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## **SIMILARITIES AND DIFFERENCES IN WOMEN'S SEXUAL ASSAULT EXPERIENCES BASED ON TACTICS USED BY THE PERPETRATOR**

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### **Abstract**

Only a few studies have examined the characteristics of sexual assault based on the tactics used by the perpetrator. In this study we compared the experiences of women who were forced to engage in vaginal, anal, or oral intercourse due to verbal coercion, physical force, or intoxication. Random-digit dialing was used to obtain a sample of 272 single African American and Caucasian women between the ages of 18 and 49 from the Detroit metropolitan area. Participants completed a computer-assisted self-interview that asked detailed questions about a past sexual assault and their reactions to it. Among the 139 women who were forced to engage in vaginal, anal, or oral intercourse, sexual assaults that involved physical force produced the most severe negative outcomes. Situations that involved the woman being too intoxicated to resist differed from others primarily in terms of how much alcohol the man and woman consumed. Although all types of sexual assault were perceived as being at least moderately serious, verbally coerced assaults were on average perceived as being least serious. These findings suggest that the perpetrators' tactics affect women's responses to sexual assault.

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Legal definitions of sexual assault take into account different strategies that are used by perpetrators to force sex on unwilling victims. Definitions of rape always include physical force or threats of physical force as tactics to obtain sexual intercourse (Bureau of Justice Statistics, 1995; Federal Bureau of Investigation, 2001). Depending on the jurisdiction, intoxicated victims may also be considered rape victims. Some jurisdictions require that the intoxicant was administered without the victim's knowledge; however, most rape statutes focus on whether the victim was able to consent, with the underlying assumption that an unconscious or severely impaired victim cannot give consent (Gyls & McNamara, 1996;

Kramer, 1994). For the vast majority of victims, alcohol is the cause of this type of impairment, although illicit drugs and/or drugs slipped into the woman's drink (e.g., date rape drugs) are also sometimes the cause of temporary impairment (Bowker, 1978; McGregor, Lipowska, Shah, Du Mont, & De Siato, 2003; Stermac, Du Mont, & Dunn, 1998; Testa & Livingston, 1999). Verbally coercive strategies to obtain sexual intercourse are not usually included in definitions of rape, although they are typically addressed in other sexual assault statutes (Gyls & McNamara, 1996; Michigan Penal Code, 1990).

Measures of sexual assault tend to mirror these legal definitions. The Sexual Experiences Survey (SES), which was developed by Koss, Gidycz, and Wisniewski (1987), is the most frequently used measure of sexual assault in academic research. It uses behaviorally specific items that describe the type of sex that was forced and the tactics used, with items that assess the perpetrator's use of verbal strategies, physical force, and alcohol. Typically the force and alcohol items are combined to form the rape category (Koss et al., 1987). Only a few investigators have evaluated whether there are differences in sexual assault experiences associated with the tactics used by the perpetrator. Some studies that focus on alcohol have used as their criterion whether or not the woman or man drank alcohol during the incident, rather than whether alcohol was identified as the tactic used to obtain forced sex. Furthermore, some of these studies have only considered alcohol use, whereas other studies have also assessed incapacitation due to illicit drug use. A brief review of this literature is provided below and then this study's hypotheses and findings are presented.

## Surveys of Victims' Experiences

Tyler, Hoyt, and Whitbeck (1998) divided college women into three groups based on the strategy used by a past date to obtain unwanted sexual outcomes. Seven variables were used to predict each type of sexual assault. The woman's usual alcohol consumption was the only significant predictor of alcohol or drugs being used as a tactic to obtain sex. Low self-esteem, being sexually active, and sexually permissive attitudes predicted verbal coercion being used as a strategy to obtain sex. Sorority membership, sexually permissive attitudes, and the interaction of sorority membership and self-esteem predicted physical force being used as a strategy.

In a study of women university employees who had been sexually assaulted, Cleveland, Koss, and Lyons (1999) compared the narratives of women whose perpetrators used physical force and those whose perpetrators used alcohol or other drugs. They conducted analyses of variance in which the relationship between the perpetrator and the victim (stranger, acquaintance, date, steady date, husband, ex-husband, other) was the independent variable and the extent to which a tactic was used was the dependent variable. Strangers tended to use physical force as a tactic more than any other perpetrators did. In contrast, acquaintances and dates used significantly more alcohol/drug tactics than did husbands.

As noted above, many of the studies that have examined alcohol's role in sexual assault have focused on whether alcohol was consumed, rather than on whether alcohol was the perpetrator's primary tactic. For example, Norris, Nurius, and Gaylord (1998) compared the sexual assault experiences of women who drank during the assault to women who did not.

