

The role of ethnic identity in exposure, acknowledgment and adjustment after rape in Black females.

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ABSTRACT

Most current literature has ignored the impact of exposure to rape, acknowledgement of the event as such, and psychological adjustment after rape on Black women. This study examines whether the basic relationships that have been established with predominately White samples replicate in a Black female sample. Importantly, the current study also explores whether ethnic identity moderates the aforementioned relationships.

Black females were recruited from two universities, one predominately White and one historically Black, to participate in a web-based survey. Participants were recruited via departmental and university listservs, university-related research posts, psychology departments, and flyers. Three hundred sixteen eligible respondents completed the survey, with data collected over a three semester period. Participants completed demographic information, measures of ethnic identity, negative sexual experiences, anxiety, depression, and social support. Those who endorsed having had an experience that met the legal definition of rape in adolescence or adulthood provided further information about the characteristics of the experience, gave a label for the unwanted sexual contact, and completed a measure of posttraumatic stress disorder.

Fourteen percent of the sample reported an experience that met the legal definition of rape. Sixty-nine percent of those women were unacknowledged. Results of replication-related hypotheses regarding the relationship between exposure, acknowledgement, and adjustment yielded partial support. The data supported that exposure to rape was related to psychological adjustment. Evidence was found that victims had higher anxiety and depression symptomatology than non-victims. There were mixed findings regarding acknowledgment status and

psychological adjustment. The data failed to support the hypothesis that acknowledged and unacknowledged victims significantly differ on depression, anxiety, or PTSD scores. The data did support that acknowledged women experienced more psychological distress than non-victims. There were mixed findings regarding acknowledgment status and features of the exposure. Contrary to the hypothesis and previous research, there was not evidence that unacknowledged women and acknowledged women differ in terms of relationship to the offender and level of force or resistance used during the assault. Moderation hypotheses were partially supported. Data failed to support the hypothesis that ethnic identity moderates the relationship between exposure to rape and depression, anxiety, or social support. Evidence was not found that ethnic identity moderates the relationship between acknowledgement status and social support, depression, or anxiety. There was evidence that ethnic identity moderates the relationship between acknowledgement status and PTSD symptoms. Consistent with the hypotheses, results suggest that ethnic identity is positively related to the psychological well being of Black women and may have implications for the relationship between acknowledging a rape event and PTSD symptomatology. Clinical implications, threats to internal and external validity, and future directions for research with ethnic minorities are also discussed.

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The role of ethnic identity in exposure, acknowledgment and adjustment after rape in Black females.

Aims

The prevalence of rape has hovered between 14 and 25 percent on campuses and in the general population (Bondurant, 2001; Brener, McMahon, Warren, & Douglas, 1999; Kahn, Mathie, & Torgler, 1994; Layman, Gidycz, & Lynn, 1996; Mohler-Kuo, Dowdall, Koss & Wechsler, 2003). The relationships between rape exposure and psychological adjustment (Bowie, Silverman, Kalick, & Ebril, 1990; Harned, 2004; Kimerling, Alvarez, Pavao, Kaminski, & Baumrind, 2007; Sarkar & Sarkar, 2005), rape exposure and acknowledgement (acknowledgement is when a woman who reports an experience that meets the legal definition of rape labels the event as such; i.e. Bondurant, 2001; Koss, 1985; Littleton, 2003, Layman, Gidycz, & Lynn, 1996), and rape acknowledgement and psychological adjustment (Conoscenti & McNally, 2006; Harned, 2004) have been topics of investigation. Rarely are there adequate numbers of Black women in these samples to draw meaningful conclusions within that population. When race is examined, it is conceptualized at a gross demographic level that may be inadequate for drawing meaningful conclusions. This thesis seeks to address these two shortcomings.

Using race as a predictor variable makes it difficult to understand how it can explain the mechanisms behind the relationships amongst rape exposure, acknowledgement, and psychological adjustment. Race is a stable, arbitrary construct and using it as a predictor variable masks what may be important variation within Black women (Helms & Talleyrand, 1997). Conversely, ethnic identity is a construct that may be capable of highlighting this variation amongst Black women. As an aspect of an individual's self-concept (Phinney, J., 1992), ethnic

identity involves knowledge of what it means to be a member of a social group, along with the value and emotional significance of being part of that group (Phinney, J., 1992; Tajfel, 1982). The value and emotional significance of being Black is not the same for all Black women. It may be a mistake to assume that all Black women have the same level of acceptance of cultural values and beliefs. Since the valance of one's ethnic identity is related to their self-concept, it may have implications for psychological adjustment and acknowledgement status after rape. The relationships between rape exposure, acknowledgement, and adjustment may change as a function of ethnic identity. In this study, the role that ethnic identity plays in these relationships was investigated. Furthermore, whether the established relationships between rape exposure, acknowledgement, and psychological adjustment replicate using a sample of Black females was examined.

Background and Significance

I. Ethnic Identity

The Argument for Ethnic Identity

Identity is defined as a set of meanings that represent the feelings, understandings, and expectations that are placed on one's self as an occupant of a social position (Cast & Burke, 2002). Wong, Kim, Zane, Kim & Huang (2003) define ethnic identity as the degree to which individuals identify with their ethnic group. Ethnic identity is recognized as a social identity that is multidimensional in nature (Ocampo, Knight and Bernal, 1997). It is also understood as a composite rather than a unitary entity (Reid & Deaux, 1996). The implications of what it means to belong to the group, as well as the acceptance of beliefs, cultural values, and ideologies are all encompassed in ethnic identity. In this research, ethnic identity also includes one's cultural

identity and the valance of belongingness to that group.

As a social identity, ethnic identity does not exist in a vacuum. For ethnic minorities, it also includes the tension between feelings of belonging to one's ethnic group versus belonging to other groups. Although ethnic identity includes the recognition that one belongs to a group and the degree to which a person identifies with the group; it may also be impacted by the cultural values of surrounding groups. For example, a Black female may identify with the cultural values of her ethnic community, but the cultural values of those around her may also be infused into her identity and impact her ethnic identity. A Black woman who attends a historically Black college/university (HBCU) knows that she is likely to be surrounded by individuals who share the same cultural values as she, because the majority of people at that institution will be of the same ethnic background. When a Black woman goes to a predominately-White institution (PWI), she may still identify with Black culture, but because she is in a social atmosphere that is likely to be made up of individuals who are of a different culture, she may be more influenced by that culture than a woman who attends an HBCU. It is unclear how (or if) identifying with cultural influences *of the majority group* will influence the relationships between exposure to rape, acknowledgement, and adjustment. Furthermore, it is not clear if any differences in women who attend one institution over the other will emerge. Therefore, the differences in ethnic identity, as well as exposure, acknowledgement, and adjustment between Black females who attend HBCU's versus those at a PWI will be explored.

II. Rape exposure and its assessment

Methodological Issues and Social Relevance

The impact of rape on Black females is underresearched. Over the past two decades,

researchers have used police and governmental data as a source of information about the prevalence of rape (Conoscenti & Mc Nally, 2005; Gross, et al., 2006, Koss & Gidycz, 1985, Koss & Oros, 1982; Resnick et al., 2000; Tjaden & Thoennes, 2000). The National Crime and Victimization Study (NCVS), the Federal Bureau of Investigation (FBI), the United States Department of Justice, police reports, and the now defunct Law Enforcement Assistance Administration (Koss & Gidycz, 1985, Koss & Oros, 1982) have served as sources of information for researchers. The NCVS asserts that it is “the Nation's primary source of information on criminal victimization” (Bureau of Justice Statistics, 2009). According to the NCVS, each year surveyors obtain information from a “nationally representative sample of 77,200 households comprising nearly 134,000 persons on the frequency, characteristics, and consequences of criminal victimization in the United States.” The FBI uses the National Incident-Based reporting system to supply information to academics. This information comes from local, state, and federal automated record systems (<http://www.fbi.gov/ucr/faqs.htm>).

Unfortunately, government and law enforcement agencies are less likely to capture data from racial groups who have historically avoided interaction with them (Holzman, 1996). Therefore, the reliance on electronic record systems and governmental data, such as police reports, may provide inaccurate estimates of rape incidences, especially amongst ethnic minorities. In fact, the most recent estimate from the NCVS made for Blacks in all of the categories related to rape or sexual assault, including attempts and reports to the police, are based on ten or fewer sample cases (Bureau of Justice Statistics, 2008). This means that in the entire sample, ten or fewer Black individuals reported the incidence of this crime to surveyors. Police records do not provide much of an alternative either. In fact, in its most recent release, the BJS reported that Blacks were less likely to report rape to the police (2008). Prior reports indicate that

this is an ongoing trend. The 1992 National Crime Victimization Survey (NCVS) reported that nationally approximately 12% of rape victims inform the police of the crime regardless of race. Peer reviewed literature from the same time period suggests that Black women reported less frequently than White women (Neville & Pugh, 1997). This literature used self-report data and included Black women who admittedly did not report their experience of assault to the police (1997).

To its credit, the methods of social science allow for the inclusion of women who are victims of rape but may not be documented in the criminal justice system. Unfortunately, even in current peer-reviewed literature, samples often consist of predominately-White participants and do not include many Black females. In a recent survey about rape, out of 1,010 female participants, 84% (approximately 848 participants) of the sample was White and 7% (approximately 71 participants) of the sample was Black (Wilcox, Jordan, & Pritchard, 2007). In another study, with a large sample size of 504 college students, Blacks made up only 2% (approximately 10 participants) of the sample (Kahn, Jackson, & Kully, 2003). Studies with so few Black female participants make it unlikely that meaningful variation within Black female samples will be found. It also makes it impossible to analyze the sample for any significant differences that may emerge within that population.

Use of the Sexual Experiences Survey (SES, Koss, 1982) in social science research allows for the assessment of the presence of sexual assault. This method captures victims regardless of how the woman conceptualizes her experience and regardless of whether she has reported the experience (Layman, et al., 1996). Researchers have successfully used this measure across many populations. Based on this measure, it is estimated that a woman has as high as a one in four to one in five chance of being a rape victim during her college years (Mohler-Kuo,

Dowdall, Koss, & Wechsler, 2003). Bondurant (2001) reported that approximately 15% of women on college campuses met the criteria for being rape victims, although many do not acknowledge or label the event as rape. Recently Smith, White, and Holland (2003) used the Sexual Experiences Survey to assess the presence of dating violence, including rape. Smith and colleagues' (2003) study included a relatively high percentage of Black (25.3%, n=397) participants. They reported that by the end of the fourth year in college, 74.8% of the White women and 81.5% of the Black women in their sample reported sexual victimization. In their study this difference was not significant. However, the inclusion of such a large percentage of Black female participants seems to be the exception rather than the norm with much of the available research.

In conclusion, rape is regarded as a widespread social problem in the United States and women between the ages of 16 and 24 are at the greatest risk (Brener, McMahon, Warren, & Douglas, 1992; Briere & Jordan, 2004; Consecenti & McNally, 2006; Gross, Winslett, Roberts, & Gohm, 2006; Kahn, Mathie, & Torgler, 1994; Kalof & Wade, 1995; Koss & Gidycz, 1985; Koss & Oros, 1982; Peterson & Muehlenhard, 2004; Resnick, Holmes, Kilpatrick, Clum, Acierno, Best, & Saunders, 2000, Tjaden & Theoness, 2000). Rape is a serious problem on college campuses and females who are members of the college-aged population are at high risk for becoming victims of sexual assault (Brener et al., 1992; Buddie & Testa, 2005; Carmody & Washington, 2001; National Institute of Justice, 2005; Gross, et al., 2006; Kalof & Wade, 1995; Testa & Dermen, 1999; Tjaden & Theoness, 2000). Unfortunately, it is difficult to discover any possible differential impact of sexual assault amongst Black women when they are undersampled or are not the focus of the study.

III. Acknowledged versus Unacknowledged Victims

Background

Research suggests that most victims of rape do not conceptualize it as such even when their reported experience meets the legal definition (Buddie & Testa, 2005; Conoscenti, et al., 2006; Kahn, et al., 1994 Layman, et al., 1996). These women are referred to as unacknowledged. Koss's (1985) seminal work on the unacknowledged rape victim defines her as "a woman who has experienced a sexual assault that would legally qualify as a rape but who does not conceptualize herself as a rape victim" (pg. 195). To date the unacknowledged rape victim continues to be operationalized as a woman who has had an experience that meets the legal definition of rape, but does not label the event as such (Kahn, et al., 2003; Littleton, 2003).

Early works in the 1980s by Koss and colleagues as well as current research indicate that this is a common phenomenon. Koss, Dinero, Siebel, & Cox's early study reported that 62% to 81% of women who had an experience that met the legal definition of rape did not acknowledge or recognize the event as rape (1988). Layman, Gidycz, and Lynn (1996) found that 73% of their victims were unacknowledged. In Bondurant's (2001) study on university women's acknowledgement of rape, the majority of women (64%) did not acknowledge their rape experiences. Littleton (2003) found similar results, discovering that in her university sample, 60% of the women who met the legal definition for rape were unacknowledged rape victims.

Past research regarding acknowledged and unacknowledged victims has focused on several variables including victim attitudes (Bondurant, 2001; Kahn et al., 1994), acceptance of rape myths (McMullin & White, 2006), societal stereotypes on sexual violence (Buddie & Miller, 2001), and rape and seduction scripts (Kahn et al., 1994; Carmody and Washington, 2001; Littleton & Axsom, 2003). The victims' sexual practices (Koss, 1985; Layman, et al.,

1996), history of sexual abuse (Kahn, et al., 2003), age (Kahn, et al., 2003), behavioral reactions of those close to them (Kahn, et al., 1994), level of self-blame (Layman, et al., 1996), and race (Carmody & Washington, 2001) have also been predictor variables of interest in past research. Carmody and Washington (2001) did not find evidence that race and prior victimization influences the rejection or acceptance of rape myths. However, they did note that due to the historical false persecution and vulnerability of Black males, Blacks may be skeptical about the validity of rape situations.

Acknowledgement and Features of Exposure

Researchers have investigated the relationship between acknowledgement and features of the rape, such as forcefulness and violence within the assault (Kahn, et al., 2003; Layman, et al., 1996; Littleton, 2003), level of resistance during assault (Layman, et al., 1996), and relationship to the offender (Bondurant, 2001; Layman, et al., 1996, Kahn, et al., 2003; Koss et al., 1988). Rapes involving a stranger, the use of force, and that result in physical injury (McFarlane, Malecha, Watson, Gist, Batten, Hall & Smith, 2005; Resnick, Holmes, Kilpatrick, Clum, Acierno, Best, et.al, 2000) are associated with acknowledgement. In their research, Layman and colleagues (1996) found that women who experience higher levels of force from the perpetrator and resisted more during the assault were more likely to acknowledge it as rape. Although many women endorse rape scripts that conceptualize rape as a violent attack perpetrated by a stranger, these features are found in the minority (approximately 31%) of rapes (Bureau of Justice Statistics, 2008). Research has found that women who are raped by an acquaintance are more likely to be unacknowledged (Kahn, et al., 2003; Koss et al., 1988). It is possible that having prior acquaintance with the assailant makes it more difficult for a woman to classify their experience as a sexual assault (McMullin & White, 2006). Consistent with past research, it was

hypothesized that the relationship between exposure to rape and acknowledgment would be stronger (weaker) if it occurs at the hands of a stranger. It is also hypothesized that the relationship between rape exposure and acknowledgment would be stronger (weaker) as higher (lower) levels of physical violence and resistance from the victim are reported.

