} \\ \pi_{1i} &= \gamma_{10} + \gamma_{11}RACE_i + \zeta_{1i} \\ \pi_{2i} &= \gamma_{20}.\end{aligned}\tag{2}$$

In this model, *RACE* is a time-invariant categorical predictor (0 = Racial Minority, 1 = White),  $\gamma_{00}$  is the population average of the level-1 intercepts,  $\pi_{0i}$ , when level-2 predictor values equal zero,  $\gamma_{10}$  is the population average of the level-1 slopes,  $\pi_{1i}$ , when level-2 predictor variables equal zero, and  $\gamma_{20}$  is the effect of the level-1 time-varying predictor. Level-2 predictors explain between-person variation in the level-1 parameters. The error terms,  $\zeta_{0i}$  and  $\zeta_{1i}$ , represent individual differences in the level-1 parameters that are not explained by the level-2 predictors. The equation for  $\pi_{2i}$ , the parameter for the time-varying predictor,  $X_{2ij}$ , does not include a level-2 residual. This constrains the effect of the predictor to be constant across population members. An error term could be added to this equation in order to allow the effect of  $X_{2ij}$  to vary randomly across individuals in the population. Singer and Willett (2003) discourage allowing the effects of time-varying predictors to vary at level-2 unless there is a strong theoretical reason and sufficient data to estimate additional variance components.



The level-1 and level-2 submodels can be collapsed algebraically into a composite model. The composite specification of the level-1 and level-2 submodels takes the form:

$$\text{Composite: } Y_{ij} = \gamma_{00} + \gamma_{01}RACE_i + \gamma_{10}TIME_{ij} + \gamma_{11}RACE_i \times TIME_{ij} + \gamma_{20}X_{2ij} + (\varepsilon_{ij} + \zeta_{0i} + \zeta_{1i}TIME_{ij}). \quad (3)$$

In the composite model, the random effects appear in the parentheses and the fixed effects are on the left outside of the parentheses. The composite specification is mathematically equivalent to the level-1/level-2 specification.

***Building and comparing models.*** The goal of statistical modeling is to find a model that includes all necessary predictors and no unnecessary ones. In other words, the goal is to find the best-fitting model that is also parsimonious. To arrive at the best-fitting growth curve model, a series of models is systematically fit to the data, entering and retaining variables based on theoretical and statistical considerations. Successive models can be compared in several ways. First, through sequential examination and comparison of estimated fixed effects and variance components, it can be ascertained whether, and how much, additional variance in initial status and rate of change is explained by adding predictor variables. Second, goodness-of-fit statistics can be compared to assess overall model fit. If two models are nested, they can be compared using the deviance statistic. A smaller deviance statistic indicates a better fit to the data. Two models are nested if one model can be obtained by constraining one or more parameters of the other model. The more complex model will always have a smaller deviance than the simpler model, and should be preferred if the difference in deviance between the models is statistically significant. The test of statistical significance is a  $\chi^2$  test with degrees of freedom equal to the difference in the number of parameters between models. If two models are not nested, they can

be compared with the Akaike information criterion (AIC) and the Bayesian information criterion (BIC). Smaller values indicate better fit to the data.

***Prototypical plots.*** For longitudinal analyses, numerical summaries of the results of model fitting can be difficult to interpret. Graphing the fitted trajectories for prototypical individuals can aid in understanding the effects in multilevel models for change (Singer & Willett, 2003). To illustrate the results of fitting sequential models to the male and female data, prototypical plots were created by graphing estimated trajectories of dismissive attitudes toward sexual harassment for selected values of the predictor variables. For categorical predictors, separate lines were plotted for each group. For continuous predictor variables, lines were drawn for representative values of the predictor.

## **Chapter 4**

### **Results**

This chapter describes and summarizes the statistical analyses performed to address the research questions and hypotheses. First, descriptive statistics and results of preliminary analyses are reported. Next, exploratory analyses of individual change patterns are described, followed by an explanation of the steps involved in growth curve modeling. The results of fitting a series of multilevel models for change are then presented separately for females and males. Finally, the chapter concludes by reporting the results of a regression analysis conducted to explore the association between dismissive attitudes and intent to reduce or confront sexual harassment.

#### **Preliminary Analyses**

Internal consistency estimates were examined for all study measures at each time point and are reported in Table 1. All of the measures demonstrated acceptable reliability, with alpha coefficients ranging from .66 through .94. Because the dataset used for this study only included data from students who participated in all four waves, comparisons were made between this group of students and the group of students from the original dataset who missed one or more time points to determine if they differed in systematic ways. The students with missing time points generally reported higher rates of sexual harassment victimization and perpetration, indicating that the sample data used in this study may not include the students at highest risk for these behaviors. This was acceptable given that the study aim was to understand how gender role attitudes within the average student population might contribute to a school culture in which sexual harassment is normalized, thus allowing the behavior of a few individual perpetrators to continue. Frequency distributions and histograms were examined to identify participants who

scored more than two standard deviations above or below the mean on sexual harassment perpetration, sexual harassment victimization, or dismissive attitudes toward sexual harassment. The multilevel models were tested with and without the outliers. Because the results were nearly identical, the outliers were included in the models reported and interpreted in this chapter.

The means and standard deviations of the main study variables are presented by gender for all four waves of data collection in Table 2. Examination of the means suggests that, on average, dismissive attitudes toward sexual harassment tended to decrease over time for both boys and girls. To determine if there were differences between demographic groups on any of the main study variables, group means were compared for gender, race, grade, and school using data collected in Wave 1.

**Gender differences on Wave 1 measures.** Independent-sample *t* tests were used to examine mean differences between males and females on each study variable. Females reported significantly lower scores on traditional masculinity ideology ( $M = 1.768$ ) compared to males ( $M = 2.054$ ),  $p < .001$ , and reported significantly higher scores on nontraditional masculinity ideology ( $M = 2.893$ ) compared to males ( $M = 2.473$ ),  $p < .001$ . Males and females did not differ in their endorsement of traditional femininity ideology. Although males and females reported perpetrating sexual harassment in school with similar frequency, females reported significantly higher rates of sexual harassment victimization ( $M = 2.159$ ) compared to males ( $M = 2.093$ ),  $p < .05$ . Males reported significantly higher scores on dismissive attitudes toward sexual harassment ( $M = 2.014$ ) compared to females ( $M = 1.862$ ),  $p < .01$ . Females reported significantly higher intent to reduce or confront sexual harassment ( $M = 2.960$ ) compared to males ( $M = 2.756$ ),  $p < .01$ .

**Racial differences by gender on Wave 1 measures.** Given the small within-group samples sizes for American Indian (males,  $n = 3$ ; females,  $n = 4$ ), Asian American (males,  $n = 2$ ; females,  $n = 1$ ), and Hispanic (males,  $n = 8$ ; females,  $n = 9$ ) students who participated in the study, group means were only compared between students who identified as Black/African American (males,  $n = 81$ ; females,  $n = 83$ ) and those who identified as White/Caucasian (males,  $n = 38$ ; females,  $n = 53$ ). There were fewer significant differences between Black and White males than between Black and White females. The only study variables that differed by race for males were nontraditional masculinity ideology and dismissive attitudes toward sexual harassment. White males reported higher scores on nontraditional masculinity ( $M = 2.678$ ) compared to Black males ( $M = 2.315$ ),  $p < .01$ . White males reported lower levels of dismissive attitudes toward sexual harassment ( $M = 1.894$ ) compared to Black males ( $M = 2.119$ ),  $p < .05$ . Among females, Black and White participants reported similar levels of dismissive attitudes toward sexual harassment. Black females scored higher on traditional masculinity ideology ( $M = 1.863$ ) compared to White females ( $M = 1.647$ ),  $p < .01$ . White females reported higher scores on nontraditional masculinity ideology ( $M = 3.193$ ), traditional femininity ideology ( $M = 2.470$ ), and intent to reduce or confront sexual harassment ( $M = 3.134$ ) compared to Black females ( $M = 2.697$ ,  $2.233$ , and  $2.848$ , respectively). Although there was not a significant difference in the frequency of sexual harassment victimization reported by Black and White females, Black females reported a higher frequency of perpetrating sexual harassment ( $M = 2.074$ ) than did White females ( $M = 2.003$ ),  $p < .01$ .

**School differences on Wave 1 measures.** A series of one-way ANOVAs and Scheffé comparisons were conducted to assess mean differences across schools on each study variable. There was not a significant difference between schools on traditional masculinity ideology or

traditional femininity ideology. A statistically significant difference was found between schools on mean nontraditional masculinity scores,  $F(2, 307) = 13.22, p < .001$ . Post hoc Scheffé comparisons indicated that students from School B had significantly higher nontraditional masculinity ideology than students from School A or School C, while Schools A and C did not differ. The reported frequency of sexual harassment perpetration also differed between schools,  $F(2, 307) = 9.29, p < .001$ , with students from School A reporting more frequent perpetration of sexual harassment compared to students from School B or C. Similar mean frequencies of sexual harassment victimization were reported in all three schools. School A also had a significantly higher mean score for dismissive attitudes toward sexual harassment than Schools B and C,  $F(2, 307) = 5.59, p < .01$ . A statistically significant difference was found between schools on intent to reduce or confront sexual harassment,  $F(2, 307) = 6.31, p < .01$ , with students from School B reporting higher scores than students from Schools A or C. Given the significant mean differences between schools on a number of predictor variables, the effect of school membership was tested in the multilevel models for males and females and was found to be non-significant.

**Grade differences on Wave 1 measures.** Independent-sample  $t$  tests were used to examine mean differences between fifth grade students ( $n = 52$ ) and sixth grade students ( $n = 260$ ) on each study variable. The only significant difference between fifth and sixth grade students was on traditional masculinity ideology. Students in sixth grade at the beginning of the study reported higher scores on traditional masculinity ideology ( $M = 1.939$ ) compared to students in fifth grade ( $M = 1.731$ ),  $p < .05$ . Given the similarity between fifth and sixth grade students on most variables of interest, and the relatively small number of fifth graders in the sample, data from all students were combined for multilevel modeling.

**Correlations between variables at all waves.** Correlations were computed between the study measures at each time point. The correlation coefficients are presented in Table 3, with correlations for males below the diagonal and correlations for females above. The correlations between many of the study measures were statistically significant. Traditional masculinity ideology was positively correlated with dismissive attitudes toward sexual harassment in both males and females across all four waves, while nontraditional masculinity ideology tended to be negatively correlated with dismissive attitudes. For both males and females, sexual harassment perpetration and victimization were positively correlated in all waves. However, sexual harassment perpetration and victimization were not strongly correlated with any other study variables. In both males and females, dismissive attitudes toward sexual harassment tended to be negatively correlated with intent to reduce or confront sexual harassment.

To examine the stability of study constructs over time, correlations were computed for each variable across waves. The stability coefficients are presented by gender in Table 4, with coefficients displayed above the diagonal for females and below the diagonal for males. As shown in Table 4, the correlations between all measures from Wave 1 through Wave 4 show significant stability.

### **Descriptive Analysis of Change**

Graphical strategies were used to explore how individuals in the dataset changed over time. The purpose of exploratory analyses is to get a general understanding of each person's temporal pattern of growth. The simplest way of visualizing how a person changes over time is to examine an empirical growth plot in which the individual's outcome is plotted against time. Figure 1 displays a cluster of empirical growth plots for 16 randomly selected participants. Inspection of these growth plots suggested that dismissive attitudes toward sexual harassment

tend to decrease over time, although some adolescents did not fit this trend. The growth trajectories for these 16 individuals were then summarized with fitted person-specific ordinary least squares (OLS) regression models. As depicted in Figures 2 and 3, some individual change patterns appeared linear and others curvilinear. In specifying the multilevel model, a common functional form was adopted across participants so that individuals could be compared using the same set of numerical summaries.

Having summarized how individuals change over time using empirical growth plots, inter-individual differences in trajectories were explored by plotting the entire set of smoothed individual trajectories on a single graph. The linear trajectories for females and males are displayed in Figures 4 and 5, respectively. Both graphs show that most adolescents became less dismissive of sexual harassment over time, although there appeared to be substantial inter-individual heterogeneity in change patterns. The intercepts and slopes varied widely, indicating differences in the initial level of dismissive attitudes as well as the rate of change. Multilevel growth curve modeling, using full maximum likelihood estimation (FML), was implemented to examine the extent to which personal characteristics that vary between individuals account for the differences in change trajectories of dismissive attitudes toward sexual harassment.

### **Growth Curve Modeling**

A series of multilevel models was fit separately to the female and male data using PROC MIXED in SAS (SAS Institute, 2003). Six substantive models fit for females are interpreted first, followed by an interpretation of six models fit for males. The models designed to guide interim decision making about which variables to enter and retain in the model are not reported. Tables 5 and 6 display the level-1/level-2 and composite specifications for the models fit for females and



males, respectively. The numerical results of model testing for females and males, including parameter estimates and fit statistics, are presented in Tables 7 and 8, respectively.

As described below, the first two models tested in both sets of data were the *unconditional means model* (or the *null model*) and the *unconditional growth model*. These models partition and quantify the outcome variation that exists within and between people, and also provide two baselines against which subsequent models can be evaluated (Singer & Willett, 2003). After fitting the unconditional models, a systematic sequence of models was tested to address the research questions. Decisions to enter, retain, and remove predictors were based on a combination of theory, hypothesis testing, and comparison of model fit.

The predictors of primary interest in this study were traditional and nontraditional masculinity ideology, and traditional femininity ideology. These predictor variables were coded in several different ways to address specific research questions. First, the initial scores on traditional masculinity, nontraditional masculinity, and traditional femininity were centered on their Wave 1 means and included as time-invariant continuous variables in the level-2 submodel. When time-invariant predictors are centered on the sample mean by subtracting the sample mean from each observed value, the level-2 fitted intercepts,  $\gamma_{00}$  and  $\gamma_{10}$ , represent the average fitted values of initial status and rate of change. Including the centered time-invariant predictors, labeled *CTRMAS*, *CNTRMAS*, and *CFEMINI*, addressed the question: Does relative standing on traditional masculinity, nontraditional masculinity, and traditional femininity at Wave 1 account for variation in the initial level and/or rate of change in dismissive attitudes toward sexual harassment?

Traditional masculinity, nontraditional masculinity, and traditional femininity were also recoded into dichotomous variables by classifying individuals as either *high* or *low* on these

characteristics based on Wave 1 scores. Scores in the upper quartile were assigned a value of 1 (*high*), and all other scores were assigned a value of 0 (*low*). The dichotomous time-invariant predictors, labeled *DITRADMAS*, *DINTMASC*, and *DIFEMINI*, were entered in the level-2 submodel to address the question: Does the initial level and/or rate of change in dismissive attitudes differ between individuals who endorse high versus low levels of traditional masculinity, nontraditional masculinity, or traditional femininity ideology at the beginning of the study?

Traditional masculinity, nontraditional masculinity, and traditional femininity were also treated as time-varying predictors in the level-1 submodel. The time-varying predictors were coded in two ways. First, the dataset was restructured so that values for these predictors in each record would refer to a previous point in chronological time. This method was recommended by Singer and Willett (2003) to minimize the interpretive dilemma of reciprocal causation that arises when internal time-varying predictors (e.g., attitudes, beliefs, psychological states) are entered in the model. Because internal time-varying predictors describe individuals' potentially changeable status over time, the causal link may be from predictor to outcome but could also be in the opposite direction. Therefore, it is more logical to link prior status on a predictor with current status on an outcome. In the rearranged dataset, prior status on traditional masculinity (*TRADMAS*), nontraditional masculinity (*NTMASC*), and traditional femininity (*FEMININ*) was linked to current status on dismissive attitudes toward sexual harassment.

Finally, the variables for traditional masculinity, nontraditional masculinity, and traditional femininity ideology were re-coded by centering students' scores on their Wave 1 scores. The within-person centered scores represent the change, or deviation, in masculinity and femininity ideology from an individual's initial level. Entering these time-varying predictors,

labeled *DEVTM*, *DEVNTM*, and *DEVFEM*, into the level-1 submodel addressed the question: Are changes in traditional and nontraditional masculinity and traditional femininity systematically associated with changes in dismissive attitudes toward sexual harassment?

Sexual harassment perpetration and victimization were also coded to represent dichotomous categories (0 = Low, 1 = High) based on the frequency of lifetime sexual harassment victimization and perpetration reported in Wave 1. The dichotomous variables, labeled *DIPERP* and *DIVIC*, were treated as time-invariant predictors in the level-2 submodel. Sexual harassment victimization and perpetration were also treated as time-varying predictors in the level-1 submodel. Raw scores representing the frequency of experiencing and perpetrating sexual harassment in school were used for the time-varying predictors, labeled *SHPERP* and *SHVIC*.

As suggested by Singer and Willett (2003), the effect of each time-invariant predictor on the intercept and slope was examined separately at the outset, and predictors that did not have a significant fixed effect on either parameter were excluded from subsequent models. A sequence of models was then tested to arrive at the best fitting level-2 submodel. Time-varying predictors were then added to the level-1 submodel. Models were compared using  $R^2$  statistics that represent the proportional reduction in mean squared prediction error at each level in comparison to the null model (Recchia, 2010). Model comparisons were also made with the deviance, AIC, and BIC fit statistics.

### **Modeling Change in Females**

**Unconditional means model.** The unconditional means model (UMM) does not include any predictor variables or a time variable. It stipulates that the true individual change trajectory

for all persons is completely flat, sitting at elevation  $\pi_{0i}$  with no change over time. If this model is not rejected, it means there is no evidence for longitudinal change and further model testing is not useful. The form of the UMM is shown in Equation 4.

$$\begin{aligned} \text{Level-1: } Y_{ij} &= \pi_{0i} + \varepsilon_{ij} \\ \text{Level-2: } \pi_{0i} &= \gamma_{00} + \zeta_{0i} \end{aligned} \tag{4}$$

In this model,  $\pi_{0i}$  is the mean of  $Y$  for person  $i$  (within-person mean),  $\gamma_{00}$  is the mean of  $Y$  across all persons in the sample (grand mean),  $\varepsilon_{ij}$  is the difference between person  $i$ 's score at time  $j$  and the within-person mean, and  $\zeta_{0i}$  is the difference between person  $i$ 's mean and the grand mean.

