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Receipt of Post-Rape Medical Care in a National Sample of Female Victims

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Abstract

Background—It is important for rape victims to receive medical care to prevent and treat rape-related diseases and injuries, access forensic exams, and connect to needed resources. Few victims seek care, and factors associated with post-rape medical care–seeking are poorly understood.

Purpose—The current study examined prevalence and factors associated with post-rape medical care–seeking in a national sample of women who reported a most-recent or only incident of forcible rape, and drug- or alcohol-facilitated/incapacitated rape when they were aged ≥14 years.

Methods—A national sample of U.S. adult women (N=3001) completed structured telephone interviews in 2006, and data for this study were analyzed in 2011. Logistic regression analyses examined demographic variables, health, rape characteristics, and post-rape concerns in relation to post-rape medical care–seeking among 445 female rape victims.

Results—A minority of rape victims (21%) sought post-rape medical attention following the incident. In the final multivariate model, correlates of medical care included black race, rape-related injury, concerns about sexually transmitted diseases, pregnancy concerns, and reporting the incident to police.

Conclusions—Women who experience rapes consistent with stereotypic scenarios, acknowledge the rape, report the rape, and harbor health concerns appear to be more likely to seek post-rape medical services. Education is needed to increase rape acknowledgment, awareness of post-rape services that do not require formal reporting, and recognition of the need to treat rape-related health problems.

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Background

Sexual assault has been associated with a variety of immediate medical concerns, including sexually transmitted diseases (STDs) or infections (STIs); pregnancy; and physical injury.[1,2] Rape has also been linked to long-term physical health problems, including gynecologic problems,[3] chronic pain,[4] gastrointestinal disorders,[4] and poor overall health status.[5,6] Unfortunately, the majority of rape victims do not seek medical care following the assault.[7]

In order to increase receipt of needed post-rape medical attention, it is important to understand factors associated with post-rape medical care. The social–behavioral model postulates that health services use is a function of predisposing factors (e.g., demographic, health beliefs), enabling resources, and perceived need.[8] Factors associated with rape acknowledgment are likely to play a role in health beliefs and perceived need for care.

For example, Resnick and colleagues[7] found that victims who experienced a rape that was consistent with stereotypic rape scenarios (e.g., rapes perpetrated by strangers, involving threat and/or injury), and those who reported the incident to police, were more likely to seek medical care. In addition, those who consumed alcohol during the incident were less likely to seek medical care. Substance-facilitated rapes do not fit the stereotypic rape script and therefore it is likely that they are not acknowledged as frequently as rapes involving primarily force.[9] However, no studies have examined the role of rape acknowledgment; drug- or alcohol-facilitated rape (deliberate administration of drugs/alcohol by the perpetrator); or incapacitated rape (intercourse occurring after voluntary consumption that renders the victim unable to consent) tactics as predictors of post-rape seeking of medical care.

Other predisposing (age, marital status, race/ethnicity, prior rape history, perceived stigma); enabling (income); and perceived need factors (concern about STIs, physical health concerns) are likely to affect post-rape seeking of medical care. To our knowledge, only the Resnick et al. study,[7] conducted more than 10 years ago, has examined a subset of these factors. In that national sample of 214 adult victims of forcible rape, ethnic/racial minority status, fear of STDs, fear of HIV, and fear of publicity were all positively associated with receipt of post-rape medical care at the univariate level. Norms affecting health beliefs and help-seeking are likely to have changed over time (e.g., awareness of HIV/STIs, stigma toward rape victims), and therefore it is necessary to update the literature on factors affecting post-rape medical care–seeking.

In addition, prior research has not examined the role of prior sexual assault history or physical health symptoms, which are likely to affect perceived need for services and therefore differ between those who do and those who do not seek post-rape medical attention. For example, studies have documented a relationship between prior trauma history and service-seeking,[10] and sexual assault has been indirectly related to increased medical service use via poor health.[11] Rape victims in poor health may not only perceive greater need for care but may also experience less shame in seeking services if there is a medical pretext for the visit.