Acknowledgement and Ethnic Identity

Kalof and Wade asserted that “little is known about how the structural position of individuals is linked to sexual attitudes and experiences” (1995). While it is likely that many of the factors affecting acknowledgement cross racial-ethnic lines, it is probable that some factors are unique to Black females (Washington, 2001). Given the societal context in which Black women live, the role and cultural meanings of being Black and experiencing a rape may not be adequately captured from data that relies on race as a predictor variable. Ethnic identity could be a lens which some Black women use to interpret their sexual experiences. For example, given that most sexual assaults are intraracial, a Black woman who feels a high level of adherence to a cultural mandate to protect Black male offenders from criminal prosecution, or to protect the community in general from negative publicity, may be less likely to report her rape (Washington, 2001). Washington (2001) has suggested that some sexually victimized Black females may have internalized the “strong Black woman ideal”, which may result in a greater likelihood to downplay the event or label it as a miscommunication, misunderstanding, or unknown. On the other hand, having high ethnic identity involves being embedded in social networks that have shared experiences, history, and social position. Furthermore, a positive (high) sense of ethnic identity may be related to self-esteem and having a secure sense of self. Therefore it is proposed that high ethnic identity is a buffer because it involves the Black woman feeling embedded in social networks that are congruent with her individual identity. On the other hand, a Black

woman with low ethnic identity may be unsure about or uncomfortable with that aspect of her identity and thus that part of her self-concept. She may not accept the "strong Black woman ideal". In the extreme case, she may even reject those things related to her ethnicity and/or not associate with others with whom she is culturally similar. Perhaps rejecting one's ethnicity is akin to rejecting part of oneself. It is feasible that a Black woman's level of ethnic identity may be associated with her likelihood of acknowledging a rape event. A woman who is not comfortable with her own identity may have more difficulty acknowledging the rape event. Therefore, it is hypothesized that Black women with low (high) ethnic identity will be less (more) likely to acknowledge the event as rape.

IV. Psychological Adjustment

Exposure and Psychological Adjustment

Exposure to rape overall can be a traumatic experience for a woman and is associated with negative psychological adjustment and a host of mental health problems (Bowie, Silverman, Kalick, & Ebril, 1990; Harned, 2004; Logan, Evans, Stevenson, & Jordan, 2005; Keller et al., 2006; Kimerling & Calhoun, 1994; Kiump, M.C., 2006; Krakow et al., 2001; Maltz, W., 2002; Ullman et al., 2006). Consequences include extreme acute distress, fear, anxiety (Acierno, Resnick, Flood, & Holmes, 2003; Foa & Riggs, 1993; Kimerling & Calhoun, 1994; Neville & Heppner, 1999; Resick, P.A, 1993; Sarkar & Sarkar, 2005), and nightmares (Krakow, Hollifield, Johnston, Koss, Schrader, Warner, et al., 2001). There is also a strong relationship between a rape experience and symptoms of depression (Atkeson, Calhoun, Resick, Ellis, 1982; Kimerling & Calhoun, 1994), post traumatic stress disorder (Keller, Lhewa, Rosenfeld, Sachs, Aladjem, Cohen, et al., 2006, Sarkar & Sarkar, 2005), and anxiety disorders (Bowie et al. 1990). Sexual

assault also correlates positively with problems such as sexual dysfunction (Briere, Woo, McRea, Foltz, & Sitman, 1997), an increase in substance use (McMullin & White, 2006; Acierno, Kilpatrick, Saunders, de Arellano, Resnick, & Best, 2000), and phobias (Briere & Jordan, 2004). A woman who had been a victim of rape is at particular risk for a host of mental health problems (Winfield, Swartz, & Blazer 1990; Mohler-Kuo, Dowdall, Koss & Wechsler, 2003). Given previous research on the relationship between exposure to rape and psychological adjustment, it was hypothesized that exposure to rape would be related to psychological adjustment. Specifically, it was hypothesized that women who were victims of rape would evidence poorer current psychological adjustment than would non-victims.

Ethnic Identity, Exposure and Psychological Adjustment

Ethnic identity evokes cultural meanings and emotional attachment to individuals similar to oneself. This includes involvement and affiliation with a group that, because of cultural similarity, provides social support and a feeling of belongingness. There is evidence that at least for adolescents of color, high ethnic identity is positively associated with psychological well being (Seaton, Sellers, and Scottham, 2006). Pyant and Yanico (1991) found a similar trend in a sample of student and non-student Black women. They reported that for both groups, the more the women endorsed “pro-White, anti-Black attitudes”, the more psychological symptoms they endorsed and the poorer their self-esteem. Therefore, it is feasible that a Black woman’s level of ethnic identity may be associated with her psychological adjustment. For Black women, having lower ethnic identity may be a risk factor for poorer psychological adjustment. As such, it was hypothesized that Black women with high (low) ethnic identity would evidence better (poorer) psychological adjustment.

Moreover, high ethnic identity may be indicative of self-acceptance, and Black women

with this attribute are likely to have social networks in place that have shared history and experiences. Those women who evidence high ethnic identity may identify with the “strong Black woman” ideal, which promotes resilience in the face of adversity, while women with lower levels of ethnic identity may not identify with this concept. Women with low ethnic identity may find themselves alienated in times of difficulty (Pyant and Yanico, 1991). They may evidence further difficulty adjusting after a traumatic event such as rape. Theoretically, detachment from (or lack of a bond with) a network of similar individuals, in addition to having poor self concept, and negative feelings about the group which a person is inherently a part of, may compound the detrimental psychological effects of a traumatic experience such as rape. Women who are exposed to rape and have high ethnic identity may fare better psychologically than those who are not exposed and have high ethnic identity. Women who have high ethnic identity may already have a strong sense of self, community, and personal confidence. Perhaps being exposed to a traumatic experience may cause these women to be more ambitious about staying connected to others and seeking emotional support. Given the acceptance of the “strong Black woman ideal”, these women may view the ability to handle such a traumatic event as an accomplishment, boosting their psychological adjustment even moreso than a woman who is not exposed. Therefore, it was hypothesized that the level of ethnic identity would moderate the relationship between exposure to rape and psychological adjustment. It was hypothesized that for both groups as ethnic identity increased psychological adjustment increased, but the slope of the line for women who are exposed would be steeper than women who were not exposed.

Acknowledgement and Psychological Adjustment

Psychological adjustment may be impacted by how a woman interprets the event.

Women who are acknowledged recognize that they have experienced a trauma and may identify

with the psychological consequences associated with being raped. Women who are acknowledged also tend to have experienced attacks that were more violent, resisted more during the attack, and were not attacked by someone they knew. These features of the rape are known to be related to acknowledgement status, which in turn may influence psychological adjustment. Conversely, women who are raped and do not acknowledge it as rape may report less psychological distress because they have diluted the severity of the event. Grave connotations of “rape” and “victim” are watered down by labeling the event a misunderstanding, miscommunication, some other type of assault, or not classifying the incident. This may result in less reported psychological distress when compared to an unacknowledged victim.

Conoscenti and McNally (2003) compared the number, intensity, and frequency of health complaints among acknowledged victims, unacknowledged victims, and a control group. Overall, being a rape victim, regardless of acknowledgement status, was associated with an increase in the reported number, intensity, and frequency of complaints addressed to health professionals. However, when unacknowledged victims were compared to acknowledged victims, acknowledged victims evidenced greater numbers and a higher intensity of health complaints. In terms of psychological distress, Layman and Gidycz (1996) found that acknowledged victims reported more symptoms of PTSD than did unacknowledged victims. On the other hand, Harned (2004) found that labeling the event was irrelevant to determining negative outcomes (specifically substance use, psychological distress, body shape concern, and academic/school withdrawal). Harned (2004) declared that there is little information about this phenomenon, and the relationship between labeling rape and negative outcomes has yielded mixed results. Data regarding the relationship between the acknowledgement status of rape and subjective report of psychological distress is essential to understanding these phenomena. In this

research, it was hypothesized that women who (did not) acknowledge their rape experience would report more (less) negative psychological symptoms than women who were unacknowledged.

Ethnic Identity, Acknowledgement, and Psychological Adjustment

While several factors, such as victim-offender relationship, degree of force, and self blame (Peterson & Muehlenhard, 2004) have been cited as affecting a woman's perception of victimization and psychological adjustment to a rape event, culture-specific factors have largely been ignored (Neville & Pugh, 1997). Markus and Kitayama (1991) have suggested that ethnic identity has implications for individuals in the realms of cognition, emotion, and motivation. After experiencing a traumatic event such as rape, it is possible that the valance of her ethnic identity has an influence on how a Black woman defines and understands the personal meaning of the event. It may also have implications for how she reacts to and interprets the event. A woman with high ethnic identity may be less inclined to acknowledge the event as a rape, especially if her attacker was also Black. However, she likely has access to a community of culturally similar individuals who are available for psychological support, and maintains a positive self-view. A woman with low ethnic identity may have less social support, which has been found to serve as a buffer against negative effects of trauma. Black women with lower ethnic identity may also be less concerned with protecting the reputation of her community and therefore more inclined to acknowledge the event as rape.

In the same way it is hypothesized to act as a moderator on the relationship between exposure and psychological adjustment, ethnic identity is proposed to act as a moderator on the relationship between acknowledging a rape event and subsequent psychological adjustment. Although she may acknowledge the rape, a positive sense of ethnic identity may serve as a shock

absorber to the psychological impact of acknowledging that one has experienced a traumatic event. With a strong ethnic identity, victims may be able to draw on salient resources (culturally similar friends, family, internal positive beliefs about themselves), while those with low ethnic identity may not have the same resources to rely on. Therefore, it was hypothesized that the relationship between acknowledgement status and psychological adjustment will be moderated by ethnic identity. That is, as the level of ethnic identity increased, psychological adjustment would be better (worse) for acknowledged (unacknowledged) women.

Hypotheses

The first three hypotheses were replications of past research. However, in this study there was a concerted effort to include a large number of Black women in the sample. This was intended to build upon the small amount of information currently available regarding ethnic minorities and these relationships.

1. Exposure to rape will be related to psychological adjustment. Women who are victims of rape will evidence poorer current psychological adjustment than will non-victims.
2. Acknowledgement status will be related to psychological adjustment. That is, women who acknowledge their rape experience will evidence poorer psychological adjustment than will unacknowledged victims.
 - 2a. Additionally, women who are unacknowledged will evidence poorer psychological adjustment than non-victims.
3. Features of the rape exposures for unacknowledged and acknowledged victims will differ. It is hypothesized that acknowledged (unacknowledged) women will be more likely to have occurred at the hands of a stranger (familiar person), involve higher (lower) levels of physical assault, and/or involve higher (lower) levels of resistance.

The remaining hypotheses were considered exploratory in nature given that there is no precedent in the current literature on the role of ethnic identity in the aforementioned relationships.

4. Ethnic identity will be associated with psychological adjustment. It is hypothesized that Black women with high (low) ethnic identity will evidence better (poorer) psychological adjustment.
5. Ethnic identity will be associated with the likelihood of acknowledging a rape event. It is hypothesized that Black women with high (low) ethnic identity will be more (less) likely to acknowledge the event as rape.
6. Ethnic identity will moderate the relationship between exposure to rape and psychological adjustment. Although for both groups an increase in ethnic identity will be related to better psychological adjustment, the slope of the line for women who are exposed will be steeper than women who were not exposed (Figure 1).
7. Ethnic identity will moderate the relationship between acknowledgement and psychological adjustment such that as the level of ethnic identity increases, psychological adjustment will be better (worse) for acknowledged (unacknowledged) women (Figure 2).

Exploratory Analyses

The differences in exposure, acknowledgement, and adjustment between Black females who attend historically Black colleges/universities (HBCU's) versus those at predominately-White institutions (PWI) will also be explored.

Method

Participants

Black female students, 18 years of age or older, from North Carolina Agricultural and

Technical State University (North Carolina A&T, NCAT) and Virginia Polytechnic Institute and State University (Virginia Tech, VT) were eligible to participate in the survey. In the fall of 2008, there were 605 Black female students enrolled at Virginia Tech (371 Undergraduates, 230 Graduate Students, 4 in Veterinary Medicine). Thus, it was not feasible to obtain the desired sample size of 300 Black women exclusively (or even primarily) from VT. Therefore, data was also collected from North Carolina A&T. North Carolina A&T was chosen from a group of Historically Black Colleges/ Universities (HBCU's) along the east coast of the United States because it has a large pool of Black females. Additionally, NCAT was easily accessible, allowing proper monitoring of the data collection process. In the 2008 school year, 10,338 students were enrolled at the institution (8,829 undergraduates, 1,559 graduate students; McLeod, 2008). As of December 2008, NCAT reported 4,979 self-identified African American females, 4332 undergraduates (87%) and 647 graduate students (13%) (Office of Planning, Assessment, and Research, 2008; R. Ussury, personal communication, Sept. 22, 2009).

Three hundred seventy-six eligible respondents replied to the survey. Of those, 60 (16%) were excluded. Thirty-four cases (9%) were omitted because they only completed demographic data, eighteen (5%) were omitted because they only completed demographic data and half of the Ethnic Identity Measure (which immediately followed the demographic data), and four (1%) were omitted because of unreliable data. Three hundred sixteen cases comprised the final sample, the majority, 261 (82%), came from NCAT, and 55 (17%), came from Virginia Tech.

Data were collected at Virginia Tech throughout the fall semester of 2008. Notification of the research project was posted via Virginia Tech's Psychology Department research participant pool website (referred to as SONA). This system allows Virginia Tech students to receive extra credit in participating psychology courses by taking part in research listed on the website. If they

fit the eligibility criteria, those who participated through SONA were awarded course credit. In fall 2008, there were 35 Black female students enrolled in the psychology department. In order to capture a larger sample, the survey was opened to all Black female students at VT. Individuals who did not participate through SONA were recruited via flyers posted on approved bulletin boards and postings to University email listservs that primarily serve the Black community at Virginia Tech.

Data were collected at NCAT throughout the spring semester and summer I sessions of 2009. In accordance with NCAT's Institutional Review Board (IRB) standards, a faculty liaison was obtained (the Chair of the Psychology Department at NCAT). NCAT did not have a research participant pool. To award extra credit, meetings were held before the start of the spring and summer semester with professors in the Psychology Department. The majority of the professors agreed to offer extra credit to eligible students if they participated in the study. The professors raised concern that 300 participants could not be obtained from their Department alone. Thus, the study was opened to the entire NCAT campus. It was not feasible to offer extra credit to those students who were not enrolled in Psychology courses. Participants who were not in classes that offered extra credit (this includes the general population of students outside the Psychology Department) were given the option to enter a raffle for one of four \$25 gift certificates as compensation for their participation.

In accordance with NCAT's Student Affairs Office and IRB standards, all flyers were stamped by both entities prior to posting. Approximately every other week a trip was made to NCAT to distribute, repost, and update flyers as necessary. Travel to North Carolina also allowed the researcher to address any concerns from professors or students regarding the research. Students expressed concern about who would look at the information disclosed on the

survey, what type of questions they would be required to answer, and how the data would be used. Professors concerns regarded the awarding of extra credit and were addressed via meetings and emails. Flyers were revised twice, at the close of the spring semester, and at the close of data collection during the summer session I. Each revision alerted potential participants that the survey was closing for that semester. All flyers provided a brief description of the study and contact information for the faulty liaison, research advisor, and researcher. Help was recruited from the Honors program and History Department, as well as the Health Center, Student Affairs office, and willing Resident Advisors, to spread the word via email and to alert people to flyers. Flyers were posted in high traffic areas throughout the university including classrooms, large auditoriums, dormitories, cafeterias, gymnasiums, the bookstore, mailroom, health center, and student center.