The purpose of fitting this model is to describe and partition the outcome variation. The within-person variance,  $\sigma_{\varepsilon}^2$ , is the pooled scatter of each person's data around his or her own mean. The between-person variance,  $\sigma_0^2$ , is the pooled scatter of the person-specific means around the grand mean. Estimating these variance components allows us to assess the amount of outcome variation that exists at each level, and single parameter hypothesis tests using the  $z$ -statistic indicate if a parameter is statistically different from zero. A statistically significant estimate for within-person variance indicates that it would be useful to add time-varying predictors to the level-1 submodel, and significant between-person variance indicates that time-invariant predictors should be added to the level-2 submodel.

Model A in Table 7 displays the results of fitting the UMM to the female data. The fixed effect,  $\gamma_{00}$ , is the estimated grand mean of dismissive attitudes across all occasions and individuals. Rejection of its associated null hypothesis ( $\gamma_{00} = 1.758, p < .001$ ) confirms that the average level of dismissive attitudes in female adolescents is different from zero. The estimated

within-person variance,  $\sigma_{\epsilon}^2$ , was .124; the estimated between-person variance,  $\sigma_0^2$ , was .068.

Both variance estimates were statistically significant ( $p < .001$ ). Therefore, it can be concluded that the average female adolescent's level of dismissive attitudes toward sexual harassment changes over time, and that females differ from each other in their dismissive attitudes. Adding predictors to the level-1 and level-2 submodels could potentially account for the unexplained within-person and between-person variation in dismissive attitudes.

The intraclass correlation coefficient (ICC) was computed to evaluate the relative magnitude of the within-person and between-person variance components. The ICC ( $\rho$ ) is a statistic that describes the proportion of the total outcome variation that resides between people. Formally,  $\rho = \sigma_0^2 / (\sigma_0^2 + \sigma_{\epsilon}^2)$ . For dismissive attitudes toward sexual harassment in females,  $\rho = .068 / (.068 + .124) = .35$ . This estimates that 35% of the total variation in dismissive attitudes is attributable to differences between female adolescents. The ICC is also a measure of the average autocorrelation of the dependent variable over time (Singer & Willett, 2003). Thus, the estimated average stability of dismissive attitudes in females is .35.

**Unconditional growth model.** In the unconditional growth model (UGM), the predictor *TIME* was introduced into the level-1 submodel. Based on exploratory analyses, a linear change trajectory was posited. This model (Model B) takes the form:

$$\begin{aligned} \text{Level-1: } Y_{ij} &= \pi_{0i} + \pi_{1i} \text{TIME}_{ij} + \epsilon_{ij} \\ \text{Level-2: } \pi_{0i} &= \gamma_{00} + \zeta_{0i} \\ \pi_{1i} &= \gamma_{10} + \zeta_{1i}. \end{aligned} \tag{5}$$

The model in Equation 5 specifies that  $Y_{ij}$  (individual  $i$ 's observed score on occasion  $j$ ) deviates by  $\epsilon_{ij}$  from her true change trajectory. Because the model does not include any substantive predictors, each part of the level-2 submodel stipulates that an individual growth

parameter (either  $\pi_{0i}$  or  $\pi_{1i}$ ) is the sum of an intercept (either  $\gamma_{00}$  or  $\gamma_{10}$ ) and a level-2 residual (either  $\zeta_{0i}$  or  $\zeta_{1i}$ ). The level-1 residual variance,  $\sigma_e^2$ , now summarizes the scatter of each person's data around her own linear change trajectory. The level-2 residual variances,  $\sigma_0^2$  and  $\sigma_1^2$ , now summarize between-person variability in initial status and rate of change.

The results of fitting Model B are presented in Table 7. The intercept (1.841) and slope (-.056) estimates were both statistically different from zero ( $p < .001$ ). Thus, the average female adolescent had a score of 1.841 at the beginning of the study, which declined linearly over time at a rate of .056 each semester. This linear change trajectory is plotted in Figure 6. To examine the possibility of nonlinear effects, a second model was tested with a quadratic term for time. The quadratic term had a non-significant fixed effect and did not improve model fit so it was excluded in subsequent analyses.

Quantifying the proportion of outcome variation explained by a model's predictor variables is complicated in multilevel models because the total outcome variance is partitioned into several variance components. Snijders and Bosker (1999) recommended examining the variation at each level separately, and Recchia (2010) published a SAS macro that calculates estimates of these quantities for a two-level model that has been fit with SAS PROC MIXED. The population parameters,  $R_1^2$  and  $R_2^2$ , are always nonnegative and do not decrease when explanatory variables are added to the model. However, estimates of these population parameters do not have these properties, and model misspecification should be suspected if negative values are obtained or if estimates decrease by more than .05 when explanatory variables are added (Snijders & Bosker, 1999).

If the true change trajectory in the population is linear, the UGM does a better job of predicting the observed outcome data than the UMM, resulting in smaller level-1 residuals and a

smaller estimate of within-person variance. The level-1 variance decreased from .124 in Model A to .109 in Model B. The estimate of  $R_1^2$  was .02, indicating that an additional 2% of within-person variation was explained by linear time. However, the within-person variance was still statistically different from zero ( $p < .001$ ), suggesting that time-varying predictors should be added to the level-1 submodel to account for additional variation in dismissive attitudes.

The level-2 variance components quantify the amount of unpredicted variation in the individual growth parameters. The variability in both initial status ( $\sigma_0^2 = .113, p < .001$ ) and rate of change ( $\sigma_1^2 = .006, p < .05$ ) was statistically different from zero, suggesting that it would be worthwhile to add level-2 predictors that could explain heterogeneity in these parameters. The estimate of  $R_2^2$  was -.02, indicating that the addition of *TIME* to the level-1 submodel slightly increased the level-2 variance.

In the UGM, the covariance of the level-2 residuals,  $\sigma_{01}$ , estimates the population covariance between true initial status and true change. Interpretation is aided by expressing the covariance as a correlation coefficient:  $r = \sigma_{01} / \sqrt{(\sigma_0^2 * \sigma_1^2)} = -.019 / \sqrt{(.006 * .113)} = -.73$ . This indicates a strong negative correlation between initial status and rate of change, such that a higher initial level of dismissive attitudes toward sexual harassment is associated with a slower rate of decline over time.

To test whether the addition of *TIME* as a level-1 predictor improved model fit, the UMM and UGM were compared using the deviance statistic. Because the UGM estimates three more parameters than the UMM ( $\gamma_{10}$ ,  $\sigma_1^2$ , and  $\sigma_{01}$ ), the  $\chi^2$  difference test has three degrees of freedom. The reduction in deviance due to the addition of *TIME* was statistically significant:  $\chi^2(3) = 683.9 - 654.5 = 29.4, p < .001$ .

**Model C: Examining the effects of traditional femininity ideology.** Model C included the interaction between *RACE* and *DIFEMINI* to test the hypothesis that traditional femininity ideology would be more strongly associated with dismissive attitudes toward sexual harassment among White females compared to racial minority females. As shown in Table 7, the fixed effect for the interaction was statistically significant ( $\gamma_{01} = -.244, p < .001$ ), indicating that the effect of femininity ideology on dismissive attitudes toward sexual harassment varies by race. The intercept ( $\gamma_{00} = 1.863, p < .001$ ) represents the average estimated level of dismissive attitudes at the beginning of the study when the predictor variables equal zero.

The effect of *DIFEMINI* on the slope was also significant, indicating that the rate of change in dismissive attitudes varies between females who initially endorse a high versus low level of traditional femininity ideology. The estimated rate of change in *DISMISS* for females who endorsed a low level of traditional femininity ideology was  $-.070 (p < .001)$ . The estimated differential in the rate of change between female adolescents with high versus low endorsement of femininity was  $.054 (p < .05)$ . Thus, the decline in dismissive attitudes toward sexual harassment was not as steep for females who endorsed a high level of femininity ideology at the beginning of the study ( $-.070 + .054 = -.016$ ).

The level-1 residual variance would not be expected to change as a result of adding time-invariant predictors to the level-2 submodel. The estimated within-person variance remained statistically different from zero in Model C ( $\sigma_e^2 = .110, p < .001$ ). The variability in both initial status ( $\sigma_0^2 = .114, p < .001$ ) and rate of change ( $\sigma_1^2 = .006, p < .10$ ) was statistically different from zero, indicating that additional level-2 predictors could further explain heterogeneity in these parameters. The  $R_1^2$  statistic was .034, indicating that Model C explained an additional 3.4% of the within-person variance compared to the null model. The estimate of  $R_2^2$  was  $-.001$ ,



indicating that the addition of *DIFEMINI* and *RACE* to the level-2 submodel did not reduce the mean squared prediction error at level-2.

To examine the improvement in model fit, Model C was compared to the unconditional growth model (Model B) using the deviance statistic. Because Model C estimated two more parameters than the UGM ( $\gamma_{01}$  and  $\gamma_{11}$ ), the  $\chi^2$  difference test had two degrees of freedom. The reduction in deviance was statistically significant:  $\chi^2(2) = 654.5 - 642.1 = 12.4, p < .001$ .

**Model D: Examining the effects of masculinity ideology.** The effects of adding traditional and nontraditional masculinity ideology to the level-2 submodel were evaluated in the next sequence of models tested. The fixed effect of *CNTRMAS* was not significant when traditional femininity ideology and traditional masculinity ideology were also in the model. The centered variable for traditional masculinity, *CTRMAS*, was also removed because the categorical predictor, *DITRADMAS*, had a stronger effect on the intercept parameter. In addition, the effects of adding sexual harassment perpetration and victimization to the model were evaluated. *DIVIC* did not have a significant effect on the intercept or slope parameter, and was therefore not included in subsequent models. Thus, Model D includes *DITRADMAS*, *DIPERP*, and the interaction of *RACE* and *DIFEMINI* as level-2 predictors of the intercept, and *DIFEMINI* as a level-2 predictor of the slope. The equation for Model D is shown in Table 5.

The results of fitting Model D are presented in Table 7. The estimated initial level of dismissive attitudes toward sexual harassment was lower in Model D ( $\gamma_{00} = 1.779$ ) compared to Model C ( $\gamma_{00} = 1.863$ ), but remained significantly different from zero ( $p < .001$ ). The interaction between *RACE* and *DIFEMINI* remained statistically significant ( $\gamma_{01} = -.171, p < .01$ ). Traditional masculinity ideology had a significant main effect on the intercept ( $\gamma_{02} = .199, p < .001$ ), indicating that females who highly endorsed traditional masculinity ideology at Wave 1

had higher initial levels of dismissive attitudes toward sexual harassment ( $1.779 + .199 = 1.978$ ). The fixed effect for *DIPERP* approached statistical significance ( $\gamma_{03} = .101, p < .10$ ), indicating that females who perpetrated sexual harassment with high frequency tended to have higher initial levels of dismissive attitudes toward sexual harassment ( $1.779 + .101 = 1.880$ ). Although *DIPERP* did not have a statistically significant fixed effect, it was retained in subsequent models as a control variable.

The estimated rate of change was  $-.066 (p < .001)$ . The fixed effect of *DIFEMINI* on the slope parameter was no longer significant ( $\gamma_{10} = .04, p < .10$ ). However, this predictor variable was retained in subsequent models because it approached statistical significance and improved overall model fit.

The addition of *DITRADMAS* and *DIPERP* as time-invariant predictors in the level-2 submodel did not explain additional within-person variance ( $\sigma_{\epsilon}^2 = .110$ ). The level-2 variance component for the intercept,  $\sigma_0^2$ , decreased from .114 in Model C to .105 in Model D. The estimated slope variance did not change ( $\sigma_1^2 = .006$ ), but it no longer reached statistical significance in Model D, which suggested that entering additional level-2 predictors to account for variation in the slope was not necessary. The  $R^2$  statistics showed that Model D accounted for an 8.8% reduction in level-1 error variance and a 10.5% reduction in level-2 error variance compared to the null model. Model D yielded a statistically significant improvement in model fit over Model C:  $\chi^2(2) = 642.1 - 623.0 = 19.1, p < .001$ .

**Model E: Examining the effect of time-varying predictors.** After arriving at a satisfactory level-2 submodel, time-varying predictors were added to the level-1 submodel in an attempt to explain within-person variation in dismissive attitudes toward sexual harassment. Traditional femininity ideology and nontraditional masculinity ideology were excluded because

their time-varying effects were nonsignificant. Although *SHPERP* and *SHVIC* did not have significant fixed effects, they were included in Model E and reported in Table 7 to demonstrate that dismissive attitudes toward sexual harassment are not strongly correlated with rates of perpetration or victimization.

The intercept ( $\gamma_{00} = 1.752, p < .001$ ) represents the average initial level of dismissive attitudes toward sexual harassment when all predictor variables are zero. The effect of the interaction between *RACE* and *DIFEMINI* approached significance ( $\gamma_{01} = -.129, p < .10$ ). The fixed effect of *DITRADMAS* on the intercept remained significant ( $\gamma_{02} = .325, p < .001$ ). The estimated effect of *DEVTM* ( $\gamma_{30} = .269, p < .001$ ) indicated a significant positive association between changes in traditional masculinity ideology and changes in dismissive attitudes toward sexual harassment over time. The interaction between *TIME* and *TRADMAS* was also statistically significant ( $\gamma_{40} = .095, p < .001$ ). There are two ways to interpret this effect: 1) the effect of traditional masculinity ideology on dismissive attitudes varies over time; and 2) the rate of change in dismissive attitudes depends on the level of traditional masculinity ideology previously endorsed. The main effect of *TRADMAS* was not statistically significant ( $\gamma_{20} = -.112, p > .10$ ).

The estimated rate of change in *DISMISS* was  $-.230 (p < .001)$ . In Model E, the slope represents a conditional rate of change, controlling for the effects of time-varying predictors. The estimated differential in the rate of change between female adolescents with high versus low endorsement of femininity ideology was  $.035 (p < .10)$ .

The addition of level-1 predictor variables in Model E reduced the within-person variance estimate from  $.110$  in Model D to  $.106$ . Adding the time-varying effects of *TRADMAS* and *DEVTM* also resulted in smaller estimates for the level-2 slope ( $\sigma_1^2 = .005$ ) and intercept ( $\sigma_0^2 = .098$ ) variance components. The  $R^2$  statistics show that Model E accounted for an 18.9%

reduction in level-1 error variance and a 27.5% reduction in level-2 error variance compared to the null model. Since Model E estimated five more parameters than Model D, the  $\chi^2$  difference test had five degrees of freedom. Model E fit the data better than Model D:  $\chi^2(5) = 623.0 - 562.6 = 60.4, p < .001$ .

**Model F: The final model.** To arrive at the final model, *TRADMAS*, *SHPERP*, and *SHVIC* were removed from Model E. Thus, Model F includes *DITRADMAS*, *DIPERP*, and the interaction of *RACE* and *DIFEMINI* as level-2 predictors of the intercept, and *DIFEMINI* as a level-2 predictor of the slope. The model also includes *DEVTM* and *TRADMAS X TIME* as time-varying predictors in the level-1 submodel. The results of fitting this model are reported in Table 7.

The intercept ( $\gamma_{00} = 1.748, p < .001$ ) represents the average estimated level of dismissive attitudes toward sexual harassment when all predictor variables are zero. The fixed effect for *DIPERP* approached statistical significance ( $\gamma_{03} = .099, p < .10$ ). The level-2 fixed effects for *DITRADMAS* and *RACE X DIFEMINI* remained significant. The estimated differential in the initial level of dismissive attitudes between females with low versus high endorsement of traditional masculinity ideology was .298 ( $p < .001$ ). This effect is illustrated in Figure 7. Linear change trajectories were plotted for females who were high and low on traditional masculinity ideology. The interaction between *RACE* and *DIFEMINI* ( $\gamma_{01} = -.123, p < .05$ ) is illustrated in Figure 8. Linear change trajectories were plotted for four prototypical females (White and non-White females who were either low or high in traditional femininity ideology). For racial minority females, traditional femininity ideology did not have an effect on the initial level of dismissive attitudes toward sexual harassment; for White females, those who highly endorsed

traditional femininity ideology at Wave 1 reported a lower initial level of dismissive attitudes toward sexual harassment.

The fixed effects for both level-1 predictors were statistically significant. The estimated effect of *DEVTM* on the intercept ( $\gamma_{30} = .260, p < .001$ ) indicated a positive association between changes in traditional masculinity and changes in dismissive attitudes over time. The effect of *DEVTM* is illustrated in Figure 9. The trajectories of three prototypical individuals were plotted—those who increased in traditional masculinity ideology, those who decreased, and those who did not change.

The interaction between *TIME* and *TRADMAS* was statistically significant ( $\gamma_{40} = .053, p < .01$ ), indicating that the effect of traditional masculinity ideology becomes stronger over time. Figure 10 shows the time-varying effect of traditional masculinity on dismissive attitudes toward sexual harassment in females. The trajectories of two prototypical individuals were plotted—those who scored one standard deviation above the mean and those who scored one standard deviation below the mean. A higher than average level of traditional masculinity ideology was associated with a slower rate of decline in dismissive attitudes toward sexual harassment.

The estimated rate of change in *DISMISS* when all predictor variables were equal to zero was  $-.156 (p < .001)$ . The estimated differential in the rate of change between female adolescents with high versus low endorsement of traditional femininity ideology was  $.035 (p < .10)$ , indicating that the decline in dismissive attitudes over time was not as steep for females who endorsed a high level of femininity ideology at the beginning of the study ( $-.156 + .035 = -.121$ ). This effect is illustrated in Figure 11.

Removing *TRADMAS*, *SHPERP*, and *SHVIC* from the level-1 submodel did not alter the within-person variance estimate. The level-2 variance components increased slightly from Model

E to Model F ( $\sigma_0^2 = .099$ ,  $\sigma_1^2 = .006$ ). Model F accounted for an 18.7% reduction in level-1 error variance and a 27.8% reduction in level-2 error variance compared to the null model. Although the deviance statistic was larger for Model F, a deviance test comparing Model E to the more parsimonious Model F demonstrated that the difference in model fit was not significant:  $\chi^2(3) = 567.2 - 562.6 = 4.6$ ,  $p > .10$ . In addition, the AIC and BIC were smaller for Model F, suggesting a better fit to the data compared to Model E. Therefore, Model F was accepted as the final model.