There were no differences in demographics, age at the time of the assault, in how much they blamed themselves or the perpetrator for what happened, and in their emotional responses to the assault. Alcohol-involved assaults were more likely to include alcohol consumption by the perpetrator, being in locations with other people (rather than alone), knowing the perpetrator for a shorter period of time, the woman feeling less on guard during the situation, and the woman being less likely to perceive the man as trying to control her behavior prior to the assault. Harrington and Leitenberg (1994) also compared the sexual assault experiences of college women who drank during the assault, although they used the criterion of being at least somewhat drunk at the time of the assault, rather than any alcohol being consumed. Women who were at least somewhat drunk were less likely than other women to be romantically involved with the perpetrator, had engaged in higher levels of consensual sexual activity with the perpetrator prior to the forced sex, and resisted less. Several researchers have suggested that intoxication should make it more difficult for women to initially notice any unusual behavior by the perpetrator (e.g., trying to isolate the woman, encouraging her to drink heavily) and to effectively verbally or physically resist him (Abbey, Clinton, McAuslan, Zawacki, & Buck, 2002; Norris, Nurius, & Dimeff, 1996; Ullman, Karabatsos, & Koss, 1999). Some evidence suggests that intoxicated victims will be more likely than other victims to feel at least partially responsible for what happened because they believe they should have been able to control their drinking (Abbey, Zawacki, Buck, Clinton, & McAuslan, 2001).

Testa and Dermen (1999) took into account the fact that many sexual assault victims have experienced more than one type of sexual assault. In a community sample of young women drinkers, they conducted analyses of variance with two independent variables: experienced verbally coerced sexual intercourse (yes or no) and experienced physically forced sexual intercourse (yes or no). This allowed the effects of experiencing neither, both, or just one type of sexual assault to be compared. Ten dependent measures were considered and being verbally coerced, but not physically forced, was associated with low self-esteem, low assertive-ness, and high sex-related alcohol expectancies. None of the dependent measures were uniquely associated with physical force.

## Summary of Past Research and Overview of the Present Study

Each of the studies described above has strengths and limitations. Although several studies focused on perpetrators' tactics (Cleveland et al., 1999; Testa & Dermen, 1999; Tyler et al., 1998), Tyler et al.'s (1998) study was the only one that included all three tactics commonly described in sexual assault research. One limitation of this study was that it linked the tactics used in one sexual assault to victims' personality characteristics and attitudes. Participants were not asked to describe their lifetime experiences with sexual assault. Many sexual assault victims have been sexually assaulted more than once and have experienced more than one type of sexual assault, thus it can be misleading to assume that one particular assault was the cause or consequence of any differences found (Abbey, Ross, McDuffie, & McAuslan, 1996; Humphrey & White, 2000; Koss et al., 1987). Testa and Dermen (1999) allowed for victims to have experienced more than one type of sexual assault. However, they focused on the use of physical force and verbal coercion and did not include intoxication as a strategy. Many of the studies that focused on alcohol only assessed whether

or not the victim drank alcohol (Harrington & Leitenberg, 1994; Norris et al., 1998), not whether the victim's intoxication was the primary strategy used to obtain unwanted sex.

In Western societies, rape has most consistently been defined as occurring due to the perpetrator's use of overwhelming physical force (Keiter, 1997; Koss, 1993). Women are likely to have internalized these definitions, thus, victims whose perpetrators used this tactic are most likely to label what happened as rape. Based on past theoretical and empirical research, we hypothesized that the use of physical force by the perpetrator would be associated with the most extreme outcomes in terms of negative affect, physical force, resistance, injuries, perceived seriousness, attributions of responsibility to the perpetrator, and disrupted relationships (Gidycz & Koss, 1991; Gore-Felton, Gill, Koopman, & Spiegel, 1999; Koss, Bailey, Yuan, Herrera, & Lichter, 2003; Tjaden & Thoennes, 2000; Ullman & Knight, 1991; Zweig, Crockett, Sayer, & Vicary, 1999). Intoxicated sexual assaults were hypothesized to differ from other types of sexual assaults primarily in terms of characteristics of the situation in which the sexual assault occurred. When intoxication was the primary tactic used by the perpetrator, we expected that the woman would report that she felt least close to the perpetrator, there would be the greatest number of other people in the setting, both she and the perpetrator would consume the most alcohol, she would be least aware of cues suggesting the perpetrator's untrustworthiness, and she would feel most responsible for what happened (Abbey et al., 1996, 2002; Norris et al., 1998; Tyler et al., 1998). Verbally coerced sexual assaults were hypothesized to differ from other types of sexual assault primarily in terms of the woman's past experiences with the perpetrator. When verbal coercion was the primary tactic used, women were expected to feel closest to the man, to have engaged in the most consensual sexual activities with him, and to most strongly believe that a lack of communication was responsible for what occurred (Testa & Dermen, 1999; Tyler et al., 1998).