Black females were chosen because the impact of rape in this population is the focus of the study. They were also chosen because there is not much data on how the relationships between rape exposure, acknowledgement and adjustment present in this sample. Using the power program GPOWER (Faul & Erdfelder, 1992), a priori power analyses were performed for each hypothesis. At $\alpha=.05$ and moderate effect sizes (which varied depending on the proposed analysis), having at least 300 participants was suggested. This number of participants was considered sufficient given the design of the study. This estimate took into account conservative literature-based estimates of the likelihood that a woman would be a victim of rape, the likelihood of acknowledgement, as well as the level of ethnic identity that may be presented.

Procedure

Data were collected using a web-based survey, a procedure previously used to assess similar issues of sexual assault in college students (Littleton, Axsom, & Grills-Taquechel, 2009).

Previous research indicates that people are less likely to respond in socially desirable ways and more likely to disclose potentially embarrassing information as perceived anonymity increases (Mühlenfeld, 2005). Completing online surveys was one way to reduce anxiety regarding experimenter presence and increase perceived anonymity. Web-based data collection also facilitated data collection at two separate sites. Given the sensitive nature of the research topic, participant privacy was of the utmost importance. The web-based survey allowed participants to choose to complete the survey at their convenience. This method was also supported by university policies (requirement of computer ownership or free or discounted access to the internet), so access to the internet was not a concern. Web based data collection may have allowed for a reduction of missing or invalid data, as participants who did not complete all the questions were prompted to do so. The accessibility and familiarity of internet use in this college student population made a web-based design a resourceful tool for recruiting large numbers of participants.

Women were recruited using Institutional Review Board (IRB) approved fliers, (Appendix A), announcements on the psychology department listservs, other university listservs, university web pages as allowed, and word-of-mouth. Participants were excluded if they were male, under the age of 18, or did not indicate that they were Black. Student email addresses were collected in order to prevent duplicate entries. These email addresses were removed from the data files before being downloaded for analysis.

Prior to taking the survey, all potential participants were shown an information page (Appendix B) with a brief description of the study and contact information for the primary investigator, co-investigator, and IRB personnel contacts for their respective university. Participants were given the option to print this information page. Upon reading the information

page, participants were directed to click on a button indicating that they were ready to begin the study. Participants were notified that by clicking this button, they were providing their electronic consent to participate in the study. All participants completed demographic information first. This was followed by questionnaires regarding the dimensions of their ethnocultural involvement, attachment, and salience (ethnic identity). All participants then completed questionnaires that assessed for experiences of rape in adolescence or adulthood, and measures of anxiety, depression, and social support. Participants who endorsed having had an experience that met the legal definition of rape in adolescence or adulthood were asked to provide information about the characteristics of the unwanted sexual contact. These participants were also asked to indicate their label for that experience. Finally, these participants completed a measure of posttraumatic stress disorder. Upon exit or completion of the study, all participants were shown an exit page (Appendix C). This page contained the contact information of the investigators and counseling resources in the area of their respective institution. All participants had the opportunity to print this page as well. The study was completed in compliance with the institutional review boards of the universities involved.

Measures

Race and Ethnic Identity

Demographic data was collected to determine race. Participants were asked to identify which race(s) they considered themselves. They could choose from seven categories. Participants could endorse more than one category. This was done to prevent exclusion of Black women who may have been of mixed race (Appendix D).

Ethnic Identity

To assess ethnic identity, a measure of in-group acceptance, salience, identification, and

in-group attitude was used (Duckitt, Callaghan, & Wagner, 2005; Appendix E). This assessment was made up of four subscales, totaling 33 questions. Questions were presented using a nine point Likert response scale with possible responses ranging from 1 (very strongly disagree) to 9 (very strongly agree). The original items were taken from existing acculturation measures and were used with White Afrikaners, Africans, Indians, and White English students in Africa. These measures were written specifically to assess the degree to which individuals felt a sense of attachment to their ethnic group. Individually, these measures assessed for ethnocultural involvement, ethnocultural attachment, salience of ethnocultural identity and group attitude. Together, these measures assessed for level of ethnic identity.

Ethnocultural involvement was measured by eight items, four protrait and four contrait. It measured the degree to which individuals felt a sense of “involvement in, affinity for, and connection to the customs, traditions, norms, and social practices of their ethnocultural group” (2005, pg. 636). An example of an item from this subscale is “I would teach my children to respect and enjoy my culture and ethnic heritage.” Contrait items were reverse scored and summed with the protrait items. In the original study, alpha coefficients for the measure of ethnocultural involvement ranged from .76 to .78; in the current study, alpha for this subscale was .72. The average sum on this subscale was 65.12, $SD = 7.92$.

The measure of ethnocultural attachment contained 10 items (five protrait, five contrait) that were intended to “assess the degree to which people affirm or deny a sense of belonging to, membership in and having strong affective ties with their ethnocultural group” (pg. 636). The items for this measure originated from Brown, Condor, Matthews, Wade, and William’s (1986) Group Identification Scale. A sample item from this subscale is “I am a person who is glad to belong to my ethnic/cultural group.” Alpha coefficients for the measure of ethnocultural

attachment ranged from .70 to .88. In the current study, alpha for this subscale was .65. The average sum on this subscale was 76.8, SD = 9.86.

The measure of salience of ethnocultural identity was intended to assess how aware individuals are of their ethnic identity and how important this ethnic differentiation was to the individual. It was originally made up of eight items, four contrait and four protrait. However only seven were retained as one item had poor interitem correlation (Duckitt, J., Callaghan, J., & Wagner, C., 2005). A sample item from this subscale is “For me ethnic/cultural differences seem completely un-important.” Alpha coefficients for the measure of salience of ethnocultural identity ranged from .44 to .70. The lower end of the alpha coefficient of the salience of ethnocultural identity scale was some cause for concern about the reliability of the instrument. In Duckitt’s study, this alpha coefficient corresponded to African students. Alpha coefficients for the other samples proved to be better (i.e. .60 for Indian students, .70 for White Afrikaner students, and .77 for White English students). Such a low alpha coefficient would suggest that the measure (at least for the African sample) was not measuring salience of ethnocultural identity as a one-dimensional construct. In its defense, Duckitt stated that the mean inter-item correlation was $r=.11$, suggesting that there is some correlation between the items of the scale. Futhermore salience of group identity “did emerge as a fourth empirically distinct dimension of ethnic group identification” (2005, pg. 641). In the current study, alpha on this subscale was .67. The average sum on this subscale was 47.25, SD = 8.54.

Finally, the group attitude scale was intended to assess the in-group attitudes that the person holds. It consists of eight items, four protrait and four contrait. An example of an item from this subscale is “Black people have very bad characteristics.” The generalized group attitude scale evidenced alpha coefficients ranging from .70 to .84 for White Afrikaners, .71 to

.79 to White English students, .60 to .85 for Africans, and .70 to .82 for Indian students. In the current study, Chronbach's alpha for this subscale was .72. The average sum on this subscale was 59.52, SD = 8.64.

In the current study, it was believed that the individual measures of ethnocultural involvement, attachment, salience, and group attitude were capable of being used as a unidimensional higher-order measure of ethnic identity. The precedent for combining subscales of this manner had been set with the Multigroup Ethnic Identity Measure (MEIM, Phinney, J.S. 1992). In order to determine the internal consistency of the scale as a whole, reliability analysis for the scale as a unidimensional measure of ethnic identity was performed. In the current study, when combined Chronbach's alpha for the scale was .87. The average sum on this scale was 246.43, SD = 26.49.

Although the Multigroup Ethnic Identity Measure (1992) is commonly used in research on ethnic identity, given the focus of the current research, it was felt that this measure was not appropriate. The MEIM contains items similar to the aforementioned scales. However, the majority of the items on the MEIM emphasize the *process* of ethnic identity achievement. The construct of interest in this study was not the *process* of ethnic identity achievement e.g. "I have spent time trying to figure out more about my own ethnic group, such as its history, traditions, and customs", but how one's *current* level of ethnic identity plays a role in exposure, acknowledgement, and adjustment after rape.

Social Support

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) is a 12 item self-report scale that measures perceived social support (Appendix F). The measure has scales that assess social support from family (e.g. "I can talk

about my problems with my family”), friends (e.g. “My friends really try to help me”), and a significant other (e.g. “There is a special person in my life”). For each item, participants indicated the extent to which they agreed with the statement on a 7 point Likert scale where 1= very strongly disagree and 7=very strongly agree. Previous research supports the internal consistency and factor structure of the measure (Zimet et al., 1988). In the original study, Chronbach’s alpha of the subscales ranged from .85 to .91 (Zimet, et al., 1988). Subsequent research reported the overall scale’s reliability statistic to range from .84 to .92 (Dahlem, Zimet, & Walker, 1991; Zimet, Powell, Farley, Werkman, & Berkoff, 1990). In the current study, Chronbach’s alpha of the subscales ranged from .83 to .94. The Chronbach’s alpha of the overall scale was .93. The mean score on this scale was 5.6, SD = 1.16.

Rape Exposure and Acknowledgement

The Sexual Experiences Survey (SES) is a self-report instrument designed to assess the sexual victimization experiences of women since the age of 14 (Appendix G). A 10 item, yes/no version of the SES was used. The SES assessed five levels of sexual victimization, i.e. none, sexual contact, sexual coercion, attempted rape and rape. Items in this survey did not include the word rape so that individuals who do not feel that they were raped were included in the data (Kahn, Mathie, & Torgler, 1994). Participants were asked situationally and behaviorally specific questions about the incident. An answer of “Yes” to any one of the last three questions on the scale indicated the report of an experience that met the legal definition of rape. This measure was considered appropriate for this population due to its extensive use with female college students. To date, the SES has been administered to thousands of college women. The instrument was originally developed by Koss and Oros (1982). In 1989, Koss and Gidycz revised the measure for clarity. The version used in this study was consistent with the current legal definition

of rape in North Carolina and Virginia (Appendix H). Both states consider rape to be the experience of unwanted sexual intercourse or unwanted sexual acts because of threatened or actual use of physical force.

The modified items were meant to assess for experiences of unwanted sex that involved administration of drugs or alcohol by the perpetrator. The legal definition of rape in North Carolina and Virginia specifies that rape can occur if the sexual intercourse happens in the presence of the complaining witness's (victim) mental incapacity or physical helplessness. The revised items were modified such that it was not required that the victim was administered drugs or alcohol specifically by the perpetrator.

The SES has been found to be reliable and to have good concurrent validity. The SES has an internal consistency (Chronbach's alpha, α) of .74 in women. In terms of test-retest reliability, mean item agreement was 93%. Finally, the Pearson correlation between a woman's level of victimization based on self-report and her level of victimization based on interview several months later was 73% (SES; Koss & Gidycz, 1985). In the current study, the SES evidenced a Chronbach's alpha of .83.

Characteristics of Rape

A short questionnaire concerning specific characteristics of the rape experience (Appendix I) was administered. It inquired about the relationship to the perpetrator and assessed for level of violence (force) from the perpetrator and resistance from the victim. It is based on a questionnaire developed by Littleton and colleagues (2003).

Psychological adjustment and functioning

Anxiety

The Four Dimensional Anxiety Scale (FDAS, Bystritsky, Linn, Ware, 1990) is a self-

report measure designed to assess the emotional, physiological, cognitive, and behavioral dimensions of anxiety (Appendix J). The FDAS contains 35 items and is on a 5-point Likert scale where 1=not at all and 5=extremely. Participants were asked how often they felt the described way in the past week. An example item is “fear that something terrible is about to happen.” Scores on this measure can range from 35 to 175. In the original study, the FDAS evidenced an internal consistency (Chronbach’s alpha, α) of .92. Its separate dimensions evidenced internal consistency of .78 or greater (1990). In a later study with a community sample, Chronbach’s alpha was also .92 (Stoessel, Bystritsky, & Pasnau, 1995). In the current study, Chronbach’s alpha of the subscales ranged from .82 to .84. The mean score for the scale was 75.89, $SD = 22.68$, with a Chronbach’s alpha of .92.

Depression

The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) is a 20 item self-report scale designed to measure depressive symptoms in the general population (Appendix K). Participants were asked to indicate how often they had felt or behaved in the described way during the past week. The measure is on a 4-point Likert scale where 0 corresponds to “rarely or none of the time (less than 1 day)” and 3 corresponds to “most or all the time (5-7 days)” (1977, pg 387). A sample item is “I felt everything I did was an effort.” Scores on this measure can range from 0 to 60, with higher scores indicating more depressive symptomatology. A score of 16 or higher is considered an indicator of significant depressive symptomatology. In the original study, the CES-D evidenced internal consistency (Chronbach’s alpha) ranging from .84 to .90 in community and clinical samples (1977). The CES-D also evidenced test-retest reliability of .67. This measure was considered appropriate because it had been used with a variety of ethnically diverse populations. Additionally, in a recent study on

race-related stress, the CES-D was administered to three hundred Black college women (Jones, Cross, & DeFour, 2007). In that study, the measure evidenced an internal consistency of $\alpha = .82$ (2007). In the current study, the mean score was 15.88, SD = 10.51, with Chronbach's alpha of .89.

Post-Traumatic Stress Symptoms

The PTSD Symptom Scale (PSS; Foa, Riggs, Dancu, & Rothbaum, 1993) is a 17-item self-report scale designed to assess for symptoms of posttraumatic stress disorder (Appendix L). Participants were asked to indicate how often they experienced the given symptom in the past week in relation to their most serious experience of unwanted sex. The measure is on a 4-point Likert scale where 0 corresponds to "not at all or only one time" and 3 corresponds to "almost always/five or more times per week." A sample item is "difficulty concentrating." Scores on this measure can range from 0 to 51, with higher scores indicating more post traumatic stress symptomatology. In the original study, the PSS evidenced an overall (full-scale) alpha of .85. The PSS also evidenced test-retest reliability of .80 (1993). In the current study, Chronbach's alpha of the subscales ranged from .86 to .87. The mean score on this scale was 14.13, SD = 13.07 and the full scale Chronbach's alpha was .94.

Results

Missing Data

Missing data on the scales ranged from 0%-4.4%, depending on the question. The sample did not evidence any pattern of skipping questions. As the survey progressed, the number of people that did not respond increased. Except in instances where the participant had ceased taking the survey, no participant skipped more than two questions on any scale. Participants with missing data on a particular variable were eliminated from the analysis of that variable. Detailed

information on the data that was not included in the final sample can be found in Appendix M.

Descriptives

The age range for the study was 18-44, with an average age of 21.25. The average age of those attending NCAT was 20.9, compared to 22.6 at Virginia Tech. Notably, chi-square analysis indicated that the two schools differed by academic standing. The majority (55%) of Virginia Tech participants were freshmen (22%) and sophomores (33%), while the majority (58%) of NCAT participants consisted of juniors (30%) and seniors (28%). Ninety six percent of the women who attended NCAT were born in the US, compared to approximately 91% of the women from the Virginia Tech sample. Also, about 95% of the women from NCAT spoke English only to their family members, compared to 91% of the Virginia Tech sample. Overall, the majority of participants were born in the U.S. (95%) and spoke English only (94%) to their family. Results did not support that women from these institutions were statistically different from one another in terms of residency of the US and language spoken at home. Descriptive characteristics of the sample are reported in Table 1.

Evidence was not found that women from Virginia Tech and North Carolina A&T were significantly different in their scores on any of the scales included on the survey (Table 2). Therefore, in order to maintain a large sample size and increase statistical power, especially for the higher level analyses, all women with valid data from both institutions were combined and included in the study.