Another underexplored predisposing/enabling factor for post-rape medical care–seeking is race/ethnicity. Although not significant after controlling for rape characteristics, Resnick and colleagues[7] found that nonwhite participants were more likely to report receipt of medical care post-rape. In addition, Boykins and colleagues[12] reported that among women seeking post-rape medical services, black women were more likely to report that a weapon was involved and less likely to report use of alcohol during the assault. This could result in both greater acknowledgment of the rape, as well as increased risk of injury (and hence perceived need for post-rape medical services). Further, black women may be more likely to seek help from a medical professional because of the stigma associated with seeking of mental health treatment among minority populations.[13]

The purpose of this study was to examine the association between a wide range of factors and receipt of post-rape medical care in an inclusive national sample of female rape victims. Following the social–behavioral model, it was expected that predisposing factors including minority race, prior sexual assault history, low concerns about stigma, rape acknowledgment, and factors associated with rape acknowledgment (fear, injury, force, intact memory, police reporting) would be positively associated with receipt of post-rape medical care. It was also expected that enabling resources (income), and factors affecting perceived need (injury, physical health, STI concerns, pregnancy concerns), would be positively associated with receipt of post-rape care.

Methods

Participants and Procedure

Data were obtained from the National Women's Study Replication, a national household probability sample of 3001 women. Among women who screened eligible, interviews were completed with 78.6%. Participants ranged in age from 18 to 76 years (M=46.58, SD=17.87). Most of the participants were white (76%), followed by black (15%); Hispanic (5%); and Asian or Native American (4%). Random-digit-dial (RDD) methodology was used to conduct computer-assisted telephone interviews with a geographically stratified sample between January 23 and June 26, 2006. Verbal informed consent was obtained. Completed interviews averaged 20 minutes. This study was approved by the IRB at the Medical University of South Carolina.

Measures

Demographic information—Women were asked to report their current age (at time of interview); race/ethnicity (white, black, Hispanic, other); marital status; and estimated personal yearly income. (Interview measures are available on request).

Rape experiences—Behaviorally specific questions assessed women's most-recent and, for women with multiple rapes, first incident of rape. This study focused on most-recent/only rape incidents that occurred at age ≥14 years. Rape was defined as digital, oral, penile, or object penetration of the victim's vagina, mouth, or rectum by a male or female without consent. Cases were defined as forcible rape if the incident involved force, threat of force, or injury. Cases were defined as drug- or alcohol-facilitated/incapacitated rape if the victim

was intoxicated and incapacitated via voluntary or involuntary consumption of drugs and/or alcohol. Rape tactic categories were non–mutually exclusive, and cases that involved both forcible rape and drug- or alcohol-facilitated/incapacitated rape elements were coded as positive for both.[14] Several rape incident characteristics were assessed for the most-recent/only incident, including victim age; relationship to the perpetrator; peri-traumatic fear (fear of death/injury); sustained injury; victim's memory for the rape event; and whether the victim acknowledged the incident as a crime or a rape. Prior lifetime rape history was also assessed.

Post-rape concerns—Participants used a 4-point scale to rate each of the following post-incident concerns:(1)"getting a sexually transmitted disease, other than AIDs or HIV"; (2) "getting AIDS or HIV"; (3) "your family knowing that you had been assaulted"; (4) "persons outside your family knowing that you had been assaulted"; (5) "people thinking that it was your fault or that you were responsible"; and (6) "getting pregnant as a result of the assault." Responses were dichotomized as 0 ("not really" or "a little" concerned) and 1 ("somewhat" and "extremely" concerned).

Post-rape medical attention—Participants were asked, *Did you receive any medical attention (e.g., campus infirmary or emergency room) after the incident?* Participants were coded 1 if they reported receipt of post-assault medical care, or 0 on this variable. Timeframe and specific location of accessed services were not assessed.

Physical health—Physical health was assessed by asking participants to rate their health in comparison to other people their age, with response choices ranging from "poor" to "excellent." Responses were dichotomized into "excellent/very good/good" health and "fair/poor" health.

Data Analysis

A series of descriptive and univariate logistic regression analyses were conducted to examine the frequency and association of study variables in relation to post-rape medical care. Next, variables that were significant at $p<0.05$ were entered into a final multivariate model predicting post-rape medical attention. Data were weighted to correct for age distributions according to the 2006 census. Analyses were conducted in 2011.