## METHOD

### Participants

Computer-assisted self-interviews (CASI) were conducted with 272 women in the Detroit metropolitan area. Due to this study's focus, the analyses described in this paper include only the 139 women who had experienced a sexual assault that involved attempted or completed vaginal, oral, or anal intercourse. Participants ranged in age from 18 to 49 years with a mean age of 31 years ( $SD = 9.40$ ). Fifty-two percent of the sample was African American and 48% was Caucasian. The average level of education was some college ( $SD = 1.92$ ), with the highest level of education obtained by approximately one-quarter of participants being a high school degree and one-fifth of participants having college degrees. The median annual household income was in the range of \$30,000 to \$35,000 ( $SD = 5.13$ ; measured in \$5,000 increments). One-third of participants reported that they were in a professional occupation and almost 12% were unemployed.

### Procedures

Individuals were contacted by the Center for Urban Studies at Wayne State University through random-digit dialing; exchanges in communities with large numbers of African

Americans were oversampled. Potential participants were told that the study focused on the dating experiences of adults, including both good and bad experiences. The topic of sexual assault was not mentioned on the telephone. Potential participants were also told that the interview would take approximately 90 minutes and that they would be paid \$50. In order to maximize the likelihood that participants would be able to describe recent dating experiences, they were required to be between the ages of 18 and 49, to currently be single, and to have dated someone of the opposite sex within the past year. Because of our interest in American social norms about dating and gender roles, participants were required to have lived in the United States for at least 10 years. The majority of individuals in the Detroit metropolitan area are African American (26%) and Caucasian (70%), thus only African American and Caucasian participants were recruited (Bureau of the Census, 2000). Among individuals who met all the eligibility criteria, 81.7% agreed to participate in the study.

Interviews were conducted in participants' homes, local libraries, coffee shops, and at the university, based on their preference. The consent form described the scope of the study's questions in more detail than the telephone interviewer had. It specifically noted that questions about unwanted sexual activity were included. The consent form included telephone numbers for several counseling centers in case participants wanted to talk to someone after completing the interview. At the end of the interview, several questions assessed how participants felt at that point to ensure that the interview had not upset them. On 5-point scales with response options which ranged from *not at all* to *very*, participants' mean levels of anger ( $M = 1.57$ ,  $SD = .87$ ), sadness ( $M = 1.71$ ,  $SD = .96$ ), and embarrassment ( $M = 1.48$ ,  $SD = .85$ ) were very low.

Interviewers were extensively trained in standard interview procedures, including obtaining informed consent, collecting sensitive information, vocabulary that might be unfamiliar to participants, and the use of the laptop computers. The interviewers' primary responsibilities were to explain the consent form to participants, familiarize participants with the use of a laptop computer by guiding them through a series of sample questions, and answer any questions that arose during the interview. All of the interviewers were women, and participants and interviewers were matched on ethnicity. The interviewer encouraged participants to ask questions if they were confused at any point during the survey. Most women did not ask any questions, although a few asked if it was okay to take a break (it was) or for a definition of a sexual term (interviewers were provided with standard definitions). Interviewers positioned themselves far enough away that they could not see the computer screen, but could ensure that the participant was working on the questionnaire. There was a fair amount of variability in participants' past experience and initial comfort with the computers. Two women, who appeared to have problems reading, asked the interviewer to read parts of the questionnaire to them. The remaining participants felt comfortable proceeding on the computer after completing the practice questions, and many told the interviewer that they enjoyed working on the computer.

## Measures

**Sexual experiences survey**—A modified 17-item version of Koss et al.'s (1987) Sexual Experiences Survey was used. Following suggestions made by other researchers (Koss,

personal communication, 2000; Kosson, Kelly, & White, 1997), additional items were included to provide more specific examples of some types of incidents. Additional verbal coercion items included a question about pressure induced through swearing, getting angry, or threatening to end the relationship, as well as questions about verbally coerced oral and anal sex. Additional rape items assessed sexual intercourse that occurred when the woman was incapacitated and unable to give consent (Abbey et al., 1996) and included a final question that used the label “rape” (Koss & Oros, 1982). Each question was answered on a 6-point scale with options that ranged from *never* to *five or more times*.

**Characteristics of the sexual assault**—Participants were asked a series of questions about what occurred during the sexual assault. For women who had experienced more than one sexual assault, the computer program used an algorithm to select one incident based on consideration of multiple indicators of severity including where the incident was on the SES continuum (forced contact, verbal coercion, attempted rape, rape), the woman’s perception of how negative the event was, and recency of the event. The computer program generated a statement that repeated the selected SES item and asked the woman to answer the questions that followed in terms of that specific incident. For descriptive purposes, participants were asked to indicate their age at the time, the perpetrators age at the time, and their relationship to him. In order to help participants recall different stages of the sexual assault, they were asked about events that occurred immediately before their interaction with the perpetrator on the day of the sexual assault; events that occurred early in the interaction, before he became assaultive; events that occurred during the forced sex stage; and events that occurred afterwards. Skip patterns were programmed so that irrelevant questions were not asked.

How *close* the woman felt to the man immediately prior to their interaction on the day of the assault was assessed with a single item on a 7-point scale with response options that ranged from *not very close* to *very close*. The *number of people at the location* where they spent time early in the interaction (prior to the forced sex) was assessed using a single item with a 5-point response scale with options that ranged from *1–3 other people* to *10 or more other people*.