Exposure, Ethnic Identity, and Psychological Adjustment

The relationships between exposure to rape, ethnic identity and psychological adjustment were of primary interest. In this sample, about 14 % (n=44) of the participants reported an experience that met the legal definition of rape. This rate is slightly lower than prevalence rates

reported in previous research. Results of a z-test indicate that the proportion of reported rape in this sample is significantly lower than the 20.4% found in Littleton's (2003) paper ($z = 2.46, p < .05$), which used the same methodology, but with predominately White college students from Virginia Tech. It is also on the lower end of prevalence rates (14%-25%) that have been reported on campuses and in the general population (Bondurant, 2001; Brenner, McMahon, Warren, & Douglas, 1999; Kahn, Mathie, & Torgler, 1994; Kalof, 2000; Kahn, Mathie, & Torgler, 1994; Mohler-Kuo, Dowdall, Koss & Wechsler, 2003). Interestingly, the percentage of Black women who were victims of rape at Virginia Tech is comparable to the percentage of victims in Littleton's research (2003). Thirteen percent ($n=34$) of the women of NCAT were victims of rape, compared to 19% ($n=10$) of the women in the sample who attended Virginia Tech.

In the total sample, 14% ($n=44$) of the participants were victims of attempted rape. This rate is significantly higher than the 7.5% reported in Littleton's (2003) research ($z = 3.49, p < .001$). However it is comparable to the 12% reported in a recent study on experiences of sexual aggression (Testa, Van-Zile-Tamsen, Livingston, Koss, 2004). In the current study, the majority of participants reporting an attempted rape also reported a rape, 77% ($n=34$). The percent of the sample reporting either a rape or an attempted rape was 17% ($n=54$). Even with this expanded criterion, the exposure rate was still slightly lower than the rate of reported rape in most other samples. Chi square analysis indicated that the difference in exposure to rape between institutions was not statistically significant.

Regression analyses were performed to test hypotheses one, four, and six. Ethnic identity scores were centered and exposure to rape was dummy coded (0= not exposed, 1=exposed). These variables were entered into the first block of a stepwise regression, allowing for the examination of the relationship between exposure to rape and psychological adjustment

(Hypothesis 1), and ethnic identity and psychological adjustment (Hypothesis 4). To test the moderation hypothesis (Hypothesis 6), an interaction term of centered ethnic identity scores and the dummy coded exposure variable was created and entered into the second block of the regression. For each regression analysis, the appropriate criterion variable (depression, anxiety, or social support) was entered. A summary of the regression analyses corresponding to hypotheses one, four, and six can be found in Table 3.

Results from regression analyses showed that exposure to rape significantly predicted depression ($\beta = .14, p < .05$), but did not predict anxiety ($\beta = .10, ns$) or social support ($\beta = -.10, ns$). It was hypothesized that ethnic identity would be associated with psychological adjustment (Hypothesis 4). Regression analysis also showed partial support for this hypothesis; ethnic identity significantly predicted depression ($\beta = -.18, p < .005$) and social support ($\beta = .18, p < .01$), but did not predict anxiety ($\beta = .01, ns$). Whether ethnic identity moderated the relationship between exposure to rape (i.e. rape victimization status) and psychological adjustment was examined (Hypothesis 6). This hypothesis was not supported. Ethnic identity did not act as a moderator of the relationship between exposure to rape and depression ($\beta = .02, p = ns$), anxiety ($\beta = -.01, ns$), or social support ($\beta = -.10, ns$).

It was hypothesized that victims of rape would evidence poorer psychological adjustment (Hypothesis 1). T-test analysis supported this hypothesis; non-victims were significantly less distressed than victims. Non-victims reported less depressive symptomatology on the CES-D, $t(286) = -2.23, p < .05$, and less anxiety symptomatology on the FDAS, $t(272) = -2.17, p < .05$, than victims. Non-victims and victims did not evidence significantly different social support scores. Victim and non-victim scores on these measures are summarized in Table 4.

Acknowledgement, Ethnic Identity and Psychological Adjustment

The minority of rape victims in the sample (31%, $n=13$) were acknowledged. Most (69%, $n=30$) were unacknowledged. Two individuals did not label the experience. This is commensurate with unacknowledgement rates (62%-81%) reported by early works by Koss and colleagues (1988). It is also comparable to the rates reported in more recent research by Bondurant (2001), who reported 64%, and Littleton, who reported 60% (2003).

It was hypothesized that women who acknowledged their rape experience would evidence poorer psychological adjustment than unacknowledged victims (Hypothesis 2). T-tests revealed that differences between unacknowledged and acknowledged victims were not significant in either anxiety, $t(35) = -.85, ns$, depression, $t(40) = -.16, ns$, PTSD, $t(33) = .58, ns$ or social support, $t(39) = .24, ns$. Thus, inconsistent with some previous research, and with the hypothesis, evidence was not found that women who acknowledged their rape experience displayed significantly worse psychological adjustment than unacknowledged women. The relationship between unacknowledged rape victims and non-victims' psychological adjustment (Hypothesis 2a) was also examined. It was hypothesized that women who were unacknowledged would evidence poorer psychological adjustment than non-victims. T-tests indicated that the difference between unacknowledged and non-rape victims was significant for depressive symptoms $t(273) = 2.10, p < .05$, and anxiety symptoms, $t(260) = 2.16, p < .05$, but were not significant for social support $t(279) = -1.01, ns$. Mean scores on the scales of psychological adjustment by victimization status (acknowledged, unacknowledged and non victim) can be found in Table 5.

Regression analyses were performed to test hypothesis seven. Ethnic identity scores were centered and acknowledgement status was dummy coded (0= unacknowledged,

1=acknowledged). These variables were entered into the first block of a stepwise regression. To test the moderation hypothesis (Hypothesis 7), an interaction term of centered ethnic identity scores and the dummy coded acknowledgement variable was created and entered into the second block of the regression. For each regression analysis, the appropriate criterion variable (depression, anxiety, social support, or PTSD) was entered. A summary of the regression analysis related to hypotheses seven can be found in Table 6.

This hypothesis was partially supported. Ethnic identity did not act as a moderator on the relationship between acknowledgement status and depression ($\beta = -.07, ns$), anxiety ($\beta = -.02, ns$), or social support ($\beta = -.17, ns$). In regards to PTSD, although there were a total of 44 rape victims, 10 cases were originally not included in the analysis with PTSD due to missing data scores (PTSD scores, $n=5$; acknowledgement status, $n=2$; and total ethnic identity, $n=10$). In this original analysis, which did not include these individuals, ethnic identity did act as a moderator between the relationship between acknowledgement status and PTSD. In order to avoid data loss and get a more accurate picture of this analysis, total PTSD and total ethnic identity scores were derived with imputed means. For ethnic identity and PTSD, missing scores were imputed with mean of the participants' corresponding subscale score on the measure. Although using imputed means for missing ethnic identity scores helped increase the N-size, two outliers were removed from the analysis because they were more than two standard deviations away from the mean, resulting in a final subsample size of 40. The interaction between acknowledgement status and ethnic identity remained significant for PTSD ($\beta = .42, p < .05$) (see Figure 3). For acknowledged women, as ethnic identity increased, PTSD symptomatology increased. For unacknowledged women, as ethnic identity increased PTSD symptomatology decreased. The slope of the line for the acknowledged group was .216 while the slope of the unacknowledged

regression line was $-.127$, a difference of $.343$. The moderation effect of ethnic identity on the relationship between acknowledgement and PTSD symptoms was significant for all values of ethnic identity below 234 (-6 when centered) and above 245 (5 when centered).

Although not a specific hypothesis, the relationship between acknowledgement status and the subscales of ethnic identity were also explored. Significant differences between acknowledged and unacknowledged women in terms of ethnocultural involvement, $t(41) = -.59$, *ns*, ethnocultural attachment, $t(41) = .95$, *ns*, salience, $t(41) = -.29$, *ns* and group attitude, $t(41) = .44$, *ns* were not found.

It was hypothesized that ethnic identity and acknowledgement status were related (Hypothesis 5). To test the relationship between ethnic identity and acknowledgement status a point biserial correlation was computed. Results from a point biserial analysis indicate that acknowledgement status was not significantly correlated with ethnic identity $r(35) = .36$, *ns*.

Features of the Rape and Acknowledgement

Several different types of analyses were conducted to compare the characteristics of rape between acknowledged and unacknowledged victims (Hypothesis 3). Chi-squares were performed to determine whether acknowledged women were more likely to have experienced a rape at the hands of a stranger, involve higher levels of physical assault, and/or involve higher levels of resistance. T-tests were performed to compare the number of methods of force and resistance endorsed, as well as the highest level of force endorsed by unacknowledged and acknowledged victims.

Relationship to Offender

The overwhelming majority of women in the sample of rape victims (95%, $n=41$) knew their perpetrator (Figure 4). Due to low values in the stranger condition, chi square analysis was

considered inappropriate to test for significant differences between acknowledged and unacknowledged women in terms of their relationship to the offender.

Level of Resistance

Chi square analyses comparing the resistance methods between unacknowledged and acknowledged women indicated that there were no significant differences in turning cold, $\chi^2 (1, N = 43) = .09, ns$, reasoning with assailant, $\chi^2 (1, N = 43) = .25, ns$, screaming, $\chi^2 (1, N = 43) = 1.29, ns$, running away, $\chi^2 (1, N = 43) = .44, ns$, or physically struggling, $\chi^2 (1, N = 43) = .34 ns$. The results did show that a significantly larger proportion of acknowledged women (69%) than unacknowledged women (27%) endorsed that they cried, $\chi^2 (1, N = 43) = 6.87, p < .025$. The percentages of acknowledged and unacknowledged women who endorsed resistance items may be found in Table 7. The results of t-test analysis did not reveal significant differences between acknowledged and unacknowledged women in either the number of resistance items endorsed, $t(41) = -1.10, ns$, or the highest level of resistance items endorsed, $t(39) = .16, ns$. This result is contrary to the hypothesis and to findings by Littleton (2003), in which acknowledged women endorsed significantly more types and higher levels of resistance to the assailant. Similar to Littleton's data the most common forms of resistance used by victims were reasoning with the assailant and physically struggling. While a little less than half of the victims in her study reported this, little more than half (53% and 60% respectively) of the victims reported engaging in these resistance behaviors. The percentage of endorsed resistance items and endorsed grand means for the level of resistance and in the current study may be found in Tables 7 and 9 respectively.

Level of Force

Chi-square analysis did not reveal significant differences between unacknowledged and

acknowledged victims in the experience of verbal threats, $\chi^2(1, N = 43) = 2.41, ns$, twisting arms, $\chi^2(1, N = 43) = .49, ns$, hitting/slapping, $\chi^2(1, N = 43) = .91, ns$, choking/beating, $\chi^2(1, N = 43) = .28$. Differences in use of superior weight were significant, $\chi^2(1, N = 43) = 2.62, p < .05$, but in an unexpected direction. A larger proportion of unacknowledged women (64%) endorsed this item, than acknowledged women (36%). No one endorsed that the perpetrator had shown a weapon. The percentages of acknowledged and unacknowledged women who endorsed force items may be found in Table 8. Results of t-tests also indicated that there were no significant differences between acknowledged and unacknowledged women in either the number of force items $t(41) = -.78, ns$ or highest level force items $t(39) = .93, ns$ endorsed. This result is contrary to the hypothesis and to findings from Littleton's (2003) research, in which acknowledged women endorsed significantly more methods of force as well as higher levels of force from the assailant. Similar to Littleton's (2003) research use of his superior body was the most common form of force reported by victims. However, the proportion of those reporting this was significantly higher in the current study, than in Littleton's study ($z = 2.18, p < .05$). In her research 65.6% of victims reported that the assailant used his superior body weight during the assault, compared to 84% in the current study. The percentages of endorsed force items and means for the highest level of force endorsed in the current study may be found in Table 8 and 9 respectively.

Exploratory Analysis: Does Campus Moderate the Effects of Ethnic Identity on Adjustment?

Although descriptive analyses did not reveal many differences between campuses, it is possible that effects of ethnic identity on adjustment may vary by campus. Regression analyses were conducted to explore whether campus moderated the relationship between ethnic identity and psychological adjustment. To complete this analysis, campus was dummy coded (NCAT=1,

Virginia Tech=2). Next, an interaction term of centered ethnic identity and the dummy coded campus variable was created. The dummy coded campus variable and the centered ethnic identity scores were entered in the first block of the regression analysis. The interaction term was entered into the second block. For each analysis, the appropriate criterion variable (depression or social support) was entered. Anxiety was not explored because it was unrelated to ethnic identity in a previous analysis.

Results from the regression analyses showed that, in terms of moderation, the interaction of campus and ethnic identity approached significance for depression ($\beta = .11, p=.06$). For women from Virginia Tech, the relationship between ethnic identity and depression was not significant ($\beta = .00, p=.98$). However, for women from North Carolina A&T, this relationship was significant such that as ethnic identity decreased, depression increased ($\beta = -.11, p<.001$). The interaction of campus and ethnic identity was also significant for social support ($\beta = -.22, p<.01$). For women from Virginia Tech, the relationship between ethnic identity and social support was not significant ($\beta = -.02, p=.66$). Again, however, for women from North Carolina A&T, this relationship was significant. For women from North Carolina A&T, as ethnic identity increased, social support increased ($\beta = .19, p<.001$).

Discussion

Do the basics replicate in a Black female sample?

On the one hand, the percentage of reported rape (14%) and reported attempted rape (also 14%) in this study was lower than or consistent with rates reported in recent research. On the other hand, this finding is contrary to research which suggests Black women may be at higher risk for rape than their non-minority counterparts. As minorities, Black women experience many of the risk factors associated with rape, i.e. higher rates of intimate partner violence, lower

income and less education, than their White counterparts (Tjaden & Theonnes, 2000). It is also widely accepted that due to the alcohol and social culture, college women are at particular risk for the experience of sexual assault (Brener et al., 1992; Buddie & Testa, 2005; Carmody & Washington, 2001; Gross, et al., 2006; Kalof & Wade, 1995; Mohler-Kuo, Dowdall, Koss, & Wechsler, 2003; National Institute of Justice, 2005; Testa & Dermen, 1999.) Given this information, one could theorize that black female college students are at risk for double jeopardy and would have higher rates of reported rape. Yet the proportion of reported rape in this sample (14%) was significantly lower than 20.4% found in Littleton's (2003) paper which used the same methodology, female college students, and a predominately White sample. It is consistent with but on the low end of prevalence rates (14% – 25%) reported on campuses and in the general population (Bondurant, 2001; Brenner, McMahon, Warren, & Douglas, 1999; Kahn, Mathie, & Torgler, 1994; Kalof, 2000; Mohler-Kuo, Dowdall, Koss & Wechsler, 2003). Below, are some proposed reasons why the reported rate of exposure to rape was not as high as a “double jeopardy” perspective would predict.

Despite the risk factors associated with being a minority and a college student, it may be that for Black women, attending college is protective. Black women in college (especially at a HBCU) may have fewer risk factors, compared to other non-minority college women and Black women in the community. Research suggests that compared to students at predominately White institutions, students at historically black colleges and universities (HBCUs) use alcohol at much lower rates and are less likely to engage in binge drinking (Rhodes, W.A., Singleton, E., McMillian, T.B., & Perrino, C.S., 2005). In one study, students at HBCU's were found to drink an average of 1.8 drinks per week per student versus the 4.6 drinks per week per student at non-Black institutions (Meilman, P.W., Presley, C.A., & Cashin, J.R., 1995). A more recent study

examining the well-being of students at HBCU's also found students' reports of alcohol and other drug consumption was lower than national averages (Dzokoto, Hicks, & Miller, 2007). Considering that the majority of the population in this sample was from an HBCU, the risk factor of alcohol consumption may have been reduced. Compared to Black women in the community, risk factors for rape, like lower economic status (Vogel & Marshall, 2001) may be reduced for Black women in college, as they are more likely to come from families that are of higher socioeconomic status than those in the community. Student orientation at many colleges involves the presentation of information about risk factors for sexual assault. This is information that Black women from a community sample may not be exposed to. Black women in college may also be more knowledgeable about and prepared to avoid risk factors of rape than Black women in the community. The number of sexual partners and chance for exposure to potential aggressive sexual partners may also be lower for Black women in college versus those in the community. The potential for a variety of male mates may be greater in the community than on the college campus. People attending college are enclosed within that community. Women in that community likely have repeated interactions with the same pool of men. This is unlike a general community or a neighborhood, where different people may enter and leave the community unnoticed. Furthermore, perhaps the focus on (or distraction of) educational attainment allows Black women in college to be less interested in having multiple sexual partners than Black women in the community. In terms of acknowledgement, in the current study, the majority of the women who were exposed to rape were unacknowledged rape victims. This is consistent with unacknowledgement rates reported by early works by Koss and colleagues (1988). It is also comparable to the rates reported in more recent research by Bondurant (2001) and Littleton (2003).