### **Modeling Change in Males**

**Unconditional means model.** Equations representing the six models fit to the male data are presented in Table 6. The results of fitting these models to the male data are displayed in Table 8. In Model A, the fixed effect,  $\gamma_{00}$ , represents the estimated grand mean of dismissive attitudes across all occasions and individuals. Rejection of its associated null hypothesis ( $\gamma_{00} = 1.885$ ,  $p < .001$ ) confirmed that the average level of dismissive attitudes in male adolescents is non-zero. The estimated within-person variance ( $\sigma_{\epsilon}^2 = .161$ ) was statistically significant, indicating that dismissive attitudes toward sexual harassment change over time for the average male adolescent. The estimated between-person variance ( $\sigma_0^2 = .048$ ) was also significant, indicating that levels of dismissive attitudes differ between adolescent boys. Thus, it was concluded that adding predictors to the level-1 and level-2 submodels could potentially account for within-person and between-person variation in dismissive attitudes.

The ICC ( $\rho$ ) =  $.048 / (.048 + .161) = .23$ . Thus, approximately 23% of the total variation in dismissive attitudes toward sexual harassment can be attributed to differences between male

adolescents. The ICC also indicates that the average stability of dismissive attitudes in males is .23.

**Unconditional growth model.** As with the female data, a linear change trajectory was posited for males on the basis of exploratory analyses. The results of fitting Model B to male data are presented in Table 8. The fixed effects estimate the initial level ( $\gamma_{00} = 1.953$ ) and slope ( $\gamma_{10} = -.045$ ) of the average change trajectory in the population. The null hypothesis was rejected for both effects ( $p < 0.001$ ), indicating that the initial level and rate of change in dismissive attitudes were statistically different from zero. Thus, the average male adolescent had a score of 1.953 at the beginning of the study, which declined linearly over time at a rate of .045 units per semester.

The level-1 residual variance declined from .161 in Model A to .137 in Model B. The proportional reduction in mean squared prediction error at level-1 ( $R_1^2$ ) was .012, indicating that an additional 1.2% of the within-person variation in dismissive attitudes was explained by linear time. The level-2 variance components for initial status ( $\sigma_0^2 = .072$ ,  $p < .001$ ) and rate of change ( $\sigma_1^2 = .012$ ,  $p < .01$ ) were statistically different from zero, suggesting that it would be profitable to add level-2 predictors that might explain heterogeneity in these parameters. The estimate of  $R_2^2$  was -.043, indicating that allowing the slope to vary between people resulted in an increase in unexplained variation at level-2.

The covariance of the level-2 residuals,  $\sigma_{01}$ , estimates the population covariance between true initial status and true change. Interpretation is aided by expressing the covariance as a correlation coefficient:  $r = \sigma_{01} / \sqrt{(\sigma_0^2 * \sigma_1^2)} = -.015 / \sqrt{(.072 * .012)} = -.517$ . This indicates a moderate negative association between initial status and rate of change in dismissive attitudes toward sexual harassment.

To test whether the addition of *TIME* as a level-1 predictor improved model fit, the UMM and UGM were compared using the deviance statistic. The reduction in deviance due to the addition of *TIME* was statistically significant:  $\chi^2(3) = 710.3 - 693.6 = 16.7, p < .001$ .

**Model C: Estimating a quadratic change trajectory.** In Model C,  $TIME^2$  was added to the level-1 individual growth model to yield a second order polynomial for quadratic change. The results of fitting Model C are presented in Table 8. The estimated intercept increased from 1.953 in the UGM to 2.001 in Model C. The parameter for *TIME* ( $\gamma_{10} = -.190, p < .001$ ) now represents an instantaneous rate of change at the moment when  $TIME^2$  equals zero, rather than a constant rate of change. The parameter estimate for  $TIME^2$  ( $\gamma_{20} = .048, p < .01$ ) represents the curvature of the change trajectory. As shown in Figure 6, the quadratic trend for males followed a U-shaped curve in which dismissive attitudes toward sexual harassment decreased initially but then increased again.

Adding a quadratic term to the model reduced the within-person variance estimate from .137 in Model B to .133 in Model C, and resulted in a 2.3% reduction in level-1 mean squared prediction error compared to the null model. The negative value for  $R_2^2$  indicates that the unexplained variance at level-2 actually increased slightly when  $TIME^2$  was added to the level-1 submodel. The quadratic change model improved model fit over the linear change model:  $\chi^2(1) = 693.6 - 683.4 = 10.2, p < .01$ .

**Model D: Specifying the level-2 submodel.** Model D represents the best fitting combination of time-invariant predictors. The results are shown in Table 8. The intercept ( $\gamma_{00} = 1.995, p < .001$ ) represents the average initial level of dismissive attitudes when all predictors are zero. The main effect of *RACE* on initial status ( $\gamma_{01} = -.066$ ) was not statistically significant and was therefore removed from subsequent models. The significant effect of *CTRMAS* on initial



status ( $\gamma_{02} = .192, p < .001$ ) indicates that greater endorsement of traditional masculinity ideology is associated with higher initial levels of dismissive attitudes toward sexual harassment. The main effect of *CNTRMAS* ( $\gamma_{03} = -.097, p < .01$ ) indicates that boys who endorse higher than average nontraditional masculinity ideology report lower initial levels of dismissive attitudes. The estimated differential in the level of dismissive attitudes reported by males with low versus high sexual harassment perpetration was .141 ( $p < .05$ ), indicating that males who perpetrated sexual harassment with high frequency had higher initial levels of dismissive attitudes toward sexual harassment ( $1.941 + .141 = 2.082$ ).

The instantaneous rate of change in *DISMISS* when all predictor variables were equal to zero was  $-.208$  ( $p < .001$ ). The fixed effect for the quadratic term also remained statistically significant ( $\gamma_{20} = .054, p < .001$ ).

The within-person variance component did not change with the addition of time-invariant predictors to the level-2 submodel ( $\sigma_{\epsilon}^2 = .139, p < .001$ ). This indicated that it would be beneficial to explore the effects of time-varying predictors. The estimated intercept variance decreased from .075 in Model C to .036 in Model D. The estimated slope variance did not change ( $\sigma_1^2 = .013, p < .01$ ). Model D accounted for a 13.2% reduction in mean squared prediction error at level-1, and a 20.4% reduction in mean squared prediction error at level-2 compared to the null model. Because Model D estimated four more parameters than Model C, the  $\chi^2$  difference test had four degrees of freedom. Model D fit the data better than Model C:  $\chi^2(4) = 683.4 - 619.4 = 64, p < .001$ .

**Model E: Examining the effect of time-varying predictors.** Model E includes time-varying predictors for traditional and nontraditional masculinity ideology. *DEVTM* and

*DEVNTM* represent deviations in traditional masculinity and nontraditional masculinity from each student's initial level. The results of fitting Model E are presented in Table 8.

The estimated average initial level of dismissive attitudes toward sexual harassment was 1.977 ( $p < .001$ ). Without *RACE* in the level-2 submodel, the fixed effects of *CTRMAS* ( $\gamma_{02} = .425, p < .001$ ) and *CNTRMAS* ( $\gamma_{03} = -.172, p < .001$ ) were stronger compared to Model D. The fixed effect of *DIPERP* also remained statistically significant ( $\gamma_{04} = .123, p < .01$ ). Both level-1 predictors, *DEVTM* and *DEVNTM*, had significant fixed effects. The estimated effect of *DEVTM* ( $\gamma_{30} = .399, p < .001$ ) indicates a positive association between changes in traditional masculinity ideology and changes in dismissive attitudes over time. The significant effect of *DEVNTM* ( $\gamma_{40} = -.144, p < .001$ ) indicates that increases in nontraditional masculinity ideology are associated with decreases in dismissive attitudes toward sexual harassment.

The estimated rate of change when all predictor variables equaled zero was  $-.139$  ( $p < .01$ ). The quadratic term was also significant ( $\gamma_{20} = .038, p < .01$ ).

The addition of *DEVTM* and *DEVNTM* as level-1 predictor variables reduced the within-person variance from .133 in Model D to .109 in Model E. The proportional reduction in mean squared prediction error at level-1 was .295. The mean squared prediction error at level-2 was reduced by 39% compared to the null model. Although the level-2 variance estimate for the intercept increased from .036 in Model D to .048 in Model E, the estimated slope variance decreased from .013 to .012. A deviance test could not be performed to statistically compare Model D and Model E because the two models are not nested. However, Model E resulted in a significant improvement in fit compared to Model C:  $\chi^2(5) = 683.4 - 520.9 = 162.5, p < .001$ .

**Model F: The final model.** To test the hypothesis that race would moderate the association between nontraditional masculinity ideology and dismissive attitudes toward sexual

harassment, the interaction term *DEVNTM X RACE* was entered into the final model. Model F also included *CTRMAS* as a level-2 predictor of the slope parameter. The results of fitting Model F are reported in Table 8.

The average estimated level of dismissive attitudes toward sexual harassment at the beginning of the study was 1.982. *CTRMAS* had a significant effect on the initial level ( $\gamma_{02} = .352, p < .001$ ) and the instantaneous rate of change ( $\gamma_{12} = .074, p < .01$ ). As illustrated in Figure 12, males who endorsed higher than average traditional masculinity ideology at the beginning of the study had a higher level of dismissive attitudes toward sexual harassment initially, and showed less change in dismissive attitudes over time. The fixed effect of *CNTRMAS* on the intercept remained significant ( $\gamma_{03} = -.166, p < .001$ ). Figure 13 displays the estimated trajectories for males with average, higher than average, and lower than average endorsement of nontraditional masculinity ideology.

Males who perpetrated sexual harassment with high frequency had more dismissive attitudes toward sexual harassment initially ( $\gamma_{04} = .121, p < .01$ ). The effect of *DIPERP* is illustrated in Figure 14, which shows the estimated trajectories for males who were either high or low in sexual harassment perpetration at Wave 1. The time-varying effect of traditional masculinity ideology ( $\gamma_{30} = .448, p < .001$ ) is portrayed in Figure 15. Estimated trajectories were plotted for males whose endorsement of traditional masculinity ideology increased, decreased, or stayed the same over time. The interaction between *RACE* and *DEVNTM* was significant ( $\gamma_{51} = -.175, p < .05$ ), as was the main effect of *DEVNTM* ( $\gamma_{40} = -.094, p < .05$ ). As shown in Figure 16, an increase in nontraditional masculinity ideology over time was associated with a decrease in dismissive attitudes toward sexual harassment, but the association was stronger for White students than for non-White students.

The level-2 variance components were smaller in Model F compared to all other models. The intercept variance decreased from .048 in Model E to .045 in Model F. The slope variance decreased from .012 to .011. The level-2 mean squared prediction error was reduced by 41.5% from the null model. The within-person variance component increased from .109 in Model E to .110 in Model F. The level-1 mean squared error of prediction was reduced by 31.6% from the null model. Model F fit the data significantly better than Model E:  $\chi^2(2) = 520.9 - 496.1 = 24.8$ ,  $p < .001$ .

### **Intent to Reduce or Confront Sexual Harassment**

It was hypothesized that dismissive attitudes toward sexual harassment would be negatively correlated with intent to intervene. Consistent with this hypothesis, dismissive attitudes were significantly correlated with intent to reduce or confront sexual harassment at all four waves, as shown in Table 3. To explore the potential predictive effect of dismissive attitudes on future intent to intervene, a linear regression analysis was performed using data from Wave 3 and Wave 4. To control for baseline intent to intervene, this variable (*INTERVENE3*) was entered in the first step of the regression analysis. Not surprisingly, *INTERVENE3* had a significant effect on intent to reduce or confront sexual harassment at Wave 4 ( $\beta = .478$ ,  $p < .001$ ). When the variable *DISMISSIVE3* was entered in the model in step two, the  $R^2$  change was significant,  $F_{\text{change}}(1, 309) = 8.669$ ,  $p < .01$ , indicating that the addition of *DISMISSIVE3* improved model fit. Controlling for *INTERVENE3*, dismissive attitudes toward sexual harassment in Wave 3 were significantly correlated with intent to reduce or confront sexual harassment in Wave 4 ( $\beta = -.148$ ,  $p < .01$ ). Individuals with more dismissive attitudes toward

sexual harassment were less likely to engage in behaviors aimed at reducing or confronting sexual harassment. These results are shown in Table 9.

## Tables

Table 1

### *Reliability Estimates for Study Measures by Wave*

Variable	Wave 1	Wave 2	Wave 3	Wave 4
<b>NIJ Survey of Attitudes &amp; Behaviors Related to Sexual Harassment</b>				
Dismissive Attitudes Toward Sexual Harassment	.66	.71	.74	.77
Intent to Reduce or Confront Sexual Harassment	.89	.91	.92	.94
<b>Adolescent Masculinity Ideology in Relationships Scale</b>				
Traditional Masculinity Ideology	.76	.81	.82	.81
Nontraditional Masculinity Ideology	.71	.73	.77	.76
<b>Adolescent Femininity Ideology Scale</b>				
Inauthentic Self in Relationships	.68	.78	.74	.78
<b>AAUW Sexual Harassment Survey</b>				
Victimization in School	.75	.82	.82	.81
Perpetration in School	.69	.84	.84	.76

Table 2

*Means and Standard Deviations of Major Study Variables by Wave*

Variable	Wave	Males ( <i>n</i> = 147)		Females ( <i>n</i> = 164)	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Dismissive Attitudes Toward Sexual Harassment	1	2.01	.48	1.86	.48
	2	1.82	.44	1.76	.45
	3	1.85	.43	1.73	.41
	4	1.85	.45	1.69	.39
Traditional Masculinity Ideology	1	2.05	.55	1.77	.49
	2	1.97	.48	1.75	.45
	3	1.92	.49	1.73	.42
	4	1.95	.38	1.78	.44
Nontraditional Masculinity Ideology	1	2.47	.60	2.89	.70
	2	2.57	.52	2.97	.58
	3	2.48	.58	2.82	.66
	4	2.60	.50	2.97	.50
Traditional Femininity Ideology	1	2.30	.56	2.38	.59
	2	2.19	.50	2.37	.55
	3	2.24	.49	2.24	.52
	4	2.14	.40	2.22	.48
Sexual Harassment Perpetration	1	2.03	.16	2.04	.14
	2	2.06	.25	2.06	.20
	3	2.03	.20	2.04	.14
	4	2.03	.15	2.04	.09
Sexual Harassment Victimization	1	2.09	.22	2.16	.31
	2	2.09	.24	2.15	.28
	3	2.07	.22	2.13	.29
	4	2.03	.21	2.12	.25
Intent to Reduce or Confront Sexual Harassment	1	2.76	.62	2.96	.54
	2	2.79	.54	2.93	.52
	3	2.72	.61	2.89	.54
	4	2.71	.57	2.91	.49

Table 3

*Correlations Between Study Variables by Wave*

	DISMISS	TRADMAS	NTMASC	FEMININ	SHPERP	SHVIC	INTERVENE
Wave 1							
DISMISS	-	.16*	-.17*	-.17*	.20*	.10	-.17*
TRADMAS	.45*	-	-.27*	.14	.09	-.03	-.27*
NTMASC	-.23*	-.12	-	.18*	-.03	-.20*	.36*
FEMININ	.15	.16*	.30*	-	.00	-.01	.19*
SHPERP	.10	.04	-.16	-.06	-	.28*	-.02
SHVIC	.09	.09	-.12	-.03	.31*	-	-.16*
INTERVENE	-.20*	-.23*	.47*	.31*	-.01	-.03	-
Wave 2							
DISMISS	-	.50*	.04	.06	-.01	.15*	-.15
TRADMAS	.47*	-	-.22*	-.08	-.02	-.08	-.29*
NTMASC	-.13	.06	-	.43*	.10	.23*	.32*
FEMININ	.20*	.31*	.31*	-	.07	.14	.35*
SHPERP	.15	.10	-.03	.14	-	.54*	.03
SHVIC	.09	-.02	-.04	.09	.63*	-	-.03
INTERVENE	-.01	-.05	.48*	.35*	.00	-.06	-
Wave 3							
DISMISS	-	.36*	-.02	-.07	-.06	.03	-.12
TRADMAS	.48*	-	-.08	.06	-.10	-.16*	-.30*
NTMASC	-.27*	-.07	-	.33*	.16*	.18*	.30*
FEMININ	-.10	-.07	.07	-	.03	.02	.15
SHPERP	.14	.10	.05	-.15	-	.72*	.00
SHVIC	-.08	-.07	.09	-.10	.38*	-	-.06
INTERVENE	-.23*	-.29*	.38*	.19*	-.05	.09	-
Wave 4							
DISMISS	-	.54*	-.31*	.10	.15	.06	-.28*
TRADMAS	.57*	-	-.33*	.02	.12	.19*	-.30*
NTMASC	-.17*	-.09	-	.34*	.19*	.25*	.55*
FEMININ	.22*	.17*	.36*	-	.19*	.29*	.22*
SHPERP	.06	-.05	-.03	-.06	-	.22*	.12
SHVIC	-.08	-.08	.19*	-.04	.42*	-	.01
INTERVENE	-.25*	-.19*	.45*	.26*	.08	.16*	-

*Note.* Correlations above the diagonal are for females and correlations below the diagonal are for males. DISMISS = Dismissive Attitudes Toward Sexual Harassment; TRADMAS = Traditional Masculinity Ideology; NTMASC = Nontraditional Masculinity Ideology; FEMININ = Traditional Femininity Ideology; SHPERP = Sexual Harassment Perpetration; SHVIC = Sexual Harassment Victimization; INTERVENE = Intent to Reduce or Confront Sexual Harassment.

\*  $p < .01$ .