Women were asked three questions regarding how many drinks they consumed (a) within the 12 hours prior to the interaction, (b) during the initial stage of the interaction, and (c) during the forced sex stage. Responses were made on 9-point scales with options of 0 drinks, 1–2 drinks, 3–4 drinks, 5–6 drinks, 7–8 drinks, 9–10 drinks, 11–12 drinks, and 13 or more drinks. A drink was defined as 12 ounces of beer, 5 ounces of wine, a 10-ounce wine cooler, or 1.5 ounces of liquor. Interviewers were also provided with the information needed, if the participant asked, to convert common container sizes (e.g., a quart or a fifth) into a standard number of drinks. The *total number of alcoholic drinks* consumed by the participant was computed by summing the responses to each question, using the midpoint of the scale (e.g., 3–4 drinks was coded as 3.5 drinks, 9–10 drinks was coded as 9.5 drinks, 13 or more drinks was coded as 13 drinks). A parallel set of three questions assessed the perpetrator’s alcohol consumption.

A modified seven-item version of Norris et al.’s (1998) measure was used to assess participants’ *bad vibes about the situation* during the initial stage of the interaction before

any forced sex occurred. Sample questions included how worried the woman was that the situation was out of her control and the extent to which she had bad vibes about the situation. Responses were made using 5-point scales with options that ranged from *not at all* to *a lot*. Cronbach's coefficient alpha was .92. The amount of *consensual sexual activity* that took place during the initial stage of the interaction was computed by summing the number of *yes* responses to a list of 12 questions about consensual sexual activities that ranged from holding hands to sexual intercourse. Cronbach's coefficient alpha was .89.

The amount of *physical force* used by the perpetrator during the forced sex stage was assessed by summing the number of *yes* responses to seven questions (e.g., implying through his behavior that he would use force, holding you down, using a weapon). Participants' *verbal resistance* was assessed with 11 items (e.g., screaming, trying to reason with him) and *physical resistance* was assessed with four items (e.g., hit him, push him). Responses were made using 5-point scales with response options that ranged from *not at all* to *a lot* and Cronbach's coefficient alphas were .67, .87, and .76, respectively.

Five questions assessed the amount of *negative affect* participants felt during the forced sex stage (e.g., sad, nervous, frightened). Responses were made using 5-point scales with response options that ranged from *not at all* to *a lot* and Cronbach's coefficient alpha was .92.

**Perceptions of the sexual assault**—Six measures assessed the woman's perception of the assault. *How serious the woman felt the assault was* at the time it happened was measured using a 7-point scale with responses ranging from *not very serious* to *very serious*. Participants were also asked the extent to which *they considered the assault to be a rape* and the extent to which they believed *the perpetrator felt it was rape* using 7-point scales with response options that ranged from *definitely not rape* to *definitely rape*.

Three additional questions measured participants' attributions of responsibility for the sexual assault. Using 5-point response scales with options that ranged from *not at all* to *very*, participants rated the extent to which *the perpetrator*, *lack of communication*, and *they* were responsible for what happened.

**Consequences of the sexual assault**—Four consequences of this specific sexual assault were evaluated. The extent to which the participant was *injured* during the assault was measured by a single item using a 5-point scale with options that ranged from *not at all* to *a lot*. Four items assessed the extent to which the assault *disrupted the participant's relationships with others* (e.g., relationships with men, family). Responses were made on 5-point scales with options that ranged from *not at all* to *a lot*, and Cronbach's coefficient alpha was .82.

The extent to which participants *learned from the experience* was evaluated with a single question that used a 5-point response scale with options that ranged from *not at all* to *very*. Finally, *how serious the woman felt the sexual assault was now* was assessed using a single item with a 7-point response scale with options that ranged from *not very serious* to *very serious*.

## RESULTS

### Characteristics of the Sexual Assault

The stem of each SES item includes both the type of forced sex and the tactic used by the perpetrator. We focused on acts that involved some type of penetration (oral, anal, or vaginal sex) and participants were divided into three groups based on the tactics described in the SES item that corresponded to the incident they described in detail: physical force ( $n = 33$ ), verbal coercion ( $n = 77$ ), or intoxication/incapacitation ( $n = 29$ ). For example, if the event the woman described was in response to the SES item that asked about “sexual intercourse when you didn’t want to because a man threatened or used some degree of physical force” she would be placed in the physical force group, even if in the description of the incident she noted that verbal coercion and/or alcohol were also involved. All of the women who were too incapacitated to consent had consumed alcohol and 45% had also used illicit drugs. The most commonly mentioned drugs were marijuana, cocaine, and amphetamines. It is important to remember that the categories women were grouped in for these analyses are based on the one sexual assault incident that they described in detail. Many participants endorsed multiple items on the SES, indicating that they had been sexually assaulted on other occasions. Using the full range of SES items (including sexual contact), 42% of the women who described a verbally coerced sexual assault had also experienced physically forced sexual assault, and 22% had experienced an intoxicated sexual assault on other occasions. Among women who described a physically forced sexual assault, 94% had also experienced verbally coerced sexual assault, and 53% had experienced intoxicated sexual assault on other occasions. Among the women who described an intoxicated sexual assault, 88% had also experienced verbally coerced sexual assault, and 48% had experienced physically forced sexual assault on other occasions.