Results

Prevalence of Adult Rape, Medical Concerns, and Post-Rape Medical Attention

Of the 3001 women from the original sample, a total of 445 (15%) met criteria for a most-recent/only rape, and 93 (21% of victims) received post-rape medical attention. Of injured rape victims (n=201), 27% sought medical attention. Approximately 32% of women with STD concerns, 28% of women with HIV concerns, and 26% of women with pregnancy concerns sought medical attention. The majority of women who received post-rape medical care reported peri-traumatic fear, injury, acknowledging the incident as a rape, forcible rape tactics, STD concerns, HIV concerns, fear of family finding out about the incident, and fear of pregnancy (Table 1).

Factors Related to Post-Rape Medical Care

Table 1 presents the results of a series of logistic regression analyses of the relationship of demographic characteristics, rape characteristics, and post-rape concerns to receipt of medical attention. Correlations revealed associations between post-rape STD and HIV concerns and age (r=−0.40; r=−0.26, p<0.01), and between STD concerns and drug- or alcohol-facilitated/incapacitated rape (r=0.12, p<0.05). Significant variables were entered into a final multivariate model. Within the final model, black race (relative to non-Hispanic white as the referent group); injury; reporting to the police; STD concerns; and pregnancy concerns were positively related to receipt of post-rape medical care.

Discussion

The current study found that only a small portion (21%) of adult or older-adolescent rape victims sought medical care for their most-recent or only assault. Even among women with medical concerns, only about one third of victims sought medical care. Several predisposing (demographic, rape characteristics) and perceived need (health concerns) factors were associated with receipt of post-rape medical care.

As hypothesized, factors typically associated with rape acknowledgment were positively related to medical care–seeking. The prevalence of health concerns (STD, HIV, and pregnancy) was higher among women receiving post-rape medical care in comparison to the Resnick et al. study.[7] It is possible that factors associated with help-seeking among rape victims have changed over time, as suggested by increased HIV and STD concerns among younger women in this sample. Further, the pattern of findings may differ because of the inclusion of drug- or alcohol-facilitated/incapacitated rape victims, who were more likely than forcible rape victims to endorse STD concerns.

The current study also examined several factors that have not been previously evaluated as predictors of post-rape medical care. As expected, prior rape history, worse physical health, forcible rape tactics, and rape acknowledgment were positively associated with medical care–seeking. However, these variables were not significant in the final model, suggesting that rape-related health concerns (injury, STDs, pregnancy) and police reporting could serve as mediators between these factors and seeking of medical care. For example, those who experience forcible rape and acknowledge the rape may be more likely to be injured and report the incident to police, thereby increasing their likelihood of receiving medical attention.

The current study also found that black participants were more than three times as likely to seek medical attention post-rape. It is unclear whether these findings reflect greater likelihood of experiencing stereotypic rape characteristics, versus different patterns of seeking medical care in association with specific assault characteristics. Future research is needed to examine the effects on service use of varying health beliefs and other enabling factors across racial/ethnic groups.

Reporting the incident to the police was one of the strongest predictors in the multivariate model. If a rape is reported to police, a medical exam is typically part of the forensic

evaluation. In addition, victims have typically been required to report the incident to the police in order to receive state-funded emergency medical care.[15] These practices can discourage victims who do not wish to report the incident from seeking needed medical treatment. In 2005, the reauthorization of the Violence Against Women Act (VAWA) mandated that states receiving VAWA funds could no longer require sexual assault victims to report the incident to the police in order to receive and/or be reimbursed for a forensic medical exam.[16] It is hoped that the new mandate will increase victims' access to healthcare and related services.

Limitations

Several limitations of the current study warrant mention. First, the cross-sectional design limited the ability to establish causal linkages among variables or determine whether health concerns predated medical care–seeking. Second, reliance on retrospective self-reports introduces the possibility of recall bias. Third, the study methodology was limited to telephone interviews, which excluded women who resided in homes without telephones, institutionalized women, and homeless women.

Implications

The current research suggests several potential targets for public education campaigns. First, education is needed regarding the availability of medical care services without the requirement for police reporting. Improved availability and accessibility of these services post-rape will be needed to increase rape victims' awareness of their availability. Second, public, community agency, and medical and legal service provider education could focus on recognizing, acknowledging, and reducing stigma surrounding drug- or alcohol-facilitated/incapacitated rape as well as forcible rape. Third, education could build awareness of potential rape-related health consequences or concerns that are not limited to acute injuries. Specifically, education could focus on rape-related pregnancy and STD prevalence, as well as the need and availability of timely emergency contraception and STD prophylaxis, given that these concerns appear to be facilitators of treatment-seeking.