Table 4

*Stability of Study Variables Across Four Waves*

Variable	Wave 1	Wave 2	Wave 3	Wave 4
<i>DISMISS</i>				
Wave 1	-	.39**	.34**	.29**
Wave 2	.21**	-	.54*	.27**
Wave 3	.17*	.26**	-	.39**
Wave 4	.15	.23**	.48**	-
<i>TRADMAS</i>				
Wave 1	-	.34**	.41**	.31**
Wave 2	.35*	-	.54**	.39**
Wave 3	.15	.31**	-	.45**
Wave 4	.19*	.23**	.26**	-
<i>NTMASC</i>				
Wave 1	-	.40**	.36**	.45**
Wave 2	.29**	-	.52**	.29**
Wave 3	.14	.27**	-	.25**
Wave 4	.13	.20*	.36**	-
<i>FEMININ</i>				
Wave 1	-	.32**	.28**	.14
Wave 2	.25**	-	.41**	.30**
Wave 3	.32**	.34**	-	.35**
Wave 4	.20*	.34**	.26**	-
<i>SHPERP</i>				
Wave 1	-	.28**	.28**	.33**
Wave 2	.11	-	.43**	.12
Wave 3	.15	.30**	-	.25**
Wave 4	.16*	.35**	.08	-
<i>SHVIC</i>				
Wave 1	-	.49**	.37**	.34**
Wave 2	.36**	-	.63**	.45**
Wave 3	.08	.25**	-	.53**
Wave 4	.04	.17*	.23**	-
<i>INTERVENE</i>				
Wave 1	-	.33**	.34**	.26**
Wave 2	.29**	-	.41**	.26**
Wave 3	.31**	.49**	-	.48**
Wave 4	.20*	.46**	.45**	-

*Note.* Correlations above the diagonal are for females and correlations below the diagonal are for males. *DISMISS* = Dismissive Attitudes Toward Sexual Harassment; *TRADMAS* = Traditional Masculinity Ideology; *NTMASC* = Nontraditional Masculinity Ideology; *FEMININ* = Traditional Femininity Ideology; *SHPERP* = Sexual Harassment Perpetration; *SHVIC* = Sexual Harassment Victimization; *INTERVENE* = Intent to Reduce or Confront Sexual Harassment.

\*  $p < .01$ . \*\*  $p < .001$ .



Table 5

*Taxonomy of Multilevel Models Fit to Female Data*

Model	Level-1 Model	Level-2 Model	Composite Model
A	$Y_{ij} = \pi_{0i} + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \zeta_{0i}$	$Y_{ij} = \gamma_{00} + (\varepsilon_{ij} + \zeta_{0i})$
B	$Y_{ij} = \pi_{0i} + \pi_{1i}TIME_{ij} + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \zeta_{0i}$ $\pi_{1i} = \gamma_{10} + \zeta_{1i}$	$Y_{ij} = \gamma_{00} + \gamma_{10}TIME_{ij} + (\varepsilon_{ij} + \zeta_{0i} + \zeta_{1i}TIME_{ij})$
C	$Y_{ij} = \pi_{0i} + \pi_{1i}TIME_{ij} + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \gamma_{01}DIFEMINI_i X RACE_i + \zeta_{0i}$ $\pi_{1i} = \gamma_{10} + \gamma_{11}DIFEMINI_i + \zeta_{1i}$	$Y_{ij} = \gamma_{00} + \gamma_{01}DIFEMINI_i X RACE_i + \gamma_{10}TIME_{ij} + \gamma_{11}DIFEMINI_i X TIME_{ij} + (\varepsilon_{ij} + \zeta_{0i} + \zeta_{1i}TIME_{ij})$
D	$Y_{ij} = \pi_{0i} + \pi_{1i}TIME_{ij} + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \gamma_{01}DIFEMINI_i X RACE_i + \gamma_{02}DITRADMAS_i + \gamma_{03}DIPERP_i + \zeta_{0i}$ $\pi_{1i} = \gamma_{10} + \gamma_{11}DIFEMINI_i + \zeta_{1i}$	$Y_{ij} = \gamma_{00} + \gamma_{01}DIFEMINI_i X RACE_i + \gamma_{02}DITRADMAS_i + \gamma_{03}DIPERP_i + \gamma_{10}TIME_{ij} + \gamma_{11}DIFEMINI_i X TIME_{ij} + (\varepsilon_{ij} + \zeta_{0i} + \zeta_{1i}TIME_{ij})$
E	$Y_{ij} = \pi_{0i} + \pi_{1i}TIME_{ij} + \pi_{2i}TRADMAS_{ij} + \pi_{3i}DEVTM_{ij} + \pi_{4i}TRADMAS_{ij} X TIME_{ij} + \pi_{5i}SHPERP_{ij} + \pi_{6i}SHVIC_{ij} + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \gamma_{01}DIFEMINI_i X RACE_i + \gamma_{02}DITRADMAS_i + \gamma_{03}DIPERP_i + \zeta_{0i}$ $\pi_{1i} = \gamma_{10} + \gamma_{11}DIFEMINI_i + \zeta_{1i}$ $\pi_{2i} = \gamma_{20}$ $\pi_{3i} = \gamma_{30}$ $\pi_{4i} = \gamma_{40}$ $\pi_{5i} = \gamma_{50}$ $\pi_{6i} = \gamma_{60}$	$Y_{ij} = \gamma_{00} + \gamma_{01}DIFEMINI_i X RACE_i + \gamma_{02}DITRADMAS_i + \gamma_{03}DIPERP_i + \gamma_{10}TIME_{ij} + \gamma_{11}DIFEMINI_i X TIME_{ij} + \gamma_{20}TRADMAS_{ij} + \gamma_{30}DEVTM_{ij} + \gamma_{40}TRADMAS_{ij} X TIME_{ij} + \gamma_{50}SHPERP_{ij} + \gamma_{60}SHVIC_{ij} + (\varepsilon_{ij} + \zeta_{0i} + \zeta_{1i}TIME_{ij})$
F	$Y_{ij} = \pi_{0i} + \pi_{1i}TIME_{ij} + \pi_{3i}DEVTM_{ij} + \pi_{4i}TRADMAS_{ij} X TIME_{ij} + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \gamma_{01}DIFEMINI_i X RACE_i + \gamma_{02}DITRADMAS_i + \gamma_{03}DIPERP_i + \zeta_{0i}$ $\pi_{1i} = \gamma_{10} + \gamma_{11}DIFEMINI_i + \zeta_{1i}$ $\pi_{3i} = \gamma_{30}$ $\pi_{4i} = \gamma_{40}$	$Y_{ij} = \gamma_{00} + \gamma_{01}DIFEMINI_i X RACE_i + \gamma_{02}DITRADMAS_i + \gamma_{03}DIPERP_i + \gamma_{10}TIME_{ij} + \gamma_{11}DIFEMINI_i X TIME_{ij} + \gamma_{30}DEVTM_{ij} + \gamma_{40}TRADMAS_{ij} X TIME_{ij} + (\varepsilon_{ij} + \zeta_{0i} + \zeta_{1i}TIME_{ij})$

*Note.* These models predict *DISMISS* as a function of linear time and various combinations of the major study variables. Results of fitting these models appear in Table 7. *TIME* = centered variable for time (Wave – 1); *TRADMAS* = time-varying predictor representing raw score for traditional masculinity ideology in prior wave; *DEVTM* = time-varying predictor representing deviation in traditional masculinity ideology from initial score; *SHPERP* = time-varying predictor representing raw score for sexual harassment perpetration; *SHVIC* = time-varying predictor representing raw score for sexual harassment victimization; *DIFEMINI* = categorical time-invariant predictor representing level of traditional femininity ideology at Wave 1; *RACE* = categorical variable representing White or Other; *DITRADMAS* = categorical time-invariant predictor representing level of traditional masculinity ideology at Wave 1; *DIPERP* = categorical time-invariant predictor representing frequency of lifetime sexual harassment perpetration at Wave 1.

Table 6

*Taxonomy of Multilevel Models Fit to Male Data*

Model	Level-1 Model	Level-2 Model	Composite Model
A	$Y_{ij} = \pi_{0i} + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \zeta_{0i}$	$Y_{ij} = \gamma_{00} + (\varepsilon_{ij} + \zeta_{0i})$
B	$Y_{ij} = \pi_{0i} + \pi_{1i}TIME_{ij} + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \zeta_{0i}$ $\pi_{1i} = \gamma_{10} + \zeta_{1i}$	$Y_{ij} = \gamma_{00} + \gamma_{10}TIME_{ij} + (\varepsilon_{ij} + \zeta_{0i} + \zeta_{1i}TIME_{ij})$
C	$Y_{ij} = \pi_{0i} + \pi_{1i}TIME_{ij} + \pi_{2i}TIME_{ij}^2 + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \zeta_{0i}$ $\pi_{1i} = \gamma_{10} + \zeta_{1i}$ $\pi_{2i} = \gamma_{20}$	$Y_{ij} = \gamma_{00} + \gamma_{10}TIME_{ij} + \gamma_{20}TIME_{ij}^2 + (\varepsilon_{ij} + \zeta_{0i} + \zeta_{1i}TIME_{ij})$
D	$Y_{ij} = \pi_{0i} + \pi_{1i}TIME_{ij} + \pi_{2i}TIME_{ij}^2 + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \gamma_{01}RACE_i + \gamma_{02}CTRMAS_i + \gamma_{03}CNTRMAS_i + \gamma_{04}DIPERP_i + \zeta_{0i}$ $\pi_{1i} = \gamma_{10} + \zeta_{1i}$ $\pi_{2i} = \gamma_{20}$	$Y_{ij} = \gamma_{00} + \gamma_{01}RACE_i + \gamma_{02}CTRMAS_i + \gamma_{03}CNTRMAS_i + \gamma_{04}DIPERP_i + \gamma_{10}TIME_{ij} + \gamma_{20}TIME_{ij}^2 + (\varepsilon_{ij} + \zeta_{0i} + \zeta_{1i}TIME_{ij})$
E	$Y_{ij} = \pi_{0i} + \pi_{1i}TIME_{ij} + \pi_{2i}TIME_{ij}^2 + \pi_{3i}DEVTM_{ij} + \pi_{4i}DEVNTM_{ij} + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \gamma_{02}CTRMAS_i + \gamma_{03}CNTRMAS_i + \gamma_{04}DIPERP_i + \zeta_{0i}$ $\pi_{1i} = \gamma_{10} + \zeta_{1i}$ $\pi_{2i} = \gamma_{20}$ $\pi_{3i} = \gamma_{30}$ $\pi_{4i} = \gamma_{40}$	$Y_{ij} = \gamma_{00} + \gamma_{02}CTRMAS_i + \gamma_{03}CNTRMAS_i + \gamma_{04}DIPERP_i + \gamma_{10}TIME_{ij} + \gamma_{20}TIME_{ij}^2 + \gamma_{30}DEVTM_{ij} + \gamma_{40}DEVNTM_{ij} + (\varepsilon_{ij} + \zeta_{0i} + \zeta_{1i}TIME_{ij})$
F	$Y_{ij} = \pi_{0i} + \pi_{1i}TIME_{ij} + \pi_{2i}TIME_{ij}^2 + \pi_{3i}DEVTM_{ij} + \pi_{4i}DEVNTM_{ij} + \varepsilon_{ij}$	$\pi_{0i} = \gamma_{00} + \gamma_{02}CTRMAS_i + \gamma_{03}CNTRMAS_i + \gamma_{04}DIPERP_i + \zeta_{0i}$ $\pi_{1i} = \gamma_{10} + \gamma_{11}CTRMAS_i + \zeta_{1i}$ $\pi_{2i} = \gamma_{20}$ $\pi_{3i} = \gamma_{30}$ $\pi_{4i} = \gamma_{40} + \gamma_{41}RACE_i$	$Y_{ij} = \gamma_{00} + \gamma_{02}CTRMAS_i + \gamma_{03}CNTRMAS_i + \gamma_{04}DIPERP_i + \gamma_{10}TIME_{ij} + \gamma_{11}CTRMAS_i X TIME_{ij} + \gamma_{20}TIME_{ij}^2 + \gamma_{30}DEVTM_{ij} + \gamma_{40}DEVNTM_{ij} + \gamma_{41}RACE_i X DEVNTM_{ij} + (\varepsilon_{ij} + \zeta_{0i} + \zeta_{1i}TIME_{ij})$

*Note.* These models predict *DISMISS* as a function of *TIME* and *TIME*<sup>2</sup>. Results of fitting these models appear in Table 8. *TIME* = centered variable for time (Wave – 1); *TIME*<sup>2</sup> = quadratic term for time; *DEVTM* = time-varying predictor representing deviation in traditional masculinity from initial score; *DEVNTM* = time-varying predictor representing deviation in nontraditional masculinity from initial score; *RACE* = categorical variable representing White or Other; *CTRMAS* = time-invariant predictor for traditional masculinity centered on Wave 1 mean; *CNTRMAS* = time-invariant predictor for nontraditional masculinity centered on Wave 1 mean; *DIPERP* = categorical time-invariant predictor representing frequency of lifetime sexual harassment perpetration at Wave 1.

Table 7

*Results of Fitting Multilevel Models for Change to Female Data*

		Parameter	Model A	Model B	Model C	Model D	Model E	Model F
<i>Fixed Effects</i>								
Initial status, $\pi_{0i}$	Intercept	$\gamma_{00}$	1.758*** (.025)	1.841*** (.034)	1.863*** (.036)	1.779*** (.040)	1.752*** (.178)	1.748*** (.038)
	<i>DIFEMINI X RACE</i>	$\gamma_{01}$			-.244*** (.060)	-.171** (.059)	-.129~ (.074)	-.123* (.054)
	<i>DITRADMAS</i>	$\gamma_{02}$				.199*** (.047)	.325*** (.049)	.298*** (.046)
	<i>DIPERP</i>	$\gamma_{03}$				.101~ (.055)	.083 (.051)	.099~ (.050)
	<i>TRADMAS</i>	$\gamma_{20}$					-.112 (.071)	
	<i>DEVTM</i>	$\gamma_{30}$			.		.269*** (.044)	.260*** (.044)
	<i>TRADMAS X TIME</i>	$\gamma_{40}$					.095*** (.028)	.053** (.017)
	<i>SHPERP</i>	$\gamma_{50}$					.013 (.098)	
	<i>SHVIC</i>	$\gamma_{60}$					.075 (.063)	
Rate of change, $\pi_{1i}$	<i>TIME</i> (linear)	$\gamma_{10}$		-.056*** (.013)	-.070*** (.015)	-.066*** (.015)	-.230*** (.052)	-.156*** (.033)
	<i>DIFEMINI</i>	$\gamma_{11}$			.054* (.021)	.040~ (.021)	.035~ (.019)	.035~ (.019)

Table 7 (*continued*)

		Parameter	Model A	Model B	Model C	Model D	Model E	Model F
<i>Variance Components</i>								
Level 1	Within-person	$\sigma_e^2$	.124*** (.008)	.109*** (.008)	.110*** (.009)	.110*** (.009)	.106*** (.008)	.106*** (.008)
Level 2	In initial status	$\sigma_0^2$	.068*** (.011)	.113*** (.022)	.114*** (.022)	.105*** (.021)	.098*** (.020)	.099*** (.020)
	In rate of change	$\sigma_1^2$		.006* (.004)	.006~ (.004)	.006~ (.004)	.005~ (.003)	.006* (.004)
$R_1^2$				.020	.034	.088	.189	.187
$R_2^2$				-.020	-.001	.105	.275	.278
Goodness-of-fit								
	Deviance		683.9	654.5	642.1	623.0	562.6	567.2
	AIC		689.9	666.5	658.1	643.0	592.6	591.2
	BIC		699.2	685.1	682.8	673.8	638.9	628.2

*Note.* These models were fit using full maximum likelihood estimation in SAS PROC MIXED. *TIME* = centered variable for time (Wave – 1); *TRADMAS* = time-varying predictor representing raw score for traditional masculinity ideology in prior wave; *DEVTM* = time-varying predictor representing deviation in traditional masculinity ideology from initial score; *SHPERP* = time-varying predictor representing raw score for sexual harassment perpetration; *SHVIC* = time-varying predictor representing raw score for sexual harassment victimization; *DIFEMINI* = categorical time-invariant predictor representing level of traditional femininity ideology at Wave 1; *RACE* = categorical variable representing White or Other; *DITRADMAS* = categorical time-invariant predictor representing level of traditional masculinity ideology at Wave 1; *DIPERP* = categorical time-invariant predictor representing frequency of lifetime sexual harassment perpetration at Wave 1.

~  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 8

*Results of Fitting Multilevel Models for Change to Male Data*

		Parameter	Model A	Model B	Model C	Model D	Model E	Model F
<i>Fixed Effects</i>								
Initial status, $\pi_{0i}$	Intercept	$\gamma_{00}$	1.885*** (.024)	1.953*** (.034)	2.001*** (.039)	1.995*** (.041)	1.977*** (.036)	1.982*** (.037)
	<i>RACE</i>	$\gamma_{01}$				-.066 (.055)		
	<i>CTRMAS</i>	$\gamma_{02}$				.192*** (.034)	.425*** (.047)	.352*** (.060)
	<i>CNTRMAS</i>	$\gamma_{03}$				-.097** (.034)	-.172*** (.037)	-.166*** (.036)
	<i>DIPERP</i>	$\gamma_{04}$				.141** (.050)	.123** (.042)	.121** (.042)
	<i>DEVTM</i>	$\gamma_{30}$					.399*** (.059)	.448*** (.053)
	<i>DEVNTM</i>	$\gamma_{40}$					-.144*** (.041)	-.094* (.041)
	<i>DEVNTM X RACE</i>	$\gamma_{51}$						-.175* (.082)
								-.150** (.049)
Rate of change, $\pi_{1i}$	<i>TIME</i> (linear)	$\gamma_{10}$		-.045** (.016)	-.190*** (.051)	-.208*** (.051)	-.139** (.049)	
	<i>TIME</i> <sup>2</sup> (quadratic)	$\gamma_{20}$			.048** (.015)	.054*** (.015)	.038** (.014)	.041** (.014)
	<i>CTRMAS</i>	$\gamma_{12}$						.074** (.027)

Table 8 (*continued*)

		Parameter	Model A	Model B	Model C	Model D	Model E	Model F
<i>Variance Components</i>								
Level 1	Within-person	$\sigma_e^2$	.161*** (.011)	.137*** (.011)	.133*** (.011)	.133*** (.011)	.109*** (.009)	.110*** (.009)
Level 2	In initial status	$\sigma_0^2$	.048*** (.011)	.072*** (.021)	.075*** (.021)	.036* (.017)	.048** (.016)	.045** (.016)
	In rate of change	$\sigma_1^2$		.012** (.005)	.013** (.005)	.013** (.005)	.012** (.004)	.011** (.004)
$R_I^2$				.012	.023	.132	.295	.316
$R_2^2$				-.043	-.047	.204	.390	.415
Goodness-of-fit								
	Deviance		710.3	693.6	683.4	619.4	520.9	496.1
	AIC		716.3	705.6	697.4	641.4	544.9	524.1
	BIC		725.3	723.5	718.4	673.9	580.8	565.5

*Note.* These models were fit using full maximum likelihood estimation in SAS PROC MIXED. *TIME* = centered variable for time (Wave – 1); *TIME*<sup>2</sup> = quadratic term for time; *DEV**TM* = time-varying predictor representing deviation in traditional masculinity from initial score; *DEV**N**TM* = time-varying predictor representing deviation in nontraditional masculinity from initial score; *RACE* = categorical variable representing White or Other; *CTRMAS* = time-invariant predictor for traditional masculinity centered on Wave 1 mean; *CNTRMAS* = time-invariant predictor for nontraditional masculinity centered on Wave 1 mean; *DIPERP* = categorical time-invariant predictor representing frequency of lifetime sexual harassment perpetration at Wave 1.  
~  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 9

*Regression Analysis Predicting Intent to Reduce or Confront Sexual Harassment*

Predictor	Criterion	<i>b</i>	SE ( <i>b</i> )	$\beta$	<i>T</i>
Step 1					
<i>INTERVENE3</i>	<i>INTERVENE4</i>	.443	.046	.478	9.574**
Step 2					
<i>INTERVENE3</i>		.416	.047	.449	8.948**
<i>DISMISSIVE3</i>		-.187	.063	-.148	-2.944*

*Note.* *INTERVENE3* = Intent to Reduce or Confront Sexual Harassment in Wave 3; *INTERVENE4* = Intent to Reduce or Confront Sexual Harassment in Wave 4; *DISMISSIVE3* = Dismissive Attitudes Toward Sexual Harassment in Wave 3.