On average, participants were age 22 at the time of the sexual assault ( $SD = 7.08$ ) and perpetrators were age 26 ( $SD = 8.46$ ); there were no significant differences on either of these variables between tactic groups,  $F(2, 139) = 0.14$ ,  $F(2, 139) = 0.05$ , *ns*. There were also no significant differences between tactic groups in terms of the woman’s ethnicity, occupation, or education,  $\chi^2(2, 139) = 5.40$ , *ns*,  $\chi^2(10, 139) = 14.43$ , *ns*,  $F(2, 136) = 0.87$ , *ns*. There was a significant difference in income,  $F(2, 136) = 156.20$ ,  $p < .$

05. Incomewasassessedinfive thousand dollar increments, and women whose perpetrators used physical force had average incomes in the \$25,000 to \$30,000 range, whereas women whose perpetrators used verbal coercion or intoxication had average incomes in the \$35,000to \$40,000 range.

Only 2% of participants described a sexual assault by a stranger. The majority of the women were assaulted by a steady dating partner (21.6%), a casual friend (16.5%), or an ex-boyfriend (12.2%). Less frequently mentioned were acquaintances (10.8%), close friends (10.1%), casual dates (10.1%), and husbands (7.2%). There were also no significant differences between tactic groups in the type of relationship between the perpetrator and the woman,  $\chi^2(28, 139) = 36.26$ , *ns*. The most common locations that participants described were the perpetrator’s home (30.9%), the woman’s home (26.6%), a home belonging to both of them (10.1%), a party (7.2%), a vehicle (7.2%), outdoors (3.6%), or a bar (2.2%). The



tactic groups did not differ in terms of the location of the sexual assault,  $\chi^2 = (20, 130) = 14.81, ns$ .

The perpetrators' and victims' alcohol consumption were significantly, positively correlated,  $r = .58, p < .001$ . In 29% of these sexual assaults, neither drank alcohol, in 17% only the perpetrator drank, in 7% only the victim drank, and in 47% both drank alcohol. Not surprisingly, both the perpetrator and victim were significantly more likely to drink alcohol when he used alcohol as a tactic to obtain sex, as compared to when he used verbal coercion or physical force,  $\chi^2 = (2, 139) = 10.98, p < .004$ ,  $\chi^2 = (2, 139) = 18.88, p < .001$  (information on quantity consumed is in the next section).

### Relationships Between Perpetrator Tactics and Aspects of the Sexual Assault

Multivariate analyses of variance (MANOVA) were computed in which the independent variable was the perpetrator's tactics, and the dependent variables were divided into three domains: characteristics of the sexual assault, perceptions of the sexual assault, and consequences of the sexual assault. As can be seen in Table 1, all three MANOVAs were significant, thus follow-up univariate analyses of variance (ANOVA) were computed. There were significant differences for 17 of the 20 variables included in these analyses. Tukey's HSD post hoc tests were conducted for significant ANOVAs to determine which groups differed significantly. Finally, discriminant function analyses (DFA) were conducted to determine which subset of variables in each domain contributed multivariately to group discrimination.

**Aspects of the sexual assault**—No significant differences were found in how close the woman felt to the man or in the number of other people present during their interaction. Women in the intoxicated group reported that they and their perpetrators consumed significantly more alcohol during the interaction than did participants in the physical force and verbal coercion groups. Women in the physical force group felt significantly more bad vibes about the situation prior to the forced sex than did women in the verbal coercion group. Women in the verbal coercion group engaged in significantly more consensual sexual activities before the perpetrator forced sex than did women in the physical force group. Women in the physical force group experienced significantly more extreme physical force and engaged in more verbal and physical resistance than did women in either the verbal coercion or intoxicated groups. Also, women in the physical force group experienced significantly more negative affect during the forced sex than did women in the verbal coercion group.

When the variables that had significant univariate results were entered into a DFA, two significant functions emerged. The first function,  $\chi^2(16, 139) = 59.70, p < .001$ , explained 69% of the variance and discriminated the physical force group from the other two. The variables correlated most highly with the first function were the perpetrator's physical force and the woman's verbal and physical resistance. The second function,  $\chi^2(7, 139) = 19.64, p < .01$ , explained 31% of the variance and distinguished the intoxicated and coercion groups from the physical force group. The variables most highly correlated with this function were

the participant's alcohol consumption, the perpetrator's alcohol consumption, bad vibes, and prior consensual sexual activity.