What are the relationships between ethnic identity, exposure and psychological adjustment in a Black female sample?

In this study, women who were victims of rape evidenced poorer psychological adjustment than non-victims in terms depression and anxiety. Non-victims and victims not differ in terms of social support. These findings regarding the relationship between victimization status and depression and anxiety are consistent with past research. In the regression analysis, exposure to rape also significantly predicted depression, but not anxiety or social support. Ethnic identity was also hypothesized to be related to psychological adjustment. Indeed, women with higher ethnic identity scores had lower depression scores and higher social support scores, but not lower anxiety scores. This relationship was moderated by campus. For women who attended the historically Black college, as ethnic identity decreased, depression increased and social support decreased. For women who attended the predominately white institution, the data did not support a relationship between ethnic identity and depression or social support.

Since higher ethnic identity scores signify more positive feelings about the group that one belongs to and as well as positive feelings about being a member of that group, it makes sense that it would be inversely related to feelings of depression and positively related to social support. For the same reason, it also makes sense that Black women at a predominately Black college with lower ethnic identity would evidence higher depression and lower social support. Unlike Black women at a PWI, Black women at an HBCU are immersed in an environment where everyone is culturally similar, that they inherently belong to, yet they do not fit in. The environment of an HBCU naturally fosters social interaction amongst Black students. For women at an HBCU with lower ethnic identity than their peers, this presents a unique problem, as they may not desire to interact socially with this group. These women may feel isolated and

they may question why they don't fit in. Feeling out of place and isolated, these women may evidence lower social support and higher feelings of depression. Black women with lower ethnic identity at a PWI do not have this dilemma. If they don't have high ethnic identity, and prefer not to associate with other Black students, the PWI environment provides them with ample opportunities to make friends from other cultures.

Given the relationship between ethnic identity and psychological adjustment, and the relationship between exposure to rape and psychological adjustment, whether ethnic identity moderated the relationship between exposure to rape and psychological adjustment was investigated. Ethnic identity did not moderate the relationship between exposure to rape and depression, anxiety, or social support.

What are the relationships between ethnic identity, acknowledgement and psychological adjustment?

The percentage of reported rapes was low in this sample, significantly reducing the power for analyses involving acknowledged versus unacknowledged women. For this reason, *the results of these analyses should be interpreted with extreme caution*. Victims of rape, especially particularly violent rapes, may have chosen to not participate and therefore might not be captured in the research. However, this selection bias is similar to many studies in this area.

In terms of the basic relationships between acknowledgment and features of the exposure, few significant differences were found between unacknowledged women and acknowledged women in terms of relationship to the offender and level of force or resistance used during the unwanted sexual contact. The data did not support significant differences between acknowledged and unacknowledged women in either the number of force items or the highest level of force items endorsed. Acknowledged women were more likely to report crying as a form

a resistance. These findings are not consistent with the current literature that states that assaults that involve higher levels of force, higher levels resistance, or more familiarity with the perpetrator are all related to being an acknowledged rape victim. This is troubling considering the breadth of literature on the topic suggesting that the findings should have been otherwise. However, in this study there were probably not enough acknowledged subjects to draw meaningful inferences about the differences between acknowledged and unacknowledged women.

Consistent with previous research, unacknowledged women were psychologically worse than non-victims, in terms of depression and anxiety. This finding is not surprising, as research suggests that being a victim of rape is traumatic (e.g. Acierno, Resnick, Flood, & Holmes, 2003; Sarkar & Sarkar, 2005; Ullman et al., 2006; Kimerling & Calhoun, 1994), regardless of how the victims labels it. Yet, the data did not support a statistical difference between unacknowledged women and non-victims in terms of their level of social support. It is surprising that unacknowledged woman would not differ in terms of social support than non-victims. An unacknowledged woman may look just like non-victims in regards to social support because she may be less likely to change social support networks, or experience negative feedback about the negative sexual experience from her social circle, especially if she has not disclosed it.

Prior to the current research, no literature regarding the relationship between ethnic identity and acknowledgement existed. In this study, the global dimension of ethnic identity and acknowledgement status was not significantly correlated. Exploratory analysis indicated that the specific domains of the ethnic identity were also not significantly correlated to acknowledgement status.

The possible moderating role of ethnic identity on the relationship between

acknowledgement status and psychological adjustment was investigated. The hypothesis that ethnic identity would moderate the relationship between acknowledgement status and psychological adjustment was partially supported. Ethnic identity was not a moderator of the relationship between depression, anxiety, or social support, and acknowledgement status. However, it did moderate the relationship between acknowledgement status and PTSD. For women who were acknowledged, higher ethnic identity scores were related to higher PTSD symptomatology. Conversely, for women who were unacknowledged, having higher ethnic identity was related to lower reported PTSD symptomatology. While it is a tentative finding due to a low rape victim sample size, and should be interpreted with caution, it is an interesting finding nonetheless.

Women who are acknowledged and have higher ethnic identity scores and may feel doubly violated. For these women, several realms of their identity have been shaken; their identity as a woman, their identity as a Black person, and their identity as a Black woman. Not only are they victims of rape and identify as such, but they have also (likely) been victimized by a member of the group that they belong to and hold so reverently. Unacknowledged women who maintain their positive ethnic identity do not have this “double blow” to contend with, and therefore may not report as many symptoms or as high levels of distress. Being an acknowledged Black female with high ethnic identity may also result in cognitive dissonance. These women may be caught between the tension of maintaining positive feelings for members of their ethnic group while reconciling their negative encounter with their perpetrator and any negative reactions they may have received from members of their ethnic group (if they disclosed the event).

Finally, stereotype threat may also explain the moderating role of ethnic identity on the

relationship between PTSD and acknowledgement status. Black women who are acknowledged and evidence high ethnic identity, deal with possibly confirming certain stereotypes about Black men and Black women. The fear of confirming stereotypes, e.g., “Black women are oversexed jezebels” and “Black men are criminals and/or sexual prowlers” may result in more psychological distress for these women. Stereotype threat along with the cognitive dissonance that Black acknowledged women with high ethnic identity experience may manifest itself in reported symptoms of PTSD. One would assume that the same should be true for depression and anxiety. However, in the analysis of how ethnic identity moderates the relationship between acknowledgement status and psychological adjustment, PTSD symptomatology may capture the psychological impact better than depression or anxiety alone. Unlike anxiety and depression, PTSD symptoms are related to a specific event, (i.e., rape), while anxiety and depression are more global. Unacknowledged women with lower ethnic identity scores neither have to worry about confirming these stereotypes nor have to reconcile their positive feelings about their ethnic group with the negativity associated with a rape event.

Limitations

There are limitations of this study that are threats to the validity of its claims. This study consisted of one sample group, Black women in college in the southern U.S. The majority of participants were recruited from Psychology courses at both institutions and most attended an HBCU. For these reasons, it is possible that the participants in this study may be biased in ways that affect the results. The results of the study are not considered representative of all Black women and therefore should not be generalized to the entire Black female community or all Black female college students.

Threats to internal validity include the cross-sectional design of the study and selection bias. The cross sectional design of the study does not allow for strong claims of causality. Selection bias comes in two main forms: 1) participating but not completing the study, and 2) non-participation in the study. There were significant differences amongst those who were eligible to participate in the study but were not included in the analyses due to incomplete data. Differences were found in the realms of age, $t(154) = -3.76, p < .001$, academic year, $t(371) = -2.59, p < .01$, and ethnic identity scores $t(264) = -1.94, p < .05$. Those included in the study tended to be older ($\mu = 21.25$, vs. $\mu = 19.93$), in a higher academic year, ($\mu = 2.82$ vs. $\mu = 2.3$) and had higher ethnic identity total scores ($\mu = 246$ vs. $\mu = 216$). Analyses of the other measures (EID, CES-D, FDAS, PSS, MPSS, SES, assault characteristics, and acknowledgement status) could not be computed due to the large amount of missing data from the “bad” cases. Therefore it is not known, beyond demographics, how those who completed the study were different from those who did not.

Consistent with the theory of stereotype threat, it is possible that Black women who were rape victims were less likely to participate, self-selecting out of the research pool. For these women, participating may be viewed as “airing dirty laundry” that is, discussing a personal matter that is embarrassing to themselves and their community. As a result, women with these types of assaults were not captured in the data. Analysis of the relationships among ethnic identity, exposure, acknowledgement, and psychological adjustment in women who were rape victims, especially of violent rapes, is therefore limited. Hesitation to participate was clearly an obstacle to overcome for potential participants. A major part of this research process was gaining the respect and trust of not only the institutions involved, but also the potential participants in the Black community. Researchers in the future should work to reduce the potential impact of

hesitation to participate by being accessible, visible, open to questioning, and sensitive to ethnic minorities' reservations about participating in psychological research.

Future Directions

The results of this research have several clinical implications as well as implications for the future of research on the topic. Although a tentative finding, results also showed that ethnic identity changed the relationship between acknowledgment and post traumatic stress symptoms. Clinicians may want to consider that perhaps the relationship between acknowledgement status and PTSD symptomatology changes at different levels of ethnic identity. For these reasons, this research highlights the importance of cultural competence. It also highlights that sensitivity to the role of ethnic identity may be necessary in clinical practice with non-White clients. Given that ethnic identity scores were positively related to perceived social support and negatively related to depression, this research highlights the role of ethnic identity in the psychological health of Black women and possibly other ethnic minorities. In the hope of informing clinical practice, future research in the area would increase knowledge of the role of ethnic identity in the experience of rape and other traumatic experiences.

In the future, in order to conduct significant research in this area, sample characteristics will be of utmost importance. With a larger number and wider breadth of participants, a more in-depth analysis of the role of acknowledgment would have been possible. In the future Black and other minority women in the community, clinical samples, and college student samples (from a variety of universities) should be included. This will not only allow for greater power in the interpretation of the results, but will also increase generalizability. There very well could be significant differences in the risk factors, factors that influence acknowledgement, and the experience of rape between women in the community, clinical samples, and those in college.

Given the multidimensional nature of ethnic identity, there may be aspects of ethnic identity that are significantly related to the impact of rape, and other traumatic events. Perhaps some areas of ethnic identity are particularly related to whether a woman is acknowledged or not and to how distress after a traumatic event will manifest. In the future, the development of more acute measures of ethnic identity may also lead to more power in the analysis of its relationship to psychological adjustment and other variables, like acknowledgment status. This measure may include dimensions that assess for stereotype threat, acceptance of group values, feelings about one's placement within the group, beliefs about one's role within the group, and beliefs about how interpersonal relationships should operate within the group. Development of such a measure is vital to understanding the relationship of ethnic identity and the impact of interpersonal traumatic events, especially if they are intraracial.

A longitudinal study was not possible in the present research. Therefore, this study does not provide information about how the relationships between ethnic identity, psychological adjustment, and acknowledgement status may change over time. Longitudinal research in this area could provide the answer to these questions. This research highlights how little we know in this area, as well as the importance of understanding the social implications of traumatic events in Black women.

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Last, but certainly not least, I would like to acknowledge God, and my mother, Regina V. Campbell. Without either’s encouragement and grace, I would not have the insight to create, the power to express, or the ability to have made it this far.

Appendices

Appendix A. VT Flier



Are you are a **Black female** over the age of 18?

EARN EXTRA COURSE CREDIT

Participate in a research study at Virginia Tech:

Purpose: To learn more about black women's psychological health, cultural identity and negative sexual experiences.

- **Participants will be compensated with course credit**
- **Completed @ your convenience and on your own time**
 - **Takes 30-40 minutes to complete**

If you have any questions contact:

<p>Kenya L. King Department of Psychology Virginia Tech kiking@vt.edu</p>	<p>Danny Axsom, Ph.D. Department of Psychology Virginia Tech axsom@vt.edu</p>
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Black women's psychological health, cultural identity and negative sexual experiences study

Survey site:
https://www.surveymonkey.com/s.aspx?sm=nhw06VRYqwmkTJACvymgGw_3d_3d
 kiking@vt.edu or axsom@vt.edu

Black women's psychological health, cultural identity and negative sexual experiences study

Survey site:
https://www.surveymonkey.com/s.aspx?sm=nhw06VRYqwmkTJACvymgGw_3d_3d
 kiking@vt.edu or axsom@vt.edu

Black women's psychological health, cultural identity and negative sexual experiences study

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 kiking@vt.edu or axsom@vt.edu

Black women's psychological health, cultural identity and negative sexual experiences study

Survey site:
https://www.surveymonkey.com/s.aspx?sm=nhw06VRYqwmkTJACvymgGw_3d_3d
 kiking@vt.edu or axsom@vt.edu



Are you are a **Black female** over the age of 18?

We are recruiting for an online research study:

Purpose: To learn more about black women’s psychological health, cultural identity and negative sexual experiences.

- **Participants will be compensated with either course credit or entered into a raffle to receive 1 of at least 4 \$25 gift certificates**
 - **Completed at your convenience and on your own time**
 - **Takes 20-30 minutes to complete**

EXEMPT PROTOCOL
DATE APPROVED
DEC 03 2008
NC A&T STATE IRB
REVIEW REQUEST CHANGES

To participate go to:

<https://www.surveymonkey.com/ncatblackfemalestudy>

If you have any questions contact:

<p>Dr. Danny Axsom, Principal Investigator Department of Psychology Virginia Tech axsom@vt.edu</p>	<p>Dr. George S. Robinson Jr., Faculty Liaison Psychology Department Chair North Carolina A&T State University grobins@ncat.edu</p>
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Study Title: Negative Sexual Experiences, Ethnic Identity, and Psychological Health

IRB PROTOCOL NO: 08-0000-09-H32

Negative Sexual Experiences, Ethnic Identity, and Psychological Health
Survey site:
<http://www.surveymonkey.com/ncatblackfemalestudy>

klking@vt.edu or grobins@ncat.edu

Negative Sexual Experiences, Ethnic Identity, and Psychological Health
Survey site:
<http://www.surveymonkey.com/ncatblackfemalestudy>

klking@vt.edu or grobins@ncat.edu

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Negative Sexual Experiences, Ethnic Identity, and Psychological Health
Survey site:
<http://www.surveymonkey.com/ncatblackfemalestudy>
klking@vt.edu or grobins@ncat.edu



North Carolina A&T State University
Information Page

Study Title: Negative Sexual Experiences, Ethnic Identity, and Psychological Health

IRB Protocol No. : 08-000-09-H32

You have been asked to participate as a subject in a research project that involves answering some questions about yourself. Research is a study that is done to answer a question. Please take your time to make your decision. If you have any questions about this form or your participation in this research please feel contact the investigators involved. Their information is presented below in the section labeled "QUESTIONS ABOUT THE STUDY."

PURPOSE

The purpose of this study is to gain a better understanding of women's negative sexual experiences, including how women interpret these experiences and how these experiences affect psychological health. The study seeks to develop a better understanding of the factors that affect how women label these experiences as well as the role of ethnic identity.