\*  $p < .01$ . \*\*  $p < .001$ .

## Figures

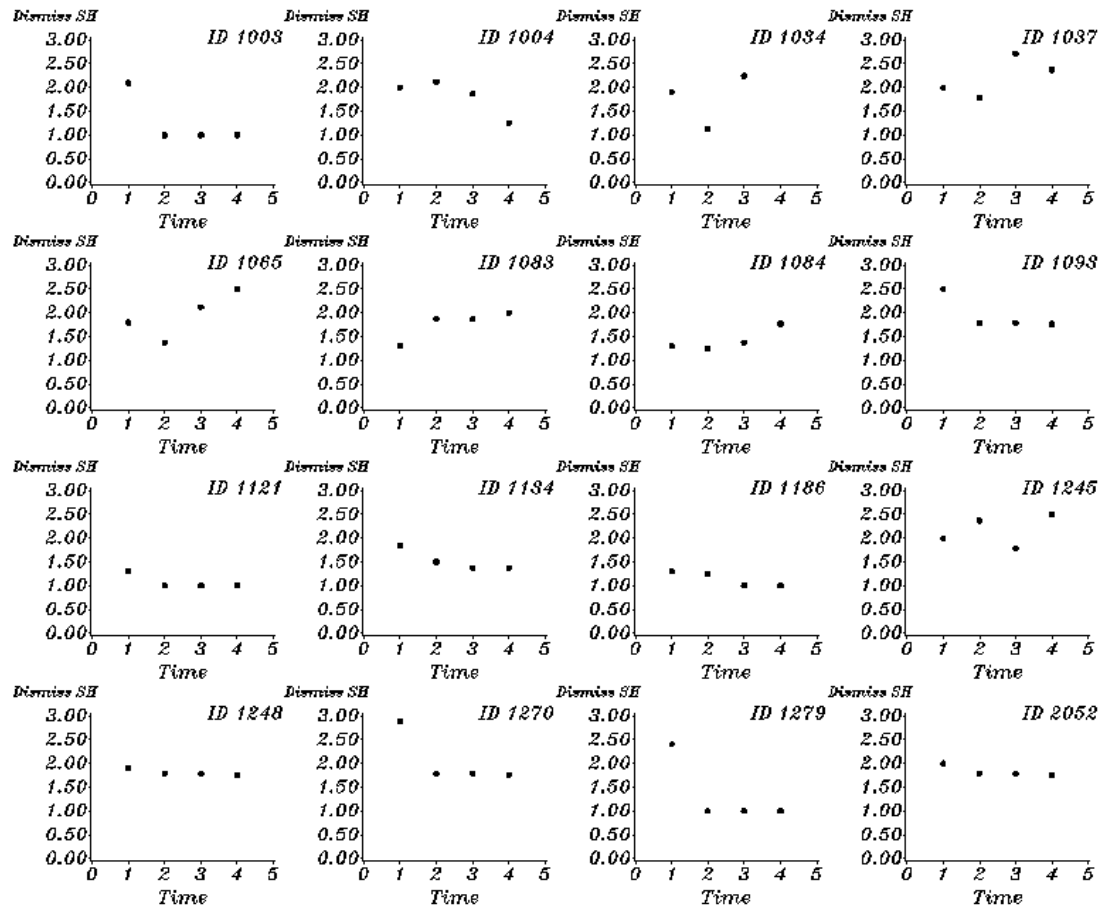


Figure 1. Exploring how individuals change over time. Empirical growth plots for 16 randomly selected study participants.



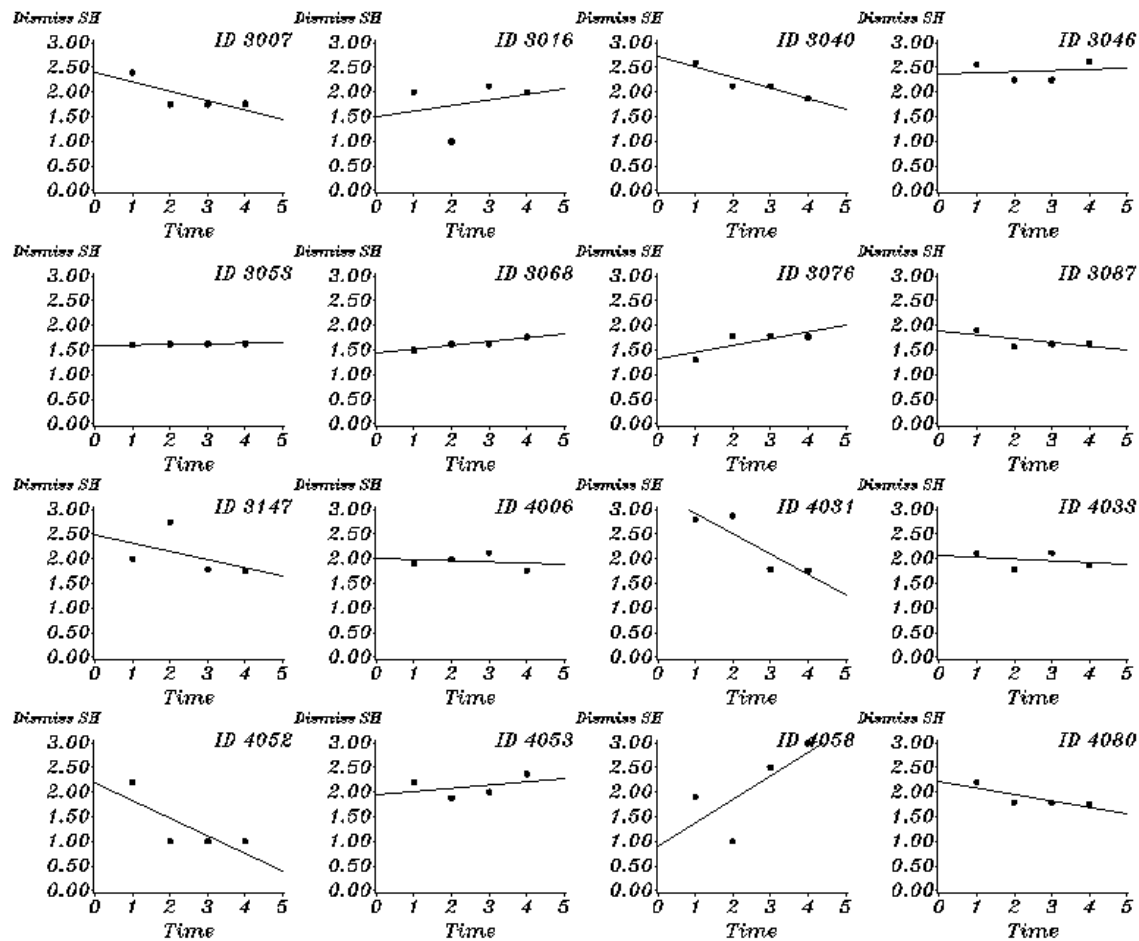


Figure 2. Fitted OLS trajectories superimposed on empirical growth plots for 16 randomly selected study participants.

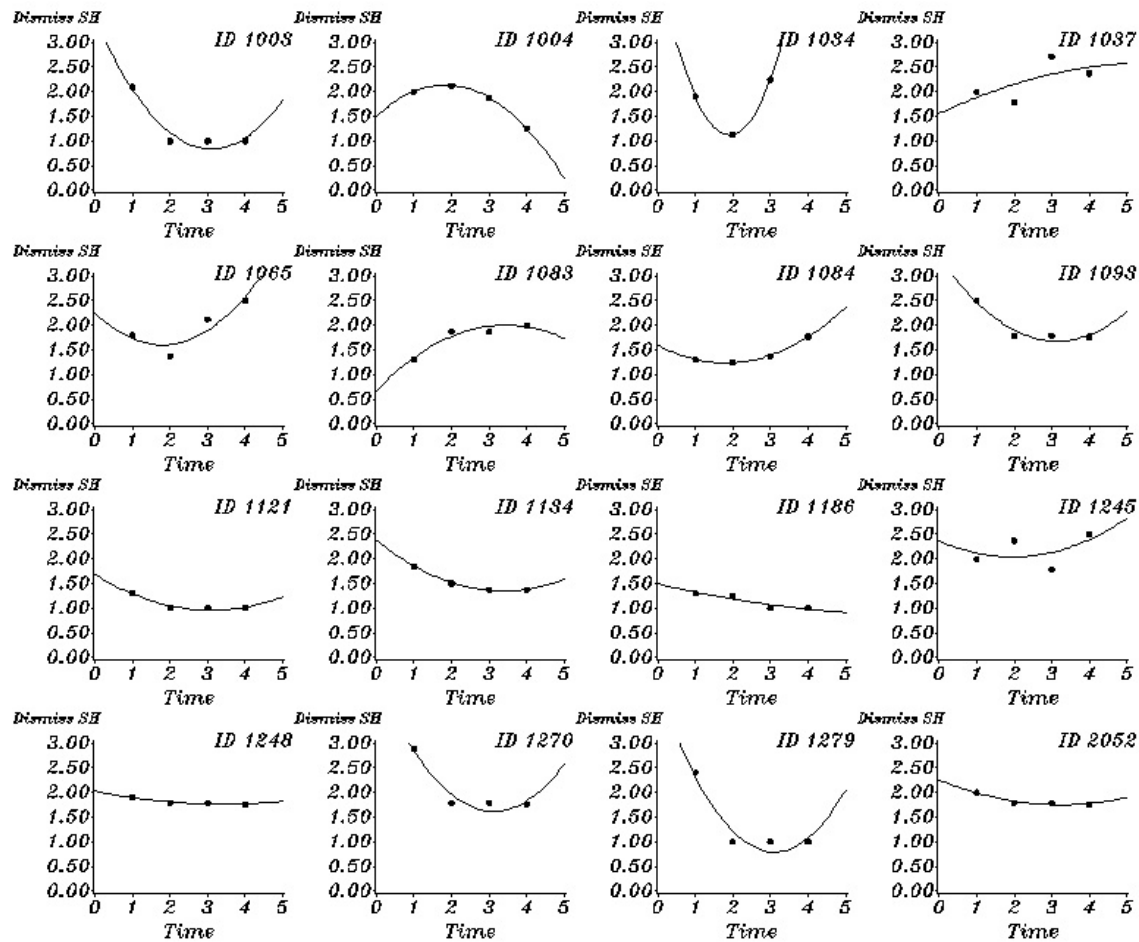
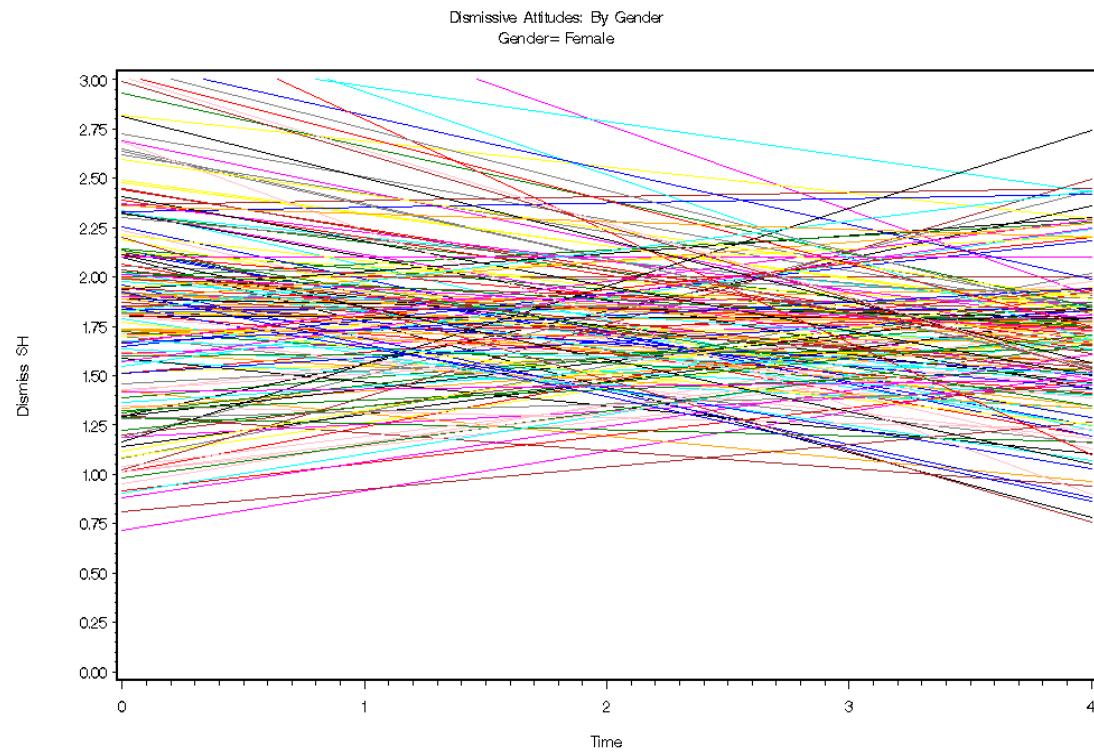
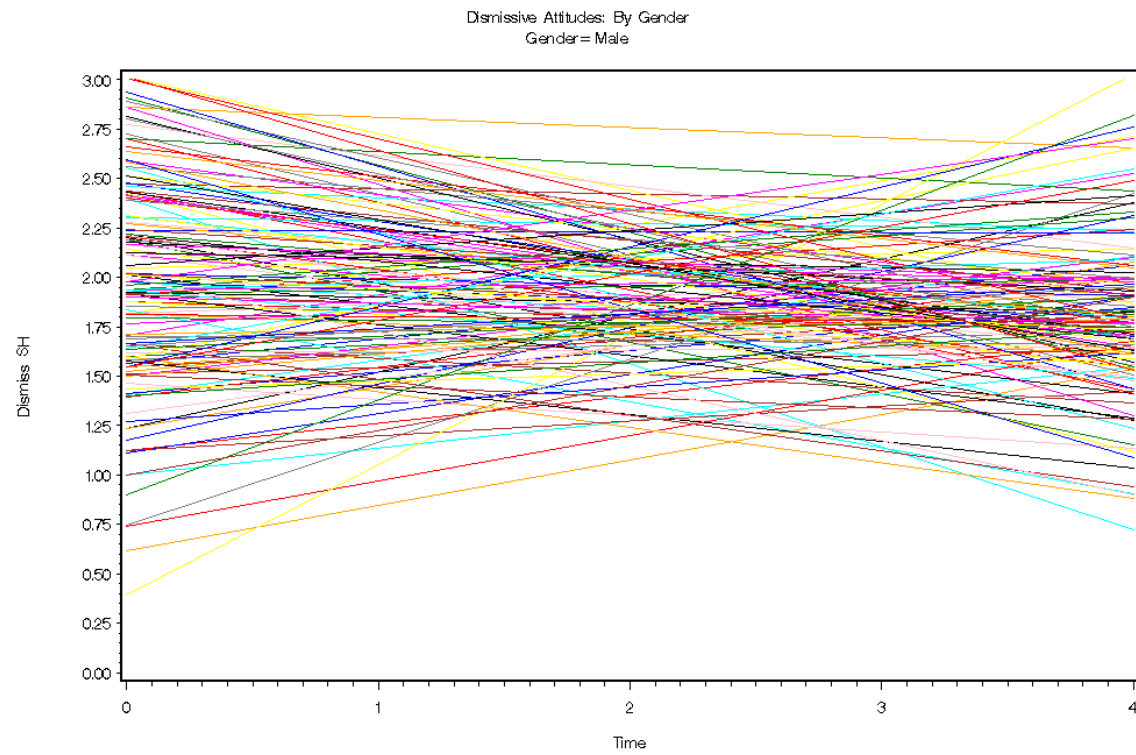


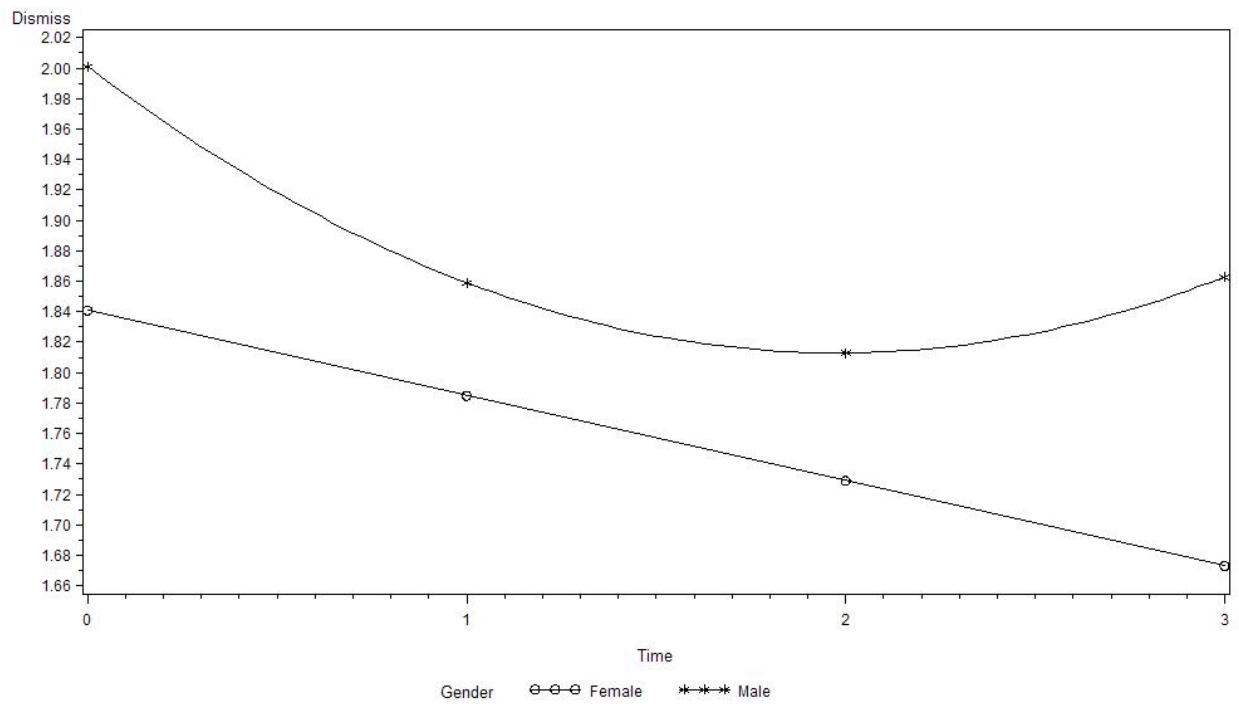
Figure 3. Fitted quadratic trajectories superimposed on empirical growth plots for 16 randomly selected study participants.