**Perceptions of the sexual assault**—Women in the physical force and intoxicated groups reported that they perceived the assault as being significantly more serious when it happened than did women in the verbal coercion group. Similarly, women in the physical force and intoxicated groups were significantly more likely to consider what happened to be rape than were women in the verbal coercion group. Women in the physical force group were also significantly more likely than women in the verbal coercion group to believe that the perpetrator considered what happened to be rape. Women in the physical force and intoxicated groups attributed significantly greater responsibility to the perpetrator than did women in the verbal coercion group. In contrast, women in the physical force group attributed significantly less responsibility to themselves and to a lack of communication between themselves and the perpetrator than did women in the verbal coercion group.

When the significant variables were included in a DFA, there was one significant function,  $\chi^2(12, 139) = 45.53, p < .001$ , that explained 97.2% of the variance. The variables that had the strongest correlations with this function were those in which the force and intoxicated groups scored differently from the verbal coercion group, which included perceptions of seriousness, labeling what happened as rape, and attributing responsibility to the perpetrator.

**Consequences of the sexual assault**—Women in the physical force group sustained significantly more injuries as a result of the sexual assault and experienced significantly more disruption in their lives than did women in the verbal coercion and intoxicated groups. There were no significant differences in perceptions of having learned something from the event. Women in the physical force group reported that they currently perceived the sexual assault as being more serious than did women in the verbal coercion group.

The significant variables were entered into a DFA which yielded one significant function,  $\chi^2(6, 139) = 29.59, p < .001$ , that explained 97.7% of the variance. This function mainly distinguished the physical force group from the others with life disruption having the highest loading.

In order to determine the percent of women correctly classified, a DFA was run that included all the variables described above. Overall, 70% of women were correctly classified which significantly improved on a chance rate of 40%,  $z(136) = 7.14, p < .01$ . The pattern of classification indicated that the predictor variables most successfully identified women who were verbally coerced (88%) and did reasonably well at classifying women who were physically forced (61%). The poorest classification rate was for the intoxication group (32%).

## DISCUSSION

As anticipated, sexual assault perpetrators' tactics were associated with characteristics of the assault and women's responses to the assault, although not all differences were in the hypothesized direction. As compared to women whose perpetrators used verbal coercion or

intoxication as their primary strategies, women whose perpetrators used physical force as their primary tactic reported that the perpetrator used more physically forceful strategies, that they used more verbal and physical resistance strategies, that they incurred more injuries, and that they experienced more disruption in their lives as a result of the sexual assault. There were a number of additional variables for which women whose perpetrators used physical force significantly differed from women whose perpetrators used verbal coercion, with women whose perpetrators used intoxication having scores that fell in between. Women who experienced physical force reported that they had more bad vibes about the perpetrator early in the interaction, engaged in fewer prior consensual sexual activities, felt more negative affect during the forced sex, thought the perpetrator was more likely to view what happened as rape, attributed less responsibility to a lack of communication and themselves, and currently viewed what happened as more serious. The verbally coerced women significantly differed from both physically forced and intoxicated women on three variables. Verbally coerced women felt the sexual assault was less serious at the time it happened, were least likely to think what happened was rape, and held the perpetrator least responsible. Women whose perpetrators used their intoxication as their primary tactic significantly differed from physically forced and verbally coerced women on two variables; both the woman and the perpetrator consumed more alcohol when intoxication was the primary tactic.

Thus, as hypothesized, women whose perpetrators used physical force as their primary tactic were most likely to label what happened as rape and experienced the most extreme negative consequences. These women had the most injuries and negative affect, and may have felt their lives were in peril at the time of the assault. It was striking how many women had experienced multiple sexual assaults. Other researchers have found that the experience of multiple sexual victimizations is related to depression and post-traumatic stress disorder (Arata, 1999; Koss et al., 2003; Pimlott-Kubiak & Cortina, 2003). Further research is needed to determine if the long-term effects of sexual assault are associated with perpetrator tactics.

Contrary to prediction, the perpetrator's use of intoxication as his primary strategy was only significantly associated with alcohol consumption not situational aspects of the sexual assault. This was the group most poorly predicted in the classification analyses. Past research that found differences in aspects of the situation such as how well the woman knew the perpetrator and spending time in a crowded location such as a bar or party, have focused on whether or not the woman and man drank alcohol, not on whether alcohol was the primary tactic used to achieve forced sex; they have also primarily used college samples (e.g., Abbey et al., 2002; Norris et al., 1998). Many sexual assaults that involve verbal coercion and physical force also involve some alcohol consumption. Even if intoxication was not the perpetrator's primary tactic, some cognitive impairment occurs at fairly low blood alcohol levels (Moskowitz & Fiorentino, 2000; Schuckit, 1995). Thus, moderate alcohol consumption could contribute to verbally coerced and physically forced sexual assaults by making the perpetrator feel more comfortable about his actions and making the victim less able to effectively resist (Abbey et al., 2001). Although some of the women who reported that they were too intoxicated to resist consumed a large amount of alcohol, some did not. Many of these women combined alcohol consumption with drug use that heightened their impairment. It is also possible that some of these women were inexperienced drinkers,

thus, a moderate amount of alcohol may have produced a high level of impairment. For most of the measures included in this study, women whose perpetrators used their intoxication to obtain sex had scores similar to those of women whose perpetrators used physical force. This suggests that the common data analytic strategy of combining them into one group is appropriate (Abbey et al., 1996; Koss et al., 1987).