Finally, interventions that reduce barriers to police reporting, such as confidentiality concerns and lack of knowledge about the process, could also increase access to medical care. Increasing victims' police reports and use of forensic medical exams could additionally prevent perpetrators from reoffending (an average of 19% of rapists recidivate[17]), thereby reducing risk of revictimization and its associated health concerns. Receipt of medical care could further reduce revictimization and health risks by providing an opportunity to screen for mental health problems (e.g., substance abuse, depression, posttraumatic stress disorder) and refer to other service providers.[18] Future research should employ longitudinal methodology, as well as examine the roles of health insurance, perceptions of medical providers, and availability of services. Research is also needed to determine whether similar patterns of post-rape help-seeking behavior exist among men, who are likely to experience even greater stigma and difficulty acknowledging the incident.

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Table 1

Results of univariate and multivariate logistic regression analyses of factors associated with receipt of post-rape medical attention (N=445)

Variable	No attention (%)	Medical attention (%)	OR (95% CI)	Final model OR (95% CI)
Income ($)				
>60,000	30	19	1.00 (—)	—
20,000–60,000	44	45	1.62 (0.82, 3.17)	—
<20,000	26	36	2.11 (1.03, 4.29)	—
Married	50	38	0.62 (0.38, 1.03)	—
Age at survey (years, M [SD])	43.6 (15.8)	38.3 (13.2)	0.96** (0.96, 0.99)	0.99 (0.96, 1.01)
Race				
White	79	62	0.43** (0.26, 0.73)	1.00 (—)
Black	12	30	3.05*** (1.70, 5.45)	3.21** (1.43, 7.24)
Hispanic	5	7	1.41 (0.49, 4.03)	1.48 (0.41, 5.33)
Other	4	1	0.29 (0.04, 2.35)	0.26 (0.03, 2.48)
Fair/poor health	20	36	2.27** (1.33, 3.86)	1.36 (0.67, 2.76)
Multiple rape history	47	60	1.71* (1.03, 2.82)	0.94 (0.48, 1.83)
Relationship to perpetrator				
Nonintimate acquaintance	51	45	0.81 (0.49, 1.33)	—
Intimate partner	31	28	0.86 (0.50, 1.49)	—
Stranger	11	23	2.49** (1.33, 4.66)	1.19 (0.51, 2.78)
Age at rape (years, M [SD])	22.2 (8.7)	21.2 (6.7)	0.98 (0.95, 1.02)	—
Peri-traumatic fear	49	71	2.69*** (1.56, 4.62)	0.71 (0.32, 1.57)
Injury	40	71	3.66*** (2.14, 6.26)	2.50* (1.19, 5.28)
Remembered well	68	68	0.98 (0.57, 1.66)	—
Acknowledgment				
Crime	25	11	4.90 (0.57, 41.88)	2.92 (0.32, 26.99)
Rape	61	88	15.50** (2.01, 119.71)	4.97 (0.56, 43.93)
Drug- or alcohol-facilitated/ incapacitated rape	29	28	0.91 (0.53, 1.58)	—
Forcible rape	84	95	3.22* (1.18, 8.75)	1.39 (0.35, 5.48)
Reported to police	9	46	8.35*** (4.70, 14.81)	5.15*** (2.45, 10.81)
STD concerns	34	75	5.93*** (3.38, 10.41)	3.54* (1.47, 8.54)
HIV concerns	33	62	3.31*** (1.97, 5.55)	0.81 (0.36, 1.84)
Fear of family knowing	54	58	1.17 (0.71, 1.93)	—
Fear of others knowing	52	53	1.01 (0.62, 1.67)	—
Fear of blame	60	55	0.82 (0.50, 1.34)	—
Fear of pregnancy	42	69	3.07*** (1.81, 5.22)	2.01* (1.01, 4.01)

Note: Only variables that were significant at the univariate level were included in the final model.

* $p<0.05$,

** $p<0.01$,

*** $p<0.001$

STD, sexually transmitted disease