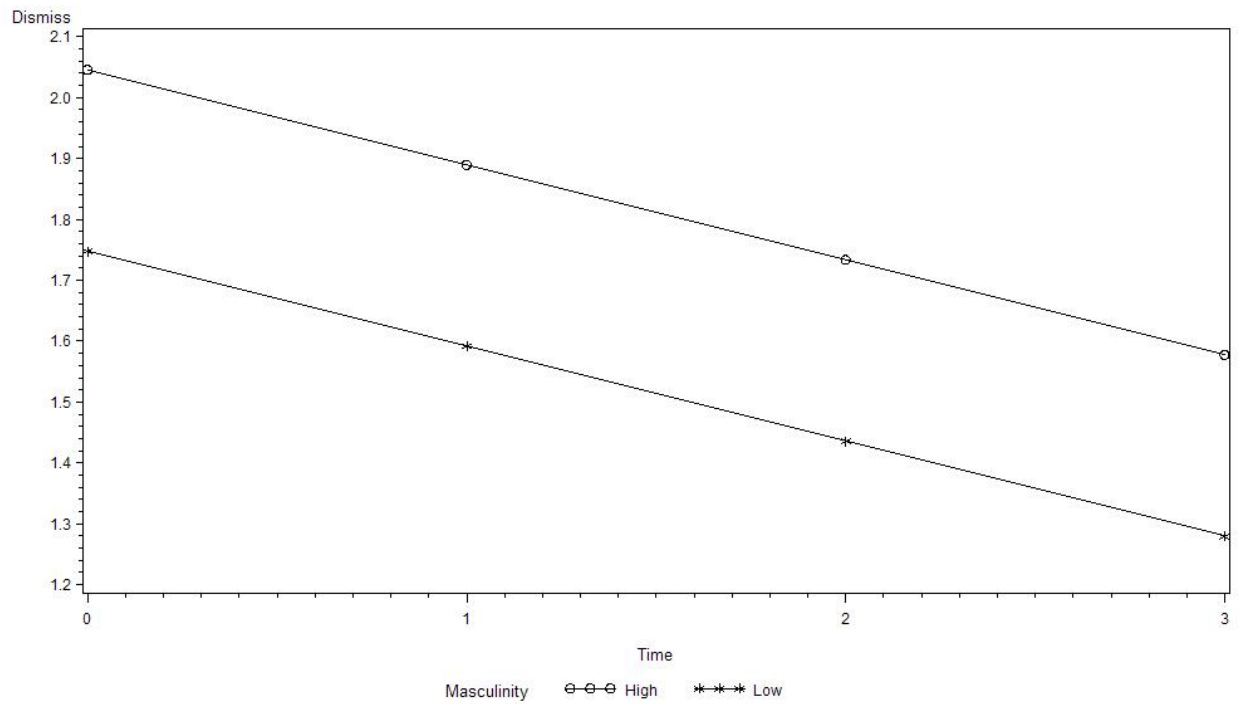
*Figure 4.* Fitted OLS trajectories for all female study participants. Each line represents the linear change trajectory for an individual participant.



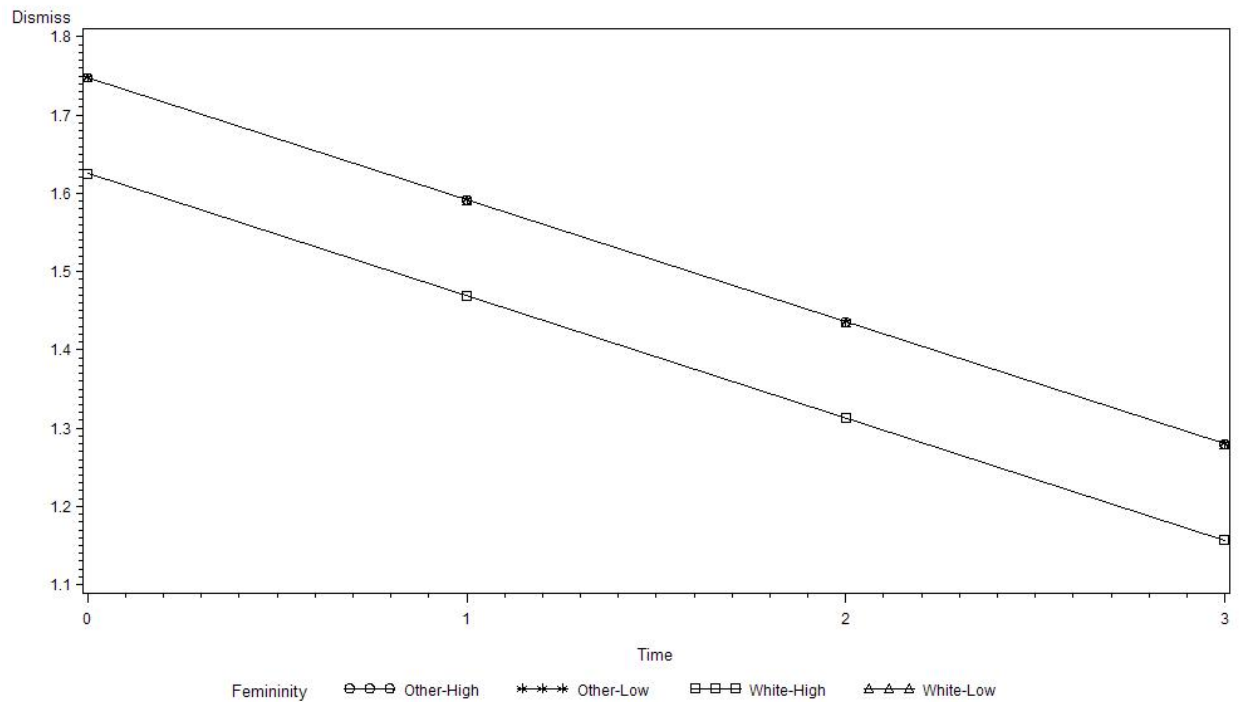
*Figure 5.* Fitted OLS trajectories for all male study participants. Each line represents the linear change trajectory for an individual participant.



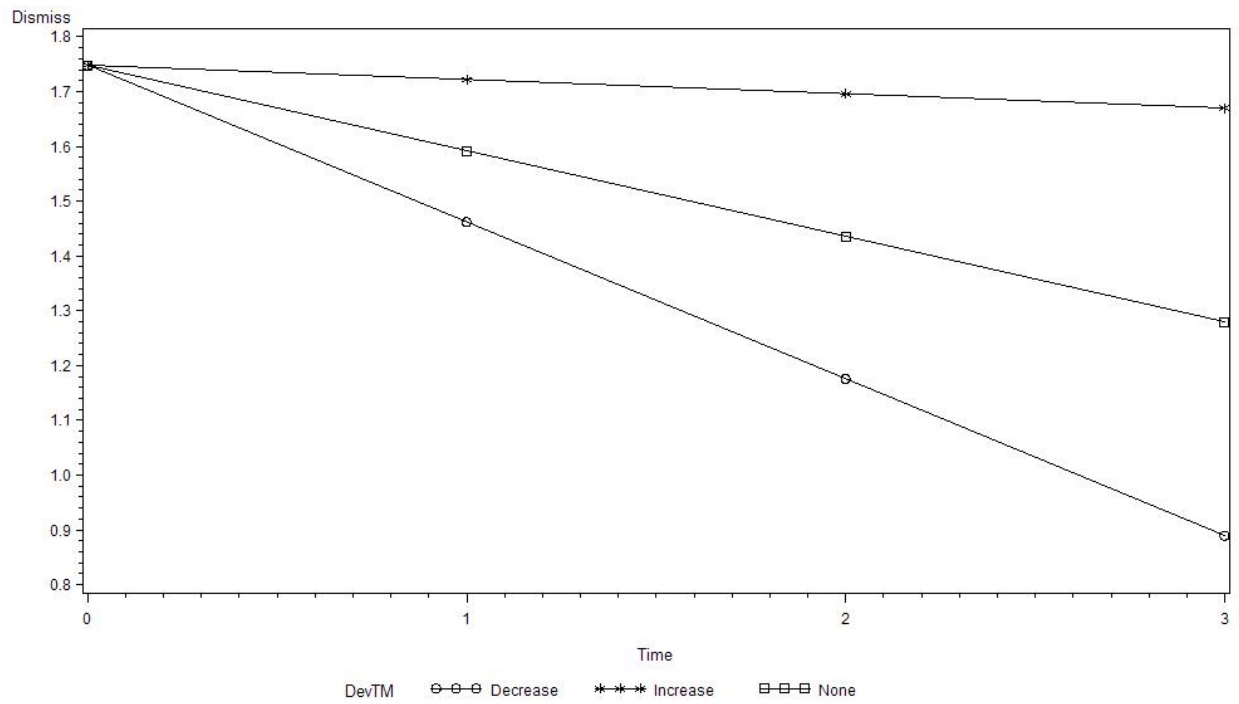
*Figure 6.* Unconditional growth model for males and females.



*Figure 7.* Effect of initial level of traditional masculinity ideology on dismissive attitudes toward sexual harassment in females.

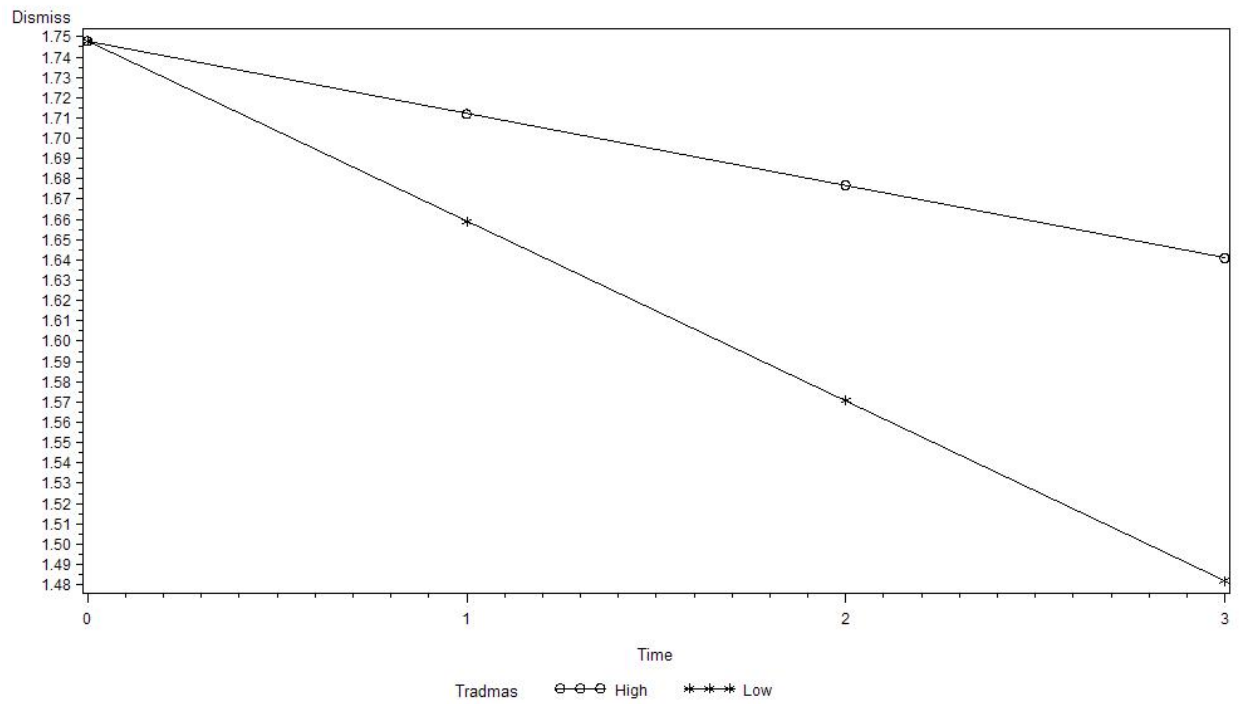


*Figure 8.* The interaction effect of *RACE* and *DIFEMINI* on the initial level (intercept) of dismissive attitudes toward sexual harassment. The trajectories overlap for non-White females with low and high endorsement of traditional femininity ideology, and for White females with low endorsement of traditional femininity ideology.

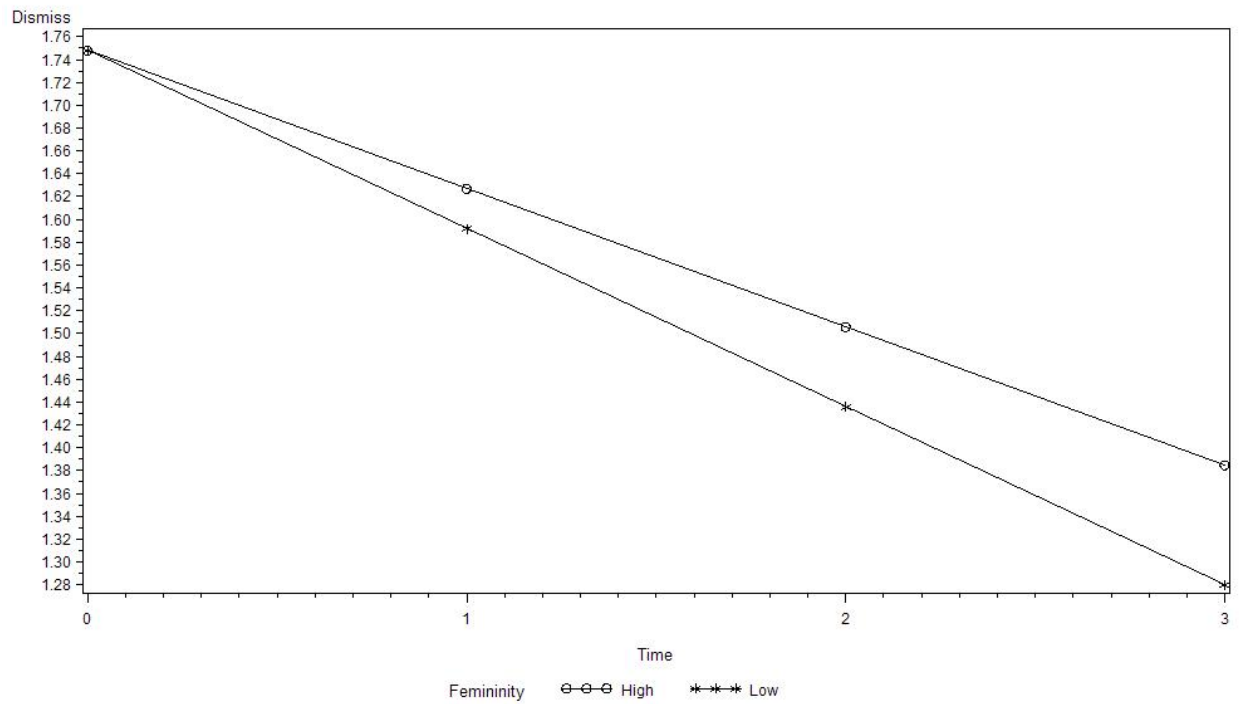


*Figure 9.* Change in dismissive attitudes toward sexual harassment for females whose endorsement of traditional masculinity ideology decreases, increases, or remains the same over time.