As anticipated, women who experienced verbal coercion engaged in more consensual sex with the perpetrator prior to the forced sex and felt that a lack of communication contributed to what occurred. These women did not report feeling closer to the man; however, they appear to have been initially more comfortable with him and with engaging in some degree of sexual activity. Although they clearly indicated that they felt forced to have sex, verbally coerced women appeared to be less negatively affected by what happened. This observation is not intended to trivialize these women's experiences. Although verbally coerced women were less likely than other victims to label what happened as rape, this may be due to an awareness that legal definitions of rape focus on the perpetrator's use of physical force. Also, although verbally coerced women viewed the assault as less serious than did victims of other types of sexual assault, their scores were still at the midpoint of the scale indicating moderate seriousness. It seems reasonable that in most cases, a sexual assault that involves physical force and injuries will have greater long-term negative consequences than one that does not, although it is also likely that factors such as how much the woman trusted the man would also affect her response (Culbertson & Dehle, 2001; Frazier, Conlon, & Glaser, 2001). Being verbally coerced into sex by someone one trusted could be more upsetting than a physical assault by a casual acquaintance. Our sample size was not adequate to examine the effects of relationship type within tactics group. In past research, which asked women to describe their worst sexual assault, however, some women who had experienced physically forced sex perceived a verbal coercion by a trusted friend or boyfriend as a worse experience (Abbey et al., 1996).

Methodological strengths of this study include the use of a representative community sample of single African American and Caucasian women from a large metropolitan area. Also, the use of computer-assisted self-interviewing may have made participants more comfortable providing details about their sexual assault experiences (Newman et al., 2002). In addition to increasing participants' comfort about disclosing personal information, CASI interviews also allow skip patterns to be programmed so that participants do not have to answer irrelevant questions. Because most individuals are not adept at typing, a disadvantage to CASI is that detailed qualitative information is usually not obtained. Given the relatively small sample sizes for each tactic group, these results should be viewed as preliminary until replicated. A larger sample size would also have allowed for more complex data analyses, such as analyses that simultaneously considered the effects of perpetrator tactics and relationship status on women's responses to sexual assault. As is always the case with retrospective data, it is possible that some participants did not accurately recall all aspects of their sexual assault. In order to aid recall, the questionnaire separated the sexual assault into several stages and asked specific questions about each.

These findings have several implications for future research and for treatment. Additional research is needed that focuses on the quantity of alcohol consumed during sexual assaults

by the perpetrator and victim. Research that has examined alcohol's effects on cognitive and motor functioning demonstrates that impairment begins at fairly low doses, equivalent to about two drinks, and becomes more extreme at higher quantities (Schuckit, 1995). Theoretical explanations for alcohol's role in sexual assault emphasize cognitive and motor impairments, however they have not been explicit about dose effects. Perpetrators' alcohol consumption may have curvilinear effects on their aggressiveness during the assault, such that increasing alcohol consumption produces greater aggressiveness up to a certain point and then as impairment becomes extreme, it decreases (Abbey, Clinton-Sherrod, McAuslan, Zawacki, & Buck, 2003). Additional research is needed that carefully examines the quantity of alcohol consumed by both perpetrators and victims in order to fully understand the role of alcohol in sexual assault.

These findings demonstrate that there is great variability in the responses of sexual assault victims. Surprisingly, very few studies have considered if the tactics used by the perpetrator are related to the circumstances in which the sexual assault occurs and if they affect women's responses to the incident (Cleveland et al., 1999; Tyler et al., 1998). This study's findings with a representative community sample suggest that women whose perpetrators used physical force sensed that they were in a dangerous situation early in the interaction. They used more verbal and physical resistance techniques than other victims, yet they still experienced more injuries and negative affect. Overall, women whose perpetrators used physical force as their primary tactic experienced the most extreme outcomes and may be most in need of long-term, intensive treatment services. However, on many measures, intoxicated victims scored equally high and all participants experienced some negative outcomes. Thus, it would be inappropriate to assume that verbally coerced victims will not need counseling services. Aspects of the sexual assault, including the victim's relationship to the offender and whether or not the violence is ongoing, as well as the woman's past experiences and resources, such as past victimizations and coping resources, are likely to have a strong impact on the emotional trauma associated with sexual assault (Culbertson & Dehle, 2001; Merrill, Thomsen, Sinclair, Gold, & Milner, 2001; Stermac et al., 1998; Ullman & Siegel, 1993). As found in past research, many of the women in this study had experienced multiple victimizations, and their cumulative impact may be particularly deleterious.