At least 300 black women over the age of 18 enrolled in college will be participants in this study.

SOURCE OF FUNDING

This project is under the direction of Dr. Danny K. Axsom, a faculty member of Virginia Polytechnic Institute and State University. There is no external funding for this study.

PROCEDURES

You will be asked to complete self-report measures on the website provided. These measures will include questions about your demographics, your current psychological health, sexual experiences, how you feel about your ethnicity and relationships in your life. Completing these measures should take approximately 30 minutes.

RISKS AND BENEFITS

Your participation in the project will involve minimal risk. This means that the risk of harm or discomfort that may happen as a result of taking part in this research study is not expected to be more than in daily life or from routine physical or psychological examinations or tests. The primary risk would be if you found any of the questions to be personally upsetting or found it upsetting to recall negative sexual experiences that you have had. If this occurs, you can close the webpage to end the study and contact the investigators.

There will likely be no personal benefits to you for participating in this research. However, this research will help to improve understanding of how women label experiences of unwanted sex as well as how women try to recover from these experiences. In addition, the research will lead to an improved understanding of the impact of cultural identity on adjustment after trauma.

COSTS TO STUDY PARTICIPANTS

There are no costs to you while participating in this study other than your time.

COMPENSATION

You will not be paid any money for participating in this study. You may chose to receive one hour of extra course credit if you are in a participating class. If you are not in a participating course, or do not want course credit, you may choose to enter a drawing for 1 of at least 4 \$25 gift certificates. Winners will be notified via the North Carolina A&T email address that they supply on the first page of the survey. Participants have at least a 1/75 chance of winning a gift certificate. If more gift certificates become available, the chances of winning will increase for all participants who have selected this option for compensation.

CONFIDENTIALITY AND DISCLOSURE

We collect student identification numbers only for the purposes of awarding compensation and preventing duplicate responses. This information will be stored on a secure server. The investigators will remove this information from your data file before it is downloaded. There will be no way to link your responses to your personal information once the data is downloaded.

A report of general and combined results from participants in this project will be prepared for the Department of Clinical Psychology at Virginia Polytechnic Institute and State University and the Department of Psychology at North Carolina A & T State University, and may be submitted to a professional publication or conference at a later time. Results of this experiment will be provided upon request.

QUESTIONS ABOUT THE STUDY

Appendix B cont. Information Page: North Carolina Agriculture and Technical State University

The investigators are available to answer any questions that you have about your involvement in this project. Should you have any pertinent questions about this research or its conduct, and research subjects' rights, contact:

Dr. Danny K. Axsom
Principal Investigator

Phone: 540-231-2615
axsom@vt.edu

Kenya L. King
Co- Investigator

Phone: 917-930-0096
klking@vt.edu

Dr. George Robinson
North Carolina A&T Faculty Liaison

Phone: 336-285-2275
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Science Building, Room 360

Donna Eaton, RN, MSN, MHA
Compliance Officer

Division of Research and Economic Development Fort IRC Room 432

Phone: 336-334-7995
dheaton@ncat.edu

WHAT HAPPENS IN CASE OF INJURY OR ILLNESS

This study involves no risk for injury. Therefore, there is no compensation for injury.

RIGHTS AS A RESEARCH STUDY PARTICIPANT

Your participation is voluntary. You may end your participation at any time. You may skip any question in the survey if you do not want to answer. Refusing to participate or leaving the study at a later time will not result in any penalty or loss of benefits to which you are entitled. If you decide to stop participating in the study we encourage you to talk to the experimenter or study staff first.

If you have a question about your rights as a research participant, you should contact the Compliance Office at (336) 334-7995.

You may print out this form to keep.

SIGNATURES

A signed statement of informed consent is required of all participants in this project. Your electronic signature indicates that you voluntarily agree to the conditions of participation

Appendix B cont. Information Page: North Carolina Agriculture and Technical State University

described above, and that you have received a copy of this Form.

I agree to take part in this study. I have had a chance to ask questions about being in this study and have those questions answered

I UNDERSTAND THAT BY CLICKING THE **NEXT** BUTTON BELOW I AM GIVING MY CONSENT TO PARTICIPATE IN THE STUDY

Submit

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
Informed Consent for Participants
in Research Projects Involving Human Subjects

Title of Project: Negative Sexual Experiences, Ethnic Identity, and Psychological Health

Investigators: Danny Axsom, Ph.D. (axsom@vt.edu); Kenya L. King (klking@vt.edu)

I. Purpose of this Research

The purpose of this study is to gain a better understanding of women's negative sexual experiences, including how women interpret these experiences and how these experiences affect psychological health. The study seeks to develop a better understanding of the factors that affect how women label these experiences as well as the role of ethnic identity.

At least 300 black women over the age of 18 enrolled in college will be participants in this study.

II. Procedures

You will be asked to complete self-report measures on the website provided. These measures will include questions about your demographics, your current psychological health, experiences with unwanted sex, how you feel about your ethnicity and relationships in your life. Completing these measures should take 30- 40 minutes.

III. Risks

The primary risk would be if you found any of the questions to be personally upsetting or found it upsetting to recall negative sexual experiences that you have had. If this occurs, you can close the webpage to end the study and contact the investigators.

IV. Benefits

There will likely be no personal benefits to you for participating in this research. However, this research will help to improve understanding of how women label experiences of unwanted sex as well as how women try to recover from these experiences. In addition, the research will lead to an improved understanding of the impact of cultural identity on adjustment after trauma.

Appendix B cont. Information Page: Virginia Tech

V. Extent of anonymity and confidentiality

We collect student identification numbers only for the purposes of awarding extra credit and preventing duplicate responses. This information will be stored on a secure server. The investigators will remove this information from your data file before it is downloaded. There will be no way to link your responses to your personal information once the data is downloaded.

VI. Compensation

You will receive one hour of extra course credit for participating in the study.

VII. Freedom to withdraw

You have the right to withdraw from this study at any time you choose. If you withdraw from the assessment, you can contact Kenya L. King at klking@vt.edu to receive extra credit.

VIII. Participant's Permission

Should you have any pertinent questions about this research or its conduct, and research subjects' rights, contact:

Kenya L. King	phone: 917-930-0096
Principal Investigator	klking@vt.edu

Dr. Danny K. Axsom	phone: 231-2615
Principal Investigator	axsom@vt.edu

Appendix B cont. Information Page: Virginia Tech

Dr. David Moore phone: 231-4991
Chair, IRB moored@vt.edu
1880 Pratt Drive
(Corporate Research Center), Suite 2006

Dr. David Harrison phone: 231-4422
Chair, Psychology Human dwh@vt.edu
Subjects Committee
Virginia Tech

If you would like to participate in this study, please indicate your desire to do so by clicking the submit button below. If you do not wish to participate, simply exit the survey now.

I UNDERSTAND THAT BY CLICKING THE SUBMIT BUTTON BELOW I AM GIVING MY CONSENT TO PARTICIPATE IN THE STUDY

Submit

Appendix C. Exit Page

Thank you for participating in this research project entitled “Negative Sexual Experiences, Ethnic Identity, and Psychological Health.” This study is being conducted as part of a requirement for the Masters Degree in Clinical Psychology at Virginia Tech. The purpose of this study is to investigate how ethnic identity in black women relates to the exposure, acknowledgement, and psychological adjustment after rape. Your participation in this study may have inspired you to think about your ethnic identity and sexual experiences.

Foreseeable risks in this study were minimal. If you experiences psychological discomfort due to questions about your ethnic identity or sexual experiences, you are encouraged to contact your advisor, the University Counseling Center, or any counseling services available to you. Listed below are some of the counseling services in the Virginia Tech and North Carolina A&T State University community.

If you have any questions regarding this study, please feel free to contact Danny Axsom Ph.D. at axsom@vt.edu or Kenya L. King at klking@vt.edu. If you are part of the North Carolina A&T community you may also contact Dr. George S. Robinson Jr., Faculty Liaison North Carolina A&T at grobinso@ncat.edu.

Again thank you for your support and participation,

Kenya L. King

Appendix C cont. Exit Page**Counseling Services in the Virginia Tech Community**

Name	Contact Information	Website
Thomas E. Cook Counseling Center	240 McComas Hall, Virginia Tech, Blacksburg, VA 24061 Phone: (540) 231-6557	www.ucc.vt.edu
The Women's Center	206 Washington Street, Virginia Tech, Blacksburg, VA 24061 Phone: (540) 231-7806	http://www.womenscenter.vt.edu/
Psychological Services Center	3110 Prices Fork Road, Blacksburg VA 24061 Phone: (540)-231-6914	http://www.psyc.vt.edu/centers/psc/

Counseling Services in the North Carolina A&T State University Community

Name	Contact Information	Website
Counseling Services at North Carolina A&T University	109 Murphy Hall, Suite 109, North Carolina A&T State University, 1601 E. Market St., Greensboro NC 27411 Phone: (336) 334-7727	http://www.ncat.edu/~counsel/
Sebastian Health Center	1601 East Market St., Greensboro, NC 27411 Phone: (336) 334-7880	http://www.ncat.edu/~health/

Appendix D. Demographic Information

First, we would like to learn a little bit about you. Please answer these questions to the best of your ability.

1. How old are you? ____ years

2. What is your gender?

___ Male ___ Female

3. Tell us what you consider yourself. Check all that apply.

___ Asian or Pacific Islander

___ Black or African American

___ White (Caucasian/ European or European American)

___ Mexican or Mexican American

___ Native American/ Alaskan

___ Latina or Latin American

___ Other

4. What is your current academic standing?

___ Freshman

___ Senior

___ Other

___ Sophomore

___ Master's student

___ Junior

___ Doctoral student

5. How long have you lived in the United States?

___ I was born here.

___ I moved here before I was 15.

___ I moved here after I turned 15.

6. What language do you speak with your family?

___ English only

___ English and another language

___ Another language only (Please specify. _____)

Appendix F. Multidimensional Scale of Perceived Social Support

We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

	Very strongly disagree	Strongly agree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly agree
1. There is a special person around when I am in need.	1	2	3	4	5	6	7
2. There is a person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3. My family really tries to help me.	1	2	3	4	5	6	7
4. I get the emotional help and support that I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort for me.	1	2	3	4	5	6	7
6. My friends really try to help me.	1	2	3	4	5	6	7
7. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8. I can talk about my problems with my family.	1	2	3	4	5	6	7
9. I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10. There is a special person in my life.	1	2	3	4	5	6	7
11. My family is willing to help me make decisions.	1	2	3	4	5	6	7
12. I can talk about my problems with my friends.	1	2	3	4	5	6	7

Appendix G. Sexual Experiences Survey

For each of the following questions, **answer whether you have had this experience since age 14.**

Have you ever:

1. Had sexual intercourse with a man when you both wanted to
Yes _____
No _____
2. Had a man misinterpret the level of sexual intimacy you desired
Yes _____
No _____
3. Been in a situation where a man became so sexually aroused that you felt it was useless to stop him even though you did not want to have sexual intercourse?
Yes _____
No _____
4. Had sexual intercourse with a man even though you really didn't want to because he threatened to end your relationship otherwise?
Yes _____
No _____
5. Had sexual intercourse with a man even though you really didn't want to because you felt pressured by his continual arguments?
Yes _____
No _____
6. Found out that a man had obtained sexual intercourse with you by saying thing that he really didn't mean?
Yes _____
No _____

Appendix G cont. Sexual Experiences Survey

7. Been in a situation where a man used some degree of physical force (twisting your arm, holding you down, etc.) to try to make you engage in kissing or petting when you didn't want to?
Yes _____
No _____
8. Been in a situation where a man tried to get sexual intercourse with you when you didn't want to by threatening to use physical force (twisting your arm, holding you down, etc.) if you didn't cooperate, but for various reasons sexual intercourse did not occur?
Yes _____
No _____
9. Been in a situation where a man used some degree of physical force (twisting your arm, holding you down, etc.) to try to get you to have sexual intercourse with him when you didn't want to, but for various reasons sexual intercourse did not occur?
Yes _____
No _____
10. Had sexual intercourse with a man when you didn't want to because he threatened to use physical force (twisting your arm, holding you down) if you didn't cooperate?
Yes _____
No _____
11. Had sexual intercourse with a man when you didn't want to because he used some degree of physical force (twisting your arm, holding you down etc.)?
Yes _____
No _____
12. Been in a situation where a man obtained sexual acts with you such as anal or oral intercourse when you didn't want to by using threats or physical force (twisting your arm, holding you down, etc.)?
Yes _____
No _____

Appendix H. Definition of rape (North Carolina)

§ 14-27.2. First-degree rape.

(a) A person is guilty of rape in the first degree if the person engages in vaginal intercourse:

- (1) With a victim who is a child under the age of 13 years and the defendant is at least 12 years old and is at least four years older than the victim; or
- (2) With another person by force and against the will of the other person, and:
 - a. Employs or displays a dangerous or deadly weapon or an article which the other person reasonably believes to be a dangerous or deadly weapon; or
 - b. Inflicts serious personal injury upon the victim or another person; or
 - c. The person commits the offense aided and abetted by one or more other persons.

(b) Any person who commits an offense defined in this section is guilty of a Class B1 felony.

(c) Upon conviction, a person convicted under this section has no rights to custody of or rights of inheritance from any child born as a result of the commission of the rape, nor shall the person have any rights related to the child under Chapter 48 or Subchapter 1 of Chapter 7B of the General Statutes. (1979, c. 682, s. 1; 1979, 2nd Sess., c. 1316, s. 4; 1981, c. 63; c. 106, ss. 1, 2; c. 179, s. 14; 1983, c. 175, ss. 4, 10; c. 720, s. 4; 1994, Ex. Sess., c. 22, s. 2; 2004-128, s. 7.)

Source: North Carolina General Assembly: North Carolina General Statutes 2007-2008 Session.

http://www.ncleg.net/enactedlegislation/statutes/html/bysection/chapter_14/gs_14-27.2.html.

Retrieved April 28, 2008.

Appendix H cont. Definition of Rape (North Carolina)

§ 14-27.3. Second-degree rape.

(a) A person is guilty of rape in the second degree if the person engages in vaginal intercourse with another person:

- (1) By force and against the will of the other person; or
- (2) Who is mentally disabled, mentally incapacitated, or physically helpless, and the person performing the act knows or should reasonably know the other person is mentally disabled, mentally incapacitated, or physically helpless.

(b) Any person who commits the offense defined in this section is guilty of a Class C felony.

(c) Upon conviction, a person convicted under this section has no rights to custody of or rights of inheritance from any child conceived during the commission of the rape, nor shall the person have any rights related to the child under Chapter 48 or Subchapter 1 of Chapter 7B of the General Statutes. (1979, c. 682, s. 1; 1979, 2nd Sess., c. 1316, s. 5; 1981, cc. 63, 179; 1993, c. 539, s. 1130; 1994, Ex. Sess., c. 24, s. 14(c); 2002-159, s. 2(b); 2004-128, s. 8.)

Source: North Carolina General Assembly: North Carolina General Statutes 2007-2008 Session.

http://www.ncleg.net/enactedlegislation/statutes/html/bysection/chapter_14/gs_14-27.3.html.

Retrieved April 28, 2008.

Appendix H cont. Definition of Rape (Virginia)

§ 18.2-61. Rape.

A. If any person has sexual intercourse with a complaining witness, whether or not his or her spouse, or causes a complaining witness, whether or not his or her spouse, to engage in sexual intercourse with any other person and such act is accomplished (i) against the complaining witness's will, by force, threat or intimidation of or against the complaining witness or another person; or (ii) through the use of the complaining witness's mental incapacity or physical helplessness; or (iii) with a child under age 13 as the victim, he or she shall be guilty of rape.