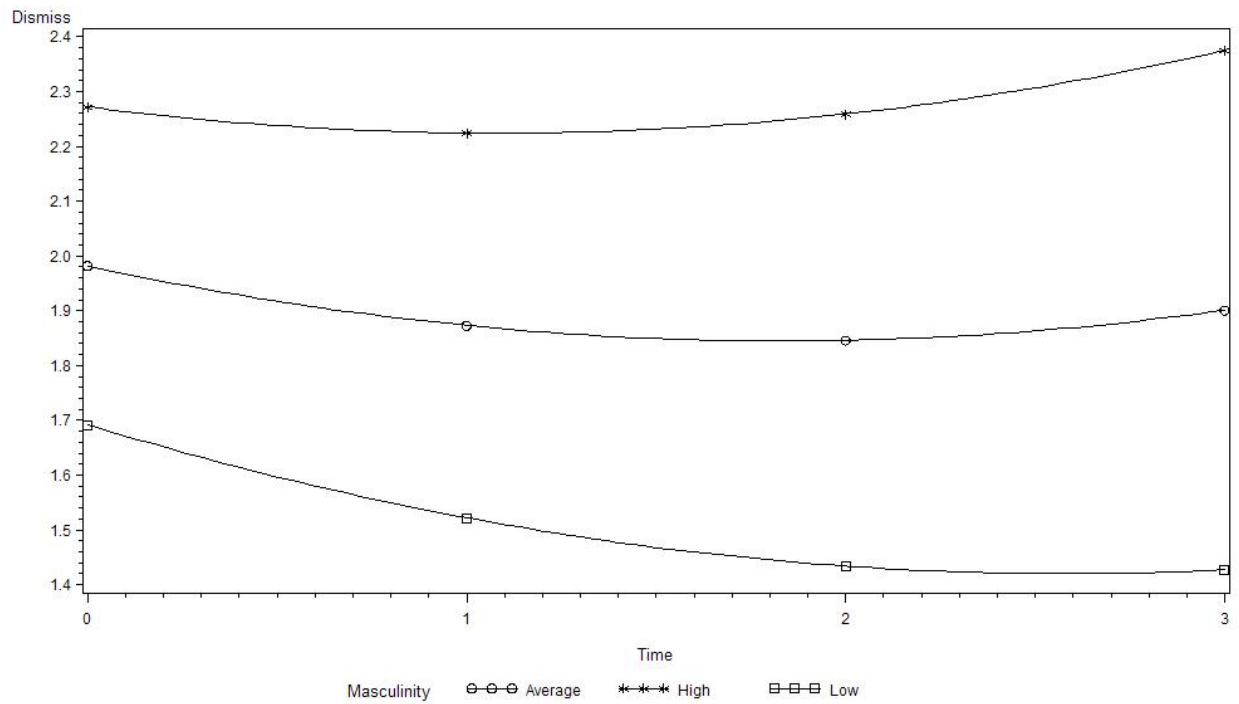




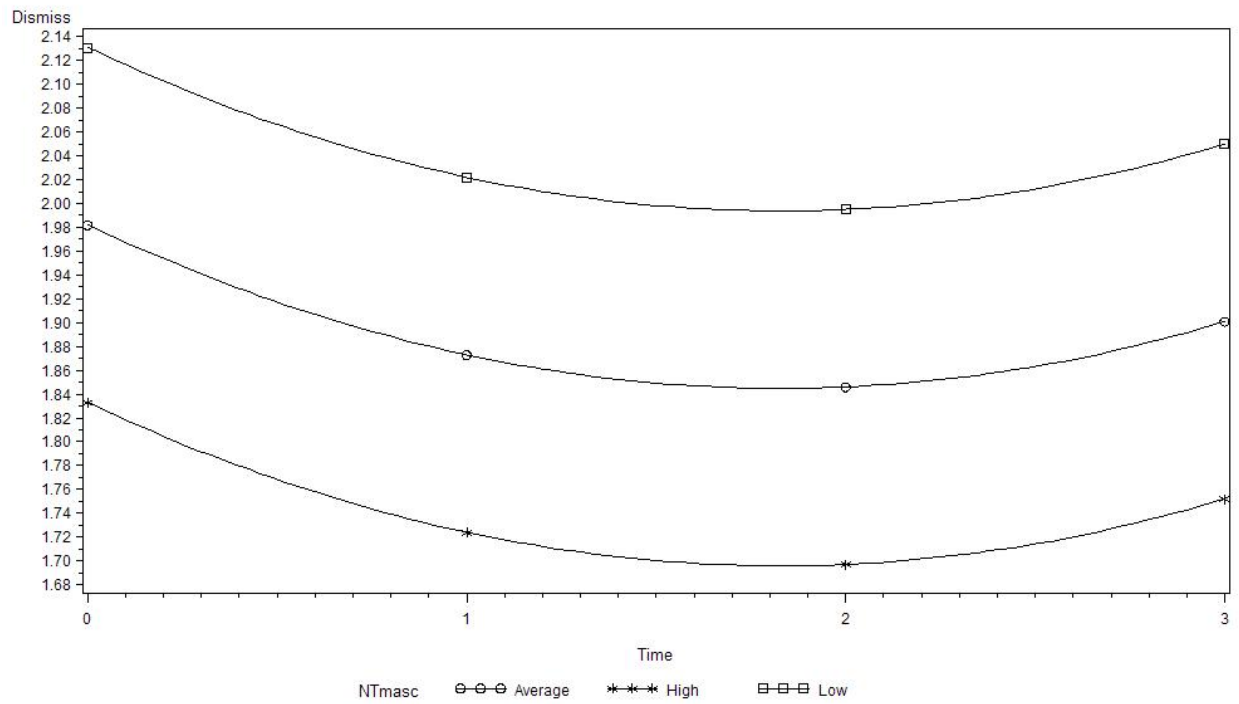
*Figure 10.* Time-varying effect of traditional masculinity ideology on dismissive attitudes toward sexual harassment in females. The effect of traditional masculinity ideology becomes greater over time.



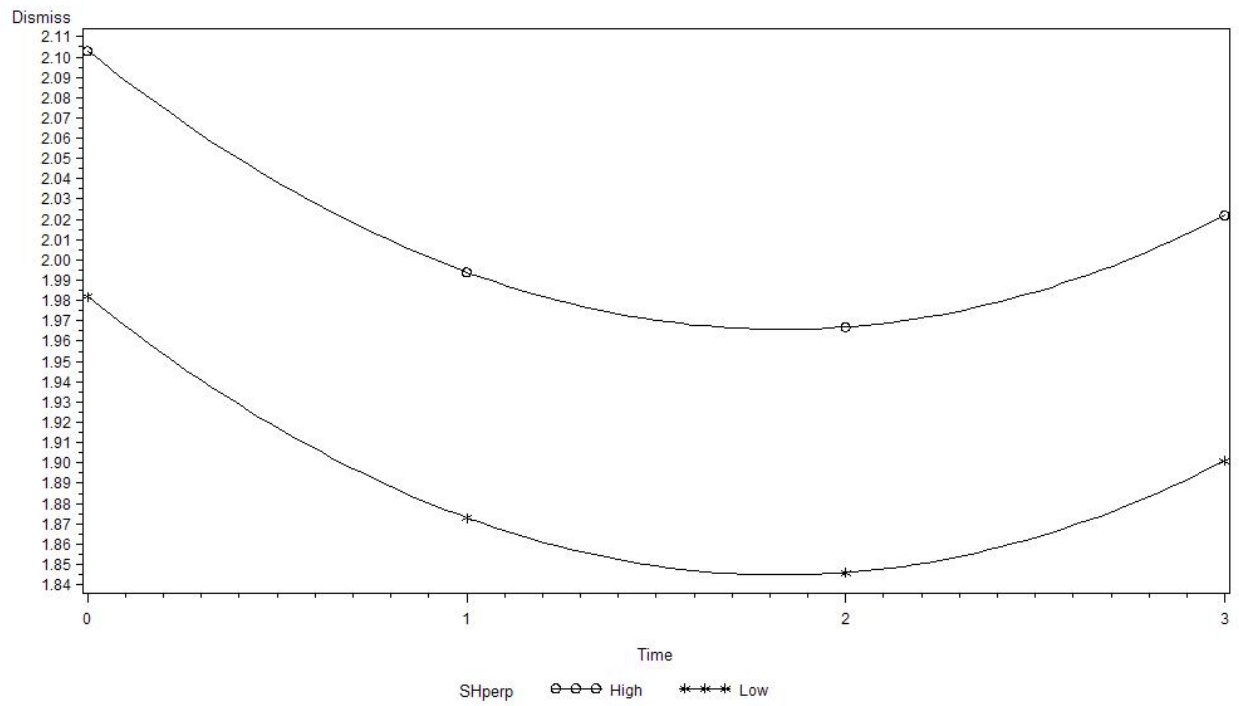
*Figure 11.* Effect of initial level of traditional femininity ideology on the rate of change in dismissive attitudes toward sexual harassment for females.



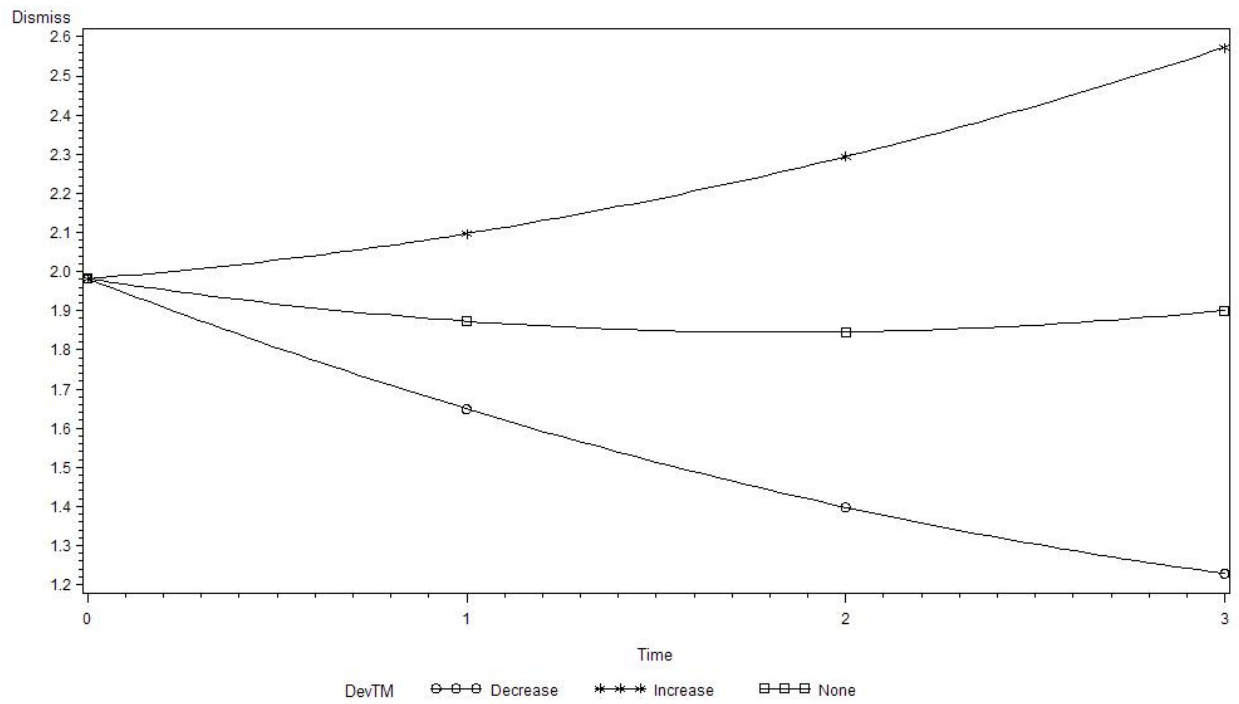
*Figure 12.* Effect of initial level of traditional masculinity ideology on dismissive attitudes toward sexual harassment in males.



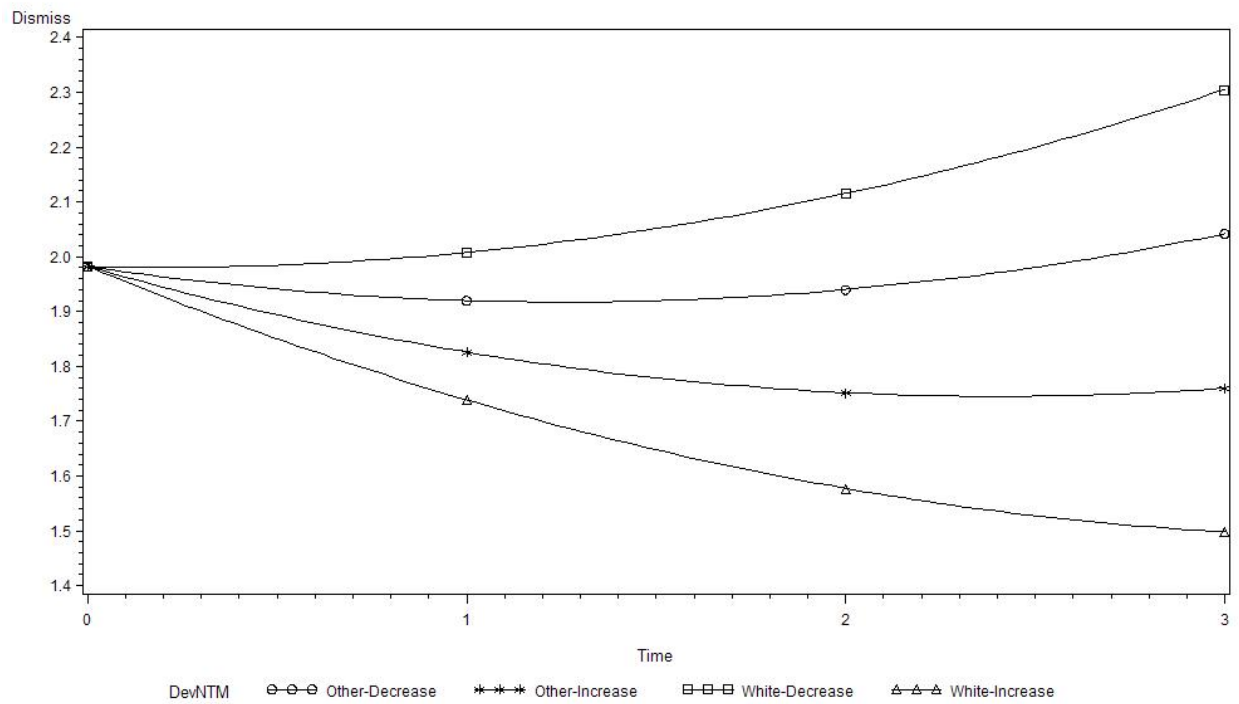
*Figure 13.* Effect of initial level of nontraditional masculinity ideology on dismissive attitudes toward sexual harassment in males.



*Figure 14.* Effect of lifetime sexual harassment perpetration reported in Wave 1 on dismissive attitudes toward sexual harassment in males.



*Figure 15.* Change in dismissive attitudes toward sexual harassment for males whose endorsement of traditional masculinity ideology decreases, increases, or remains the same over time.



*Figure 16.* Effect of changes in nontraditional masculinity ideology on dismissive attitudes toward sexual harassment in White and non-White males.

## **Chapter 5**

### **Discussion**

The purpose of this study was to shed light on the gendered nature of peer harassment occurring in middle schools. School-based sexual harassment has been considered a form of bullying or an age-appropriate, normal aspect of cross-gender interactions. The traditional psychological perspective on bullying and aggression in early adolescence emphasizes individual differences and pathological characteristics of perpetrators. In contrast, adult sexual harassment has been studied from a feminist sociocultural framework. According to the sociocultural model, sexual harassment arises from gendered power differentials that are legitimized and maintained via gender role socialization and hegemonic masculinity ideology (Welsh, 1999). The results of this study support the notion that adolescent boys' sexual harassment of girls represents culturally sanctioned "boy behavior" rather than deviant or pathological characteristics of individual boys. Male and female students in this study who strongly endorsed traditional masculinity ideology were more likely to report dismissive attitudes toward sexual harassment, regardless of their personal experiences with sexual harassment perpetration or victimization.

#### **Dismissive Attitudes Toward Sexual Harassment**

Dismissive attitudes minimize the seriousness of sexual harassment by viewing it as harmless joking or flirting, and place blame on female victims by suggesting that they invite harassment by how they dress or behave. Previous research has documented the existence of dismissive or tolerant attitudes among adults (Hull & Burke, 1991), college students (Wade & Brittan-Powell, 2001), and high school students (Bayliss, 1995). This is the first study to



examine the development of dismissive attitudes toward sexual harassment in pre-adolescent boys and girls.

It was hypothesized that the average level of dismissive attitudes toward sexual harassment would decrease over time because previous research suggests that flexibility in gender role stereotypes increases during early adolescence and then declines again in late adolescence (Alfieri et al., 1996). If sexual harassment attitudes are associated with gender role stereotypes, as hypothesized, then increased gender role flexibility would be expected to correlate with decreased dismissive attitudes toward sexual harassment. Consistent with this hypothesis, dismissive attitudes among female adolescents decreased linearly across the four semesters they were studied. However, among male adolescents, a nonlinear trend was revealed in which an initial decline in dismissive attitudes was followed by another increase over time. Although these were the general trends, change patterns varied significantly between individuals. For both males and females, the initial level and rate of change differed between individuals. Multilevel growth curve modeling was used to examine factors that might account for different patterns of change. As predicted, traditional masculinity ideology accounted for a significant amount of variation in dismissive attitudes toward sexual harassment for both males and females. Nontraditional masculinity and traditional femininity were also important variables in the multilevel models for change. These findings are interpreted in the sections that follow.

### **Sexual Harassment Behaviors**

Consistent with previous findings documenting the occurrence of sexual harassment in early adolescence, the students surveyed in this study reported experiencing various forms of peer sexual harassment in school, including sexual jokes and gestures, homophobic teasing,

sexual grabbing or touching, and sexual rumor spreading. Although females and males reported perpetrating sexual harassment with the same frequency, females reported higher rates of victimization compared to males, which is consistent with previous findings (McMaster et al., 2002; Pellegrini, 2001). This is also in line with ethnographic research that revealed endemic sexual victimization of girls by boys in high schools (Duncan, 1999; Paul, 2003; Shute et al., 2008; Timmerman, 2003).

It is important to recognize that sexual harassment perpetrated by females might represent attempts to retaliate in response to harassment from males (Shute et al., 2008). Brown, Chesney-Lind, and Stein (2007) argued that addressing bullying without consideration of social power hierarchies further marginalizes subordinate groups because “justified anger that comes from experiences of oppression or subordination carries the same valence and response ... as anger that comes from a position of privilege and dominance over someone” (p. 1264). Similarly, the sexual harassment perpetrated by males and females might look and sound the same, but could have a very different meaning; this important difference becomes invisible when researchers and school officials fail to consider the broad sociocultural context of sexual harassment. From the perspective that female-to-male sexual harassment is often a form of retaliation, and in light of previous findings that Black adolescent girls are more likely to stand up for themselves to male peers (Brown & Gilligan, 1992; Morris, 2007; Taylor et al., 1995), it makes sense that Black females in this study perpetrated sexual harassment with greater frequency than White females.