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Multivariate Analyses of Variance, Analyses of Variance, and Discriminant Function Analyses Examining the Relationships Between Perpetrator Tactics and Sexual Assault Characteristics

Table 1

	Perpetrator's Tactics		DFA <sup>d</sup>		
	Verbal (n=77)	Physical Intoxicated (n=29)	F	1 2	
<i>Aspects of the Sexual Assault<sup>a</sup></i>					
Closeness to perpetrator (M)	5.12	4.79	4.21	2.29	–
(SD)	1.88	1.98	2.14		
Number people present (M)	2.26	1.88	2.62	1.94	–
(SD)	1.51	1.39	1.52		
Woman's total drinks (M)	2.82 <sup>a</sup>	2.47 <sup>b</sup>	6.86 <sup>a,b</sup>	7.99**	–.25 .74
(SD)	4.53	3.80	6.98		
Perp's total drinks (M)	5.55 <sup>a</sup>	5.41 <sup>b</sup>	9.76 <sup>a,b</sup>	3.87*	–.16 .49
(SD)	7.29	6.68	8.06		
Bad vibes (M)	2.66 <sup>a</sup>	3.54 <sup>a</sup>	3.07	7.26**	.49 .36
(SD)	1.05	1.19	1.18		
Prior consensual sex (M)	5.39 <sup>a</sup>	3.30 <sup>a</sup>	3.85	4.82*	–.32 –.47
(SD)	3.42	3.58	3.74		
Physical force (M)	0.39 <sup>a</sup>	1.42 <sup>a,b</sup>	0.45 <sup>b</sup>	17.53***	.83 .16
(SD)	0.65	1.09	1.06		
Verbal resistance (M)	2.26 <sup>a</sup>	3.08 <sup>a,b</sup>	2.13 <sup>b</sup>	12.10***	.70 –.07
(SD)	0.92	0.86	0.75		
Physical resistance (M)	2.13 <sup>a</sup>	3.22 <sup>a,b</sup>	2.03 <sup>b</sup>	14.23***	.76 –.02
(SD)	0.99	1.24	0.97		
Negative affect (M)	4.36 <sup>a</sup>	5.35 <sup>a</sup>	4.67	4.68*	.44 .22
(SD)	1.38	1.63	1.88		
<i>Perceptions of the Assault<sup>b</sup></i>					
Seriousness then (M)	4.01 <sup>a,b</sup>	6.14 <sup>a</sup>	5.27 <sup>b</sup>	13.94***	.72
(SD)	2.10	1.65	2.17		



	Perpetrator's Tactics			DFA <sup>d</sup>	
	Verbal (n = 77)	Physical (n = 33)	Intoxicated (n = 29)	F	1 2
Woman labeled rape (M)	2.54 <sup>a,b</sup>	4.87 <sup>a</sup>	3.92 <sup>b</sup>	14.70**	.74
(SD)	1.99	2.30	2.37		
Perpetrator labeled rape (M)	1.64 <sup>a</sup>	2.95 <sup>a</sup>	2.18	6.59**	.49
(SD)	1.32	2.42	1.83		
Perpetrator responsible (M)	3.64 <sup>a,b</sup>	4.58 <sup>a</sup>	4.34 <sup>b</sup>	10.82**	.63
(SD)	1.15	0.90	1.01		
Lack of communication (M)	3.08 <sup>a</sup>	2.33 <sup>a</sup>	2.79	3.30*	-.35
(SD)	1.42	1.49	1.23		
Woman responsible (M)	2.60 <sup>a</sup>	1.98 <sup>a</sup>	2.39	3.60*	-.36
(SD)	1.16	1.11	0.98		
<i>Consequences of the Assault<sup>c</sup></i>					
Injuries incurred (M)	1.59 <sup>a</sup>	2.14 <sup>a,b</sup>	1.58 <sup>b</sup>	4.16*	.49
(SD)	0.89	1.18	0.90		
Life disruption (M)	1.96 <sup>a</sup>	3.07 <sup>a,b</sup>	2.24 <sup>b</sup>	16.11**	.99
(SD)	0.78	1.32	0.80		
Woman learned (M)	3.92	4.22	4.45	2.78	-
(SD)	1.16	1.11	0.78		
Seriousness now (M)	3.89 <sup>a</sup>	5.02 <sup>a</sup>	4.23	3.38*	.46
(SD)	2.09	2.07	2.08		

Note. Multivariate *F* ratios were generated from Pillai's statistic. Means in a row sharing subscripts are significantly different. Univariate *df* = 2, 137.

<sup>a</sup> *F*(20, 256) = 3.47\*\*.

<sup>b</sup> *F*(12, 264) = 3.76\*\*.

<sup>c</sup> *F*(8, 268) = 4.60\*\*.

<sup>d</sup> Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions. Values are provided only for significant functions.

\* *p* < .05.

\*\* *p* < .01.