B. A violation of this section shall be punishable, in the discretion of the court or jury, by confinement in a state correctional facility for life or for any term not less than five years; the penalty for a violation of subdivision A (iii), where the offender is more than three years older than the victim, if done in the commission of, or as part of the same course of conduct as, or as part of a common scheme or plan as a violation of (i) subsection A of § 18.2-47 or § 18.2-48, (ii) § 18.2-89, 18.2-90 or 18.2-91, or (iii) § 18.2-51.2, shall include a mandatory minimum term of confinement of 25 years. If the term of confinement imposed for any violation of subdivision A (iii), where the offender is more than three years older than the victim, is for a term less than life imprisonment, the judge shall impose, in addition to any active sentence, a suspended sentence of no less than 40 years. This suspended sentence shall be suspended for the remainder of the defendant's life, subject to revocation by the court.

There shall be a rebuttable presumption that a juvenile over the age of 10 but less than 12, does not possess the physical capacity to commit a violation of this section. In any case deemed appropriate by the court, all or part of any sentence imposed for a violation under this section against a spouse may be suspended upon the defendant's completion of counseling or therapy, if not already provided, in the manner prescribed under § 19.2-218.1 if, after consideration of the views of the complaining witness and such other evidence as may be relevant, the court finds such action will promote maintenance of the family unit and will be in the best interest of the complaining witness.

C. Upon a finding of guilt under this section, when a spouse is the complaining witness in any case tried by the court without a jury, the court, without entering a judgment of guilt, upon motion of the defendant who has not previously had a proceeding against him for violation of this section dismissed pursuant to this subsection and with the consent of the complaining witness and the attorney for the Commonwealth, may defer further proceedings and place the defendant on probation pending completion of counseling or therapy, if not already provided, in the manner prescribed under § 19.2-218.1. If the defendant fails to so complete such counseling or therapy, the court may make final disposition of the case and proceed as otherwise provided.

Appendix H cont. Definition of Rape (Virginia)

If such counseling is completed as prescribed under § 19.2-218.1, the court may discharge the defendant and dismiss the proceedings against him if, after consideration of the views of the complaining witness and such other evidence as may be relevant, the court finds such action will promote maintenance of the family unit and be in the best interest of the complaining witness.

(Code 1950, § 18.1-44; 1960, c. 358; 1972, c. 394; 1975, cc. 14, 15, 606; 1981, c. 397; 1982, c. 506; 1986, c. 516; 1994, cc. 339, 772, 794; 1997, c. 330; 1999, c. 367; 2002, cc. 810, 818; 2005, c. 631; 2006, cc. 853, 914.)

Source: Virginia General Assembly: Legislative Information System. <http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+18.2-61>. Retrieved April 28, 2008

Appendix I. Characteristics of the Unwanted Sexual Contact

Please take a few minutes to think about your experience with unwanted sexual contact. If you have had more than one experience, think about the most serious experience and please answer the following questions about your experience to the best of your ability.

1. What was your relationship with the man at the time of this experience?

- Stranger
- Just met
- Acquaintance (classmate, member of brother fraternity etc.)
- Friend
- Dating casually
- Steady date
- Romantic partner
- Relative

2. What consensual physical activities had you engaged in with this man before this experience?

- None
- Kissing only
- Petting above the waist
- Petting below the waist
- Sexual intercourse

3. What methods of force did he use during the incident (check all that apply)?

- Verbal threats to harm you or others
- Using his superior body weight
- Twisting your arm or holding you down
- Hitting or slapping you
- Choking or beating you
- Showing or using a weapon

Appendix I cont. Characteristics of the Unwanted Sexual Contact

4. What did you do during the incident to show that you did not want to engage in that activity (check all that apply)?

Turned cold
 Reasoned with him or pleaded with him
 Cried
 Screamed for help
 Ran away
 Physically struggled

5. How many times did you have this type of experience with this man?

1 time
 2 times
 3 times
 more (write how many times)

6. After this incident, did you continue to have a relationship with the man? **Yes No**

7. How many times have you had this type of experience with other men?

never
 1 time
 2 times
 3 times
 more (write how many times)

8. How long ago did this incident occur?

less than 6 months ago
 6 months to 1 year ago
 1 to 2 years ago
 2 to 3 years ago
 more (please enter how many years)

Appendix I cont. Characteristics of the Unwanted Sexual Contact

9. What term do you think best describes your experience?

- Rape
- Attempted rape
- Some other type of crime
- Mis-communication
- Bad sex
- Hook-up
- Seduction
- Not sure

Appendix J. Four Dimensional Anxiety Scale

Below are a number of statements regarding feelings that people may have. For each item, please indicate how often have experienced these feelings in the past week.

	Not at all				Extremely
1. Feeling tense	1	2	3	4	5
2. Feeling nervous	1	2	3	4	5
3. Feeling irritable	1	2	3	4	5
4. Rapid mood changes	1	2	3	4	5
5. Feeling uneasy	1	2	3	4	5
6. Muscle Tension	1	2	3	4	5
7. Aches and soreness	1	2	3	4	5
8. Muscles weakness and tiredness	1	2	3	4	5
9. Upset stomach	1	2	3	4	5
10. The need to go to the bathroom more often than usual	1	2	3	4	5
11. Trembling or shaking	1	2	3	4	5
12. Excessive sweating	1	2	3	4	5
13. Rapid heart beats	1	2	3	4	5
14. Hot flashes	1	2	3	4	5
15. Dizziness or light-headedness	1	2	3	4	5
16. Feeling that everything around you is changed or unreal	1	2	3	4	5
17. Fear that something terrible is about to happen	1	2	3	4	5
18. Fear of going crazy	1	2	3	4	5
19. Fear of being left alone by everybody	1	2	3	4	5
20. Fear of losing control over your own behavior	1	2	3	4	5
21. Frequent thoughts that were frightening	1	2	3	4	5
22. Fear of being trapped in an enclosed space	1	2	3	4	5
23. Fear of driving in certain places (tunnels, bridges, highways)	1	2	3	4	5
24. Fear of flying in airplanes	1	2	3	4	5
25. Fear of going far from your home	1	2	3	4	5

Appendix J cont. Four Dimensional Anxiety Scale

	Not at all				Extremely
26. Doing too-many things at the same time	1	2	3	4	5
27. Not being able to finish anything	1	2	3	4	5
28. Doing more things than you usually do	1	2	3	4	5
29. Keeping yourself extremely busy	1	2	3	4	5
30. Arranging and rearranging your things in a certain manner	1	2	3	4	5
31. Checking and rechecking something several times to make sure you have done it right	1	2	3	4	5
32. Grooming yourself repeatedly (i.e., cleaning your clothing, washing your hands, or combing your hair?)	1	2	3	4	5
33. Seeking entertainment	1	2	3	4	5
34. Looking for reassurance or approval	1	2	3	4	5
35. Seeking social contacts	1	2	3	4	5

Appendix K. Center for Epidemiologic Studies Depression Scale

Below is a list of the ways people might have felt or behaved. Please indicate how often you have felt this way during the past week.

	Rarely or none of the time (Less than one day)	Some or a Little of the Time (1-2 Days)	Occasionally or a Moderate Amount of time (2-4 Days)	Most/all of the time (5-7 days)
1. I was bothered by things that usually don't bother me.	0	1	2	3
2. I did not feel like eating; my appetite was poor.	0	1	2	3
3. I felt that I could not shake off the blues even with help from my family or friends.	0	1	2	3
4. I felt that I was just as good as other people.	0	1	2	3
5. I had trouble keeping my mind on what I was doing.	0	1	2	3
6. I felt depressed.	0	1	2	3
7. I felt that everything I did was an effort.	0	1	2	3
8. I felt hopeful about the future.	0	1	2	3
9. I thought my life had been a failure.	0	1	2	3
10. I felt fearful.	0	1	2	3
11. My sleep was restless.	0	1	2	3
12. I was happy.	0	1	2	3
13. I talked less than usual.	0	1	2	3
14. I felt lonely.	0	1	2	3
15. People were unfriendly.	0	1	2	3
16. I enjoyed life.	0	1	2	3
17. I had crying spells.	0	1	2	3
18. I felt sad.	0	1	2	3
19. I felt that people dislike me.	0	1	2	3
20. I could not get "going".	0	1	2	3

Appendix L. PTSD Symptom Scale

Please indicate how often IN THE PAST WEEK you have experienced the given statement *in relation to your experience of unwanted sex*.

Have you ... related to your experience of unwanted sex?	Not at all	A little bit	Somewhat	Very much
1. Had upsetting thoughts or images that came into your head even when you didn't want them to	0	1	2	3
2. Had bad dreams or nightmares about the experience	0	1	2	3
3. Had flashbacks of the experience	0	1	2	3
4. Gotten emotionally upset when you were reminded of the experience	0	1	2	3
5. Avoided thoughts and feelings that remind you of the experience	0	1	2	3
6. Avoided places and activities that remind you of the experience	0	1	2	3
7. Experienced memory loss about the experience	0	1	2	3
8. Experienced loss of interest in important activities	0	1	2	3
9. Felt detached from others around you	0	1	2	3
10. Felt emotionally numb (for example unable to cry)	0	1	2	3
11. Felt as if your future plans or hopes will not come true	0	1	2	3
12. Had trouble falling or staying asleep	0	1	2	3
13. Felt irritable or had fits of anger	0	1	2	3
14. Difficulty concentrating	0	1	2	3
15. Been overly alert (for example checking to see who is around you, being uncomfortable with your back to the door, etc.)	0	1	2	3
16. Been jumpy or easily startled	0	1	2	3
17. Been overly of sensations or aware of changes in your body	0	1	2	3

Appendix M. Data Collection Breakdown

Overall total collected = 441

Overall total omitted = 125

Overall total kept= 316

VT= 65 omitted (55 kept; 120 total collected)

58 omitted b/c of race

2 omitted b/c of sex

3 omitted b/c only entered demographic data

1 omitted b/c person only completed demographic +1/2 Ethnic Identity measure (which immediately followed the demographic data)

1 omitted b/c unreliable data

NCAT = 60 omitted (261 kept; total of 321 collected)

5 omitted b/c of race

4 omitted b/c of sex

31 only entered demographic data

17 omitted b/c person only completed demo +1/2 Ethnic Identity measure

3 omitted of b/c unreliable data

(*2 of those were two attempts by the same person to take the survey. Their 1st attempt was incomplete up to the SES (last measure on the survey. Their 2nd attempt was complete data but their repeated data and initial data did not match up. Both attempts omitted to maintain data integrity.)

Table 1. Descriptive Characteristics of the Sample

		North Carolina A&T (HBCU) n=261, 82%	Virginia Tech (PWI) n=55, 17%	Total Sample n=316
Average Age		21	23	21
Academic Standing	Freshmen	21%	22%	22%
	Sophomore	19%	33%	22%
	Junior	30%	6%	25%
	Senior	28%	7%	24%
	Master's Student	1%	11%	3%
	Doctoral	.4%	16%	3%
	Other	1%	4%	2%
Residency	Born in US	96%	91%	95%
	Moved before 15	3%	4%	3%
	Moved after 15	.8%	6%	2%
Language Spoken with Family (English Only)	English only	95%	91%	94%
	English and another language	5%	7%	5%
	Another language only	.4%	2%	.6%

* Results from an independent sample t-test on the preceding variables indicated that the women from these institutions were not statistically different from one another demographically.

Table 2. Means and (Standard Deviations) of Major Study Variables across Type of School.

Variable	North Carolina A&T	Virginia Tech	Total Sample
Ethnic Identity	247.5 (25.3)	241.2 (31.4)	246.4 (26.5)
Anxiety	76.1 (22.7)	75.1 (22.6)	75.9 (22.7)
Depression	15.7 (10.1)	16.7 (12.2)	15.9 (10.5)
Social Support	67.8 (13.6)	63.9 (14.8)	67.2 (13.9)
Post-Traumatic Stress Symptoms	15.6 (13.4)	9.6 (11.6)	14.1 (13.1)

Table 3. Summary of the Two-Step Moderation Analysis with Ethnic Identity moderating the Relationship between Exposure to Rape and Psychological Adjustment

Variable	b	SE b	B	R ²	R ² change
<u>Depression as Criterion Variable (n=246)</u>					
Step 1a (main effects)					
Exposure to Rape (ER)	4.06	1.85	.14*		
Ethnic Identity	-.07	.03	-.18**	.06	
Step 2a (interaction effect)					
ER X Ethnic Identity	.02	.07	.02	.06	.00
<u>Anxiety as Criterion Variable (n=237)</u>					
Step 1a (main effects)					
Exposure to Rape (ER)	6.76	4.26	.10		
Ethnic Identity	.10	.06	.01	.01	
Step 2a (interaction effect)					
ER X Ethnic Identity	-.02	.15	-.01	.01	.00
<u>Social Support as Criterion Variable (n=247)</u>					
Step 1a (main effects)					
Exposure to Rape (ER)	-3.6	2.3	-.10		
Ethnic Identity	.09	.03	.18**	.03	
Step 2a (interaction effect)					
ER X Ethnic Identity	-.12	.09	-.10	.04	.01

Note: b = unstandardized regression coefficient. SE b = standard error of unstandardized regression coefficient. B = standardized regression coefficient. R² = proportion of variance in criterion variable accounted for by all predictors in regression equation. R² change = incremental variance accounted for by predictor variables entered at Step 2.

* p<.05, **p<.01, ***p<.001

Table 4. Psychological Adjustment by Victimization Status (Victim/NonVictim)

Scale	Victimization Status	Mean	T-Statistic	df	Significance
CES-D Depression	Victim of Rape	19.1	-2.2	286	.03*
	Non-victim of Rape	15.3			
FDAS- Anxiety	Victim of Rape	83.7	-2.2	272	.03*
	Non-victim of Rape	75.1			
MPSS- Social Support	Victim of Rape	64.2	1.5	292	.14
	Non- Victim of Rape	67.7			

*Significant at the .05 level (2-tail)

Table 5. Psychological Adjustment Means by Victimization Status
(Acknowledged/Unacknowledged/Non-Victims)

Scale	Victimization Status	Mean
CES-D- Depression	Acknowledged	19.0
	Unacknowledged	19.6
	Non-Victim of Rape	15.3
FDAS- Anxiety	Acknowledged	78.6
	Unacknowledged	85.6
	Non-Victim of Rape	75.1
MPSS- Social Support	Acknowledged	63.8
	Unacknowledged	64.8
	Non- Victim of Rape	67.7
PTSS- Post Traumatic Stress Symptoms	Acknowledged	15.9
	Unacknowledged	13.4
	Non-Victim of Rape	-

Table 6. Summary of the Two-Step Moderation Analysis with Ethnic Identity moderating the Relationship between Acknowledgement Status and Psychological Adjustment.

Variable	b	SE b	B	R ²	R ² change
<u>Depression as Criterion Variable (n=35)</u>					
Step 1a (main effects)					
Acknowledgement Status (AS)	.52	3.8	.02		
Ethnic Identity	-.05	.06	-.14	.02	
Step 2a (interaction effect)					
AS X Ethnic Identity	-.04	.14	-.07	.02	.00
<u>Anxiety as Criterion Variable (n=32)</u>					
Step 1a (main effects)					
Acknowledgement Status (AS)	-5.02	8.53	-.11		
Centered Ethnic Identity	-.02	.14	-.02	.01	
Step 2a (interaction effect)					
AS X Ethnic Identity	-.03	.31	-.02	.01	.00
<u>Social Support as Criterion Variable (n=33)</u>					
Step 1a (main effects)					
Acknowledgement Status (AS)	-2.5	4.9	-.09		
Centered Ethnic Identity	.01	.09	.02	.01	
Step 2a (interaction effect)					
AS X Ethnic Identity	-.14	.18	-.17	.03	.02

Note: b = unstandardized regression coefficient. SE b = standard error of unstandardized regression coefficient. B = standardized regression coefficient. R² = proportion of variance in criterion variable accounted for by all predictors in regression equation. R² change = incremental variance accounted for by predictor variables entered at Step 2.