Based on previous findings that adolescent girls become desensitized to sexual harassment as a result of having their experiences repeatedly minimized by teachers (Larkin, 1994), it was hypothesized that sexual harassment victimization would account for dismissive attitudes in females. Contrary to prediction, sexual harassment victimization was not correlated

with dismissive attitudes toward sexual harassment. One potential explanation for this finding is that the process of becoming desensitized to sexual harassment could occur over a longer period of time, in which case a significant correlation between victimization and dismissive attitudes would not emerge until later in adolescence. Indeed, previous studies of school-based sexual harassment have primarily focused on high school students. Also, this study did not assess student perceptions of teachers' attitudes, so it was impossible to determine whether or not teachers were actually dismissing complaints of sexual harassment. Future research should examine how teacher attitudes and school climate influence adolescent attitudes toward sexual harassment.

The hypothesis that sexual harassment perpetration would be positively associated with dismissive attitudes toward sexual harassment was partially supported. Male students who were identified as frequent perpetrators based on their Wave 1 scores for lifetime sexual harassment had a higher initial level of dismissive attitudes. Although the fixed effect was not significant, including a categorical predictor for sexual harassment perpetration improved overall model fit for females. However, the reported frequency of perpetrating sexual harassment in school during the preceding year did not have an effect on dismissive attitudes toward sexual harassment for males or females. Sexual harassment perpetration did not influence the rate of change in dismissive attitudes. These findings are inconsistent with some research showing that individuals with tolerant attitudes are more likely to perpetrate sexual aggression (DeKeserdy & Kelly, 1993; Hilton et al., 2003; Hull & Burke, 1991). On the other hand, the results are consistent with previous findings that attitudes toward sexual harassment are unrelated to the level of sexual harassment experienced (Mazer & Percival, 1989). Reilly et al. (2002) found that dismissive attitudes toward sexual harassment among college women are correlated with beliefs about

heterosexual relationships and rape-myth acceptance, and not with experience of sexual victimization. An important difference between the current study and past research is that this study focused on middle school students while previous studies were conducted with high school and college students. Perhaps dismissive attitudes toward sexual harassment contribute to perpetration behaviors over time if an individual's dismissive attitudes persist into late adolescence and adulthood.

It is intriguing that sexual harassment perpetration and victimization were not correlated with dismissive attitudes across time. While perpetration and victimization were consistently correlated with each other, these behavioral indicators were not correlated with attitudinal variables at any time point for males or females (see Table 3). This finding is consistent with Duncan's (1999) argument that the majority of students not identified as perpetrators nevertheless maintain a climate in which a minority of perpetrators is allowed to operate. By perceiving the sexual harassment of girls by boys as a normal and natural characteristic of cross-gender interactions, even innocent bystanders can uphold a cultural climate in which these behaviors are allowed to flourish, thus unintentionally perpetuating gender-based oppression. The fact that dismissive attitudes toward sexual harassment negatively predicted intent to reduce or confront sexual harassment further supports the notion that dismissive attitudes reinforce culturally entrenched male-female power differentials.

### **Traditional Femininity Ideology**

The feminist sociocultural model of sexual harassment emphasizes the role of hegemonic masculinity ideology. This is one of few studies to consider how the socialization of girls into traditional feminine gender roles might also contribute to attitudes conducive of sexual

harassment. According to feminist developmental theories, cultural pressure for girls to be nice, avoid conflict, and suppress their true feelings results in a loss of voice and inhibits the ability to be authentic in relationships (Tolman & Porche, 2000). Research shows that White adolescent girls are particularly vulnerable to internalizing this dominant notion of femininity, while girls from racially and economically oppressed groups are more likely to describe alternative conceptions of femininity based on self-expression and standing up for oneself (Brown & Gilligan, 1992). It was hypothesized that girls who scored high on the Inauthentic Self in Relationships subscale—which theoretically measures loss of voice—would be more likely to report dismissive attitudes toward sexual harassment. Loss of voice (i.e., traditional femininity ideology) was not expected to account for dismissive attitudes toward sexual harassment in males or in non-White females.

As hypothesized, traditional femininity ideology only had a significant effect on the initial level of dismissive attitudes toward sexual harassment for White females. However, the direction of the association was opposite from what was expected. White females who strongly endorsed traditional femininity ideology in Wave 1 were *less* dismissive of sexual harassment. This result is consistent with the findings of Russell and Trigg (2004), who examined gender, ambivalent sexism, social dominance, and gender roles as predictors of tolerance of sexual harassment in college students. They found a negative association between femininity and tolerance of sexual harassment, and femininity played a minimal role overall in predicting tolerant attitudes. This contrasts other findings in the literature that girls and women with traditional gender role attitudes are more likely to dismiss the seriousness of sexual harassment (e.g., Reilly et al., 1992; Terrance et al., 2004).

There are several possible explanations for the conflicting findings in the scant amount of research that exists on the role of femininity in sexual harassment attitudes. First, the studies that have found a positive association between traditional femininity ideology and tolerance of sexual harassment have utilized measures that assess attitudes toward women and sexist beliefs (e.g., Reilly et al., 1992; Terrance et al., 2004). In contrast, loss of voice was used as an indicator of traditional femininity ideology in this study. A high score on the Inauthentic Self in Relationships subscale reflects a tendency to care about others' feelings and desire peaceful relationships. It is plausible that girls with these characteristics would be more likely to view sexual harassment as problematic. Other studies that have measured the extent to which individuals exhibit stereotypical feminine qualities, as opposed to measuring hostile and sexist attitudes about women, have also found negative associations between femininity and tolerance of sexual harassment (e.g., Powell, 1986; Russell & Trigg, 2004).

Furthermore, this study only examined one aspect of hegemonic femininity ideology. Another salient aspect of the female gender role in American culture is an emphasis on physical appearance. Sexual objectification of females permeates American culture. When individuals are objectified, they are treated as bodies that exist for the use and pleasure of others, rather than as human beings. Objectification theory posits that the cultural milieu of sexual objectification socializes girls and women to treat themselves as objects to be evaluated on the basis of appearance. In other words, girls and women can internalize an objectifying observer's perspective on their own bodies, which is referred to as self-objectification (Fredrickson & Roberts, 1997). As another major component of hegemonic femininity ideology, self-objectification should be examined in future research for its potential effect on dismissive attitudes toward sexual harassment among adolescent females.

The rate of change in dismissive attitudes toward sexual harassment differed between girls who were high and low on femininity ideology at the beginning of the study, although the effect only approached statistical significance when controlling for other variables in the final model. Strong endorsement of traditional femininity ideology was associated with a slower rate of decline in dismissive attitudes, an effect that did not vary by race (see Figure 11). However, there were no time-varying effects of traditional femininity ideology on dismissive attitudes toward sexual harassment. Dismissive attitudes were only associated with Wave 1 scores on traditional femininity ideology. Further research is needed to better understand the developmental trajectories of femininity ideology and dismissive attitudes toward sexual harassment during adolescence.

### **Nontraditional Masculinity Ideology**

This is the first study to explore the association between nontraditional masculinity ideology and attitudes toward sexual harassment. In the sexual harassment literature, theoretical and empirical research has focused on the function of hegemonic or “traditional” masculinity ideology, which Levant (1996) operationalized as avoidance of anything feminine, restriction of emotions, emphasis on toughness and aggression, and fear or hatred of homosexuality. Recently, masculinity researchers began to study nontraditional definitions of masculinity that value gender equity and reject homophobia and misogyny (Anderson, 2009). It was predicted that endorsement of nontraditional masculinity ideology would be associated with lower levels of dismissive attitudes toward sexual harassment.

As predicted, males who endorsed higher nontraditional masculinity ideology relative to their peers reported less dismissive attitudes toward sexual harassment initially. As

nontraditional masculinity ideology increased or decreased over time, a corresponding change in dismissive attitudes was found. Increases in nontraditional masculinity were associated with decreases in dismissive attitudes. The time-varying effect of nontraditional masculinity was stronger for White males compared to non-White males. Also, mean scores on nontraditional masculinity ideology were higher for White males than for Black males. These racial differences are consistent with previous research showing that men and women from racially oppressed groups continue to adhere to hegemonic masculinity ideology (Levant & Majors, 1997; Pompper, 2010). Although females had higher mean scores on nontraditional masculinity compared to males, nontraditional masculinity ideology did not account for dismissive attitudes toward sexual harassment in the multilevel model for females.

### **Traditional Masculinity Ideology**

As hypothesized, traditional masculinity ideology had strong effects on the developmental trajectories of dismissive attitudes toward sexual harassment for both males and females. Of all the variables tested in the multilevel models for change, traditional masculinity ideology consistently stood out as the most significant factor accounting for dismissive attitudes toward sexual harassment. This finding clearly demonstrates that school-based sexual harassment between adolescent peers can be understood from the feminist sociocultural model.

On average, males reported higher scores on traditional masculinity ideology than females. Males who reported high traditional masculinity ideology relative to their peers in Wave 1 had higher initial levels of dismissive attitudes toward sexual harassment and showed less decline in dismissive attitudes over time. Traditional masculinity ideology also had a significant time-varying effect for males. Decreases in traditional masculinity were associated with



decreases in dismissive attitudes toward sexual harassment. It was an intriguing finding that dismissive attitudes followed a nonlinear pattern of change for males. Rather than continuing to decrease over time, as in the model for females, an initial decline in dismissive attitudes was followed by an increase for males. It would be interesting to observe students over a longer period of time to understand how this developmental trajectory unfolds as they progress through adolescence into adulthood.

For females, endorsement of traditional masculinity ideology in Wave 1 was positively associated with initial level of dismissive attitudes toward sexual harassment, but did not influence the rate of change in dismissive attitudes over time. However, increases in traditional masculinity ideology were associated with increases in dismissive attitudes toward sexual harassment. In addition, the effect of traditional masculinity ideology on dismissive attitudes became stronger over time for females, as shown in Figure 10.

This study demonstrates that the connection between “normalized masculinity” and sexual harassment exists even before boys and girls reach high school. The results are consistent with studies showing that *beliefs* about gender better predict attitudes toward sexual harassment than gender itself (Hilton et al., 2003; Russell & Trigg, 2004). Hegemonic masculinity ideology asserts that to be masculine, boys and men need to be tough, competitive, emotionally stoic, dominant, and anything but feminine. Males and females who internalize this culturally constructed notion of masculinity are more likely to dismiss males’ sexual harassment of females as harmless fun and to blame female victims for the harassment they receive.

## **Study Implications**

Research shows that sexual harassment of adolescent females by male peers is an everyday occurrence in high schools (Shute et al., 2008). Less is known about the frequency of sexualized cross-gender victimization in middle schools because peer-to-peer victimization in this age group has primarily been studied from a developmental psychology framework, as opposed to a sociocultural framework. The traditional psychological approach focuses on individual differences and deemphasizes broader sociocultural factors. By demonstrating that dismissive attitudes toward sexual harassment are associated with the extent to which adolescents have internalized hegemonic masculinity ideology, this study supports the applicability of the feminist sociocultural model to sexual harassment in middle schools. When seeking to understand the victimization of adolescent girls by boys from a sociocultural approach, “the differentiation of bullying, aggression and sexual harassment may be less important than an awareness of the sexual politics that underlie them all” (Shute et al., 2008, p. 479).

Conceptualizing adolescent sexual harassment from a bullying framework has been criticized for ignoring the role of gender and removing sexual harassment from a discourse of rights by placing it into a psychological realm (Brown, Chesney-Lind, & Stein, 2007). Brown et al. argued that bullying “has become the stand-in for other behaviors that school and public health officials, scholars, legislators, and researchers do not want to name, such as racism, homophobia, sexism, or hate crimes” (p. 1260). The 1972 Title IX Education Amendments Act was intended to ensure that women and minorities would have equal access to education, and it requires that any institution receiving federal funds provide an environment free of discrimination. When sexual harassment is labeled as bullying, school administrators are no

longer held liable under Title IX law, victims are not afforded the legal rights and protections offered by anti-discrimination laws, and the discussion of school safety shifts away from a larger civil rights framework. Therefore, Brown et al. have strongly recommended that bullying prevention programs take into account social location (e.g., gender, race, class, and sexual identity), and distinguish bullying from sexual and racial harassment.

These study results highlight the gendered nature of sexual harassment in adolescence and support the call for prevention programs that specifically address issues of gender and power. There is a growing body of literature showing that normalized masculinity is an underlying factor in adolescent sexual harassment. Some investigators have argued that sexual harassment lies on a continuum of unrecognized violence against young girls (Klein, 2006; Shute et al., 2008). This study extends the literature by demonstrating that hegemonic masculinity ideology contributes to dismissive attitudes toward sexual harassment. Past research shows that when students and teachers dismiss the seriousness of sexual harassment, it creates a school culture in which harassment is allowed to flourish. When sexual harassment is allowed to flourish because it is culturally accepted as “normal,” adolescent girls are unfairly disadvantaged because they suffer more negative psychological and educational consequences (Hand & Sanchez, 2000).

Preventing sexual harassment in schools requires more than simply educating students on definitions of sexual harassment. The results of this study suggest that prevention programs should engage students in critical analysis of the messages they receive about gender, and encourage students to challenge dominant ideas about masculinity and femininity. In addition, education and training programs should encourage teachers and school administrators to examine their own attitudes about masculinity and sexual harassment given that school personnel are

important socialization agents. Finally, reports of sexual harassment need to be taken seriously by school officials, and should be addressed at both the individual and system levels. In other words, reprimanding individual perpetrators should be accompanied by efforts to address the school culture and understand the social contextual factors involved.

### **Study Limitations and Future Directions**

A major strength of this study is the use of multilevel modeling to analyze longitudinal data. Longitudinal studies have an advantage over cross-sectional research designs because they allow researchers to detect change over time. Growth curve analysis also has many advantages over traditional statistical methods for analyzing change, including the ability to model change at the individual and group levels and to detect inter-individual differences in patterns of change (Francis et al., 1991). This study would be strengthened, however, by following students over a longer period of time. With additional waves of data, higher order polynomial change trajectories could be modeled. Following students as they transition from middle school to high school would also provide greater insight about the social and psychological correlates of changing attitudes toward sexual harassment.

The sample used in this study was racially and economically diverse. However, quantitative methods are limited in their ability to provide a rich and nuanced understanding of the lived experiences of study participants. Comparing groups based on race as a demographic variable cannot account for important variations within racial groups, such as level of racial identity development or acculturation to White American culture. Also, because the number of study participants who did not identify as White or Black in this study was small, statistical comparisons could not be made between all racial groups represented in the sample. For

statistical reasons, all students who did not identify as White were combined into one group representing racial minorities. This approach is problematic because it blurs important cultural variations between racial minority groups, and cannot illuminate unique social contextual factors that might influence attitudes about gender and sexual harassment.

Given that gender role ideologies and sexual harassment attitudes depend on social location and cultural context, future research should utilize qualitative methods to study attitudes toward sexual harassment in female adolescents whose identity development is profoundly influenced by the complex interaction of racism, sexism, and classism (Morrow, Rakhsha, & Castaneda, 2001; Sanders & Bradley, 2005). Qualitative methods are particularly suited to sexual harassment research because they address issues of context, power, and privilege, and give voice to marginalized and historically silenced groups of people. The variables examined in this study better accounted for between- and within-person variation in dismissive attitudes toward sexual harassment for males than for females. Consistent with recommendations from multicultural scholars (Collins, 1990; Constantine, 2002; Richardson & Taylor, 2009; Sanders & Bradley, 2005), future research on attitudes toward sexual harassment should investigate the experiences of adolescent girls from a multiple-lens or intersectional framework.

Although masculinity ideology accounted for a significant amount of variation in dismissive attitudes toward sexual harassment, there are many other factors not included in this study that might influence the development of dismissive attitudes in adolescent males and females. Parents and teachers serve as socialization agents that perpetuate cultural constructions of masculinity and femininity through modeling and differential reinforcement of behaviors; thus, examining the role of parents and teachers might enhance understanding of the development of dismissive attitudes toward sexual harassment. Given that adolescents learn

appropriate ways to express sexuality and sexual attraction within the context of peer groups, future research should account for potential peer group effects on individuals' attitudes toward sexual harassment. Indeed, previous studies have shown that attitudes among male peers play an important role in male college students' perpetration of sexual violence against women (e.g., Ageton, 1983; DeKeserdy & Kelly, 1993). The media are another social influence that becomes salient during adolescence, and students' interaction with various forms of media might account for dismissive attitudes toward sexual harassment. For example, research has shown that frequent music video exposure is associated with more accepting attitudes toward sexual harassment in high school students (Strouse et al., 1994).

## **Conclusion**

This study examined developmental trajectories of dismissive attitudes toward sexual harassment in 5<sup>th</sup> through 8<sup>th</sup> grade students. The study results highlight the gendered nature of peer sexual harassment in early adolescence by revealing an association between hegemonic gender role ideologies and dismissive attitudes. Consistent with the feminist sociocultural model of sexual harassment, male and female students who endorsed the dominant form of American masculinity were more likely to downplay the seriousness of sexual harassment. This is the first study to examine how masculinity ideologies influence attitudes toward sexual harassment over time in pre-adolescent males and females.

This study is also among the first to explore the association between hegemonic femininity ideology and dismissive attitudes toward sexual harassment. Results suggest that cultural pressure for girls to suppress their true thoughts and feelings might play a role in normalizing sexual harassment of females by males. However, the results are somewhat

inconclusive because the effect of traditional femininity ideology on dismissive attitudes was not entirely consistent with hypotheses. Future research is needed to clarify how hegemonic femininity ideologies contribute to attitudes conducive of sexual harassment.

Students with dismissive attitudes toward sexual harassment were less likely to report that they would take steps to confront or reduce sexual harassment among peers. This finding supports the notion that tolerant attitudes contribute to a cultural climate in which others are allowed to perpetrate sexual harassment without fearing negative consequences. It is therefore concluded that prevention programs will be more effective if they directly challenge dismissive attitudes toward sexual harassment, as well as the dominant gender role ideologies that support such attitudes.

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