* p<.05, **p<.01, ***p<.001

Table 6 Continued. Summary of the Two-Step Moderation Analysis with Ethnic Identity moderating the Relationship between Acknowledgement Status and Psychological Adjustment.

Variable	b	SE b	B	R ²	R ² change
<u>PTSD as Criterion Variable(n=42)</u>					
Step 1a (main effects)					
Acknowledgement Status (AS)	1.13	4.23	.04		
Centered Ethnic Identity	-.02	.08	-.05	.00	
Step 2a (interaction effect)					
AS X Ethnic Identity	.343	.15	.42*	.12	.12

Note: b = unstandardized regression coefficient. SE b = standard error of unstandardized regression coefficient. B = standardized regression coefficient. R² = proportion of variance in criterion variable accounted for by all predictors in regression equation. R² change = incremental variance accounted for by predictor variables entered at Step 2.

* p<.05, **p<.01, ***p<.001

Table 7. Percentages Endorsed Resistance Items by Acknowledged and Unacknowledged Victims

Resistance Item	Acknowledgement Status	Endorsed	Not Endorsed
Turn Cold	Unacknowledged	n= 13 43.3%	n=17 56.7%
	Acknowledged	n= 5 38.5%	n=8 61.5%
Reasoned w/ Assailant	Unacknowledged	n=16 53.3%	n=14 46.7%
	Acknowledged	n=8 61.5%	n=5 38.5%
Cried	Unacknowledged	n=8 26.7%	n=22 73.3%
	Acknowledged	n=9 69.2%	n=4 30.8%
Screamed	Unacknowledged	n=3 10%	n=27 90%
	Acknowledged	n=3 23.1%	n=10 76.9%
Ran Away	Unacknowledged	n=1 3.3%	n=29 96.7%
	Acknowledged	n=0 0%	n=13 100%
Physically Struggled	Unacknowledged	n=19 63.3%	n=11 36.7%
	Acknowledged	n=7 53.8%	n=6 46.2%

Table 8. Percentages Endorsed Force Items by Acknowledged and Unacknowledged Victims

Force Item	Acknowledgement Status	Endorsed	Not Endorsed
Verbal Threat	Unacknowledged	n=5 50%	n=25 76%
	Acknowledged	n=5 50%	n=8 25%
Superior Weight	Unacknowledged	n= 23 63.9%	n=7 100%
	Acknowledged	n=13 36.1%	n=0 0%
Twisting Arms	Unacknowledged	n= 15 75%	n=15 65.2%
	Acknowledged	n=5 25%	n=8 34.8%
Hitting/ Slapping	Unacknowledged	n=2 6.7%	n=13 31.7%
	Acknowledged	n=0 0%	n=28 68.3%
Choking/Beating	Unacknowledged	n=4 80%	n=26 68.4%
	Acknowledged	n=1 20%	n=12 31.6%
Showing a Weapon	Unacknowledged	n=0 0%	n=30 68.9%
	Acknowledged	n=0 0%	n=13 30.2%

Table 9. Grand Means for Level of Resistance and Force

Level of Resistance	Acknowledged	4.64
	Unacknowledged	4.54
	Grand mean	4.59
Number of Resistance Items Endorsed	Acknowledged	2.46
	Unacknowledged	2.00
	Grand Mean	2.14
Level of Force	Acknowledged	2.62
	Unacknowledged	2.93
	Grand Mean	2.78
Number of Force Items Endorsed	Acknowledged	1.85
	Unacknowledged	1.63
	Grand Mean	1.85

Table 10. Relationships between Ethnic Identity, Acknowledgement, and Psychological Adjustment

	1	2	3	4	5	6
1. Ethnic Identity	1.00	-.20***	.002	.28***	-.07	.10
2. Depression		1.00	-	-	-	-
3. Anxiety			1.00	-	-	-
4. Social Support				1.00	-	-
5. PTSD					1.00	-
6. Acknowledgement Status ¹						1.00

* $p < .05$, ** $p < .01$, *** $p < .001$, - not investigated.

1. Point biserial correlation was computed. Acknowledgement status was coded such that unacknowledged = 0 and acknowledged = 1.

Figure 1. Hypothesis 6

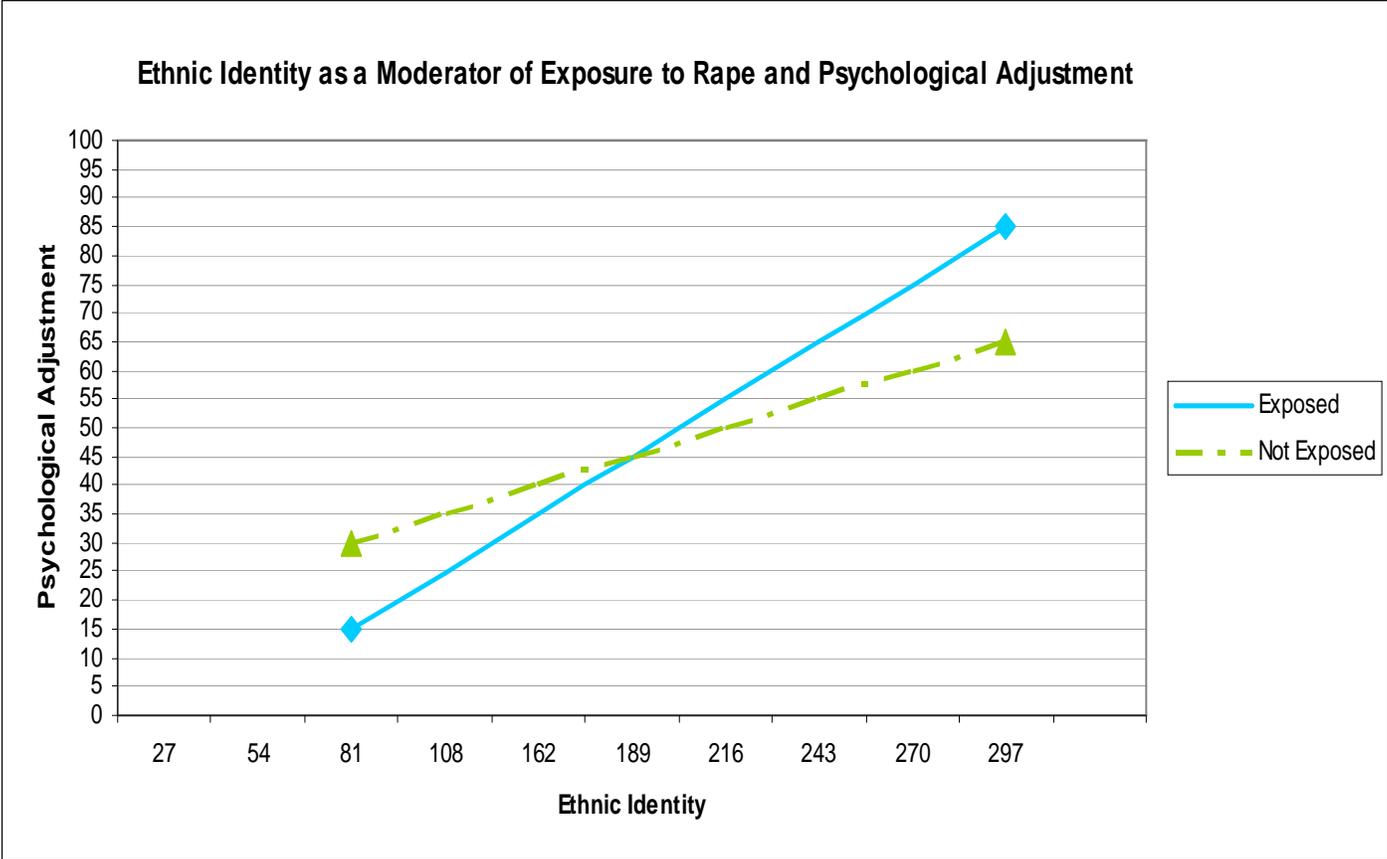


Figure 2. Hypotheses 7

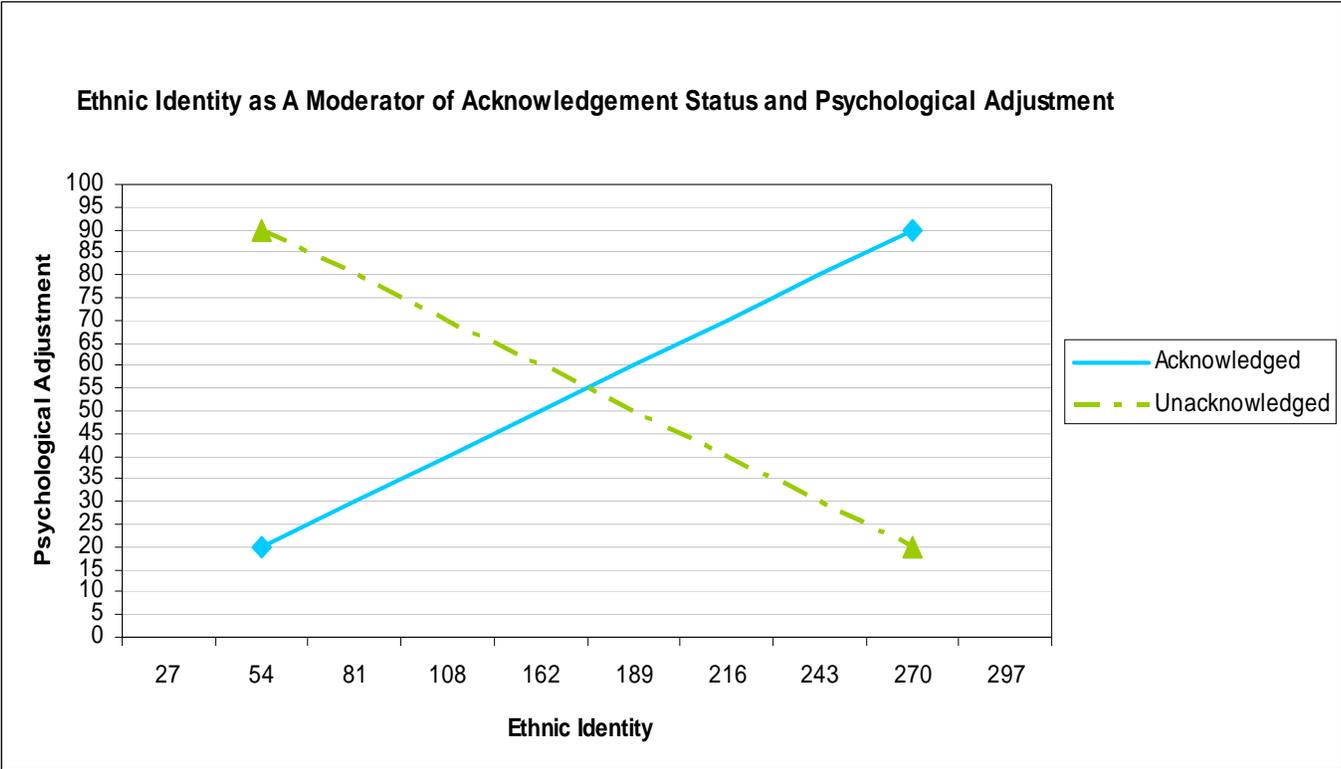


Figure 3. Ethnic Identity as a Moderator of PTSS and Acknowledgement Status

Ethnic Identity as a Moderator of Acknowledgement Status and PTSS

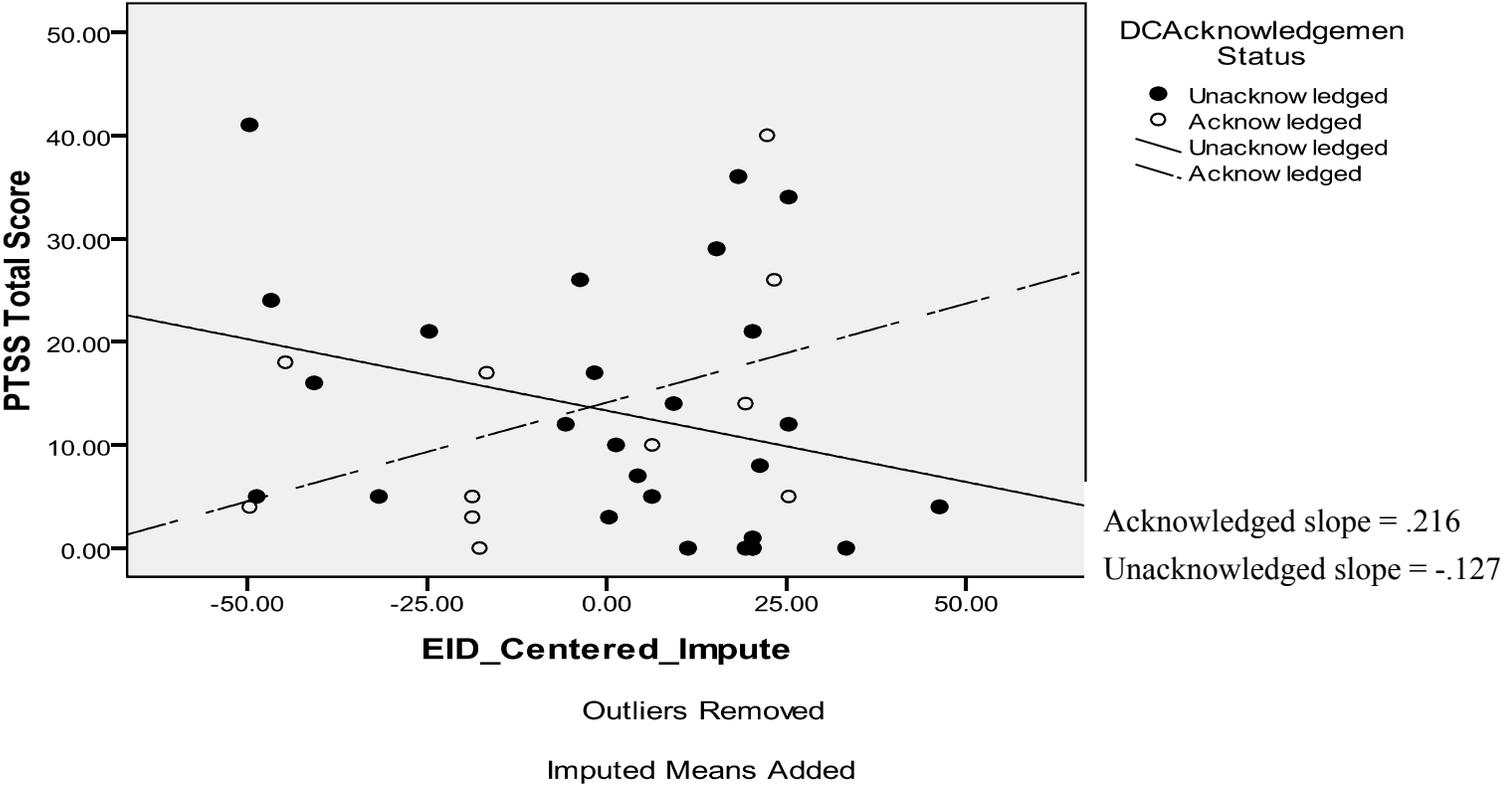


Figure 4. Reported Relationship to Offender at Time of Experience of Reported Rape by Acknowledgment Status

